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CONTENTS

DETERMINANTS OF ECONOMIC COMPLEXITY IN NIGERIA ADEGBOYEGA Soliu AJAYI Felix OSISANWO Bukonla ADEDOKUN Aishat AKINTUNDE Elizabeth KADIRI AbdulHafiz	5
OVERVIEW OF THE DYNAMICS OF THE EUROPEAN UNION BUDGET ABALAŞEI Diana Elena	21
MODERATING FINANCIAL DEVELOPMENT EFFECT AND ECONOMIC GROWTH IN WEST AFRICA SUB-REGION ADEDOKUN Aishat OLOFIN Philip ATOYEBI Esther Olayinka ADEGBOYEGA Soliu Bidemi	31
EXPLORATION OF JOB RACKETEERING AND EMPLOYEES' LEVEL OF PRODUCTIVITY ADEWOYIN Adewunmi Adelere	43
A CRITICAL APPRAISAL OF PENAL PHILOSOPHIES AND THE CRIMINAL JUSTICE SYSTEM WITHIN SOCIAL WORK PRACTICE IN SCOTLAND AFER Grace	56
THE ROLE OF PENSION FUND ADMINISTRATOR'S IN MOTIVATING NIGERIAN EMPLOYEES AJIBADE Olalekan Eytayo	84
BANKING SERVICE RECOVERY STRATEGIES: ENHANCING RELATIONSHIP QUALITY AND BEHAVIORAL INTENTIONS ATTIA Abdelkader Ali	94
ASSESS THE FINANCIAL PERFORMANCE OF TECHNOLOGY TRANSFER ENTITIES USING EXISTING ECONOMIC AND FINANCIAL MODELS BABA Alina	105
EFFECT OF MONEY SUPPLY ON OUTPUT GAP IN NIGERIA BARUWA Bukola Bunmi ADELOWOKAN Oluwaseyi Adedayo AJAYI Felix Odunayo	114
INFLATION IN SOUTH AFRICA 2000 - 2022: A NEW-KEYNESIAN APPROACH BENNETT Kayla SHEEFENI Johannes	132
DIASPORA INVESTMENTS AS A MECHANISM FOR FINANCING DEVELOPING ECONOMIES: A REVIEW OF THE NIGERIAN DIASPORA BOND EXPERIENCE BOUZERB Khayreddine KHOUALED Aboubaker ALMI Hassiba	149
FACTORS AFFECTING REWARD SYSTEM AND COMMITMENT OF NIGERIA POLICE FORCE EKPU Eluemunor Frank MUKORO Akpomuvire	165
ASSESSMENT OF ELEMENTS LEADING TO POOR COMMUNITY SERVICE DELIVERY IN SOUTH AFRICAN MUNICIPALITIES FAKU Monde Ephraim MAKGOBA Magoane Jonas	177
POLITICAL WILL AND POLICY OVERVIEW – THE CHALLENGES OF EFFECTIVE SOLID WASTE MANAGEMENT IN NIGERIA FOLORUNSO Morufu A. FOLORUNSO Serifat A.	192
A COMPARATIVE SYSTEMATIC REVIEW OF INDIRECT FORMS OF GENDER DISCRIMINATION FROM ROMANIA AND DENMARK AMONG HIGHER EDUCATION EMPLOYEES GÂSCĂ Giorgiana Florina MACARIE Felicia Cornelia	202
ASSESSING THE PUBLIC DEBT SUSTAINABILITY USING THE PENALIZED SPLINE REGRESSION. EMPIRICAL EVIDENCE FOR ROMANIA GROSU Alexandra Claudia	217
ROMANIA'S PUBLIC DEBT IN THE CURRENT ECONOMIC CONTEXT ICHIM Cristinel	232

THE ROLE OF THE INFORMAL ECONOMY ON LOCAL ECONOMIC DEVELOPMENT IN SOUTH AFRICA MAHLANGU Peter Bongani	240
CENTRALISATION OF LOCAL ADMINISTRATIVE AUTHORITY IN ZIMBABWE MARUMAHOKO Sylvester	256
THE BARRIERS TO PROMOTION EXPERIENCED BY PERSONS WITH DISABILITIES IN SOUTH AFRICA MASHALA Phuti Rivonia MAJOLA Brian Kwazi	270
LEADERSHIP AND GOVERNANCE FACTORS IN PROJECT FAILURES: A FOCUS ON COST AND BUDGET MANAGEMENT MASIBA Kenneth Vusumzi XEGWANA Monwabisi Siwakhile	283
CRITICAL ANALYSIS OF CASCADING FOR PERFORMANCE MANAGEMENT SYSTEM TO SOUTH AFRICAN LOCAL MUNICIPALITY MIYA Ayanda MATYANA Mandisi	295
INVESTIGATING FACTORS AFFECTING LEARNER PERFORMANCE IN MATHEMATICS FOR SOUTH AFRICA MOKOENA Amos Judas	307
THE PLACE OF THE REPUBLIC OF MOLDOVA IN REGIONAL FOREIGN DIRECT INVESTMENT FLOWS MURAFĂ Cristin	316
THE USE OF FOURTH INDUSTRIAL REVOLUTION DRIVERS TO ENHANCE EMPLOYEE'S PERFORMANCE IN SOUTH AFRICAN MUNICIPALITIES NDAMASE Maxhobandile LUKMAN Yusuf	330
AN ANALYSIS OF THE POLITICAL ECONOMY OF GLOBAL TERRORISM IN NIGERIA ODOKUMA Onome CLARK Esekumemu V.	346
IMPLICATION OF COVID-19 PANDEMIC FOR SUSTAINABLE EDUCATION IN NIGERIA ODUSANYA Ibrahim Abidemi TORIOLA Anu SOKUNBI Gbenro AKINROTIMI Akinyemi	359
BORN FREE IN CHAINS: AN AFRICAN POLITICAL EPIC OKEKE Remi Chukwudi OMUMU ANYADIKE Nkechinyere ONWUASOIGWE Chioma Alice	372
ARTIFICIAL INTELLIGENCE IN THE PUBLIC SECTOR- CHALLENGES, OPPORTUNITIES AND BEST PRACTICES PANĂ-MICU Florentina	393
DIGITALIZING HIGHER EDUCATION THROUGH LMSs: WHICH AND WHAT TO CHOOSE PĂVĂLOAIA Daniel-Vasile STOFOR Ovidiu-Ilie BERECHET Lucian-Daniel	400
COMPREHENSIVE PROCESS AND FRAMEWORK FOR SUSTAINABLE SYSTEM-WIDE CHANGE IN EDUCATION: A LITERATURE REVIEW RAMHURRY Cindy	410
POST MODERN EDUCATION FOR SUSTAINABILITY SUSLENCO Alina DONCEAN Marilena	428
IN PURSUIT OF CREDITOR PROTECTION EFFECTIVENESS IN ROMANIAN BANKRUPTCY – EMPIRICAL AND LEGAL CONSIDERATIONS ŞUMANDEA-SIMIONESCU Ioan	436
POLITICAL STABILITY AND SUSTAINABLE DEVELOPMENT IN NIGERIA TERPASE Nomor Dennis KPELAI Nomkuha Joshua	442
INSURANCE ENTREPRENEURSHIP IN THE DIGITAL AGE: TRANSFORMATION THROUGH TECHNOLOGY TODERAŞCU Carmen BERŢA Dora-Anca STOFOR Ovidiu-Ilie	457
ETHIOPIAN PHILOSOPHICAL WORK “HATATA”: HISTORICAL AND SOCIAL REALITY TESHOME Abera Tessema	467
THE NATIONAL COMPETITION FOR FILLING CIVIL SERVICE VACANCIES:A JOURNEY INTO THE NEW PARADIGM OF CIVIL SERVANTS' RECRUITMENT VĂDUVA Florin	479

DETERMINANTS OF ECONOMIC COMPLEXITY IN NIGERIA

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Abstract: The complexity of a country's economy is an important indicator of its level of development and competitiveness in the global economy. Economic complexity has received substantial attention in modern economics as a valuable instrument for analyzing an economic system's production capacity. It entails knowledge quantifying acquired by economic players and expressed in the production process (Hidalgo et al., 2007; Nguyen et al., 2021). Economic complexity explains how diverse and sophisticated an economy is in producing a wide range of goods and services. It measures the knowledge and capabilities of a country's businesses and workers to create various products, reflecting the level of advancement and competitiveness in the global economy. Economic complexity goes beyond typical economic measurements by diving into the productive knowledge contained in an economy, especially through an in-depth examination of the export structure of a country. Therefore, it provides a thorough picture of a country's economic capabilities and prospects for further development.

Introduction

Nigeria, Africa's largest economy, has immense potential and abundant resources. Nonetheless, the country has faced difficulties in reaching long-term economic complexity.

A variety of factors have contributed to this situation, including the country's heavy reliance on oil exports, limited economic diversification, inadequate infrastructure, institutional deficiencies, and a volatile business environment, all of which have hampered the country's progress toward greater economic sophistication. However, one defining feature of Nigeria's economic landscape is its heavy reliance on oil exports. In 2020, oil exports accounted for approximately 90% of the nation's total export earnings (World Bank, 2021). This over-dependence on a single commodity renders Nigeria exceptionally vulnerable to unpredictable fluctuations in global oil prices, as evidenced by past volatility, thus endangering economic stability and overall growth.

By and large, the country's aspirations for economic diversification have encountered obstacles, primarily stemming from the underdevelopment of its manufacturing sector. Data provided by the United Nations Industrial Development Organization (UNIDO, 2021) underscores the sector's limited contribution to the country's Gross Domestic Product (GDP), revealing the inherent challenges in expanding the economic base. This lack of diversification exposes the nation to external shocks and restricts its ability to produce a diverse array of goods and services. Furthermore, the development of human capital, a critical factor in achieving economic complexity, faces hurdles in Nigeria. The World Economic Forum's Human Capital Index (WEF, 2020) consistently ranks Nigeria lower compared to other countries in the region. In the 2020 index, Nigeria occupied the 116th position out of 174 countries, indicating significant challenges in education and healthcare. Inadequate investments in these pivotal areas hamper the cultivation of a skilled and innovative workforce, a prerequisite for economic diversification and technological advancement. Also, the Global Innovation Index (GIK, 2021) ranked Nigeria 124th out of 131 countries that face substantial challenges in technological advancement and innovation. This low ranking impedes Nigeria's global competitiveness in knowledge-intensive industries, thereby constraining economic diversification and technological progress. Indeed, income inequality remains deeply entrenched within Nigeria (World Bank, 2019). The Gini Index for the country stood at 35.1% in 2019, underscoring significant income disparities within the country. A relatively small segment of the population commands a disproportionate share of the nation's wealth, while a substantial portion of the populace grapples with poverty and limited access to essential services.

Despite the growing body of literature, there remain notable gaps that warrant further exploration. These include measurement challenges related to quantifying economic complexity, which is typically based on two related indices: the Economic Complexity Index (ECI) and the Product Complexity Index (PCI). The ECI captures the complexity of a country's export basket, while the PCI measures the complexity of a particular product or industry (Hidalgo & Hausmann, 2009; Hausmann et al., 2014). Although both the ECI and PCI contribute to our understanding of economic complexity, the ECI offers advantages in terms of providing a holistic perspective, enabling cross-country comparisons, serving as an aggregate measure, capturing country-specific factors, and linking to key economic outcomes, but PCI can be useful for identifying strategic sectors, understanding global value chains, and informing targeted industrial policies or investment decisions. Therefore, the present study unravels the determinant of economic complexity in Nigeria by employing the index of economic complexity (ECI) as against the index of product complexity (PCI) to account for contextual factors and heterogeneity across countries, examining the dynamics and transition processes that enable countries to move towards more complex

economic structures over time, and developing specific policy interventions and strategies to effectively promote economic complexity in different contexts (Mealy & Teytelboym, 2020; Albeaik et al., 2017; Hartmann et al., 2019).

Sequel to the above, literature have identified diverse factors that drives economic complexities and these factors could be classified as domestic and international factors. Subsequently, this study considered numerous essential elements such as gross domestic product per capita (Agosin et al.,2012; Elhiraika & Mbate, 2014), human capital development (Romer, 1990, Tebaldi, 2011), terms of trade (Agosin et al.,2011), institutional quality (Costinot, 2009, Strauss, 2015), foreign direct investment (see Iwamoto & Nabeshima, 2012; Javorcik et al. 2017; Kabaklarlı et al., 2017) and natural resources (Camargo & Gala, 2017) to completely analyze the determinants or drivers of economic complexity or sophistication in Nigeria and equally determine whether it is internal or external or hybrid factors that influences or could influence economic complexity in Nigeria. In addition, this study also try to evaluate Nigeria's economic complexity, which provides significant insights into the structure of its economy, the diversity of its productive activities, and its potential for future growth. This metric aid scholars in gaining a full grasp of Nigeria's economic intricacies and assessing its development over time.

The research also provide insight into connection between economic complexity, technical progress, economic development, human development, and income disparity. These links are crucial in determining Nigeria's economic landscape and societal well-being. The analysis of economic complexities in Nigeria holds paramount importance for the nation's development trajectory and global competitiveness. By unraveling the determinants, measuring economic complexity, and exploring the relationships with other vital factors, this study aims to contribute valuable insights that can guide policymakers, stakeholders, and institutions in formulating effective strategies to enhance Nigeria's economic sophistication, reduce income inequality, and foster long-term inclusive growth.

The other part of the study is tailored therein: Section 2 entails brief literature review. Section three focuses on methodological structure. Results are discussed in Section 4. Section five concludes the study.

Literature Review

Economic complexity presents a novel perspective for comprehending crucial societal challenges and issues. The fundamental premise revolves around the notion that economic growth and development, advancements in technology, income inequality, spatial differences, and resilience are the observable results of intricate systemic associations occurring beneath the surface. The economic complexity aims to unravel the association structure and their influence on various socioeconomic stages. Remarkably, evidence to date suggests that economies with higher complexity tend to exhibit lower income inequality level, improve levels of development, and enhanced resilience (Ferraz et al., 2018). Therefore, Erkan & Yildirimci (2015) analyzed the relationship between export competitiveness and the economic complexity index in the context of Turkey's export market. The study utilized data from the Global Competitiveness Report of 2012-2013 and conducted a regression analysis on 110 countries to forecast the indicators of the complexity index. The findings revealed that countries with the highest complexity rankings also exhibited significant development in their human development index.

Using time series analysis, Khan et al (2020) explored the two ways directional causal association allying economic complexity and foreign direct investment (FDI) in China. The research measured economic sophistication level of China using the improved Economic Complexity Index (ECI) spanning 1985 to 2017. The study employed the Auto-regressive Distributed Lag (ARDL) framework to estimate the long-run relationship between the variables. The findings revealed a mutual influence between economic complexity and FDI in the long run. Additionally, economic complexity was found to have a short-run impact on FDI. Manuel, Irving, and Fernando (2021) explored the connection between economic complexity and foreign direct investment (FDI) distribution among Mexican states. Using data from economic censuses conducted by Mexico's National Institute of Statistics and Geography, they found that the economic complexity of a state strongly correlated with its ability to attract FDI. The study also revealed that the complexity of an industry group was a critical determinant of the amount of FDI it received. Evidence of strong local spillover effects of economic complexity among Mexican states was observed, indicating that states with highly complex neighbours experienced increased FDI inflows. Yalta & Yalta (2021) explored the determinants of economic complexity in the MENA region, focusing on human capital's role. Utilizing a system GMM approach and data from 12 countries between 1970 and 2015, they found a positive association between human capital and economic complexity. Natural resource rents had a negative influence, but this adverse effect disappeared when interacting with human capital and democracy. The study highlighted economic complexity's potential in helping countries escape the middle-income trap. However, FDI and terms of trade did not significantly contribute to economic complexity, except for FDI in more democratic regimes. This research provides empirical insights into the drivers of economic complexity in the MENA region, emphasizing human capital's importance in driving economic complexity.

With the average economic growth rate from 1995 to 2010, Zhu & Li (2017) examined the economic complexity impact and human capital on economic growth in 210 countries. The research utilized a method of reflection (MR) to measure economic complexity using cross-country panel data. The findings indicated a positive interaction effect allying complexity and human capital on economic growth. The outcomes revealed a strong connection linking complexity and human capital significantly promotes domestic economic growth, with secondary education and complexity exhibiting a huge connection impact compared to higher education. However, the positive connection linking complexity and human capital on long-run growth was found to be very small. Furthermore, the complexity impact and human capital on growth, particularly over a long term, were found to be sensitive to the revealed comparative advantages (RCA) threshold and the regression sample used. Caous & Huarng (2020) explored the link between Human Development Index (HDI) and Economic Complexity Index (ECI) in emerging economies. Employing hierarchical linear modeling on data from 87 developing countries between 1990 and 2017, with income inequality as a mediating factor, they found that greater economic complexity was associated with higher human development, though this relationship was only partially mediated by income disparity. Sustainable development was also influenced by energy use and gender inequality. However, income inequalities diminished the positive economic complexity impact on human development in developing nations.

Ncanywa, et al (2021) examined linking connection allying economic complexity and income inequality in sub-Saharan African countries, including Nigeria. The study, which

uses a panel data set covering eight countries from 1994 to 2017 and employs the ARDL model, reveals that economic complexity is associated with reduced income disparities. This underscores the significance of diversifying and upgrading the productive structure, moving beyond the primary sector, to contribute to narrowing the income gap within countries, including Nigeria. In simpler terms, when countries like Nigeria diversify their economy beyond primary sectors and work towards more complex and varied production, income inequality tends to decrease.

Utilizing data from middle- and high-income economies spanning 1995 to 2010, Mao & An (2021) conduct an empirical analysis employing OLS, fixed-effects, and system GMM methodologies to explore the nexus between the Economic Complexity Index (ECI) and levels of economic development across nations. Their study delves into the determinants shaping ECI, with a spotlight on globalization factors such as participation in global value chains (GVCs) and foreign direct investment (FDI) flows. The research unveils a positive correlation between ECI and per capita GDP, where a unit increase in ECI corresponds to approximately a 30% rise in per capita GDP for middle- and high-income economies. Furthermore, the authors identify key drivers that elevate ECI, including heightened GVC integration, a robust manufacturing sector contribution, robust human capital endowments, increased R&D expenditure, and substantial outward FDI stocks. Notably, for middle-income countries, fostering manufacturing industries that align with their comparative advantages emerges as a crucial strategy for bolstering ECI.

Ajide (2022) investigated how economic complexity affects entrepreneurship in selected African countries, using data from 18 nations spanning 2006-2017. The study utilized panel-spatial correlation consistent estimation, panel quantile regression, and instrumental variables estimation techniques. The findings showed that greater economic complexity positively impacts entrepreneurship in Africa, with no evidence of a nonlinear relationship. This positive influence persisted across all analyzed quantiles. Moreover, the research revealed that ethnic and religious diversity amplified the beneficial effect of African entrepreneurship, while weak political institutions diminished it. These results underscore the importance of productive knowledge, product mix, and exports in driving entrepreneurial activities across African nations.

While various measures of economic complexity have been proposed, such as Economic Complexity Index (ECI) along with Product Complexity Index (PCI), there is ongoing debate about the most appropriate way to quantify and operationalize the concept. The present study attempts to address this gap by employing the Economic Complexity Index (ECI) to measure Nigeria's economic complexity, as the ECI offers advantages in terms of providing a holistic perspective, enabling cross-country comparisons, serving as an aggregate measure, capturing country-specific factors, and linking to key economic outcomes. Also, much attention has been paid to cross-country comparisons of economic complexity levels, there is a need for more research on the dynamics and transition processes that enable countries to move towards more complex economic structures over time. The study contributes to this gap by examining the factors that influence Nigeria's transition towards greater economic complexity over the period from 1990 to 2022. By analyzing the determinants of economic complexity in Nigeria, the study aims to provide valuable insights and recommendations for policymakers to formulate strategic interventions to enhance Nigeria's economic sophistication and foster sustainable

development in the long run by employing fully modified ordinary least square and for robustness outcome the canonical cointegration regression is used.

Methodology

The study employs a comprehensive econometric model to capture of effects of various factors on the economic complexity of Nigeria. Following the study conducted by Yalta & Yalta (2021) along with little modification. The baseline model to analyse the determinants of economic complexities in Nigeria is specified as:

$$ECI = F(FDI, GDDPPC, TECH, NRR, FDI, TOT, INSQ) \tag{1}$$

In addition, another determinant of economic complexity is technological advancement and institutional quality. Therefore, equation 1 is re-specified as;

$$ECI = F(FDI, GDDPPC, TECH, NRR, TOT, INSQ) \tag{2}$$

The econometric model is structured as:

$$ECI = \beta_0 + \beta_1 FDI + \beta_2 GDPPC + \beta_3 TECH + \beta_4 NRR + \beta_5 TOT + \beta_5 HDI + \varepsilon \tag{3}$$

Where: ECI represents Economic Complexity Index, GDPpc represents GDP per Capita, TECH represents Technological Advancement, NRR represents Natural Resource Rent, FDI represents Foreign Direct Investment, TOT represents Terms of Trade. HDI represent human capital development. Also, β_0 represents the intercept, indicating the baseline level of economic complexity while β_1 to β_6 represent the coefficients of the respective variables, signifying their impact on ECI and ε represents the error term, accounting for unobserved factors influencing ECI not included in the model. Also, Table 1 presents data measurement, description and sources for various variables employed in the study.

Table 1: Measurement, Description and Sources of Data

Variables	Description	Measurement	Sources
ECI	Economic Complexity	Economic Complexity Index	Observatory of Economic Complexity (OEC)
GDPPC	GDP Per Capita	GDP per capita (constant 2015 US\$)	World Development Indicators (WDI) of the World Bank
TECH	Technological Advancement	High-technology exports (current US\$)	World Development Indicators (WDI) of the World Bank
NRR	Natural Resource Rent	Total natural resources rents (% of GDP)	World Development Indicators (WDI) of the World Bank
FDI	Foreign Direct Investment	Percentage of gross domestic product(GDP)	World Development Indicators (WDI) of the World Bank
TOT	Terms of Trade	Terms of trade adjustment (constant LCU)	World Development Indicators (WDI) of the World Bank
INSQ	Institutional Quality	i. Control of corruption ii. Government effectiveness iii. Political stability iv. Rule of Law v. Regulatory Quality	The Worldwide Governance Indicators& International Country Risk Guide (ICRG)

Sources: Authors Compilation, (2024)

Econometric strategy

To achieved the long run cointegration of the economic complexities and its determinant in Nigeria as presented earlier in equation (3), recent analytical methods namely Canonical Cointegrating Regression (CCR) and Fully Modified Ordinary Least Squares (FMOLS) approach are employed for the period 1990 to 2022. As against ARDL methodology employed by Adegboyega et al (2022a & b); Adegboyega, Odusanya & Popoola (2017); Ahmed, Seikdear & Khatun (2022) and Shahbaz & Rahman (2010) argued that ARDL best analysed long run and short run effects with variables of either I(0) or I(1), as against these two approach of CCR and FMOLS that are designed specifically for estimating cointegrating association between I(1) variables and both are efficient when estimating multiple cointegrating vectors in one step as suggested by Johansen (1991) & Gonzalo (1994). FMOLS and CCR also account for endogeneity between the regressors that is often present in cointegrated association which ARDL does not explicitly control for endogeneity. In addition, both methods correct standard errors for serial correlation that is usually found in cointegrated series whereas for ARDL estimates, serial correlation robust standard errors may still be biased. CCR and FMOLS have asymptotic optimality properties in estimating the cointegrating vectors that ARDL does not share. However, FMOLS and CCR estimates of the long-run parameters are super consistent even in small samples.

Results and discussion

Table 2: Summary of descriptive statistics

	Mean	Media n	Max.	Min.	Std. Dev.	Skewnes s	Kurtosi s	Jarque- Bera	Prob.
ECI	-1.611	-1.665	-1.3177	-1.828	0.157	0.605	2.113	1.407	0.494
FDI	4.59E+	3.45E	8.84E+	7.75E+	2.62E+	0.393	1.802	1.283	0.526
GDPp c	2477.25	2490.2 1	2679.5	2170.0 5	134.655	-0.574	3.25	0.864	0.649
HDI	9.356	9.399	10.127	8.356	0.647	-0.155	1.53	1.409	0.494
INSQ	6295.04	6322.7 2	6834.36 2	5607.5 05	449.37	-0.144	1.522	1.416	0.4924 3
NRR	10.343	9.798	17.590	4.554	4.242	0.341	2.162	0.729	0.694
TEC H	1.15E+ 08	85424 6	4.95E+ 08	738834 8	1.19E+ 08	2.278	8.017	28.712	1E-06
TOT	-7.48E+	-6.00E	4.98E+	-1.60E	6.44E+	0.296	1.954	0.902	0.636

Source: Authors Compilation, (2024)

Where: ECI represents the Economic Complexity Index, GDPPC represents GDP per Capita, TECH represents Technological Advancement, NRR represents Natural Resource Rent, FDI represents Foreign Direct Investment, TOT represents Terms of Trade. HDI represent human capital development and INSQ stands for institutional quality

The descriptive statistics presented in Table 2 shows that ECI (Economic Complexity Index) has a mean of -1.611 indicates a relatively low level of economic complexity on average with standard deviation of 0.157 that shows moderate variation in ECI values over time. FDI (Foreign Direct Investment) reveals a very high mean of 459,000 but also extremely high standard deviation of 2,620,000, indicating very volatile FDI inflows. GDP per capita average value of 2,477, with low standard deviation of 134, suggesting relatively

stable income levels. Also, HDI (Human Development Index) averaging 9.36 out of 10, with low standard deviation of 0.647, implies fairly high and stable human development whereas INSQ (Institutional Quality) having mean value of 6295, with moderate standard deviation of 449. TECH (Technological Advancement) and TOT (Terms of Trade) having an extreme high mean value of 115, with and standard deviation of 119 million and 748,000 but extremely high standard deviation of 6.44 billion respectively. The Maximum/Minimum estimates show the highest and lowest values for each variable over the period. For instance, ECI ranges from -1.828 to -1.317, while FDI had a maximum value of 8.84 billion.

NRR (Natural Resource Rents) slightly positively skewed at 0.341, leaning towards higher resource dependence. Tech highly positively skewed at 2.278, with extreme positive values. However, TOT and INSQ both have an approximately symmetric distribution but HDI and GDPpc both also have negative skewness of -0.154 and -0.574 respectively. Above all, the summary stats show economic complexity was relatively low on average, with high volatility in FDI, tech advancement and trade patterns. Income, human development and institutions were relatively stable. Distributions were broadly symmetric except for tech which had extreme positive values.

Table 3: Correlation analysis

	ECI	FDI	GDPpc	HDI	INSQ	NRR	TECH	TOT
ECI	1.000							
FDI	-0.042	1.000						
GDPpc	0.581	-0.489	1.000					
HDI	0.044	-0.897	0.34	1.000				
INSQ	0.041	-0.897	0.337	0.799	1.000			
NRR	-0.447	0.741	-0.531	-0.668	-0.667	1.000		
TECH	0.316	-0.119	0.342	0.178	0.176	-0.124	1.000	
TOT	-0.096	0.852	-0.589	-0.821	-0.821	0.734	-0.051	1.000

Source: Authors Compilation, (2024)

Where: ECI represents the Economic Complexity Index, GDPPC represents GDP per Capita, TECH represents Technological Advancement, NRR represents Natural Resource Rent, FDI represents Foreign Direct Investment, TOT represents Terms of Trade. HDI represent human capital development and INSQ stands for institutional quality

The correlation matrix in Table 3 reveals that ECI (Economic Complexity Index) has a moderate positive correlation with GDP per capita (0.581) and technological advancement (0.316), suggesting higher economic complexity is associated with higher income levels and more technological progress but has a moderate negative correlation with natural resource rents (-0.447), indicating higher dependence on natural resources is linked to lower economic complexity. Also, has very low or near-zero correlations with FDI, human capital (HDI), institutional quality and terms of trade. However, FDI (Foreign Direct Investment) has a high negative correlation with GDP per capita (-0.489), HDI (-0.897) and institutional quality (-0.897), suggesting FDI inflows are higher when income levels, human capital and institutions are weaker, but has a high positive correlation with natural resource rents (0.741) and terms of trade (0.852), implying FDI is attracted to countries with abundant natural resources and favorable trade dynamics

Furthermore, GDP per capita has a moderate positive correlation with technological advancement (0.342) as expected, as well as having moderate negative correlations with natural resource rents (-0.531) and terms of trade (-0.589). As institutional quality and human capital are highly positively correlated (0.799), natural resource rents have a high negative correlation with human capital (-0.668) and institutions (-0.667) as well as Terms of trade has a high negative correlation with human capital (-0.821) and institutions (-0.821). Summarily, the correlation matrix shows the expected relationships allying economic complexity and factors like income, technology, human capital and institutional quality. It also highlights the linkages between FDI, natural resources and trade patterns and essentially do not have the problems of autocorrelation, if all the variables are estimated.

Table 4: Lag order selection criteria

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-1140.75	NA	8.37E+64	163.678	163.906	163.657
1	-1093.16	54.3872*	4.46e+63*	160.451*	161.820*	160.324*
* imply lag order selected by the criterion						
LR: sequential modified LR test statistic (each test at 5% level)						
FPE: Final prediction error						
AIC: Akaike information criterion						
SC: Schwarz information criterion						
HQ: Hannan-Quinn information criterion						

Table 4 shows the results of lag order selection criteria for the variables used in the analysis. It helps determine the optimal number of lags to include in the econometric model. The table presents several information criteria values (LR, FPE, AIC, SC, HQ) for different lag lengths from 0 (no lags) up to 1 lag. The idea was to select the lag length that lessen these information criteria.

In view of all the five criteria examined, length of optimal lag chosen for the econometric model estimating determinants of economic complexity is 1 lag. These criteria assist to capture dynamics and remove serial correlation in the errors as few lags can lead to specification errors, while too many lags reduce estimation efficiency.

Table 5: Augmented Dickey-Fuller unit root test

Variables	At Level	1st Difference	Integration Order
ECI	-2.4040	-4.7712**	I(1)
FDI	-1.6780	-5.3707**	I(1)
GDPpc	-2.4710	-3.6499**	I(1)
HDI	-1.3478	-3.2969 **	I(1)
INSQ	-1.2990	-3.2749**	I(1)
NRR	-2.0644	-6.8908**	I(1)
TECH	-3.4729	-5.0837**	I(1)
TOT	-0.8156	-4.5966**	I(1)

Source: Authors Compilation, (2024)

Where: ECI represents the Economic Complexity Index, GDPPC represents GDP per Capita, TECH represents Technological Advancement, NRR represents Natural Resource Rent, FDI represents Foreign

Direct Investment, TOT represents Terms of Trade. HDI represent human capital development and INSQ stands for institutional quality

Test critical values:	1% level	-3.752946
	5% level	-2.998064
	10% level	-2.638752

Table 5 presents the results of the Augmented Dickey-Fuller unit root (ADF) test, which is used to measure if the variables are stationary or have a unit root (non-stationary) plight. The void hypothesis of the ADF test is that the variable has a unit root (is non-stationary). The test statistics are compared against the critical values at 1%, 5%, and 10% significance levels but for this study critical value at 5% significance level is used. Based on the estimates presented in Table 4, all variables used were non-stationary at levels but become stationary succeeding first difference, i.e., they are integrated of order 1, I(1). This justifies using cointegration techniques like FMOLS and CCR which are designed for variables integrated of the same order.

Empirical results

Table 6: Estimate of the determinant of economic complexities in Nigeria

Variable	Model 1				Model 2			
	FMOLS		CCR		FMOLS		CCR	
	Coef.	t-stat	Coef.	t-stat	Coef.	t-stat	Coef.	t-stat
Constant	8.610	7.549**	-6.396	-	-9.405	-	-	-
				4.817**		6.344**	4.268	-1.403
FDI	0.172	4.996**	0.003	1.029	0.176	4.831**	-	3.806**
							0.002	
GDPPC	0.001	6.639**	0.001	4.095**	0.001	5.980**	0.001	3.806**
HDI	0.128	2.951**	0.202	2.361**	2.007	0.699	-	-1.347
							7.699	
NRR	-0.023	-	-0.028	-	-0.022	-	-	-4.052**
		5.386**		3.904**		4.804**	0.030	
TECH	-5.94E-11	-0.504	-4.39E-10	-1.033	-7.08E-11	-0.550	-	-
							0.005	1.989***
TOT	0.012	3.343**	3.41E-14	2.256**	1.58E-14	2.933**	0.050	2.701**
INSQ					-0.002	-0.652	0.011	1.386
R-Squared	0.801		0.642		0.810		0.506	
Adjusted R-Squared	0.632		0.336		0.589		0.423	

Source: Authors Compilation (2024)

Note: * $P < 0.01$, ** $P < 0.05$ & *** $P < 0.10$ respectively

Where: ECI represents the Economic Complexity Index, GDPPC represents GDP per Capita, TECH represents Technological Advancement, NRR represents Natural Resource Rent, FDI represents Foreign Direct Investment, TOT represents Terms of Trade. HDI represent human capital development and INSQ stands for institutional quality

Table 6 presents the estimated outcome on the direct and indirect behaviour of economic complexities in Nigeria between 1998 to 2022 while the R-squared value for all the models estimated shows that 80.1%; 64.2 %; 81% and 50.6% respectively of total variation in the economic complexities index (ECI) is being explained by the expository variables. This suggests that the R-squared values indicate that the models explain 80-81% of variation in

ECI using FMOLS and 50-64% using CCR. Likewise, the Adjusted R-squared value of 63.2%; 33.6%; 58.9% and 42.3% respectively, which suggests that the variability in the dependent variable is explained while penalizing for inclusion of additional variables.

Furthermore, Table 6 presents the estimates of the determinants of economic complexity in Nigeria using two different econometric techniques - Fully Modified Ordinary Least Squares (FMOLS) as well as Canonical Cointegrating Regression (CCR). Table 6 shows results for two model specifications. Model 1 using FMOLS estimates shows that FDI, GDP per capita, HDI, and terms of trade (TOT) have a statistically significant positive impact on economic complexity (ECI), suggesting that a unit rise in these variables would result to equal rise in ECI by 0.172; 0.001; 0.128 and 0.012 respectively whereas natural resource rents (NRR) have a negative coefficient of 0.023 effect on ECI and were found statistically significant at 5 percent significance level. Similarly, estimate emanating from CCR, FDI, GDP per capita, HDI, NRR and TOT are significant determinants with the same sign as reported for FMOLS.

In another instances for which institutional quality was included in the model (Model 2). The estimates emanating from the use of FMOLS estimates shows the coefficients of FDI, GDP per capita, NRR and TOT remain significant with a positive association with economic complexities in Nigeria. But when CCR estimates also reveals that FDI, GDP per capita, NRR and TOT remain significant determinants of economic complexities in Nigeria while TECH has a significant negative coefficient and were found statistically significant at 5% significance level.

Summarily, focusing on the FMOLS estimates, several variables emerge as significant determinants of economic complexity in Nigeria. Foreign direct investment (FDI), GDP per capita, human capital development (HDI), and terms of trade (TOT) exhibit a direct and statistically significant impact on ECI in both models at 5 percent significance level. This suggests that higher inflows of FDI, greater income levels, improved human capital, and more favorable trade conditions contribute to enhancing the complexity and sophistication of Nigeria's economy. The submission is in support of the findings conducted by Mao & An (2021); Ajide (2021); Yalta & Yalta (2021)

In contrast, natural resource rents (NRR) display a negative and significant coefficient across both models, implying that an over-reliance on natural resource extraction hinders the development of economic complexity. This finsubmission corroborate the study conducted by Yalta & Yalta (2021). Interestingly, while technological advancement (TECH) has an insignificant negative coefficient in Model 1, it becomes insignificant in Model 2 when institutional quality is included. The role of institutions, proxied by INSQ, appears to be statistically insignificant in the FMOLS estimation.

The CCR estimates broadly reinforce the findings from FMOLS, with some minor variations in the significance of certain variables. Notably, TECH emerges as a significant negative determinant of ECI in the CCR estimation of Model 2, suggesting that technological progress may have an adverse impact on economic complexity when institutional factors are accounted for. Overall, the results highlight the complex interplay between various factors, such as FDI, income levels, human capital, trade patterns, natural resource dependence, technology, and institutions, in shaping Nigeria's economic complexity landscape.

By and large, FDI, higher income levels, human capital development, and trade openness are crucial drivers of economic complexity and diversification in Nigeria. This highlights

the importance of creating an enabling environment to attract more FDI inflows, boosting income growth, investing in education and skills development, and promoting export diversification. The negative impact of natural resource rents (NRR) on economic complexity underscores the pitfalls of over-reliance on natural resource extraction, which can hinder the development of a more diverse and sophisticated economic structure. This is commonly referred to as the "resource curse" phenomenon. The ambiguous role of technological advancement (TECH) and institutional quality (INSQ) in fostering economic complexity suggests that these factors may not be optimally leveraged or complemented by other supportive policies in the Nigerian context.

Table 7: Post estimation test outcomes

Tests	Statistics Value	Probability
Normality Test	2.015	0.365
Ramsey RESET Test	0.445	0.671
Heteroskedasticity Test: Breusch-Pagan-Godfrey	0.598	0.743
Breusch-Godfrey Serial Correlation LM Test	2.804	0.152
Heteroskedasticity Test: ARCH	0.002	0.959

Source: Authors Compilation (2024)

Moreover, to actually ascertain the validity, reliability and robustness of the econometric model used to investigate economic complexity determinants in Nigeria, various post estimation tests were conducted and result presented in Table 7, figures 1 and 2 respectively. From Table 7 both tests shows that all were free from estimation problem since the probability figures were greater than 5 percent (i.e. $p > 0.05$). Specifically, serial correlation, heteroskedasticity amongst other as stated in Table 7 are free of either specification problems or non-connecting, residual free of heteroskedasticity and normally distributed problem since the p-values for all tests are greater than 0.05 ($p > 0.05$). Furthermore, Figure 1 and Figure 2 show the plots of the CUSUM (Cumulative Sum of Recursive Residuals) and CUSUM of Squares tests, respectively. These tests are used to assess the stability of the coefficients in a regression model over the sample period. The CUSUM plot tests for parameter stability by plotting recursive residuals cumulative sum against a straight line with a zero mean. If the plotted CUSUM falls within the two critical lines (5% significance level), it indicates that the stability of the model coefficients over sample period and there is no evidence of structural breaks or parameter instability.

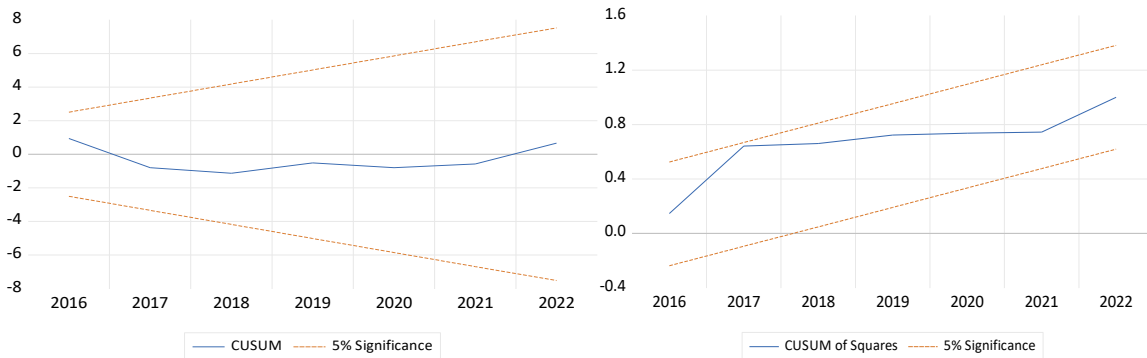


Figure 1: Plot of Cusum
Source: Authors Compilation (2024)

Figure 2: Plot of Cusum of Squares
Source: Authors Compilation (2024)

Also, the CUSUM of Squares plot tests for sudden changes in the coefficients of the regression model. Like the CUSUM plot, if the line representing the CUSUM of Squares falls within the two critical lines suggests that the coefficients are stable over the sample period, and further confirming the stability of the estimated model coefficients.

Overall, both the CUSUM and CUSUM of Squares plots indicate the model estimated coefficients for the determinants of economic complexity in Nigeria are stable over the sample period from 1990 to 2022. This stability in the coefficients suggests model is correctly specified and the relationships allying economic complexity and its determinants (FDI, GDP per capita, human capital, natural resource rents, trade openness, and institutional quality) are consistent and reliable over time.

Summary of findings and Policy recommendation

Economic complexity as discussed in the literature matters because it is seen as a key driver of economic growth and development. Countries with greater complexity in their economic activities tend to have higher income levels, faster economic growth, and greater prospects for further development. Hence the current study examines the determinants of economic complexities in Nigeria and established whether or either both direct and indirect factors matters for economic complexities while data spanning from 1990 to 2022 was put to use and achieve using two advanced analytical tools as guide by the augmented unit root test. The two analytical tools are fully modified ordinary least squares and canonical cointegration regression model and data were equally sourced from reliable sources such as WDI, ICRG, WGI among others.

The findings from the present study reveals that FDI, GDP per capita, human capital development (HDI), and trade openness (TOT) have a positive and significant impact on economic complexity in Nigeria. Also, natural resource rents (NRR) have a negative and significant effect on economic complexity, highlighting the "resource curse" phenomenon, but the roles of technological advancement (TECH) and institutional quality (INSQ) appear ambiguous or insignificant in driving economic complexity, Therefore, the outcome underscore the complex interplay between various domestic and international factors shaping Nigeria's economic complexity landscape.

Sequel to the findings, the study unravels the intricate association between economic complexity and a multitude of factors, including FDI, income levels, human capital, trade patterns, natural resource dependence, technology, and institutions. The findings provide valuable insights into the drivers and impediments to Nigeria's quest for greater economic sophistication and diversification. While factors like FDI, income growth, human capital development, and trade openness emerge as crucial catalysts, overdependence on natural resources poses a significant challenge. The roles of technological progress and institutional quality remain ambiguous, suggesting a need for complementary policies to harness their potential fully.

In view of the above submission, the government and policy make are implore to implement policies to attract more FDI inflows, particularly in non-resource sectors, by improving the business environment, strengthening regulatory frameworks, and developing infrastructure. This can help diversify the economy and enhance its complexity.

Also, to invest heavily in human capital development through education reforms, vocational training programs, and initiatives to improve healthcare and nutrition. A skilled and healthy workforce is essential for building economic complexity and transitioning towards more knowledge-intensive industries. In addition, government should pursue export diversification strategies by identifying and supporting potential growth sectors with comparative advantages. This can involve targeted incentives, access to finance, and infrastructure development for promising industries. Moreover, gradually reduce the economy's dependence on natural resource extraction by reinvesting resource revenues into productive sectors, fostering entrepreneurship, and developing downstream industries. This can mitigate the inverse impact of resource dependence on economic complexity.

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OVERVIEW OF THE DYNAMICS OF THE EUROPEAN UNION BUDGET

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Abstract: This article presents a comprehensive analysis of the European Union (EU) budget, tracing its evolution and exploring its structural dynamics over recent decades. By examining the EU budget over the years, it provides a detailed account of the shifting priorities within the EU's budgetary allocations, particularly in areas such as cohesion policy, agricultural funding, research and innovation, and environmental sustainability. The article aims to offer a holistic view of the EU budget's role in promoting integration, supporting regional development, and fostering economic resilience, particularly among member states with slower growth. Utilizing both quantitative data from EU reports and qualitative analyses of policy frameworks, this research identifies key trends in budgetary policies, including the increasing focus on digital transformation, environmental objectives, and social inclusion.

Introduction

Purpose and Objectives

The European Union (EU) budget represents one of the most complex financial systems of any supranational entity, reflecting not only the economic policies and priorities of its member states but also the broader goals of European integration and global economic leadership. Since its inception, the EU budget has evolved significantly, accommodating the changing political, social, and economic landscape of Europe, while simultaneously addressing the needs of a rapidly expanding and increasingly diverse Union. This article provides a comprehensive overview of the dynamics of the EU budget, focusing on its evolution, current structure, and key challenges that lie ahead. The primary objective of this article is to examine the development of the EU budget from both a historical and contemporary perspective. The article aims to trace the changes in budgetary priorities and the shift in allocation between various sectors. A secondary objective of this article is to explore the role of cohesion policy, agricultural funding, and research and innovation within the EU budget, as well as the increasing focus on sustainability and digital transformation.

Scope of the Article

The article focuses on both quantitative and qualitative aspects of the EU budget. Quantitatively, it reviews the allocation of funds across different budget chapters, including Single Market and Innovation, Cohesion and Resilience, and Natural Resources and Environment. Using data from the Multiannual Financial Frameworks (MFFs) of 2007-2013, 2014-2020, and 2021-2027, the article highlights trends in budgetary increases and reductions. Qualitatively, it explores the political and institutional dynamics that influence

the EU budget, with particular attention to the negotiations between member states, the European Parliament, and the European Commission.

Literature review

The EU budget has been extensively studied in both academic and policy-related literature, reflecting its significance for the political economy of the EU and its role in global governance. However, much of this literature addresses specific aspects of the budget, such as cohesion policy, the Common Agricultural Policy (CAP), or the EU's responses to financial crises. This article aims to provide a more holistic view by integrating various strands of literature to highlight both historical trends and contemporary developments.

Evolution and Structure of the EU Budget

The evolution of the EU budget has been a topic of interest since the early days of the European Economic Community (EEC). Early studies, such as those by Ross (1995) and Taylor (1996), examined the political and institutional mechanisms that shaped the initial financial governance of the EU. Ross's *European Integration and the Coordination of National Economies* emphasized the role of member state contributions and the limited financial autonomy of the European Commission in the budget's early stages. Following the Single European Act (1986) and the Maastricht Treaty (1992), research began to explore the growing complexity of the budget. Hix and Høyland (2011) and Bache et al. (2014) highlighted the ongoing tension between supranationalism and intergovernmentalism in budgetary decision-making, as member states sought to maintain fiscal sovereignty while promoting collective financial policies. More recently, scholars like Cipriani (2014) and Heinemann (2020) have focused on the role of the MFF as a tool for long-term planning, ensuring predictability in funding, and addressing cross-border challenges such as migration and climate change.

Cohesion Policy and Regional Development

Cohesion policy is one of the most researched areas of the EU budget, designed to reduce economic disparities between member states and regions. Bachtler and Mendez (2016) provide a comprehensive overview of the evolution of cohesion policy and its impact on regional development. While cohesion funding has contributed to reducing disparities, particularly in Southern and Eastern Europe, criticisms have emerged concerning inefficiencies and unequal distribution of benefits. The financial crisis of 2008 and subsequent austerity measures significantly influenced cohesion policy. Bachtler and Mendez (2016) note that cohesion policy was used as a tool for political compromise between net contributors and beneficiaries. Begg (2010) also argues that cohesion policy has increasingly become a mechanism for balancing the interests of wealthier and less wealthy member states. Scholars like Molle (2007) and Piattoni and Polverari (2016) have explored the interaction between cohesion policy and other EU policies, particularly in relation to competitiveness and innovation.

The Common Agricultural Policy (CAP)

The CAP has long been one of the most significant and controversial components of the EU budget. Even after multiple reforms, it continues to represent a substantial portion of EU expenditure. Research by Matthews (2012) and Swinnen (2015) has emphasized the

historical dominance of the CAP within the EU budget and its evolution in response to both internal and external pressures. Matthews (2012) highlights the CAP's shift from a production-oriented policy to one that increasingly focuses on rural development and environmental sustainability, while Swinnen (2015) addresses the persistent tensions between agricultural lobbies and advocates for budgetary modernization.

Climate Change and Sustainability in the EU Budget

The role of the EU budget in addressing climate change and promoting sustainability has gained increasing attention in recent years. Scholars like Oberthür and Dupont (2020) have examined how the European Green Deal and the MFF's climate-related objectives reflect the EU's growing commitment to environmental issues. The EU budget is increasingly seen as a critical tool for financing the energy transition, reducing carbon emissions, and supporting green technologies. Egenhofer et al. (2021) and Gehring (2019) have also noted the challenges of aligning ambitious climate goals with the economic interests of member states, particularly those dependent on carbon-intensive industries.

The Impact of Crises on the EU Budget

The EU budget has had to adapt to various crises, including the financial crisis of 2008, the COVID-19 pandemic, and ongoing geopolitical tensions. Begg (2010) and Ioannou, Leblond, and Niemann (2015) explored how the 2008 financial crisis reshaped EU fiscal policy, leading to the creation of new instruments such as the European Stability Mechanism (ESM) and increasing scrutiny of national budgets. Fabbrini (2017) argues that crises often drive deeper fiscal integration, as exemplified by the NextGenerationEU recovery fund, which was introduced in response to the COVID-19 pandemic. Additionally, the growing politicization of the EU budget in response to crises like the 2015-2016 migration crisis and subsequent security concerns is a notable trend. Monar (2014) and Laffan (2016) have explored how these events have led to an increased focus on border management, defense, and counterterrorism in the EU budget, highlighting the tension between swift financial responses and the divergent interests of member states.

Methodology

This article employs both qualitative and quantitative methodologies to analyze the evolution and structure of the EU budget over several MFF periods. Data on budget allocations, spending patterns, and policy outcomes have been sourced from official EU documents, including reports from the European Commission, the Court of Auditors, and the European Parliament's budgetary debates. Quantitative data on budgetary allocations and expenditures have been analyzed to identify trends and shifts in the EU's financial priorities over time. In addition to quantitative analysis, this article incorporates a qualitative analysis of the political and institutional dynamics that shape the EU budget. This includes an examination of the historical context in which budgetary changes have occurred and the role of key stakeholders, such as member states and EU institutions, in shaping these changes. By adopting a historical-comparative approach, this article aims to assess the ways in which EU budget priorities have evolved in response to internal and external pressures, with a focus on cohesion policy, agricultural funding, and climate-related expenditures.

The budget of the European Union

The Dynamics of the formation of the EU budget

The establishment of the EU budget has always been a challenge for ensuring stability and enhancing the level of integration among EU member states. Its composition and decision-making processes have undergone significant transformations over time. Starting with the creation of the ECSC (European Coal and Steel Community) and EURATOM, the budget has seen numerous changes and the adoption of policies and instruments aimed at progressing towards financial autonomy and the development of common policies (Sabău-Popa, 2010). Initially, the EU had separate administrative budgets, but the Treaty of Brussels (1965) and the Luxembourg Treaty (1970) reorganized these structures to include: the general budget of the European Community and the ECSC operational budget (Sabău-Popa, 2010). Until the 1970s, these were financed solely from member states' own resources, with differentiated quotas (e.g., 0.2% for Luxembourg, 7.9% for Belgium and the Netherlands, and 2.8% for France, Germany, and Italy). From 1970 onwards, the EU introduced its own resources to the budget to gradually increase financial independence. This change aimed to finance common policies, such as the European Regional Development Fund (ERDF) and the European Agricultural Guidance and Guarantee Fund (FEOGA). The former aimed to reduce disparities between EU regions, while the latter embodied the principle of solidarity by collectively financing agriculture in other states. The dynamic development of the Community, marked by waves of integration of new member states with different economic conditions, led to financial and budgetary clarifications and adjustments in 1986 (Clipici, 2010). In that year, the Single European Act (SEA) was signed, which eliminated customs and economic borders and implemented regional development policy. Structural Funds (FEOGA, ERDF, and the European Social Fund – ESF) were also created, and the reform of financial systems continued with the Delors I Package. This introduced a principle of budgetary correction by establishing a new resource based on the Gross National Product (GNP) of each member state. It also limited agricultural spending to a capped increase of 74% of the EU's average GDP growth, while structural fund allocations were supplemented (Clipici, 2010). The year 1992 marked another significant moment for EU economic and budgetary matters, with the launch of the Delors II Package. Following the signing of the Maastricht Treaty, the Cohesion Fund was created, redistributing financial resources in favor of structural programs aimed at supporting economic convergence (Sabău-Popa, 2010). This fund supported infrastructure, transport, and environmental projects in countries with a per capita GDP lower than 90% of the EU average.

Through the Agenda 2000 program, the Common Agricultural Policy (CAP) was integrated into FEOGA, the research and development component was expanded, and trans-European networks were promoted. According to Sabău-Popa (2010), the poor results recorded by the EU in the years 2000-2007 led to a focus on three main directions: Promoting sustainable development; Strengthening the concept of European citizenship; Promoting a coherent global role for Europe.

The accession of 12 new member states to the EU (2004 and 2007) resulted in further changes to the budget format. For the 2007-2013 period, objectives were reorganized into three categories: Convergence (ERDF, ESF, and Cohesion Fund); Regional

Competitiveness and Employment (ERDF and ESF); European Territorial Cooperation (ERDF).

Although the EU-28's fund absorption rate for the 2007-2013 period was 97.85%, there were significant differences among member states (Croatia absorbed 84%, Poland 100%, and Romania 88%). Data on the implementation of the 2014-2020 multiannual financial framework is still incomplete, as funds remain to be paid after the final reimbursement requests are received and assessed in 2024. However, by 2021, the EU-28's reimbursement rate stood at 65%. Among the top performers were Ireland (91.5%), Greece (79%), Portugal (78%), and Poland (74.6%), while Romania was among the bottom eight states with an absorption rate of 53.2%. The European Union's needs are constantly evolving, leading to the flexibility of its budgetary resources. The EU's long-term budget for 2021-2028 was set at €1.0743 trillion, with an additional €750 billion from the NextGenerationEU recovery instrument, resulting in the largest long-term budget in EU history, totaling €1.8 trillion.

The Budgetary Process

To understand how the European Union collects and spends its financial resources, as well as how these are allocated to key policies and objectives, it is necessary to briefly present the formation of the EU budget.

Sources of Revenue for the European Union

The sources of revenue include contributions from member states, import duties on products from outside the EU, as well as penalties imposed on companies that do not comply with EU legislation. Financing is 98% based on own resources (which must not exceed 1.20% of the EU's total GNP), supplemented by other types of resources accounting for the remaining 2% (taxes, revenues from the administration of institutions, etc.), and is based on the principle of balancing expenses with revenues (Sabău-Popa, 2010).

Own Resources

1. Traditional resources consist of customs duties, agricultural taxes, and the sugar tax – Article 2(1) of the Own Resources Decision (ORD 2014). According to Regulation 1308/2013, the sugar tax system was eliminated during the 2016/2017 budget cycle, with the last payment made in June 2018;
2. The VAT resource is calculated as a percentage of the harmonized VAT base in each member state. Own resources from VAT accumulate from applying a uniform rate for 2014-2020 (0.30% for all member states except Germany, the Netherlands and Sweden, which benefit from a reduction to 0.15%) to the national VAT base, with a call rate that cannot exceed 50% of the member state's GNP. In the 2021-2027 MFF, the VAT-based own resource was simplified to reduce the administrative burden;
3. Resources based on Gross National Product (GNP) account for approximately 70% of the EU's financial resources and provide the revenues needed to cover expenses that exceed the amount financed from traditional own resources, VAT-based contributions, and other revenues in any given year.

Other Types of Resources

The common customs tariff is the revenue derived from EU tariffs on non-agricultural products (Ardy & El-Agraa, 2011);

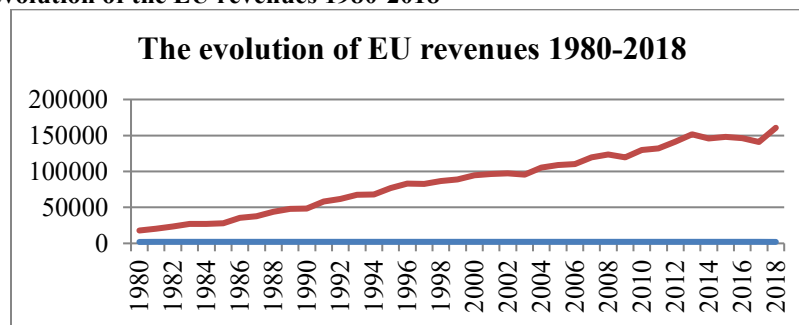
Correction mechanisms, which are compensation measures for certain EU member states that have contributed excessively compared to other member states (for example, the UK rebate – the United Kingdom is reimbursed 66% of the difference between its contribution and the amounts it receives back from the budget).

The own resource based on non-recycled plastic packaging waste – introduced as a new revenue source for the EU budget for the 2021-2027 period, is based on the amount of non-recycled plastic packaging waste. The establishment of the EU budget must also adhere to several *community budgetary principles*, such as: **the principle of budgetary unity and truth; budget universality; annuality of the budget; budgetary balance; budgetary specialization; good financial management and the principle of budgetary transparency; unit of account:** The annual budget is established in advance through the multiannual financial framework (MFF). The EU countries and the Commission share responsibility for managing approximately 80% of the budget, and if improper payments have been made, they seek to recover the involved sums.

The Evolution of European Union Revenues

Several events that occurred between 1979 and 1987 led to challenges in the budgetary process. Tensions between member states and EU institutions, the continuous exceeding of budget estimates until 1986, delays in adopting the budget in many cases, the accession of Greece, Spain, and Portugal between 1981 and 1986 (states that were initially net beneficiaries of the general EU budget), and the introduction of regional policy necessitated a reform of the community's financial framework. This reform led to the first community exceptions, specifically the creation of structural funds (FEOGA and ESF), which shaped the characteristics of the EU's own revenue resources and established the principle of correcting budgetary imbalances. One of the main innovations was the introduction of a new resource based on the Gross National Product (GNP) of member states, aimed at reflecting each state's ability to contribute (Sabău-Popa, 2010). Figure 1 shows the evolution of the European Union's actual revenues from 1980 to 2018. Between 1980 and 2007, there were changes in the allocation of the EU's traditional revenue resources to address transformations in the European economy, mainly driven by the accession of an increasing number of member states to the EU. As the EU economy expanded, the VAT-based resource in budget financing decreased from 1.4% in the 1980s to 0.3% from 2007 onwards and remains so today (2021-2027). Furthermore, the distinction between agricultural levies and customs duties was eliminated and during 2007-2013 period, the maximum VAT rate varied by country (0.22% for Austria, 0.15% for Germany, and 0.1% for the Netherlands and Sweden). All these changes, however, led to increased complexity in own resources and a decline in the transparency of EU revenues.

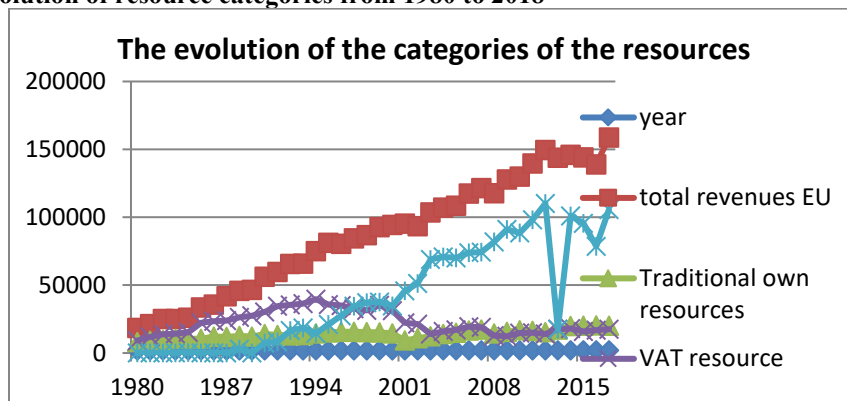
Figure 1 The evolution of the EU revenues 1980-2018



Source: Own representation based on data obtained from the European Commission (https://ec.europa.eu/budget/graphs/revenue_expenditure.html) and annual reports of the European Court of Auditors for the period 1980-2000.

The following figure (Figure 2) shows the evolution of revenue categories within the EU budget from 1980 to 2018. It is evident that EU revenues increased from €15.903 million in 1980 to €158.6426 million in 2018, while the volume of traditional own resources decreased with the expansion of the EU and GNP-based resources saw significant growth. Regarding the own resource system for the 2014-2020 period, the Council adopted rules allowing the EU to collect own resources for payments up to a ceiling of 1.20% of the total gross national income of all member states. For the 2021-2027 MFF, the VAT-based own resource was simplified to reduce the administrative burden. Moreover, with the elimination of sugar levies in 2017, customs duties on imports from outside the EU remained the only traditional own resources for the EU budget. During the 2021-2027 period, member states will retain 25% of the customs duties collected to cover collection costs and simultaneously encourage member states to ensure diligent collection of the amounts owed.

Figure 2. Evolution of resource categories from 1980 to 2018



Source: Own representation based on data obtained from the European Commission (https://ec.europa.eu/budget/graphs/revenue_expenditure.html) and annual reports of the European Court of Auditors for the period 1980-2000.

To simplify existing own resources while respecting the fiscal sovereignty of member states, the EU is considering potential new own resources, including: a border adjustment mechanism based on carbon emissions, a digital tax (derived from digital economic activities) and an own resource based on the EU Emissions Trading System (EU-ETS).

EU Budget Expenditures

Initial orientation of EU budget expenditures

The allocation of budget expenditures follows the development of European policies. For a long period, expenditures were focused on agriculture, so much so that by the 1980s, the allocation of revenues to the Common Agricultural Policy had increased significantly. However, it later stabilized due to reforms and spending limits imposed in this area (Ardy & El-Agraa, 2011). Over time, the EU's budget has reflected the key stages of European integration, with developments such as the single market, enlargement, Europe's global

outlook, and the development of cohesion policy. Thus, the year 2008 marked the beginning of a new stage in budgetary expenditure evolution, with policies aimed at economic growth and job creation (Sabău-Popa, 2010). Furthermore, allocations for research increased, reflecting the desire to enhance the EU’s competitiveness (Ardy & El-Agraa, 2011). Direct payments and market management continue to dominate agricultural and fisheries expenditure, while rural development spending has grown. As for the structural funds, they are provided for redistributive policies that encourage economic solidarity. Thus, structural funds, aimed more at regional than national development, together with those allocated to the CAP, accounted for over 75% of the total EU budget by 2008. Additionally, funding for other policies (research, security, justice, internal policy, and education) was initially very limited, with only 7.3% of the budget allocated in 1988, increasing to approximately 14% by 2006 (Sabău-Popa, 2010). The EU's funding operates on the principle of setting a long-term budget that establishes the upper limit on how much the EU can spend over a period of at least five years. The purpose is to create predictability and efficiency for the programs established within the EU, with enough flexibility to respond to emergencies or crises.

Evolution of EU Budget Expenditures

The EURATOM and EEC treaties, effective in 1958, established the foundation for the European budget and its decision-making structure. The process set at that time remains in place today: the European Commission proposes the annual budget, the European Parliament provides consultation, and the Council finalizes it. Initially, the budget covered mostly administrative costs, but by 1962, the Common Agricultural Policy (CAP) became a significant area of expenditure, and the multiannual budgetary system was introduced. According to Sabău-Popa (2010), CAP payments rose from 13.98% of the budget in 1965 to 70.2% by 1985. Since 1988, however, CAP expenditures have steadily decreased, from 66.82% in 1988 to 32% in 2013, and further to 20% in the 2021-2027 Multiannual Financial Framework (MFF). Regional policy spending saw a modest increase between 1965 and 1988, but it grew sharply following the 1986 Single European Act, which emphasized economic and social cohesion. This spending rose from 3.5% in 1965 to 25% in 1990 and reached 40% by 2008. Cohesion policy now accounts for about one-third of the EU budget, with €377.8 billion allocated for 2021-2027. Additionally, internal expenditure on programs related to youth, energy security, research, and technological development has gradually increased, from 2.6% in 1977 to 8.5% in 2008. The figures below illustrate the main expenditure categories from 1988-1992 to 2021-2027, showing how the EU’s investment priorities have evolved.

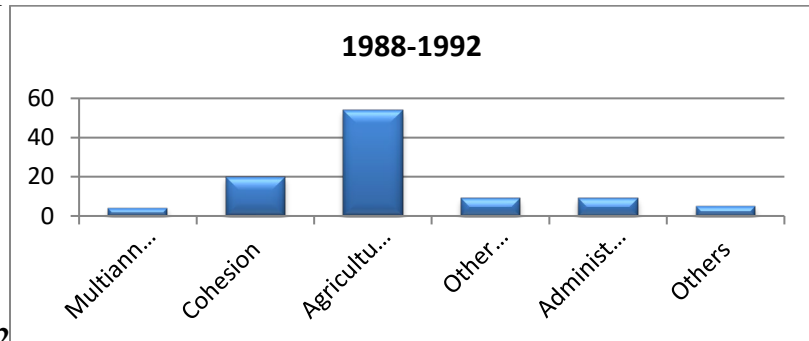


Figure 3 MFF 1988-1992

Figure 4 MFF 1992-1999 Figure 5 MFF 2000-2006

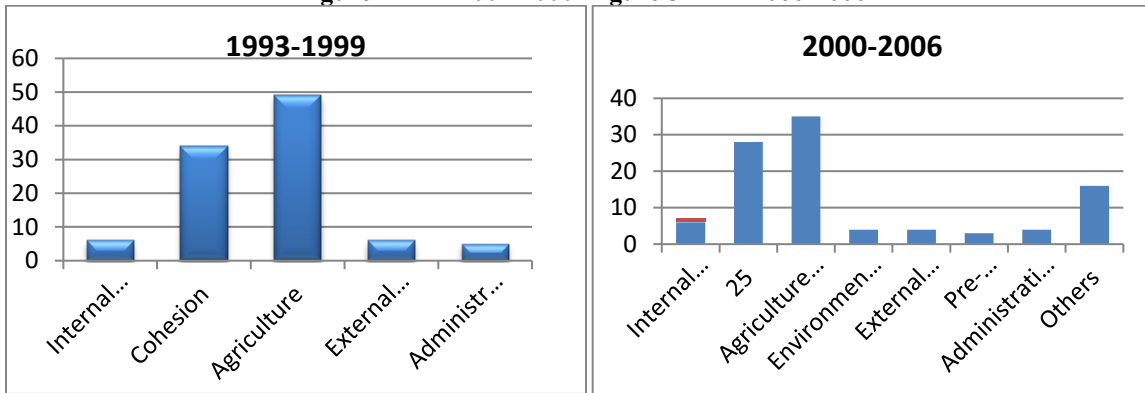


Figure 6 MFF 2007-2013 Figure 7 MFF 2014-2020

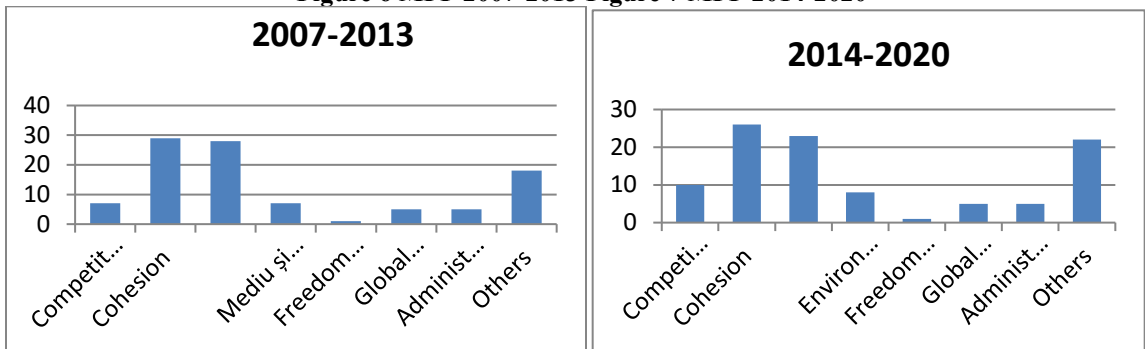
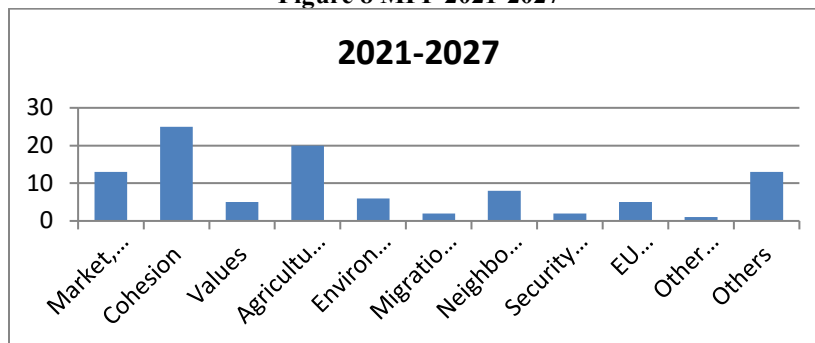


Figure 8 MFF 2021-2027



Between 1988 and 1992, the EU budget prioritized agriculture and cohesion policy, laying the groundwork for the internal market transition. By 1993, the budget expanded to boost cohesion funding in anticipation of the euro area's launch in the late 1990s. The 2000-2006 financial framework focused on preparing for the integration of ten new member states, increasing allocations for internal policies, research, and development, while reducing agricultural expenditures.

The 2007-2013 MFF continued this trajectory, with a slight increase in cohesion policy funding after three additional member states joined the EU. Resources were also directed toward enhancing competitiveness and addressing regional disparities, while funding for agriculture and rural development further declined. The MFF 2014-2020 reinforced these trends by boosting spending on competitiveness, research and job creation while maintaining the shift away from agriculture. Migration policy also gained increased attention during this period. Comparing these budgets reveals the EU's shifting priorities

from agriculture to cohesion policy and environmental protection. The accession of 12 new member states between 2004 and 2007 reshaped the Union's economic structure, reflecting the need for policies that addressed regional development and sustainability.

Conclusions

The evolution of the European Union budget reflects not only the EU's financial needs but also the broader political, and socio-economic transformations that have occurred over the past several decades. From its early focus on agricultural policy and regional development to its current emphasis on sustainability, digital transformation, and crisis recovery, the EU budget has proven to be a dynamic and flexible financial instrument. One of the key findings of this article is the shifting nature of the EU's budgetary priorities in response to both internal demands and external pressures. The gradual reduction in agricultural funding, the rise of cohesion policy and the growing focus on research, innovation, and climate change reflect a long-term reorientation of the EU budget toward fostering economic competitiveness, social inclusion, and sustainability.

The MFFs from 2007 to 2027 have played a crucial role in stabilizing the EU's financial management and providing a predictable framework for achieving the Union's long-term goals. The introduction of the NextGenerationEU recovery fund, in response to the COVID-19 pandemic, marks an unprecedented step in EU fiscal policy, combining long-term planning with crisis management. Looking forward, the EU budget will continue to be a key tool for addressing emerging challenges. Whether related to climate change, digital transformation, or geopolitical instability, the ability of the EU to adapt its budgetary policies will be crucial in determining the future trajectory of European integration and its role in the global economy.

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MODERATING FINANCIAL DEVELOPMENT EFFECT AND ECONOMIC GROWTH IN WEST AFRICA SUB-REGION

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Abstract: This study empirically investigated financial development moderating task on the connection allying various types of financial inflows (foreign direct investment, foreign portfolio investment, foreign debt flows, and remittances) and economic growth in the West Africa sub-region, while accounting for cross-sectional dependence existence. The analysis is motivated by the need to understand how financial development level influences financial inflow effectiveness in economic growth promotion, given the interconnectedness and potential spillover effects among countries in the region. Drawing from a panel dataset spanning 1990-2022 for five West African countries, a range of econometric techniques was employed to address cross-sectional dependence and slope heterogeneity, among which includes: slope homogeneity tests, cross-sectional dependence tests, second-generation panel unit root tests, and estimation methods robust to cross-sectional dependence, such as Common Correlated Effects Mean Group (CCEMG) and Augmented Mean Group (AMG) estimators. Using the CCEMG estimator, financial development exerted a positive and significant influence on economic growth, and its interaction with foreign portfolio investment was also positive and significant. The AMG estimator provided additional insights, showing remittances had a positive impact on growth, while foreign portfolio investment negatively affected growth. Notably, the interaction between financial development and remittances was negative and significant under the AMG model. These mixed results suggest that while financial development generally promotes growth, its interactions with different types of capital flows can have varying and even opposing effects depending on the specific combination and empirical approach used. The study concludes that financial development engages in a crucial moderating task in the connection allying financial inflows and economic growth in the West Africa sub-region, with varying effects across different types of financial inflows. The findings underscore the relevance of accounting for cross-sectional dependence and heterogeneity in panel data analysis and have policy implications for harnessing the potential gains of financial inflows while promoting sustainable growth in the West Africa sub-region.

Keywords: Financial inflows, financial development, economic growth, AMG, CCEMG

Jel Code: F38 G20

Introduction

The association between financial inflows, financial development, and economic growth has been extensively studied in various contexts. Still, the task of financial development in moderating this relationship, particularly in the cross-sectional dependence companionship, remains an important area of research. This is especially relevant for the West Africa sub-region, where countries share economic ties, regional institutions, and potential spillover effects.

Financial inflows, such as foreign direct investment (FDI), portfolio investments, and remittances, can significantly impact economic growth by providing resources for investment, technology transfer, and access to international markets (Agbloyor et al. 2014; Anyanwu, 2012). However, the effectiveness of these inflows in promoting growth may be influenced by the level of financial development, which refers to the depth and efficiency of a country's financial markets, institutions, and instruments (Ehigiamusoe & Lean, 2018; Svirydzenka, 2016). Also, cross-sectional dependence, which arises due to common shocks, spillover effects, or other unobserved factors affecting multiple countries simultaneously, is particularly relevant in the West Africa sub-region due to the close economic ties and shared regional institutions among member countries (Asongu et al., 2019; Eberhardt & Teal, 2011). Ignoring cross-sectional dependence can lead to biased and inconsistent estimates, as well as invalid statistical inferences (Pesaran, 2007).

Consensus from literature on financial development moderating tasks in the connection allying financial inflows and economic growth in cross-sectional dependence existence in the West Africa sub-region is important and numerous empirical studies have found evidence that financial development positively moderates financial inflows consequence on economic growth. Ehigiamusoe and Lean (2018) investigated financial development tasks in moderating the connection allying FDI inflows as well as economic growth in West African countries. Their findings show that financial development, measured by local credit to the private sector, enhances positive impact of FDI inflows on economic growth. Similarly, Svirydzenka (2016) concluded that countries with more advanced financial systems tend to gain more from FDI inflows regarding economic growth. Other studies have focused on the importance of accounting for cross-sectional dependence in analyzing this association. Asongu et al. (2019) examined the convergence in financial development across African countries, considering cross-sectional dependence. They found evidence of convergence clustering, highlighting the interconnectedness among countries in the region. Eberhardt and Teal (2011) emphasized the reason to account for cross-sectional dependence in growth empirics, as ignoring it can lead to biased and inconsistent estimates. Several researchers have combined both aspects, investigating the moderating task of financial development while accounting for cross-sectional dependence. Effiong and Ozili (2022) explored remittance inflows' effect on economic growth in West African countries, considering the moderating task of financial development and cross-sectional dependence. Their findings suggest that financial development enhances the positive impact of remittances on economic growth, and accounting for cross-sectional dependence is crucial for reliable inferences. Also, studies have underscored the importance of country-specific factors and institutional features in shaping the connection allying financial inflows, financial development, and economic growth. Adeniyi and Sotubo (2020) examined financial development tasks and institutional grade in moderating the consequence of capital inflows on economic growth in West African countries. They found financial

development and institutional quality significantly moderate the association, highlighting the need for policy interventions to strengthen these factors. In addition, Shahbar et al. (2020) found financial development had varying effects on economic growth across different countries and regimes, while trade openness positively impacted growth in at least 8 countries, and gross capital formation increased growth long-term. For an emerging markets, Nguyen et. al., (2022) identified a positive, linear connection allying financial development and growth, as well as bidirectional Granger causality. Agbloyor et al. (2014) reported foreign investment and debt flows negatively impacted development in areas with robust financial markets, while poor financial markets made countries vulnerable to capital outflows suppressing growth. Amna and Riadh (2019) found FDI and remittances had short-term negative but long-term neutral effects on growth, while ODA had a negligible impact. Amna and Faouzi (2020) showed FDI and remittances were positive for low-income countries, while ODA was adverse. Ho et al. (2021) found trade openness promoted growth in ASEAN nations, and financial development had an indirect positive effect via trade. Adegboyega et al. (2021) suggested Bhagwati's hypothesis exists partially in Nigeria, necessitating trade policy reforms for capital inflows to boost growth. Adeniyi et al. (2015) showed FDI increased growth while inflation decreased it, and financial development positively impacted growth.

A cursory in the literature has narrowly relied on two measures of financial development indicators (local credit given by the financial sector to the private sector that measures depth of finances and wide money supply to GDP ratio that captures the size) (see Adeniyi et al., 2015). However, studies are yet to explore the united impact of all these identified financial inflows on economic growth by pulling together all financial development indexes in the West African sub-region. The current research considers a comprehensive financial development estimates that encapsulates access, efficiency, stability, and depth as against local credit given by the financial sector to the private sector and wide money supply to GDP ratio. Given the importance of financial inflows in enhancing economic growth and the potential moderating financial development tasks, there is a need to investigate the association

Material and Methods

Data Sources and Measurement

This study utilizes data from 5 West African countries spanning 1990-2022, data available for the key variables: economic growth (GDP), international portfolio investment (FPI), international portfolio debt flows (FDF), international direct investment (FDI), remittances (REM), and financial development (FD) (see Giuliano & Ruiz-Arranz, 2009; Barajas et al. 2009; George et al. 2021). Data was sourced from the WDI, IMF, Global Development Finance, and OECD databases. Unlike previous studies using GDP growth rates, this study examines the transformation of savings into long-term investments fostering capital accumulation. Financial development is measured using Sahay et al.'s (2015) comprehensive metric encompassing the depth, access, and efficiency of financial institutions and markets. Table 1 summarizes variable measurements and sources.

Table 1. Data Description, Measurement, and Sources

Variables	Description	Sources
Economic Growth (GDP)	Gross domestic product per capita	World Bank, WDI

Foreign portfolio investment (FPI)	This includes net inflows that cover transactions in equity securities and debt securities as a share of GDP.	IMF and World Bank Index
Foreign Portfolio Debt flows (FDF)	This is the sum of portfolio debt and other investment stock and shares as a ratio of GDP.	IMF, World Bank, and Global Development Finance
Foreign Direct Investment (FDI)	FDI is computed as a proportion of GDP	IMF, World Bank, WDI
Remittances (REM)	Remittances to GDP proportion	IMF World Bank, WDI
Gross Capital Formation (GFC)	Gross capital formation to GDP proportion	OECD, World Bank, WDI
Trade Openness (TO)	Share of exports to GDP ratio	World Bank, WDI
Financial Development (FD)	i. Domestic credit to private sector ii. Liquid liabilities to GDP iii. Private credit as a percent of GDP iv. Bank lending deposit spread	World Bank, WDI

Source: Made by Authors (2024)

Model Specification and Empirical Strategy

The study relied on the AK model that got its root from the Cobb-Douglas Production function, which is expressed as a total capital stock linear function. Thus, represented as

$$Y_t = A_t K_t \tag{1}$$

Equation 1 establishes the theoretical foundation upon which the empirical model is constructed to analyse the interactive financial development task in association between financial inflows and economic growth in West Africa. Therefore, the estimated equation becomes

$$\begin{aligned}
 GDP_{i,t} = & \varphi_1 + \varphi_2 \ln REM_{i,t} + \varphi_3 \ln GFC_{i,t} + \varphi_4 \ln FDF_{i,t} + \varphi_5 \ln FDI_{i,t} + \varphi_6 \ln FPI_{i,t} \\
 & + \varphi_7 FD_{i,t} + \varphi_8 (\ln REM_{i,t} * FD_{i,t}) + \varphi_9 (\ln FDI_{i,t} * FD_{i,t}) \\
 & + \varphi_{10} (\ln FPI_{i,t} * FD_{i,t}) + \varphi_{11} (\ln FDF_{i,t} * FD_{i,t}) + \varphi_{12} \ln TO_{i,t} + \mu_i \\
 & + \varepsilon_{i,t} \tag{2}
 \end{aligned}$$

From equation 2, Remittances may also affect economic growth level, depending on their utilization ($2 \lesseqgtr 0$). Vargas-Silva, Jha & Sugiyarto (2009) supported a positive relationship, while A. Barajas et al. (2009) reported a negative nexus existence. Furthermore, the coefficients of β_7 and β_8 are predicted positive as growth-enhancing (Barro, 2000; Haider et al. 2016). However, if outpacing GDP (i.e., falling income per capita), it may harm economic growth. Also, the interactive coefficient between financial inflows and financial development is expected to be rising.

Results

This section reports the empirical findings, commencing with descriptive statistics that summarize crucial indicators about financial inflows, financial development, and economic growth across the West African region.

Pre-Estimation Results: Descriptive Statistics, Correlation and Unit Roots

The descriptive analysis outcomes for the West African sub-region are presented in Table 2 and encapsulate the mean, median, maximum (Max.), and minimum (Min.) values,

skewness, and kurtosis statistics along with the associated probability values. For all variables employed, the average values (mean) of gross domestic product (GDP) 3.021, foreign direct investment (FDI) 2.542; remittances (REM) 1.642; gross fixed capital formation (GFC) 20.991; and financial development (FD), 0.132 were all greater than the value of the median whereas, the reverse is the case for foreign portfolio investment (FPI) and foreign debt (FDF). Also, the average values for all variables fall between maximum and minimum values. This however indicates a high tendency of a normal distribution. In addition, the skewness outcomes show portfolio equity investment (FPI) and gross domestic product (GDP) are negatively skewed while foreign direct investment (FDI), foreign debt (FDF), remittances (REM), gross fixed capital formation (GFC), and financial development (FD) were positively skewed. This portrays that all variables are imbued with elements of asymmetric distribution in either part. Furthermore, the kurtosis outcome from the table for all variables reveals that the coefficients are approximately greater than 3 and less than 3, but not exactly 3. This further suggests that the distribution is in-between platykurtic and leptokurtic in shape. Sequel to the above, the outcomes still indicate that all the variables were normally distributed.

Table 2. Descriptive Statistics

Variable	Mean	Median	Maximum	Minimum	Std. Dev.	Skewness	Kurtosis	Probability
GDP	3.021	3.063	3.429	2.599	0.259	-0.214	1.625	0.001
FDI	2.542	1.451	18.828	-1.118	2.983	2.294	9.789	0.000
FD	0.132	0.120	0.273	0.048	0.051	0.430	2.328	0.024
GFC	20.991	19.366	53.122	7.396	8.667	1.282	5.180	0.000
FDF	22.666	22.674	24.817	20.449	1.097	0.035	1.736	0.006
FPI	8.675	8.794	9.979	6.695	0.624	-0.667	3.567	0.001
REM	1.642	0.943	10.489	0.014	1.923	1.994	6.725	0.000
TO	22.195	22.194	24.991	19.752	1.525	0.049	1.601	0.002

Source: Made by Authors

Another crucial pre-test is the correlation analysis to address multicollinearity, with the correlation matrices presented in Table 3. The correlation coefficients indicate both negative and positive correlations among the variables of interest. However, with coefficients less than 0.95, the results suggest no serious multicollinearity issues (Baltagi, 2005). This implies that estimating the model does not pose a multicollinearity threat for the sub-regions, as the connections among economic growth, financial inflows, and financial development are dependent-independent.

Table 3. Correlation Matrix

Variable	GDP	FDI	FDF	FPI	REM	FD	GFC	TO
GDP	1.000							
FDI	-0.065	1.000						
FDF	0.716	-0.120	1.000					
FPI	0.103	-0.156	0.130	1.000				
REM	0.456	0.175	0.440	0.304	1.000			
FD	0.765	-0.193	0.732	0.355	0.452	1.000		
GFC	0.080	0.370	0.237	-0.212	0.037	-0.005	1.000	
TO	0.651	0.014	0.817	0.189	0.565	0.796	0.204	1.000

Source: Made by Authors

Furthermore, in panel data analysis, cross-sectional dependence arising from common shocks across countries is crucial, as unobserved shocks can lead to arbitrary correlations across economies in a globalized context (Eberhardt & Teal, 2010). Additionally, heterogeneity among countries must be considered when analyzing the impact of exogenous variables on endogenous variables. Assuming homogeneity can overlook country-specific characteristics (Breitung, 2005). Therefore, Table 4 presents the slope homogeneity test results using Pesaran & Yamagata's (2008), the $\hat{\Delta}$ (delta) and $\hat{\Delta}$ (delta) adj. tests. Based on the outcomes of the tests, the tests reject slope homogeneity at the 5% significance level.

Table 4. Slope Homogeneity Test

Tests	Statistics Value	p-value
Pesaran & Yamagata (2008):		
$\hat{\Delta}$ (delta) test	2.534	0.000 **
$\hat{\Delta}$ (delta) adj. test	3.310	0.000 **
Blomquist & Westerlund (2013):		
Δ_{HAC}	-2.418	0.001 **
(Δ_{HAC}) adj.	-3.303	0.001 **

Source: Made by Authors

Note: * P <0.01, ** P <0.05 respectively. $\hat{\Delta}$ (delta) test: test for homogeneity of simple slopes; $\hat{\Delta}$ (delta) adj. test: mean-variance bias-adjusted test for homogeneity of slopes; Δ_{HAC} : heteroscedasticity and autocorrelation-consistent version of the test for homogeneity of simple slopes; (Δ_{HAC}) adj.: heteroscedasticity and autocorrelation consistent version of mean-variance bias-adjusted test for homogeneity of slopes..

Having established the existence of long-run co-movement among variables through slope homogeneity tests, cross-sectional dependence tests are imperative to determine whether first or second-generation unit root tests are required. Various tests, including Breusch and Pagan's (1980) LM test, Pesaran's (2004) scaled LM and CD tests, and Baltagi et al.'s (2012) bias-corrected scaled LM test, were employed and presented in Table 5. The null hypothesis of no cross-sectional dependence is rejected at the 1% significance level, suggesting sufficient cross-sectional dependency among variables across countries.

Table 5. Cross-Sectional Dependence Tests

Methods	Breusch-Pagan LM		Pesaran scaled LM		Bias-corrected scaled LM		Pesaran CD	
	Statistic	Prob.	Statistic	Prob.	Statistic	Prob.	Statistic	Prob.
GDP	139.059	0.000	28.858	0.000	28.772	0.000	11.085	0.000
FDI	33.451	0.000	5.243	0.000	5.157	0.000	1.352	0.176
FDF	70.204	0.000	13.462	0.000	13.375	0.000	2.713	0.006
FPI	27.531	0.000	3.920	0.000	3.833	0.000	1.414	0.157
TO	206.758	0.000	43.996	0.000	43.910	0.000	14.209	0.000
REM	46.794	0.000	8.227	0.000	8.141	0.000	4.510	0.000
GFC	75.277	0.000	14.596	0.000	14.510	0.000	-0.759	0.447
FD	50.479	0.000	9.051	0.000	8.965	0.000	3.639	0.000

Source: Made by Authors

Note: ** P <0.05, * P <0.10 respectively

Given cross-sectional dependence existence and slope heterogeneity, Table 6 presents second-generation unit root tests, as recommended by Swamy & Dharni (2020) and

Hussain et al. (2021) for cases with cross-sectional dependence. Based on the critical values of -2.210, -2.330, and -2.570 at the 10%, 5%, and 1% significance levels, respectively, for both intercept and time trend cases and compared with the outcomes in Table 6. The results implies that all variables are integrated into order one, I(1).

Table 6. Outcomes of Second-Generation Panel Unit Root Tests

Methods Variable	CIPS			CADF		
	I(0)	I(1)	Integration order	I(0)	I(1)	Integration order
GDP	-0.273	-3.745**	I1	-1.182	-3.372**	I1
REM	-2.587**	-5.281**	I1	-2.400**	-4.036**	I1
FDI	-2.885**	-4.966**	I1	-3.340**	-3.764**	I1
FPI	-2.314**	-4.067**	I1	-2.087	-3.146**	I1
FDF	-1.450	-4.844**	I1	-1.264	-2.742**	I1
FD	-2.285*	-5.361**	I1	-2.464**	-4.555**	I1
TO	-2.910**	-5.944**	I1	-2.216	-4.496**	I1
GFC	-1.891	-4.307**	I1	-1.894	-2.824**	I1

Source: Made by Authors

Note: *** P <0.01, ** P <0.05 and P <0.1 respectively

Discussion

To analyze the mediating task of financial development on the connection between financial inflows and economic growth in the West African sub-region, we ran CCEMG as suggested by Pesaran (2006) which permits both the strong and weak effects of unobserved common factors robustness in the model and AMG as proposed by Eberhardt & Teal (2010) both of which would produce consistent and unbiased results. The results are presented in Table 7. The CCEMG estimates reveal that gross capital formation (GFC) exerts a significant and negative influence on economic growth (GDP) at a 5% level of significance resulting in about 0.003 percent drop in economic growth (P<0.05,t=1.93). This fails to support endogenous growth model, which underscores capital as a crucial determinant input for growth in the region as it impeded economic expansion. The trade openness (TO) coefficient positively influences economic growth and was found to be statistically significant at a 5 percent significance level, with a one percent rise in trade openness resulting in a 0.067 increase in economic growth (P<0.05,t=2.50). This implies that trade openness assisted in the growth process of the West African sub-region significantly

Table 7. Financial Inflows and Economic growth: Financial Development task

Independent Variable	CCEMG		AMG	
	Coefficient	t-Stat	Coefficient	t-Stat
FDI	-0.006	-0.12	0.0001	0.04
REM	-0.003	-0.09	0.016*	1.66
FDF	0.158	0.95	--0.155	-1.05
FPI	-0.004	-0.10	-0.142**	-1.95
GFC	-0.003**	1.93	-0.0001**	-20.51
TO	0.067**	2.50	0.029**	2.20
FD	0.125**	8.10	-30.59*	-1.65
FD*FDI	0.095	0.24	0.021	0.44
FD*REM	-0.030	-0.06	-0.031**	-2.09
FD*FPI	1.858**	2.00	0.759**	2.00

FD*FDF	-1.415	-0.85	1.080	1.24
Wald Chi2 (Prob.)	17.53		446.40**	

Source: Made by Authors

Note: *** P <0.01, ** P <0.05 and P <0.1 respectively.

Also, the financial development index (FD) shows a positive and significant connection with economic growth, having a 0.125 percent increase in financial development attributable to economic growth. This aligns with the work Adeniyi et al (2015) and Nguyen et al (2022) affirming positive financial development impact on growth. This suggests that financial development has a better gain on economic growth in the region as well as an imperative impetus for growth, importantly by providing entrepreneurial activities with financial support. While the various components of financial inflows in Table 7 exhibit varied signs and magnitudes, they were found to be statistically insignificant. This suggests that although these financial inflows were directed toward the sub-region, they were not adequately channeled into the more productive sectors of the economy and these findings were in line with the submission by Adeniyi et al (2015) that ascribed the insignificance in financial inflows to the nature and destination of flows to sub-region.

Also, modulating financial development tasks with foreign portfolio investment (FD*FPI) on economic growth is positive as well as statistically significant (1.858) at a 5% level of significance ($P < 0.05, t = 2.00$). This suggests that financial development facilitates foreign portfolio investment, thereby positively impacting economic growth of the sub-region. The positive sign associated with the moderating role indicates that financial development and foreign portfolio investment act as complementary factors in promoting growth in the West African sub-region. However, the coefficients of the moderating roles of financial development alongside foreign direct investment (FD*FDI), foreign debt (FD*FDF), and remittances (FD*REM) on economic growth were found to be statistically insignificant. This implies that the level of financial development has not effectively enhanced the inflow of these financial resources to the West African sub-region.

For the robustness check, Table 7 equally presents the outcome of the financial development moderating task on financial inflows-economic growth connection in the West African sub-region using augmented mean group (AMG) estimates. At a glance, the outcome shows that the coefficient of portfolio equity investment (FPI) has a negative and significant association with economic growth, with a 0.142 percent decrease in foreign portfolio equity investment attributable to growth ($P < 0.05, t = 1.95$). This thereby contravenes the aprior expectation from the theoretical proposition. The finding aligned with the submission by Chee-Keong et al (2010). Also, the remittances coefficient is found to be positive and statistically significant in terms of its relationship with economic growth, with a 1 percent increase in remittances (REM) translating into about 0.016 percent increase in economic growth and significant at 10% level ($P < 0.01, t = 1.66$). This could be because the remittances flow to the West Africa sub-region had been used for developmental projects that have assisted in the growth of the economy as against to family use. The finding is in support of the study conducted by Adeniyi et al (2015); Amna & Faouzi (2020). However, as it was observed from common correlated effects estimates (CCEMG), the influence of both foreign direct investment (FDI) and foreign debts (FDF) is found insignificant. Thus, point to the fact that not all forms of financial inflows

contribute positively to economic growth, as the West African sub-region has undertaken various forms of reforms to attract foreign financial inflows.

Furthermore, the gross capital formation (GFC) coefficient exerts a significant and negative influence on economic growth (GDP) at a 5% level of significance ($P < 0.05, t = 1.93$). This implies that a 1 percentage rise in gross capital formation leads to a 0.0001 reduction in economic growth. Trade openness (TO) coefficient positively influences economic growth and was found to be statistically significant at a 5 percent significance level, with a 1 percent rise in trade balance resulting in a 0.027 increase in economic growth ($P < 0.05, t = 2.20$). This is in line with the study examined by Ho et al (2021), showing how trade openness promotes economic growth. However, the financial development (FD) coefficient yields a negative and significant relationship with economic growth at a 10% significant level. This suggests that a 1 percent rise in financial development attributable to 30.59 percent drop in economic growth.

Also, the effect of financial development moderating task with foreign portfolio investment (FD*FPI) on economic growth is statistically significant and positive (0.759) at a 5 percent level of significance ($P < 0.05, t = 2.00$). This indicates that financial development does enhance foreign portfolio investment to improve positive growth in the West African sub-region. With a positive sign, the moderating task shows that the two factors (Financial development and foreign portfolio investment) serve as complements in improving the growth of the region. Moreover, the financial development moderating task effect with remittances (FD*REM) on economic growth is statistically significant and negative (-0.031) at a 5 percent level of significance ($P < 0.05, t = -2.09$). This indicates that financial development inhibits remittances negatively on economic growth in the West Africa sub-region. The moderating task shows that the two factors (Financial development and remittances) do not complement growth in the West African sub-region. Furthermore, financial development moderating task along with foreign direct investment (FD*FDI) and foreign debt (FD*FDF) on economic growth were found not to be statistically significant. This implies that the level of financial development has not enhanced the flow of finances to the West African sub-region.

Conclusions

The study investigates financial development moderating task on allying financial inflows and economic growth in the presence of cross-sectional dependence in the West Africa sub-region. The empirical analysis, conducted using data from five West African countries (Niger, Nigeria, Cote d'Ivoire, Ghana, and Guinea) spanning 1990-2022, employs robust panel data techniques to affirm for cross-sectional dependence and slope heterogeneity. The findings from the Common Correlated Effects Mean Group (CCEMG) estimator reveal that financial development positively and significantly influences economic growth in the West Africa sub-region. This result is consistent with the notion that well-developed financial systems facilitate resource allocation, mobilize savings, and promote productive investments, thereby fostering economic growth.

Furthermore, the study finds that financial development enhances the positive effect of foreign portfolio investment (FPI) on economic growth in the sub-region. The interaction term between financial development and FPI is positive and statistically significant, suggesting that the two factors complement each other in driving economic growth. This

highlights the importance of financial development in channeling portfolio investment inflows into productive sectors and ensuring their effective utilization. However, the moderating task of financial development on the impacts of foreign direct investment (FDI), foreign debt flows (FDF), and remittances are found to be insignificant. This implies that the financial development magnitude in the West African sub-region has not been effective in enhancing the potential gains of these financial inflows for economic growth. Although the Augmented Mean Group (AMG) estimator provides additional insights, revealing that remittances have a positive and significant effect on economic growth in the sub-region. This finding suggests that remittance inflows have been utilized for developmental purposes and productive investments, contributing to economic growth. Conversely, FPI exerts a negative and significant effect on economic growth, which may be attributable to potential destabilizing effects or misallocation of portfolio investment flows. Notably, the interaction term between financial development and remittances is negative and significant, implying that financial development inhibits the positive contribution of remittances to economic growth in the sub-region. This counterintuitive result may be attributed to factors such as inefficiencies in the financial system, inadequate financial infrastructure, or regulatory barriers that hinder the effective channeling of remittances into productive investments. The study's findings underscore the importance of accounting for cross-sectional dependence and heterogeneity in panel data analysis, as ignoring these factors can lead to biased and inconsistent estimates. The cross-sectional dependence existence and slope heterogeneity among the West African countries necessitate the use of robust panel data techniques to ensure reliable inferences.

Overall, the study concludes that financial development plays a crucial moderating task in the association allying financial inflows and economic growth for the West Africa sub-region, with varying effects across different types of financial inflows. While financial development enhances the positive effect of FPI on economic growth, its moderating effects on the connection allying economic growth and FDI, foreign debt flows, and remittances are insignificant or, in the case of remittances, counterintuitive.

The outcomes have important policy implications for policymakers in the West Africa sub-region. Efforts should be directed toward strengthening financial systems, institutions, and markets to harness the potential gains of financial inflows, particularly FPI and remittances. This may involve implementing reforms to improve financial infrastructure, regulatory frameworks, and access to financial services. Furthermore, measures should be taken to attract and effectively utilize FDI and foreign debt inflows, as their impacts on economic growth were found to be insignificant in the current study. This could involve creating a conducive business environment, improving institutional quality, and ensuring transparency in the utilization of these inflows.

It is also crucial to monitor and regulate foreign portfolio investment flows to mitigate potential negative effects on economic growth, such as speculative bubbles or destabilizing capital movements. Additionally, country-specific factors and institutional characteristics should be considered when designing policies to harness the gains of financial inflows and promote sustainable economic growth in the West Africa sub-region. This may involve tailoring policies to address unique challenges and opportunities within each country while leveraging regional cooperation and coordination mechanisms.

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EXPLORATION OF JOB RACKETEERING AND EMPLOYEES' LEVEL OF PRODUCTIVITY

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Abstract: The paper explored the influence that job racketeering exerts on the employees level of productivity. Both primary and secondary sources of data were used in this paper; information was gathered by distributing questionnaires to the designated respondents. There were 205 respondents in the study population who were OYTRMA officials', commercial motorists, and motorcyclists. A Taro Yamane formula was employed to arrive at 205 respondents for the sample size, and 185 questionnaires were retrieved from the administered questionnaires on the sample population size. Secondary data were gathered from books, scholarly journals, official documents, and the internet. The acquired data were analyzed using both inferential and descriptive statistics. The study's inference from descriptive statistics showed that, of the ten acknowledged assertions on the influence of job racketeering and employees level of productivity; eight assertions affirmed the substantial influence that job racketeering exerts on employees level of productivity. While two assertions showed that job racketeering does not have substantial influence on employees' level of productivity. Also, the inferential statistics from the data collected showed that there is significant relationship between fizzling out of employees (OYTRMA officials') level of productivity and influence of job racketeering variants (harassment, unprofessionalism, and extortion). With the p value from the SPSS gives 0.000, which is less than the 0.005, this affirms that there is significant relationship between fizzling out of OYTRMA officials' level of productivity and job racketeering. As results from both descriptive and inferential affirmed the correctness of the assertions, and hypothesis; the study comes to the conclusion that job racketeering has substantial positive influence on the employees level of productivity significantly.

Keywords: Job, Racketeering, Employees, Productivity, Influence, Efficiency

Introduction

A trend that kills productivity level of employees should be decisively addressed so as to achieve the desired quality growth and development accordingly. Public and private enterprises drive business to excellence via employees, be it staff, or contract basis. The reason for employing more hands boils down from the fact that such enterprise could not do every activities by same number of people it had previously and perhaps, as a result of expansion or the need to provide more for people as population increases. Developed economies in the world develop significantly through their labour force level of productivity which has positive relationship with the policies and programmes of such economies. For labour force to be productive there is need to remove all bottlenecks which can hinder their efficiency, and productivity level. One critical force that makes the difference between the developed economies of the Western and Eastern world viz-a-viz African is the quality of their labour force and the commitment they wield on their works. However, Nigeria's main public enterprises problem is an offshoot of its labour recruitment process, which is often characterized by clientelism, patronage, rent seeking, political consideration, party affiliation, nepotism, favouritism among others. These attributes are noted in the employment process at public enterprises where every citizens clamour for job

in the public enterprise which often time not to put in their best, rather as citizens' rights of getting employment from Governments offices, and works. The bastardisation, and balkanisation of recruitment process significantly influences the productivity level of labour force in African public enterprises, Nigeria as reference point, and Oyo state OYRTMA in particular. Development is not accidental it comes as a result of methodical attitudes and positive contributions of the labour force which drives the policies and programmes of government in different ministries, parastatals, departments, and agencies so as to fulfill their electoral promises, and party manifestoes among others.

However, various recruitment both at federal and state level are majorly based on patronage, the recent revelations at federal House of Representatives investigation of jobs slot being sold at federal character commission is one out of major job racketeering that are at behest of principal officers in the various ministries, departments, and agencies among others Vanguard, 8th August 2023. Despite the enrolment of civil and public servant in the (IPPIS) Integrated Payroll and Personnel Information System, these anomalies were still being perpetrated, this was unearthed during the probe of job racketeering at federal government agency, where a personal assistance to head of federal government agency admitted to this crime (guardian.ng, August 14th, 2023)

These anomalies were also a point in action at Oyo State Road Traffic Management Authority where recruitment is based on clientelism among many other job opportunities in the state, a prospective job seeker that applied online, must provide three guarantors, in person of a member at Oyo state house of assembly, Mogaji, or Baale, and a 14 level officers before such applicant can submit his or her form (jobportal.oyostate.gov.ng/oyrtma) of 2022 recruitment process. This recruitment procedure actually lead to low level of commitment on the part of applicant since it is based on patronage. A successful applicant often times misbehaved at his or her duty post, the various officers at traffic lights in the state capital, Ibadan. Where a former head of service's son in Oyo state was alleged to have sold slot, and the rubber stamp house of assembly refused to investigate this strong allegation (dailypost.ng, 11th May 2020).

Statement of Problem

Nigeria society complaints of poor delivery of public goods and services in every facets of human endeavours. Government projects are implemented without corresponding positive impacts on the citizenry, roads constructed with poor quality materials due to contract inflation, kicks back, and 10% percentiles gatekeeper, amongst other factors. These among other reasons affect the quality of services that government employees provide which are ridden with low productivity as this is depicted in the implementation of policies and programmes of government. Public institutions, enterprises, parastatals, ministries, department, and agencies suffered unprecedented impediments due to job racketeering which has taken precedence over competitive recruitment, competence, efficiency, and modernization has been done in private enterprises, or businesses. The menace that job racketeering is causing pervades every spheres of human endeavours in Nigeria as being seen in the borders where Nigeria Customs Service, and Immigration officers allow contraband goods, and illegal migrants into the country; unholy actions at federal and state hospitals, higher institutions of learning, amongst others (punchng.com, 2017; unodc.org2021). The menace of job racketeering in government owned institutions, enterprises cannot be overemphasized which ranges from compromised educational system; where graduates are being turned out yearly without quality it deserves, poor health

care, shoddy formulation, and implementation of public policies and programmes, contract inflation amongst others, all these pose a great threats to growth and development in the country.

Often times these problems are self-inflicted among the citizenry who should have been better informed that the driving force of government policies and programmes are majorly from the employees who make sure that the deliverables are implemented according to appropriated budget. Rather, the sets of labour force that needs to drive these developmental, laudable, impactful projects are employed through shambolic manner. Previous researches on employees majorly focused on job satisfaction, productivity among others. Hence, the need to look at process of recruitment which often contributes to employees' level of efficiency and productivity respectively.

Literature Review

Job racketeering

The rate of ruin that this menace has caused the country economy cannot be over-emphasised, public enterprise employment process is marked with racketeering. Ikwuka (2016) opined that job racketeering is the fraudulent manner of getting employed where one is capable of working, or where one is not capable to work. The idea of job racketeering is great menace that its effect has trickled down to every facets of human endeavours in the country. This menace kills patriotism, and promotes greed, avarice, nepotism, among others. The rate at which people are being fraudulently employed in the public sector with or without regards to quota system, or competence, or technical know-how cannot be quantified. The case of recent probe at house representatives in Nigeria of the Federal Character Commission, among many atrocities in the public service Vanguard, August 2023. The idea of selling slots for employment kills the level of productivity such person that got employed. The idea of job racketeering consistently makes the mockery of the public service, no wonder public policies are shabbily implemented, roads are poorly constructed, admission processes are ridden with miracle centres, public goods that are meant for citizens are being waylaid by an individual, health institutions are compromised, and incompetent health practitioners are major workers. These are among the menace that job racketeering caused, and it totally kills efficiency and productivity in the public sectors, these are among the major reasons public sectors, enterprises are at its lowest ebb when compared with private sectors.

Service Compact

From the existing literatures, the quality potentials of SERVICOM for operational efficiency and improved quality of services in the public sector has been adequately verified. Compact is a formal agreement between two or more people. In this case, SERVICOM is a Service Compact (Agreement) amid the National Government as well as its organs and the Nigerian people. Olaopa (2008) argues that SERVICOM seeks to introduce the "Customer Orientation" through "service compact with all citizens". The citizen's charter is the relationship between public service providers and the users. The charter put public organisations in the shoes of the recipient of services and asks, "What can I, as an individual, expect from this organisation"? According to Egbewale (2011) service compact is the fundamental principle of citizen/public service charter including

principle of equality of treatment, rules governing relations between the public service and the users, accessibility of services, effectiveness and efficiency, evaluation of services, transparency and information. Abdullah (2008) simply defines service compact as a way of organising public management in order to increase efficiency, transparency, accessibility and responsiveness to citizens through intensive and strategic information and communication in the inner management of the public sector as well as in its daily relations with citizens. Drawing from various definitions of SERVICOM, Egbewale (2011) identifies fundamental principles of transformation of public service delivery. The principle of equality of treatment, that refers to the citizens' rights and entitlements to good service delivery. SERVICOM is the engine for effective and efficient service delivery. It is mounted on the imperative to change the system of service delivery. It is driven by government's commitment to deliver service and citizens' expectations of service delivery. Evaluation of services, transparency and information - SERVICOM opens up new possibilities for governments to be more transparent to citizens, given access to a greater range of information collected and generated by government. SERVICOM also creates opportunities for effective public service delivery to citizens.

Labour force

Labour force OECD 2023 sees the labour force as the presently energetic population, comprises all persons who fulfil the requirements for inclusion among the employed (civilian employment plus the armed forces) or the unemployed. The employed are defined as those who work for pay or profit for at least one hour a week, or who have job but are temporarily out due to illness, or leave. To OECD, the labour force consists of those that are gainfully employed, and those not fully employed. Labour force makes the country economic activities viable, and industrious, for a country to have greater economic activities, its labour force must be productively employed in a competitive manner so as to make them produce at higher efficiency level (Fagbemi, 2006). The quality and competence of labour force, via their recruitment process would significantly impact on the policies and programmes of government which is to make life more meaningful to the citizenry. A competitively recruited labour force is sine qua non to a prosperous economy.

Employee

An employee is an individual who works for an organization or business under an agreement, contract, or arrangement, typically in exchange for wages, salary, or other forms of compensation. Employees are usually subject to the direction and control of the employer regarding the work they perform, the hours they work, and other aspects of their employment. They may work full-time, part-time, or on a temporary basis, depending on the nature of their employment arrangement.

Productivity

OECD, 2000 it is the capability of bringing forth, generating, creating, enhancing production with less overhead cost. For public sector to be productive, the labour force must put in their best so as to ensure that public objectives are achieved in the course of making government works, or revenue efficient driving. The government policies and programmes are productive when it is for greatest good for the greatest number of people. A government revenue generating department must be productive such that the amount use

for revenue generating must not be more than the revenue itself, such as Customs Service, FIRS, and NNPC among others (Olaleye, 2001).

Theoretical Framework

New Public Management theory

Level of efficiency is fundamental to NPM which is measured through policies and programmes that are people-centered rather than remuneration only. The NPM emphasizes on the assessment of management, policy usefulness and accountability which forms a result-oriented government (Olowu, 2001). Therefore, the need to ingratiate sanity in the public policies implementation process brings employees level of proficiency into limelight. This is in line with the best practices in order to curb corrupt practices and get value for tax payers' money. Since government policies and programmes gulp a huge sum of money, and direct job recruitment is ridden with sharp practices, there is a need to evolve a recruitment process that is devoid of job racketeering, nepotism, favouritism so as to achieve the greatest good for the greatest number of citizenry. Hence, there is a decisive urgency to run a government or public sector in a business-like approach so as to embrace competition, efficiency, effectiveness, and value for tax payers' money. Farazmand (2006); Hood (2000) both argue that the new public management theory prioritizes the taxpayers' contribution, in the same manner, the private sector focuses on customer satisfaction. That is, the NPM sees the need on the importance of implementing various government policies via decentralization of public policies and as well ensuring efficiency and effectiveness so as to address the various sharp practices that hinder public policies and programmes implementation adequately.

New public management theory advocates the use of the private sector's manual for the purpose of implementing, that is contracting out to various vendors, professionals, firms, and contractors of public works that are to be carried out by government or its representatives such as MDAs in order to ensure value for money, increase efficiency, monitor performance, and ensure that targets are met (Barzelay, 2001). The theory advocates the need to address accountability, leakages, and inefficiency in governance so as to ensure that reorganisation of the public sector in line with private sector business-like mechanism; namely: accountable, efficient, productive, effective, and above all value for taxpayers' money is paramount. It also portrays the need to ensure that promotion, and competition in the effective delivery of public goods and services to the populace which are majorly taxpayers get maximum benefits for their money accordingly (Kalimullaha, Khan, & Norman, 2011).

Many scholars argue against the adoption of private sector model of carrying out government policies to them, it will not be in the best interest of common man as those private organisations are owned by those who enjoyed government patronage which often leads to rent-seeking and economic rent in the long run which is not in the best interest of the taxpayers whose money are expended on the inflated contracts awarded as well as privatization policy. In spite of the argument against new public management theory, the theory still stands as an effective theory for implementing public policies and programmes through the public-private partnership which the theory advocated, and this ensures value for money, promotes efficiency, competence, technical know-how in all facets of human endeavours. With NPM theory, recruitment into the public sectors would be competency

and competitive driven this would in long run enhance, and promote the quality of employees in the government enterprises, parastatals (MDAs) ministries department, and agencies; likewise the process of recruiting, formulating, and implementing government policies and programmes would ensure that citizens benefit immensely accordingly.

Methodology

This section describes the methodology that was used in the administration of questionnaires for this paper so as to discuss the methods and techniques that were used in order to achieve the paper's objective, the exploration of job racketeering and employee level of productivity with adoption of use of inference data analysis technique. The study was centered on the activities of workers at Oyo State Road Traffic Management Authority, the state is in the Western Region of Nigeria. The agency is the main face of government, in the road and traffic management so as to ensure that there are free flows of vehicular movement. The Oyo State Traffic Management Law 2009 as amended, made provision for the agency, so as to ensure effective, efficient, and appropriate compliance with traffic rules in the state among the road users. With the use of highly skilled manpower to drive the traffic management of the state.

The study employed a purposive sampling technique for employee at OYRTMA 312, and commercial motorists and commercial motorcyclists 108. The two levels of officers were considered in the OYRTMA since they were actively involved in the decision making and implementation of the agency the junior officers that man the traffic lights, and senior that sends them; the road users were also considered in the administration of questionnaire. The reasons for the selection of the agency and the beneficiary of such efficient management of road, or otherwise, of its functions were as a result of the complaints of extortion, unprofessionalism, non-compliance with free flowing of vehicle, and indiscriminate harassment on the both sides of traffic officials and road users.

The paper adopted use of Taro Yamane formula to arrive at the total number of respondents that questionnaires were administered upon. $n = \frac{N}{1 + N(e)^2}$; $n = \frac{420}{1 + 420(0.05)^2}$
 $\frac{420}{1 + 1.05}$; $\frac{420}{2.05}$; $n = 205$.

The paper adopted 5% level of significance in the course of using Taro Yamane. The 205 respondents were administered questionnaires on so as to ensure that the paper attained the needed credibility and validity. Statistical instrument for data analysis for the paper analysis were both descriptive and inferential statistics computed via SPSS, Statistical Package for Social Scientists respectively.

Analysis and Interpretation of Data

Two hundred and five questionnaires (205) were administered among the respondents, and one hundred and eighty-five (185) were retrieved accordingly. This implied that over 90% response rate was recorded in the questionnaires administered. The quantitative data generated were subjected to both descriptive and inferential statistical analysis. Regression statistical was adopted so as to establish relationship that exists between OYRTMA officials' level of productivity fizzles out and job racketeering variants (harassment, unprofessionalism, and extortion).

This part provided the four-dimensional assessment scale of; largely significant (4), significant (3), and less significant (2), and insignificant (1) which were used by the researcher to elicit information from the respondents on the significance or insignificance

of the assertions acknowledged. Where the summation of per cent of both largely significant, and significant is greater than both of less significant, and insignificant, the decision is substantial otherwise insubstantial.

The first claim from the objective of the paper was centered on indiscriminate harassment of commercial motorists, and motorcyclists by OYRTMA officials. The respondents affirmed this assertion with the per cent summation of largely significant and significant greater than that or less significant and insignificant, 63.2%>36.8%. From the proof supported by the responses in the questionnaires administered, the harassment being perpetrated by the OYRTMA officials substantially leads to low level of productivity as the official are more interested in the activities that profit them rather than making the roads traffic free.

Also, nepotism and favoritism affects employees' level of productivity was as well affirmed as another claim that substantially leads to low level of productivity with per cent summation of largely significant and significant of 56.2% which is more than less significant and insignificant 43.8%. The level of productivity was substantially affected by the act of nepotism and favouritism which had characterised the recruitment process of the agency. The per cent of largely significant and significant is greater than less significant and insignificant 63.3%>36.7% which affirmed the assertion that OYRTMA officials level of productivity fizzles out due to unjustifiable influence being deployed in the job recruitment procedure, and promotion in the agency by politician. These contributed to the kind of personnel that the agency used in enforcing traffic regulations among others.

Job racketeering at OYRTMA allows for unprofessionalism in the conduct of traffic management this claim was confirmed with the 65.9%>34.1% which was substantial. There is enough evidence to conclude that the level at which productivity level reduces was attributed to unprofessionalism conduct of the OYTRMA officials. The unprofessionalism conduct makes the officials to pursue personal agenda rather than what the law that established the agency recommends, motorists were apprehended in a manner that were uncivilized, and uncouth.

Politicized recruitment process does not affect employees productivity with the per cent summation of largely significant and significant less than less significant and insignificant 39.4 %< 60.6% which is insubstantial. From the respondents' results collected , it is suffice to conclude that politicized recruitment process did not lead to low level of productivity. If the agency level of productivity is low, this could not be attributed to politicized recruitment process accordingly. The claim that the strenuous recruitment procedure deters best hands from getting enlisted in the agency's duty schedule was also explored and it was substantial with per cent summation of largely significant and significant are more that the per cent summation of less significant, and insignificant 56.4%>43.6%. With affirmation of the claim as substantial, it can be evidently concluded that the unnecessary strenuous recruitment procedure deters best hands from getting enlisted in the traffic management duty in the state. Recruitment procedures are ridden with strenuous activities that are not in any ways related to intended work schedule of prospective employees, this particular act deters best hands from get enlisted in the agency's work.

The claim that monetization of recruitment process kills expertise level of employees was insubstantial as the per cent summation of largely significant and significant was less than the per cent summation of less significant, and insignificant 37.3%<62.7%. The expertise level of employees' poor discharge of their onuses was not as a result of monetization of

recruitment process, rather it was due to some pressing constraints that affect the agency's objectives.

The assertion that lack of highly skilled personnel kills agency's objective was substantial with the per cent summation of largely significant and significant greater than that of less significant and insignificant, 60% > 40%. From the evidence buttressed by the responses in questionnaires administered, lack of highly skilled personnel kills agency's objective substantially this leads to low level of productivity as the official are more interested in the act that will give direct money to the pocket of agency's officials. Traffic offenders are often bribed their way through when need arises.

The results of the data analysis, which showed that the per cent summation of mostly significant and significant greater than that of less significant and insignificant, 67.1% > 32.9%, significantly confirmed that OYRTMA officials' job prescription boosts extortion. The administrative framework of the agency was designed to coerce road users into paying for any infraction on a traffic light violation due to the daily targets that field agents are confronted with, and the penalty is paid directly into the agency's official's pocket rather than the state government coffers. All of these added to the job's exploitative character, which eventually results in employees' low level of productivity.

Racketeering activates employees non-committal to job etiquette significantly confirmed by the data analysis result, which showed that, per cent summation of largely significant and significant greater than that of less significant and insignificant, 63.3% > 36.7%. The administrative structure of the organisation was designed to promote disregard for workplace protocol, with penalties going straight into the agency official's pocket rather than into the state government's coffers. This issue can be linked to the employment racketeering that pervaded OYRTMA's hiring process. In the end, all of these abnormalities were linked to the OYRTMA officials' low productivity level.

Table 1 Job racketeering and employees' level of productivity

Assertions	LAS f %	SIG f %	LES f %	INSIG f %	Σ%	Decision
Indiscriminate harassment of commercial motorists , and motorcyclists by OYRTMA officials	82 44.3	35 18.9	11 6.0	57 30.8	63.2 > 36.8	SUB
Nepotism and favoritism affects employees' level of productivity.	42 22.7	62 33.5	38 20.6	43 23.2	56.2 > 43.8	SUB
OYRTMA officials level of productivity fizzles out	54 29.2	63 34.1	25 13.5	43 23.2	63.3 > 36.7	SUB
Job racketeering at OYRTMA allows for unprofessionalism in the conduct of traffic management	67 36.2	55 29.7	13 7.0	50 27.1	65.9 > 34.1	SUB
Politicized recruitment process affects employees productivity	35 18.9	38 20.5	64 34.7	48 25.9	39.4 < 60.6	INSUB
Strenuous recruitment procedure deters best hands from getting enlisted in the agency's duty schedule	51 27.8	53 28.6	33 17.7	48 25.9	56.4 > 43.6	SUB
Monetization of recruitment process kills expertise level of employees	27 14.6	42 22.7	25 13.5	91 49.2	37.3 < 62.7	INSUB

Lack of highly skilled personnel kills agency's objective	63 34.1	48 25.9	18 9.7	56 30.3	60>40	SUB
OYRTMA officials job prescription enhances extortion	49 26.6	75 40.5	33 17.7	28 15.2	67.1>32.9	SUB
Racketeering activates employees non-committal to job etiquette	67 36.2	50 27.1	15 8.1	53 28.6	63.3>36.7	SUB

Source: field survey, 2024

Largely significant (LAS), significant (SIG), less significant (LES), insignificant (INSIG), frequency (f), and % (per cent) Substantial (SUB) Insubstantial (INSUB), Sigma (Σ)

Testing of Hypothesis

This section analysed and interpreted the hypothesis formulated for this study. A regression analysis was used as the statistical tools for testing the hypothesis. The hypothesis stated that there is no significant relationship between fizzling out of OYTRMA officials' level of productivity and job racketeering variants (harassment, unprofessionalism, and extortion). To test the above stated hypothesis, data gathered from respondents were standardized, and subjected to regression analysis, and was subsequently run on SPSS.

The p value from the SPSS gives 0.000, which is less than the 0.005, there is enough evidence to reject null hypothesis, and affirms that there is significant relationship between fizzling out of OYTRMA officials' level of productivity and job racketeering. The coefficient table gives the model as $y=3.753-0.83t-1.78u-1.22z$ where y is OYTRMA officials and t, u, z, and are harassment, unprofessionalism, and extortion respectively. The multi regression result indicated that there is negative relationship between variant harassment, unprofessionalism, extortion, and OYTRMA officials' level of productivity. An increment in the harassment, unprofessionalism conduct, and extortion from motorists being perpetrated by road officials lead to decrease in their level of productivity accordingly. The last column gives us the significance of each coefficient (the coefficient is significant if p-value is less than 0.05). From the model therefore, unprofessionalism is significant since the level of significance is (0.05), while p-value t is (0.10) therefore the model $y=2.413 -1.78u$. The column of the standardised coefficient gives the relative importance of each variable to the dependent variable. The importance is ranked base on the absolute value of its standardised coefficient, in this case the variables in their order of importance is unprofessionalism, extortion, and then harassment. It is suffice to conclude that there is significant relationship between fizzling out of OYTRMA officials' level of productivity and job racketeering variants (harassment, unprofessionalism, and extortion) as it was revealed through the analysis.

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.753	.396		9.484	.000
	Indiscriminate harassment of commercial drivers, and motorcyclists by OYRTMA officials	-.083	.065	-.096	-1.278	.203

Job racketeering at OYRTMA allows for unprofessionalism in the conduct of traffic management	-.178	.068	-.191	-2.621	.010
OYRTMA officials job prescription enhances extortion	-.122	.084	-.108	-1.449	.149
a. Dependent Variable: Employees (OYRTMA officials) level of productivity fizzles out					

Discussion of Findings

This section afforded the paper to discuss the results on the exploration of job racketeering and employees level of productivity, the paper elicited information from the respondents on the substantial nature or otherwise of each of the claims acknowledged. This was employed so as to deduce the direction of their responses, and hypothesis was further computed via linear regression in order to acknowledge the significant influence, or otherwise of the employee level of productivity and job racketeering through variant (extortion, harassment, and unprofessionalism) acts. The hypothesis tested via linear regression analysis acknowledged that there is significant relationship between fizzling out of OYTRMA officials’ level of productivity and job racketeering variants (harassment, unprofessionalism, and extortion). The first claim on the research tool confirmed the low level of productivity of the agency’s employees as a result of indiscriminate harassment of commercial motorists, and motorcyclists by OYRTMA officials. According to the analysis's findings, 63.2% of the respondents affirmed this assertion with largely significant and significant responses, while 36.8% of respondents substantially negated the claim. From the evidence supported by the responses in questionnaires administered, the harassment being perpetrated by the OYRTMA officials substantially leads to low level of productivity due to job targets, and job racketeering in the agency’s enrolments processes. The assertion of nepotism and favouritism was also affirmed as other claim that impedes employees’ level of productivity in the OYRTMA quest for free flow of traffic in the state of Oyo, especially in the major cities and towns where there are traffic lights. 56.2% of the respondents affirmed the substantial nature of the claim, while, 43.8% of responds negated the assertion. The level of productivity was substantially affected by the act of nepotism and favouritism which had characterised the recruitment process of the agency, which resulted from job racketeering acts in the agency.

63.3% of respondents substantially which affirmed the assertion that OYRTMA officials level of productivity fizzles out due to unjustifiable influence being deployed in the job recruitment procedure, and promotion in the agency by politician, while 36.7% of the respondents disagreed with claim. The affirmation of this assertion, with per cent of summation of largely significant and significant greater than less significant and insignificant indicated the kind of personnel that the agency employed in enforcing traffic regulations among others.

Job racketeering at OYRTMA allowed for wanton unprofessionalism in the conduct of traffic management this claim was confirmed with the 65.9% of responses agreed with the assertion, while 34.1% of responses negated the claim which was negligible. From the responses, it is suffice to conclude that the level at which productivity level reduces was attributed to unprofessionalism conduct of the OYTRMA officials. The unprofessionalism conduct makes the officials to pursue personal agenda rather than what the law that established the agency recommends, motorists were apprehended in a manner that were uncivilized, and uncouth, all these were associated to job racketeering.

The politicization of recruitment process does not affect employees' productivity with the per cent summation of largely significant and significant which was 39.4%, while the less significant and insignificant was 60.6%. From the respondents' results collected, it is suffice to conclude that politicized recruitment process did not lead to low level of productivity. If the agency level of productivity is low, this could not be attributed to politicized recruitment process accordingly, politicization has not been a major setback that resulted from job racketeering as such.

The claim that the strenuous recruitment procedure deters best hands from getting enlisted in the agency's duty schedule was also explored and it was substantial with 56.4% per cent summation of largely significant and significant while the per cent summation of less significant, and insignificant was 43.6%. With affirmation of the claim as substantial, it can be evidently concluded that the unnecessary strenuous recruitment procedure deters best hands from getting enlisted in the traffic management duty in the state. Recruitment procedures are ridden with strenuous activities that are not in any ways related to intended work schedule of prospective employees, this particular act deters best hands from get enlisted in the agency's work.

62.7% of responses negated claim that monetization of recruitment process kills expertise level of employees, while the per cent summation of largely significant and significant was 37.3%. The expertise level of employees' poor discharge of their onuses was not as a result of monetization of recruitment process, rather it was due to some pressing constraints that affect the agency's objectives. Monetization of recruitment was insubstantial in the agency's official's level of low productivity, the low level of productivity was general attributed associated to those working in public sectors, due to monitoring mechanism that is absent, and compromised.

Lack of highly skilled personnel kills agency's objective was another assertion that was affirmed as being substantial with the per cent summation of largely significant and significant, of 60%, while the per cent summation of less significant and insignificant was 40%. From the evidence, supported by the analysis of questionnaires administered that the lack of highly skilled personnel kills OYRTMA's objective which resulted from the job racketeering processes at the agency during the recruitment process and promotions exercise which afterwards leads to low level of productivity as the official are more interested in the act that will benefit them unswervingly.

67.1% of the respondents substantially affirmed that OYRTMA officials' job prescription inspires extortion, this was a result of the administrative structure of the agency, which was designed to coerce, inconveniency, and wring the road users into paying directly in to their private account rather than the coffers of the state government so as to meet their daily targets as instructed by senior officers. All of these added to the job's exploitative method, which eventually an offshoot of job is racketeering.

Job racketeering triggers employees' non-committal to job etiquette. The assertion was confirmed substantial through the 63.3% of responses that agreed with the assertion as against 36.7% that negated it. The data analysis result, which revealed that, per cent summation of largely significant and significant greater than that of less significant and insignificant. The administrative organogram of the OYRTMA was intended to promote disregard, unethical, and boisterous behaviour of workplace etiquette. The agency's employee's attitude to work emanated from the political balkanization of the agency, in which there is flagrant, and total abuse of agency's constitutional provisions.

Conclusion and Remarks

The study concluded from result of the inferential analysis tested that there is a significant relationship between fizzling out of OYTRMA officials' level of productivity and job racketeering variants (harassment, unprofessionalism, and extortion). Also, the descriptive analysis also affirmed that job racketeering substantially determines, influences the level of productivity of an employees in any governments'; ministries', agencies, parastatals, and department as the case may be respectively. It was obvious as ten assertions that were acknowledged, eight of ten assertions indicated substantial as against two assertions that indicated insubstantial. In order to ensure that employees level of productivity commensurate with money being paid as salaries by governments at various levels, governments job recruitment process should be competitive, efficient, economy, transparent, and devoid of unprofessionalism, patronage, and nepotism among others . When all these are taken into consideration, which often signpost the governments' recruitment, and promotion exercises, employees' level of productivity would be at efficiency, and effective level, and public works, and services would not suffer significant abandonments.

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A CRITICAL APPRAISAL OF PENAL PHILOSOPHIES AND THE CRIMINAL JUSTICE SYSTEM WITHIN SOCIAL WORK PRACTICE IN SCOTLAND

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Abstract: This research has set out to investigate the current over-population of prisons in Scotland. Using a narrative approach to literature, it has evaluated, summarized and drawn conclusions on sources identified. It has analyzed current penal policy in Scotland through the lens of the philosophies of punishment, exploring how the theories identified translate from policy to practice and from practice to the lived experiences of service-user. The research findings suggest that culture of risk aversion and the use of short-term prison sentences have contributed significantly to the current prison populations. This research argue further that the risk approaches do not only infringe on the rights of the vulnerable but seem to be more expensive than the rehabilitation approaches in terms of the budgetary allocations for prisons and community services. It also opinioned that the Presumption Against Short Periods of Imprisonment (Scotland) Order 2019 and section 17 of the Criminal Justice and Licensing (Scotland) Act 2010 have the potential to increase the current prison population, therefore, consideration should be given to repealing it as it defeats the purpose of the Community Payback Order.

Keywords: Prison, punishment, social control, imprisonment and rehabilitation

Introduction

The idea of punishment is an age-old concept that is used as a form of social control to maintain law and order in society. It is practiced in homes, schools, at workplaces and can also be administered by the state. One of the state's medium of punishment is Prison. Historically, prisons were used as holding houses for those who were about to be shipped out to the colonies. The present system prison practiced was established in 1839. During the period, 178 buildings were known be functioning as prisons (Scottish Centre for Crime and Justice Research, (SCCJR, 2015). Fast forward in 1905, this city of Glasgow introduced probation schemes in response the high number of debts defaulters who had been incarcerated. By 1990's many legislations and policies been put in place to address the ever-persisting problem of prison overcrowding. To tackle issues of prison overcrowding the McLeish Commission was inaugurated in 2007 to evaluate Scotland's use of imprisonment. During this period the prison population was estimated to be 7,183, (Scottish Prisons Service, 2019), the second highest, after Spain in the whole of western Europe. The increase in population was driven by the frequent use of remand and short sentences. This report was directed at identifying and pointing out how the nation's punitive choices was doing little to depress the high prison populations. This report leaned heavily on the established research knowledge that prison does not work. It further highlighted that since prison does not work it should be used sparingly for serious offences while community sentences increased to accommodate non-serious offences.

Statement of the problem

A recent report by European Committee for the Prevention of Torture and Inhuman or Degrading Treatment or Punishment (CPT), (2019) suggests that majority of Scottish prisons are faced with problems such as overcrowding, mental health issues and relatively easy access to drugs. Presently, in Western Europe, Scotland ranks third after England and Wales, with the highest rate of 145 persons per 100, 000 population. Prior to this research, the McLeish Commission in 2007 had projected an annual the population of Scottish prisons to reach 8,700 inmates by 2016 based on its annual rate of increment. Although the current the current prison is 8198, 508 shy of the predicted figure is indicative that prison population is still increasing at an alarming rate despite best of efforts to tackle the problem at hand.

Rationale

Given the current economic landscape that the world finds itself with a potential financial crisis looming over, there is bound to budgetary cuts to lots of services. Bottoms (2004) notes that though many complex factors account for the increase in crime, economic factors cannot be ruled out of the equation. This invariably suggests that there is bound to be a further increase in offending. Now given that resources are being stretched their limits, it most likely that if nothing is done to find and address the root cause of the matter, it's the vulnerable prisoners who are bound to bear the brunt of it all. Research conducted by Young et al, (2019) suggest that prison has over-representation of people who experience mental health challenges. Now if care is not taking the vulnerable might be left to their own affairs in dire circumstances.

Research methodology

The research aims to analyze current penal policy in Scotland through the lens of the philosophies of punishment in relation to community sentences since community Payback Order is the modus operandi for community sanctions. The study will focus on three questions namely:

- What philosophies or theories of punishment are evident in Scottish penal policy documents relating to community sentences from 2010?
- How are these narratives of punishment translated into practice guidance?
- To what extent do service users' experiences connect and cohere with the objectives of punishment? This research provides an overview of the main theories of punishment, exploring theoretical research that engages with the theories of punishment relevant to community sentences. It further examines Scottish penal policy documents to identify what theories of punishment are implicitly or explicitly referred to, how these narratives of punishment translate into practice guidance. Additionally, it will investigate the extent to which service user's experiences connect and cohere with the objectives of punishment.

Methodological approach to literature

The research sought to analyze current penal policy in Scotland through the lens of the philosophies of punishment and seeks to explore how this translates into practice. It did this by focusing on three questions:

- What philosophies or theories of punishment are evident in Scottish penal policy documents relating to community sentences from 2010?
- How are these narratives of punishment (point d above) translated into practice guidance?

To what extent do service users' experiences connect and cohere with the objectives of punishment? The research sought to provide an overview of the main theories of punishment and explored theoretical research that engages with the theories of punishment relevant to community sentences. It further examined Scottish penal policy documents to identify what theories of punishment are implicitly or explicitly referred to, how these narratives of punishment translated into practice guidance. It also sought the extent to which service user's experiences connected and cohered with the objectives of punishment.

From theory to policy

This section seeks to provide an overview of the main theories of punishment. It further explores the theoretical writing on the theories of punishment relevant to community sentences. It recognises and analyses relevant policy document to identify what theories of punishment are being implicitly or explicitly referred to and considering how they map on to the theories of punishment earlier discussed.

The idea of punishment has been explored by philosophers, sociologist, penologists to gain a better understanding of the concept, its place within the penal system and society in general. The Encyclopædia Britannica (2020) defines punishment as the infliction of a kind of pain or loss upon a person because of unacceptable conduct. Punishment takes many forms such as flogging, death penalty, fines, prisons, community service, electronic tagging, [Eley, McIvor, Malloch and Munro, (2005): Cameron,1983]. Though the death penalty has been abolished in the UK, some states in the USA like Florida still practice it (Willis, 2017).

Different disciplines approach the topic from different perspectives. Philosophers, for example, are of the view that idea of punishment is a multifaceted phenomenon and requires input from various disciplines (Lacey, 2002: Canton,2017). For instance, Garland in his book, *Punishment and Society*, argues that the main aim of punishment is to reduce offending. Garland however argues that, to better understand punishment, it is necessary to know the "ought" of punishment since the concept of punishment is complex and requires further answers around its purpose, goals and values in the bid to justifying it.

While Criminologists and policy makers approach the subject from the viewpoint of consequences and insist on guidelines relevant to offending (Garland, 2001), Sociology, are much more concerned with the definition and nature of punishment, that is the "is" of punishment (Hudson, 2003).

Critics like Bean (1981) contend criminologists tend to focus on the penal institutions, processes of social control and individual personality of the offender to the neglect of moral and sociological effects of punishment. Walker (1991) argues that the aims of penalizing and dispensing punishment tend not to give much consideration to the philosophical and sociological ends of punishment though it can have a damaging outcome on relations, careers, and future ambitions. He proposes a just policy that possess three components namely an assessment of harm done, accountability and the impact an intended punishment might have on the circumstances of an individual as an effective means of addressing offending. However, Walker in his work fails to directly engage with government policy

of the day. Canton and Padfield (2019) posit the need for a new way of responding to wrongdoing which ought to be more than a philosophy of punishment. They suggest, “there is little in most contemporary writing in the philosophy of punishment to help enhance the quality of the decisions to be made by policy makers, sentencers, or practitioners charged with putting the court’s sentence into effect.” The statement above suggests the existence of knowledge gap between philosophy, policy, and practice as they seem to suggest that breaching the gap between these can enhance policy and practice. Although, Canton and Padfield’s work relates to England as their work addresses practice in England. In Scotland, while many work has been undertaken (McNeill, 2005, Tata 2008,) in an effort to address the problem of penal crisis, they have not been undertaken from the viewpoints of theory, philosophy, practice and with a view to service user perspectives.

Given the incessant problem of high prison rates and reoffending persisting, this study seeks to investigate the matter by endeavouring to answer the question of what philosophies of punishment are evident within the Scottish penal system. This will be accomplished by examining policy documents relevant to community sentences from 2010. The study will outline some philosophies of punishment review and provide an overview of the main theories of punishment; explore theoretical research that engages with theories of punishment relevant to community sentences. It will further identify the appropriate policy documents that discuss community sentences; and the need to analyse these documents to identify what theories of punishment are being explicitly and implicitly referred to. Additionally, it will look at how these theories map on to the theories of punishment discussed earlier. These identified goals will be answered in the subsequent paragraphs.

An Overview of the Main Theories of Punishment

Deterrence

This theory seeks to deter people from undertaking certain actions due to the repercussions attached to them including being caught and punished (Banks, 2005, p. 106). Advocates of this theory postulate that punishments should be prompt, guaranteed and proportionate to the crime in order to properly dissuade individuals from breaching the law (Tomlison, 2016, p.33). Bentham (1971) suggests that humans are rational beings capable of making informed choices based on reasoning. This means humans are constantly making judgements in relation to acts that will bring them the highest pleasure leading to an act of commission or omission. Deterrence is classified into two groups, namely special or individual deterrence and general deterrence (Harrison, 2020, p7). Questions around its justifiability in terms of the death penalty persists (Hudson, 2003).

Incapacitation

The main aim of incapacitation is to prevent future offending and to keep the public safe from dangerous criminals (Morris,1994: Willis, 2017). This is done by taking away any opportunity the offender might have to commit further crime; examples include parole and imprisonment (Willis, 2017). Under the traditional rehab ethos, those who could not be cured of their criminal tendencies were imprisoned. Harrison (2020) notes that incapacitation in present times represent the use of life imprisonment for serious offenders such as murderers, terrorist, and sexual offenders. Critics like Harrison (2020) and Willis (2017) have questioned the accuracy of variables that determine how risky a person may

be, raising questions of whether the offender is punished for the crime they have committed or the potential crime they might commit in future.

Rehabilitation

Rotman (1990:6) defines rehabilitation as putting in minutest support to ‘reintegrate the offender as a use human being’.

Lewis (2005) defines rehabilitation as giving offenders the chance to utilize their skill in paying back to their communities thereby making amends and earning their redemption and restoring their relationship with the community. Lewis proposes that rehabilitation has two approaches, namely the control and supports narratives to community sanctions. He proposes that control narratives see the offender as a rational and free willed being, capable of making logical decisions demanding that they are penalized when they err. The support narratives on the other hand portray the individual as one influenced by biological, sociological, and psychological situations and may need help to combat such situation.

Rehabilitation benefits both the offender and the society at large (Robinson, 2008). From the above literature, it can be deduced that there is a complex relationship between punishment, the culprit, and a concern for their background. According to Hollin (2004) Rehabilitation seeks the moral reformation of a culprit by providing the right form of support for the offender, be it economic, social, or personal. Harrison (2020) suggests that rehabilitation seeks to address the problem of inequality which contributes to reducing reconvictions. The focus of Traditional model of rehabilitation was on trying to cure offenders of their criminogenic ways. This later metamorphosed into modern rehabilitation after a decline in its use due to the argument that it was ineffective “nothing works” (Martinson, 1974). Modern rehabilitation theory employs a social model as opposed to the medical model utilized previously (Harrison, 2020) within this social model, the offender has the responsibility to practice learned behaviour

Retributive Theory

This theory of Punishment proposes that when an offender does any evil, he suffers evil in return (Banks, 2005). It emphasizes paying back the offender with their own coin, Hudson (1996) refers to this type of punishment as the *lex talionis* (as in an “eye for an eye”). Van den Haag (1975) and Kleinig (1973) argue that the *lex talionis* serves to limit the penalty for each crime distinguishing it from revenge, it is personal and has no limits. Bradley (2003) argues that this type of punishment upholds the rights of individuals in society from not being deliberately harmed by others. Bradley further proposes that this promotes social equilibrium through the neutralization of any unfair advantage an offender may have over the victim.

Just Deserts

Just Deserts may be viewed as the rebranding of retribution (Banks, 2005). The gravity of the crime committed determines the punishment meted out to the offender. The form of punishment seeks to lay blame on the offender and ensures the offender is punished accordingly (Frase, 2012). This sets the balance in the sentencing process as it ensures one is not punished severely or liberally. The primary focus of Just deserts is punishment and nothing else not even what happens after punishment. Given that it focuses on the degree of harm involved and culpability, Harrison (2020) suggest philosophers may have questions around the level of punishment one might consider commensurate to the crime

committed and the determinant factors etcetera. For instance, Hegel (1991, P.245) is of the view that excessive or a smaller amount of punishment can be ineffective.

Restorative Justice

Restorative justice also known as relational or reparative justice aims to repair broken down relationships which occur between an offender, victim and society when a crime is committed (Cavadino, Dignan et al 2013). They further suggest restorative justice seeks to re-integrate an offender back into society. It makes amends for the humiliation and disempowerment felt by the victim thereby restoring a sense of security within the community (Braithwaite, 1998). Restorative justice is conducted via mediation once the offender acknowledges responsibility for the crime committed. Burnside and Baker (2004) emphasize that victims who suffer both material and psychological harm may be able to attain closure through this mediation, as a result of compensation Ness and Strong (1997:8-9) enunciate three basic principles of restorative justice as follows:

Providing healing to all individuals affected by crime, that is the victim, offender and the community at large.

It provides the platform for all affected to actively engage in the practice of justice.

Government has a responsibility to show commitment and initiative in the justice process while the community is responsible for establishing peace.

Critics suggest restorative justice leans heavily on the assumption that parties are willing to repair their broken relationships and the fact that this can really be attained. Von Hirsch (1998) argues that no clear principle has been formulated for restoring wrong undertaken by offender.

Community Punishment in Scotland

Community sentences or probation is considered an alternative to imprisonment (Garland, 2001). Community sentences are traditionally underpinned by rehabilitation. The practice however, may vary from jurisdiction to jurisdiction (McNeill, Bracken and Clarke, 2010; Garland, 2001). Rotman (1990) postulates four models of rehabilitation namely penitentiary, therapeutic, social learning and rights based. The Heatherbank Museum of Social Work print 4014 suggests the existence of penitentiary rehabilitation dating to the 1850's where prisoners were supported to regain the paths of virtue and sobriety after being released from prison. This stage was later replaced by the disciplinary supervisory phase (1905-1931) which was developed to tackle the high levels of incarceration among fine defaulters (McNeill, 2016; Kelly, 2017). Though the initial concern for the establishment of probation service was the "demoralising impact of imprisonment" and its effects on the "welfare of the community" (City of Glasgow 1955), the model was later seen to be inadequate as it merely engaged in overseeing offenders (McNeill, 2019). The enactment of the Probation of Offenders (Scotland) Act 1931 transformed the face of probation services from supervision to the idea of treatment, training, and reformation of offenders. The 1960's marked the third stage of the social and penal welfarism (McNeill and Whyte, 2007, Croall, 2006). The Kilbrandon Commission was set up to scrutinise the structures of the instrument of government of the United Kingdom (Scottish Government, 2003). Its legacy includes the establishment of the children's hearing system and the development of the Kilbrandon philosophy which changed how adult criminal justice was organised in Scotland (Moore and Whyte, 1998). The new approach targeted early but minor intervention and the prevention of criminalization and labelling making sure that the

welfare of the child always remained paramount (McAra, 2008). It also ensured that offenders were treated as a group of people in need as enshrined in the Social Work (Scotland) Act 1968. This Act transferred the duties of supervising offenders from the probation service to criminal justice social workers employed by the Local Authorities (LA). The effect of creating generic social work and abandoning the use of probation resulted in penal crisis of high rates of incarceration, unrest and prison overcrowding in the 80's (McNeill, 2010). This crisis was attributed to organisational failure (McIvor, 2010) resulting in the last stage of model not being followed through. While Scotland tackled the crisis via managerial methods elsewhere in Europe, attention was being paid to the effectiveness of rehabilitation in the 1980's (McNeill, 2016). The 1990's saw an increased in social work cases due to post-release supervision of long-term prisoners, thus enhancing and strengthening public protection and risk management approaches (McIvor and McNeill 2007; Weaver and McNeill 2010). To tackle the problem, the Scottish Office in 1991 introduced ring fencing fund (McIvor, 2010) and the National Standards for Criminal Justice Social Work Services (SWSG, 1991) to promote community sanctions and reduce unwarranted use of prisons as community-based interventions which were deemed more effective in behavioural change (McAra, 2008).

From this point on, the focus of policy drivers has been responsabilization, public protection and the reparation. Although the Scottish criminal justice landscape had been flooded by a plethora of policies after the devolution in 1998 (Croall, 2006), the 2003 the Labour government-maintained rehabilitation – highlighting respect, responsibility, and rehabilitation. McConnell (2003) suggested that if the government did not get the right balance between the need for protection, punishment and the opportunity for reintegration, the penal system will fail due to lack of trust and confidence. The Labour government-maintained rehabilitation as part of the three R's, translated as rehabilitation, responsibility, and respect. The acknowledgement of the offence and the need to balance such with the ideas of tolerance and reintegration have been central to Criminal Justice policy since the introduction of the National standards in 1991. According to (Robinson and McNeill, 2015) the promotion of reintegration through rehabilitation with the hope of reducing reoffending underpins much of criminal Justice Social work practice which is evident in the National Priorities for 2001-2002 (Justice Department 2001). The aim of this is to produce the dual result of reducing crime as well as promote the creation of responsible citizens in the process. McNeill (2010) suggests that despite the increased use, the problem of high rate of incarceration persisted since community sentences sought to replace financial penalties; with community sentences consequently increasing indiscipline thus escalating reoffending. The Scottish Nationalist Party (SNP) upon their election in 2007, appointed the Scottish Prison Commission to review the use of custody in Scotland. The Commission issued its report in 2008 titled Scotland's choice commonly referred to as McLeish Report. This report was directed at identifying and pointing out how the nation's punitive choices was doing little to depress the high prison populations. This report leaned heavily on the established research knowledge that prison does not work, highlighting the need for it to be used sparingly for serious offences while community sentences become the reserve of non-serious crimes. Its proposal included paying back to the community the main form of punishment for less serious offences. This led to the enactment of the Criminal Justice and Licensing (Scotland) Act 2010.

Section 14 of the Criminal Justice and Licensing (Scotland) Act 2010 introduced Community Payback order (CPO). This amended the Criminal Procedure (Scotland) Act 1995 by inserting sections 227A-227ZN. The sections displaced the probation, community service and supervised attendance orders. The CPO has a three-fold purpose which includes ensuring offenders make reparation through unpaid work. It also demands that offenders consider the impact their offending behaviour have on their community and ensure steps are taken to make positive changes thereby promoting safety within their local communities. The CPO also seeks to reintegrate offenders back into the community. It usually requires consent of the offender; however, this can be imposed on an individual for defaulting a fine under the section 227M (2).

The Community Payback Order subsequently became employed as an alternative form of punishment for persons convicted of non-serious offences with a significant number of convictions being subjected to CPOs by 2012 (Scottish Government, 2018). The CPO had requirements attached to it with one or more requirements being imposed at a time. These requirements were (a)an offender supervision requirement, (b)a compensation requirement, (c)an unpaid work or other activity requirement, (d)a programme requirement, (e)a residence requirement, (f) a mental health treatment requirement, (g) a drug treatment requirement, (h) an alcohol treatment requirement, and (i)a conduct requirement.

Analysis of Theories and Policy

The Scottish penal system has been transformed massively since the election of the SNP to power in 2007. The key policy documents that have shaped the criminal justice system include The Reforming and Revitalising (2007), the McLeish Report 2008, Criminal Justice and Licensing (Scotland) Act 2010, National Outcomes and Standards for Social Work Services in the Criminal Justice System 2010, National Outcomes and Standards for Social Work Services in the Criminal Justice System Community Payback Orders Practice Guidance 2010, Criminal Justice Social Work Reports and the Presumption Against Short Sentences; just to mention a few.

The Reforming and Revitalizing (2007) review was one of the Scottish Government foremost attempt at developing a coherent criminal justice system which will tackle the problem of reoffending by considering various appropriate options for dealing with non-serious offenders who are caught within the endless cycle of offending. The review found that community penalties should be built on effective practices that already exist. The review proposed Community punishment should be high quality, efficient, speedy, noticeable, adaptable, and appropriate. The outcome of this was directed at increasing the public and judiciary's confidence in community sentences. The review proposed the use of effective breach procedures that will not only improve compliance but nip problems in the bud, thus ensuring a successful completion of the sentence. At the core of its practice will be the use of risk management to assess the needs and the risk of recidivism to develop the type of supervision that will effectively reduce reoffending and promote re-integration.

This review was subsequently followed by the McLeish 2008 report "Scotland's choice commissioned in 2007 to evaluate Scotland's use of imprisonment. During this period, the prison population was estimated to be 7,183, the second highest in western Europe. The increase in population was driven by the frequent use of remand and short sentences. This report was directed at identifying and pointing out how the nation's punitive choices was

doing little to depress the high prison populations. This report leaned heavily on the established research knowledge that prison does not work. It further highlighted that since prison does not work it should be used sparingly for serious offences while community sentences increased to accommodate non-serious offences. “Ultimately one of the best ways for offenders to pay back is by turning their lives around” (McLeish, 2008:27). This suggest the ultimate aim of payback is rehabilitation which is further supported by NOS (CJSW, 2010).

The National Outcomes and Standards Criminal Justice Social Work Services (NOS for CJSW, 2010) aligns with the Scottish Government’s National performance framework (2016 a) to promote a safer community nationally. A further fifteen sub-objectives have been put in place in which Criminal Justice social work is to has responsibility for three of these. These three are promoting public safety, holding offenders for their actions to reduce the risk offending, and providing help for offenders to desist from offending through re-integration. It uses a risk approach to managing cases through assessing the likelihood of individual to offend as well as seeking that errant citizen makes reparation for their misdeed.

From the above, it can be recognized that risk rather than rehabilitation is the driving force of the policies discussed. Combining risk approaches with the theory of rehabilitation, creates and promotes the control module of rehabilitation rather than a support model (Lewis, 2005). This is because the control model puts the needs of the public above and beyond that of the offender. For instance, the statement, “nipping problems in the bud” found in *Reforming and Revitalising* (2007, p22) suggests there is no room for error within this policy hence the inevitable use of the control model of rehabilitation thus making the practice of rehabilitation explicitly punitive.

More so, Douglas (1992) contends the promise to protect which confirms the existence of threat, thereby legitimising anxiety. Robinson and McNeill (2004) and McNeill (2010) suggest that, an over-reliance on risk managerial process will result in failure to rehabilitate the offender. This is because an inclination towards public safety does not only weaken the traditional values of rehabilitating the offender but dichotomizes the interest of the public and offender in a game where the offender is bound to loose (McCulloch and McNeill, 2007). Duff (2003) points out that such division tends to lead to a declaration of war on offenders rather than on the crime itself.

Similarly, (McNeill ,2011: McNeill and Robinson, 2011) advise that discriminatory punishment raises doubts about the agent administering punishment. Duff (2003) recommends the state plays its part in making sure that offender’s rights are upheld before it can be justified in punishing. Duff (2001) posits that the state’s refusal to uphold the right of the offender makes the state liable for the crimes committed. This because this refusal to do so can cause the punished to perceive punishment as unjust thereby hindering his/her rehabilitation. He highlights that both the state and social workers have a duty to promote social justice and it is after this that constructive punishment which is aimed at letting the offender understand the effect of their offending and the need for a change or reparation, can be pursued.

Douglas (1992) contends the promise to protect which confirms the existence of threat, thereby legitimising anxiety. Robinson and McNeill (2004) and McNeill (2010) suggest that, an over-reliance on risk managerial process will result in failure to rehabilitate the offender. More so, an inclination towards public protection does not only detract from the

traditional value of rehabilitation to the offender but dichotomizes the interest of the public and offender in a game where the offender is bound to lose (McCulloch and McNeill, 2007). Duff (2003) points out that such division tends to lead to a declaration of war on offenders rather than on the crime itself.

Conclusion

This chapter has provided an overview of some theories of punishment. It has further provided an overview of the history of probation in Scotland and analysed its contemporary policies in place. From the analysis, it was obvious that the penal system is characterized by risk and rehabilitation, with risk being dominant. It was further argued that rehabilitation theory practiced by the penal system appears to be on point, however, when translated into policy, there are obvious strains between the need to rehabilitate and the need to protect the public. Leaning heavily on public protection results in inevitable failure to rehabilitate.

From policy to practice

This chapter will examine how policy around community sentences, specifically the community Pay back order, translates into practice. Here, policy documents such as the National Outcomes Standards for CJSW and CPO will be examined in conjunction with any other relevant policies identified, analysing the extent to which what is being said about how practices should be conducted reflects the given theories or narratives of the punishment identified in earlier. The purpose of the NOS for CJSW is to ensure public protection, individuals taking responsibility for how their actions affect other members of the community thus reducing reoffending and promoting social inclusion through desistance (NOS for CPO, 2010, p16). Within this context the community is seen as a direct beneficiary of the punishment undertaken as it is responsible for organizing the unpaid work as stipulated in (NOS CPO, p.14). Since the imposition of the CPO, there has been relatively little literature on the CPO policy given its robustness (Buchan, 2020). Anderson et al., (2015) in their evaluation of the CPO state that despite the CPO having met set short to medium term targets, it has also increased judicial confidence in community sentences. There, however, remains few tensions in its practice. The subsequent paragraphs will discuss some of the challenges that is encountered in practice or reality thereby drawing conclusions on the type of punishment CPO in practice with. The Criminal Justice Social Work Statistics in Scotland (CJSWSS), 2018-2019) suggest an increased use of the CPO in the first few years of implementation in 2011 following its replacement of legacy orders for offences committed prior and post 1 February 2011. The total number of orders increased steadily to about 19000 between 2013/14 and 2016/17. However, between the 2017/18 and 2018/19 it dropped to about 16,400 which makes up about 8% of the orders imposed. The report suggests that there were 6,000 breach applications made in 2018/19 with main outcome for CPO's revoked due to breach being imprisonment. Paragraph 5.2.26 suggest that 15% of orders revoked as a result of a review ended up being incarcerated totaling about 900 offenders in a year. Scottish Prison population figures for 2019 suggest an increase from 7,464 in 2017/18 to about 8,195. Although this figure is negligible in comparison to England and Wales whose prison population stand at 82,710 (HM Prison Service, 2019). It makes up a significant portion of the current prison population.

Furthermore, given that the above figure makes up about 10% of the current prison population. There is the need to critically consider the effect this 10% can have in terms of budgetary allocations and nip any unhelpful cost to the taxpayer in the bud given the financial risk it poses to the economy. Prison cost the UK government about £4.1 billion in 2018/19 (Clark, 2019). According to Scottish Prison Service (2018) budget it cost about £37,542 prisoner placement annually. Therefore, incarcerating those breaching the order does not only defeat the purpose of the CPO which was to reduce prison populations (Scotland's Choice, 2008) but puts additional financial burden on the state. Again, Audit Scotland in 2012, published government spent £128 million on reducing reoffending in 2010/11. Granted that 2010/11, the reoffending rate during this period was about 30% as opposed to the 2016/17 rate of 27.2% which is about 2.8% improvement of the previous years, it can still be argued that imprisoning those who breach their orders may not be the best practice, as the budget for reoffending remains substantial.

Conversely, it may be argued that the use of short prison sentences may be a contributory factor to the problem of re-offending as clients do not tend to benefit from any form of rehabilitation (Tata and Thomson, 2011; Weaver et al, 2012). This is because it is usually difficult to conduct satisfactory risk assessment and individualized supervision for short-term prisoners due to their licences being nominal (Weaver et al., 2012). Knowing that their days in prison is few, they choose to spend their time and avoid engaging in any meaningful work before their time elapses. Scottish Government (2016) has argued that with the Presumption Against Short Periods of Imprisonment (Scotland) Order 2019, being increased to 12 months, short-term prisoners will have ample time to engage in rehabilitative programmes. However, this order can potentially increase custodial sentences given a recorded 8% decrease in the use of CPO (CJSWSS, 2018-2019). Considering the section 17 of the Criminal Justice and Licensing (S) Act 2010 encourages incarceration when no other means of dealing the offender is found appropriate, this opens up a "justifiable" adjoining door between community sentences and prison by making prison an automatic default punishment to community sentences thus defeating the prisons being reserved for dangerous criminals (Scotland's choice, 2008).

Current Scottish prison population statistics (2019 to 2020) suggest a rapid increase in the full-year population from 2,909 in 2017/18 to 3,417 in 2019/20 resulting in a sharp increase in the overall prison population. With current population on the rise, one questions whether all the people thrown in prison are hardened criminals at all. Tata (2016) contends that many people are imprisoned not because they commit serious offences or pose the risk of serious to society due to lack of help and of support for their physical, mental, addiction and personal problems. Weaver et al (2012) point out that women are more likely to breach bail conditions due to childcare commitment and insufficient funds to be able to travel to their placement (Malloch and McIvor, 2011). Though much progress has been made in relation to issues affecting women caught up in the criminal (Allcook and Smith, 2018), the presumption against short periods of sentencing and the imposition of custodial sentences on "recalcitrant offenders" can potentially be a great setback for work already undertaken in this area. Additionally, a survey conducted by Broderick and Carnie (2015) reveal that between a third to half of prison populations are care-experienced people. With further research by Young et al., (2018) suggesting that people with mental health issues are over-represented within the criminal justice system. This means majority of the people incarcerated have mental health problems. This finding is consistent with the World Health

Organization research on prisons (Møller et al., 2007). This attitude of the CJS raises questions about the human rights of the vulnerable.

Another challenge posed to the CPO in practice is present culture of risk aversion which results in low thresholds of tolerance for non-compliance. A classic illustration of this is the three strikes and you are out stipulation on pages 50 and 11 of the NOS for CPO (2010 & 2019) respectively which suggest that 3 unacceptable absences is grounds enough to instigate breach proceedings against the individual. On the other hand, the NOS for CPO (2010, p. 48; 2019, p 90.) requires case managers to exercise professional discretion should an individual fail to comply with the order. This allows a professional to decide whether an absence is unacceptable or not before proceeding to instigate breach proceedings. (Robinson and McNeill, 2008; Padfield and Maruna, 2006; Phillips, 2011) postulate that such mixed messages lead to contrariety in the use of discretion. Tomlinson (2016) suggest deterrence focused laws such as “three strikes laws” are accountable for the high prison population in the United States. Similarly, Philips (2011) in his article “target, audit and risk assessment cultures in the probation service” argues that the view of accountability is increasingly targeted upwards, in relation to obligations to the courts, or to the government or the public who have been recast as beneficiaries of the system (McCulloch and McNeill, 2007) as opposed to offenders. Though, Philips’ study broadly relates to practice in England and Wales, it can be contended that Scotland is not exempt from following findings from the evaluation the CPO by Anderson et al, (2015). The culture of risk is evidenced in Anderson et al (2015) survey of 72 sheriffs which revealed tensions between sheriffs and Criminal Justice Social Workers (CJSW) who feel they instigated breach when constructively contrary to the view that they are hesitant to initiate the breach processes and give too many warnings to the individual. This perspective coupled with high case volumes (Scottish Executive, 2006) can compel CJSW to want to appear tough (Fenton, 2015), on non-compliance despite Scottish Government (2011, p.94) highlighting that the path to desistance fluctuates with many floating in and out of offending at some point.

This potential increase has wider implications in terms of financial cost to the taxpayer. For instance, it cost £37,334 per prisoner place annually and £1,894, the annual cost for community order placement for non-dangerous offenders (Scottish Prison Service, 2018b). The projection is that within 10 years should current trends persist the government is likely to spend about four billion thirty-two million seventy-two thousand pounds on prison placement for close to a 1000 people (£ 4,032,072000) in comparison to two hundred four million five hundred fifty-two thousand (£204 552 000) for the same number of people subject to community orders. This makes 5% of the projected prison placement cost. This will enable government to make a 95% which can be reinvested into the community in the form of social capital hence taking the steps to breach the gap of social inequality (Lewis, 2005) thus addressing some of the underlying causes of offending as stipulated in national strategy for community justice (Scottish Government, 2016). Additionally, the Scottish Government (2018) publication of reconviction rates suggest community payback order tends to be lower (33.9%) compared to custodial sentences of 3 months (58.5%) and that of 12 months (51.0%). It cost a further budget on providing re-integration services support services to help re-settle prisoners back into the community case in point was £66.7 million (Audit Scotland, 2012) spent such services in 2011.

The NOS for CJSW (2010: p2.5) states that “In achieving its aims, CJSW services must not only be effective but also be seen to be effective”. This statement has a dual

interpretation, the first is to boost public confidence in the criminal justice system that public safety remains a priority. Secondly, being “seen to be effective”, is suggestive of the fact that an extra effort is required by the Criminal Justice System to convince the public that services are very effective if not overly effective. This further conveys a form of warning to the public that crime is severely punished. This underlying ideology reflects the tone of general deterrence discussed in previous chapter, which research suggests is ineffective (Doob and Webster, 2003).

Conclusion

Though the NOS (CPO and CJSW) seek to promote rehabilitation and reparation on the surface it is intrinsically deterrent in practice, not only is this type of theory costly but has little or no regard for the rights of the vulnerable who make up a large chunk of the people caught up in the Criminal Justice System (Matthews, 2019 & McNeill, 2019). It is arguable that this theory could lead to latter day agitations or call for redress any of the affected vulnerable persons in future.

From Practice to Lived Experience

This Chapter will discuss the extent to which service users’ experiences connect and cohere with the objectives of punishment. It will undertake a review of empirical studies by examining the experiences and effects of punishment detailed in the study against findings in discussed in previous chapter. A number of empirical studies have been undertaken in relation to punishment outside (Sexton, 2015; Van Ginneken, 2016). However, within Scotland much user perspectives are sought on long term prison rather than short-term (Scottish Government, 2003:). Williams (2019) in an attempt to understand the practice of CPO a fairly recent research conducted on study to look at the interaction between Criminal Justice Social Workers, offenders and beneficiary organization. This study relied on a sample size of two social workers and their case loads of 5-7 workers and the beneficiary agencies. Due to the objective of the study being understanding of the practice of the CPO not much information is gotten about how the punished perceive punishment and its possible effect on them and their relations, therefore this study was not deemed relevant to the study of the subject of punishment. In view of the above, “user views of punishment: qualitative research comparative experience of short prison and community-based sentences” by Armstrong and Weaver (2010) was deemed more relevant and appropriate to the study of punishment. Their focuses on the characteristic feature of punishment in prison and within the community. Armstrong and Weaver’s methodology employed a semi-structured interview approach to getting information by using open-ended questions which allowed the interviewee to express themselves fully. Furthermore, social workers were asked to help identify sample individuals with have experienced both settings of punishment. A total of 13 people was identified, with 10 males and 3 females who were willing to undertake the study. Majority of the sentences ranged from a minimum of 4 months to a maximum of 18 months generally 180 to 300 hours. The large presence of the male population in the study is indicative of the fact male offenders outnumber female offenders (SPS, 2018). The issues discussed in this study remains very relevant presently though the components of community sentences discussed is probation and community service which have been replaced by CPO. These variables are considered negligible in the sense that the focus of punishment is on the setting that is prison and the community and

not the type of community punishment. Though this research was partially sponsored by Economic and Social Research Council. There is no reason to doubt the findings of the research.

The research sought to answer two overarching questions as follows:

What is the characteristic feature of the experience of prison and community punishment?

Which aspect of the experience proved beneficial or not

What emotions did such experiences trigger: anger, boredom, hope, fear, friendship?

How does offender compare prison with an analogous Community punishment?

What makes one harder than the other?

What makes one more useful than the other or less useful or provides an environment for desistance?

Research findings suggest community punishment is a constructive form of punishment which is deemed as a personal process as it helps the subject to make sense of their past and current experiences. It enables the punished get help in understanding their offending behaviour and be able to access supports to help them make the make a positive change in their lives which reflects the communicative nature of punishment posited by Duff (2001). For example, many subjects valued their presence in the community and the fact that supports including the attention of their worker were tailored to suit their needs. This is further supported by (Williams, 2019). This in no way suggests community sentences are easier in fact other interviewees have found it more punitive than prison, in the words of a 19-year-old “trying to teach you not to do it cos it’s a pain coming here all the time”. This is also in line with findings from Van Ginneken, (2016)’s study on punishment which found some participants found community punishment harder in comparison to prison.

Additionally, it emerged from their findings that the participants understood the messages that community sentences convey in relation to rehabilitation. For instance, participants had the that they had to give back to the community and learn to abide by the rules. Most participants experienced a positive self-image as they gave back to society in the form of helping the vulnerable or making a meaningful contribution to society this is further evidenced by Williams (2019). More so, one participant stated that “it is more like teaching you a lesson so you know you can’t just get away with stuff”. This is consistent with reasons that account for a lesser rate of reoffending in comparison to prison as suggested by (Graham and McNeill, 2018). The evidence suggests that

Furthermore, it was discovered that the pains of prison were unintended as the incarcerated had to endure loss of relationships such as family, social connections, career aspirations. This is because prison affects the family of the imprisoned as well (Codd, 2008). Given the definition of punishment is that an individual suffers harm or loss for their actions (Bradley (2003). However, can it be still be called punishment when the loss discussed is coincidental? Hudson, 2002 argues that the loss associated with punishment should be intentional and not accidental potentially unjustifiable. Given that current knowledge that the devastating impact of imprisonment goes far beyond individual and families lives but generally impacts negatively on society (Jardin, 2018).

Duff (2003) opines that punishment ought to be communicative whereby the offender understands the reason for his punishment. When an offender perceives punishment to be unjustifiable and uneven to the crime committed, there is the possibility of the offender being resentful towards society. This can hinder one’s willingness to accept the responsibility for one’s and make the effort to change. Some participants in the study saw

imprisonment as meaningless as it added nothing of great value to their being. Research by Schneider and Ervin (1990) shows that person who are severely punished are more essentially participate in more crimes.

How do these cohere with the objectives of punishment?

Sexton (2015) proposes that there is a significant difference between expectations and experiences of punishment where negative punishment gap is experienced when expectations are severe than actual occurrence. Van Ginneken, 2016 argues that the differences between occurrence and expectations simply means the stated aim of punishment translates differently in experience and practice. This section will consider how the objectives of punishment cohere with the experiences of the above reviewed.

Duff (2001) that punishment should be communicate understanding to the individual the need for reformation and rehabilitation. He further argues that community sentences are more effective in communicating to the individual than incarceration. From the above reviewed study can be seen that community sentences enabled individuals receive the right support in order to help the process of rehabilitation. For example, individuals experienced a positive sense of self at the ability to give back to the community.

Furthermore, undertaking work within their community did not only keep individuals out of trouble by the constructive use of their time but also empowered them with employability skills which will allow them to gain employment. On the other short-term prisoners, just while away in prison and loose their basic routines and skills in the process (Armstrong and Weaver, 2010) and find it difficult securing jobs when released. Grimwood and Berman 2012) point out that about 74% of prisoners who had issues employment and housing issues went on to reoffend. It is obvious the role employment in reducing reoffending cannot and the desistance process cannot be underestimated (Piacentini et al., 2018: Sampson and Laub, 1993: Weaver, 2015: Nugent & Schinkel, 2016). Farrall (2002) posits successful desistance leads to employment, building of broken relationships, starting new relationships, moving home etcetera

Additionally, Canton and Padfield (2019) argue that punishment ought to be just and censored. This means there must be a balance in the proportionality of punishment meted out to the offender making the punishment just to the victim, offender, and society. Walgrave (2003) highlights that harsher punishments hinder efforts at reparation and rehabilitation. Therefore, it can be argued that in relation to the review discussed above, community punishment affords the individual the chance to payback and the opportunity to reflect on their offending, a chance, short-term prison sentences do not offer.

Furthermore, one effect of prison is the pains of loss associated with the unintended consequences of incarceration such as enduring loss of relationships family, social connections, career aspirations, tenancy and college placements (Armstrong and Weaver, 2013: Codd, 2008). Granted that punishment one of the aims of punishment is that an individual suffers harm or loss for their actions (Bradley,2003). However, can the dual loss associated with spending time in prison and its coincidental consequence, justify the proportionality of the sentence meted out? Hudson (2002) argues that the loss associated with punishment should be intentional and not accidental and anything beyond this becomes unjustified. Current knowledge suggests that prison does not only affect individuals and their families who also serve time, but society at large (Jardin, 2018).

More so, when community sentences are looked at in the light of both short-prison terms and risk aversion, not only are community sentences way cheaper than prisons but it seems more effective than short-term prison. This because the offenders, majority of whom are usually from deprived backgrounds (Matthews, 2019), care-experienced (Who Cares? Scotland, 2019), experience both mental and physical health challenges (young et al, 2018) and have been victims of crimes themselves (Scottish Prisoner Survey, 2017) the opportunity to reform their lives. Rather than cast away and considered as threat to society for their repeat offences, their time is put to constructive use help them to develop a sense of pride in themselves.

Again, section 17 of the Criminal Justice and Licensing (S) Act 2010 encourages incarceration when no other means of dealing the offender is found appropriate, should be disambiguated or repealed. This is because this Act can potentially lead to a further increase in the prison population thereby sustaining the problem of overcrowding. It remains essential to bear in mind the words of the English prison Commissioner, Alexander Paterson, 1920 “Wherever prisons are built, the courts will make use of them” as cited by Coyle (2006). This can be interpreted as the courts will not hesitate to use “Acts and Orders” that permit them to imprison “recalcitrant” members of the community, particularly in cases where low risk repeat offenders.

Similarly, a more serious approach to reducing reoffending and the problem of overcrowding in prisons will be to totally scrap any leeway back to prison. When prison is no longer an alternative for recalcitrant offenders, better ways of handling repeat offending will be sought earnestly such as imposition of fines for those employed and for the unemployed repeat offender a small percentage deduction in his benefits should be continuously held back until he engages with the order actively where all the money held back will be paid back. This can be done by considering everyone’s circumstances. Prison is for dangerous criminals and not repeat offenders (Scotland’s Choice, 2008).

From the foregoing, it is obvious that not only are community sentences cheaper than risk averse short-term prison sentences, but they afford the punished the opportunity to understand and reflect on the need to reform. Community sentences equip the individual with employable skills and necessary support to help them make constructive of their time. Short-term prison sentences were found to de-skill the offender and inflict unintended losses on the offender thereby impeding desistance from crime. Finally, it is evident that choosing community sentences over short-prison sentence have great benefits for the offender, the victim, the community and the state at large.

Conclusion

This research has set out to investigate the current over-population of prisons in Scotland. It deemed it necessary to focus on identifying what philosophies or theories of punishment are evident in Scottish penal policy documents relating to community sentences from 2010. It also considered how these narratives of punishment identified, translate into practice then sought to understand these from the perspective of the service-user. On the theoretical level, an analysis contemporary policy revealed that the penal system is characterized by risk managerialism and rehabilitation. It was discovered that on the surface rehabilitation fit in perfectly and appeared on point in theory, however, when changed into policy, there were obvious strains between the need to rehabilitate and the need to protect the public. It

was further discovered that policy makers leaned more heavily towards public protection thus making failure inevitable.

Furthermore, though the NOS (CPO and CJSW) seeks to promote rehabilitation and reparation on the surface it is intrinsically deterrent in practice, which the evidence suggest does not work. This research further argued that the risk approaches do not only infringe on the rights of the vulnerable but seem to be more expensive than the rehabilitation approaches in terms of the budgetary allocations for prisons and community services.

Additionally, service-user perspectives on punishment in relation to community sentences and short-term prison sentences were reviewed. It emerged that not only are community sentences cheaper than risk averse short-term prison sentences, but they afford the punished the opportunity to understand and reflect on the need to reform. They also equip the individual with employable skills and necessary support to help them make constructive use of their time. Short-term prison sentences were found to de-skill the offender and inflict unintended losses on the offender thereby impeding desistance from crime. Moreover, it suggests that the culture of risk aversion coupled with the use of short-prison sentences have accounted for the high population. It has also argued that the Presumption Against Short Periods of Imprisonment (Scotland) Order 2019 and section 17 of the Criminal Justice and Licensing (Scotland) Act 2010 have the potential to increase the current prison population, therefore, consideration should be given to repealing it as it defeats the purpose of the Community Payback Order.

All in all, though community sentences are main form of punishment in Scotland, the culture of risk aversion and the use of section 17 of the Criminal Justice and Licensing (Scotland) Act 2010 have significantly contributed to the problem of prison population in Scotland. Although this research has proposed that Presumption Against Short Periods of Imprisonment (Scotland) Order 2019 and section 17 of the Criminal Justice and Licensing (Scotland) Act 2010 should be repealed and has made suggestions about how repeat offenders should be handled in terms of engaging with services. These suggestions have been to fine the employed offender who is unwilling to engage with the order and for the unemployed, minute percentages of their benefits could be withheld until they start engaging then their entitlements paid back to them in full. However, further research will be needed to confirm or explore other possible avenues of dealing with repeat offenders without resorting to imprisonment.

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Appendix A – CASP-Systematic-Review-Checklist-2018_fillable-form

Appendix B - SAGE SEARCH TERMS

Appendix A

Appendix B

SAGE SEARCH:

* COMMUNITY PAYBACK IN SCOTLAND (175 HITS) PUBLICATION DATE: 1958-2020 Further reduced by date to 2010-present = 88 hits



[Paying Back: 30 Years of Unpaid Work by Offenders in Scotland](#)
[Gill McIvor](#)

European Journal of Probation, vol. 2, 1: pp. 41-61. , First Published March 1, 2010.

[Abstract](#)

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2.

[Compromise, partnership, control: Community Justice Authorities in Scotland](#)

[Jamie Buchan](#) , [Katrina Morrison](#)

Criminology & Criminal Justice, vol. 20, 2: pp. 226-243. , First Published November 29, 2018.

[Abstract](#)

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NOT DOWNLOADED

3. [Unpaid Work as an Alternative to Imprisonment for Fine Default in Austria and Scotland](#)

[Gill McIvor](#), [Carlotta Pirnat](#)², [Christian Graf](#)

European Journal of Probation, vol. 5, 2: pp. 3-28. , First Published August 1, 2013.

[Probation, Credibility and Justice](#)

[Fergus McNeill](#)

Probation Journal, vol. 58, 1: pp. 9-22., First Published April 4, 2011.

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4.



[Scottish criminal justice: Devolution, divergence and distinctiveness](#)

[Gerry Mooney](#), [Hazel Croall](#), [Mary Munro](#), [Gill Scott](#)

Criminology & Criminal Justice, vol. 15, 2: pp. 205-224. , First Published July 30, 2014.

[Abstract](#)

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5.



[Women and community sentences](#)

[Margaret Malloch](#), [Gill McIvor](#)

Criminology & Criminal Justice, vol. 11, 4: pp. 325-344. , First Published June 6, 2011.

6.

[Restorative justice informed criminal justice social work and probation services](#)

[Steve Kirkwood](#) , [Rania Hamad](#)

Probation Journal, vol. 66, 4: pp. 398-415. , First Published October 10, 2019.

[Abstract](#)

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7.

[‘Walking on ice’: The future of parole in a risk-obsessed society](#)

[Monica Barry](#) 

Theoretical Criminology First Published 14 Oct 2019.

[Abstract](#)



8.

[Beyond compliance: Participation, co-production and change in justice sanctions](#)

[Trish McCulloch](#)

European Journal of Probation, vol. 7, 1: pp. 40-57. , First Published March 31, 2015.

[Abstract](#)

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COMMUNITY SUPERVISION IN SCOTLAND = 8095 (date :1881-date) Further reduced 2011- date

[Unpaid Work as an Alternative to Imprisonment for Fine Default in Austria and Scotland](#)

[Gill McIvor](#), [Carlotta Pirnat](#)², [Christian Graf](#)

European Journal of Probation, vol. 5, 2: pp. 3-28. , First Published August 1, 2013.

[The Failure of Recall to Prison: Early Release, Front-Door and Back-Door Sentencing and the Revolving Prison Door in Scotland](#)

[Beth Weaver](#), [Cyrus Tata](#), [Mary Munro](#), [Monica Barry](#)

European Journal of Probation, vol. 4, 1: pp. 85-98. , First Published March 1, 2012.

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Criminology & Criminal Justice, vol. 11, 4: pp. 325-344. , First Published June 6, 2011.

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Preview



[Desistance by Design: Offenders' Reflections on Criminal Justice Theory, Policy and Practice](#)

[Monica Barry](#)¹

European Journal of Probation, vol. 5, 2: pp. 47-65. , First Published August 1, 2013.

[The Failure of Recall to Prison: Early Release, Front-Door and Back-Door Sentencing and the Revolving Prison Door in Scotland](#)

[Beth Weaver](#), [Cyrus Tata](#), [Mary Munro](#), [Monica Barry](#)

European Journal of Probation, vol. 4, 1: pp. 85-98. , First Published March 1, 2012.

[Abstract](#)

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CASP Checklist: 10 questions to help you make sense of a **Systematic Review**

How to use this appraisal tool: Three broad issues need to be considered when appraising a systematic review study:

- ▶ Are the results of the study valid? (Section A)
- ▶ What are the results? (Section B)
- ▶ Will the results help locally? (Section C)

The 10 questions on the following pages are designed to help you think about these issues systematically. The first two questions are screening questions and can be answered quickly. If the answer to both is “yes”, it is worth proceeding with the remaining questions. There is some degree of overlap between the questions, you are asked to record a “yes”, “no” or “can’t tell” to most of the questions. A number of italicised prompts are given after each question. These are designed to remind you why the question is important. Record your reasons for your answers in the spaces provided.

About: These checklists were designed to be used as educational pedagogic tools, as part of a workshop setting, therefore we do not suggest a scoring system. The core CASP checklists (randomised controlled trial & systematic review) were based on JAMA ‘Users’ guides to the medical literature 1994 (adapted from Guyatt GH, Sackett DL, and Cook DJ), and piloted with health care practitioners.

For each new checklist, a group of experts were assembled to develop and pilot the checklist and the workshop format with which it would be used. Over the years overall adjustments have been made to the format, but a recent survey of checklist users reiterated that the basic format continues to be useful and appropriate.

Referencing: we recommend using the Harvard style citation, i.e.: *Critical Appraisal Skills Programme (2018). CASP (insert name of checklist i.e. Systematic Review) Checklist. [online] Available at: URL. Accessed: Date Accessed.*

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Paper for appraisal and reference:

Section A: Are the results of the review valid?

1. Did the review address a clearly focused question?

Yes	<input checked="" type="checkbox"/>
Can't Tell	<input type="checkbox"/>
No	<input type="checkbox"/>

HINT: An issue can be 'focused' in terms of

- the population studied
- the intervention given
- the outcome considered

Comments: User perspectives on punishment

2. Did the authors look for the right type of papers?

Yes	<input checked="" type="checkbox"/>
Can't Tell	<input type="checkbox"/>
No	<input type="checkbox"/>

HINT: 'The best sort of studies' would

- address the review's question
- have an appropriate study design (usually RCTs for papers evaluating interventions)

Comments:

Is it worth continuing?

3. Do you think all the important, relevant studies were included?

Yes	<input checked="" type="checkbox"/>
Can't Tell	<input type="checkbox"/>
No	<input type="checkbox"/>

HINT: Look for

- which bibliographic databases were used
- follow up from reference lists
- personal contact with experts
- unpublished as well as published studies
- non-English language studies

Comments: yes there were follow up references and personal contacts from experts attached



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THE ROLE OF PENSION FUND ADMINISTRATOR'S IN MOTIVATING NIGERIAN EMPLOYEES

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Abstract: Pension paid by government or company to employees motivates them to work as expected but on the other hand Pension Fund Administration's (PFA) have basis roles to play to secure their retirement funds. This study tends to identify the effective roles of Pension Fund Administrator's (PFA), the challenges affecting their roles and the possible solution to the challenges affecting the roles of Pension Fund Administrator's (PFA) in motivating employees in Nigeria using Leadway Pensure Assurance Company as a study. The research design used in this study was a descriptive research design. The primary data was generated through the field survey using structured questionnaire as a major research instrument. The sampling for study was formulated using Taro Yamane sampling formulae. At this junction, multi-stage sampling technique is used to select sample size of the study. Quantitative data collected were analyzed, presented and interpreted using descriptive statistics. The research statistics used for this study is the Pearson correlation analysis and its method coefficient was used to test the level of significance. This will be tested at a significance level of 5% or 0.05 with the aid of Statistical Package for Social Sciences (SPSS). This analysis also shows Pearson correlation to be 0.186 which implies that there is a weak positive relationship between effective roles of Pension Fund Administrator's (PFA) and employees' motivation. The study finds out that Leadway Assurance Company contributes to employees Retirement Savings Account (RSA) monthly/quarterly for the purpose of retirement relief, also keeps the retiree informed on annual rate of returns on the Pension Funds and makes pension fund available for employee after retirement. The recommendation given is that Leadway Pensure should encourage contributory pension scheme among employees before their retirement, also PFAs should adopt more sure suitable way to communicate how the pension scheme benefits employees even with unfavorable working condition and appropriate information technology should be used to training and encourage employees on pension scheme.

Keywords: Pension, Pension Fund Administration, Retirement, Contributory, Motivation.

Introduction

The goal of a pension plan is to give employees of an organization a way to guarantee, upon retirement, a level of living that is roughly comparable to what they experienced while working for the firm. According to Ezugwu & Alex (2014), Nigerian employees who have given their all to the growth and development of the nation will have to overcome various obstacles in order to receive their retirement benefits. The pension system, which was intended to cover old age after retirement from employment, has ended up burdening both the populace and the government. In actuality, it is the entirety of strategies, tactics, and legal processes for acquiring and allocating funds to fulfill the social responsibility that firms owe to their workers upon retirement. An effective strategy encourages new hires while keeping veteran workers on their toes. Therefore, it is the duty of a good company to formulate and create a good pension plan that will inspire employees. In other words, the purpose of pension plans is to give workers post-retirement benefits. During the Colonial era, pension plans were established in Nigeria to offer British expatriates working there retirement income and security. According to Ozor (2006), a pension is a one-time

payment made to a worker once he leaves the military. He claims that payments are frequently made in monthly installments. He added that pension plans can be single or multiemployer, insured or trustee, group or individual, fixed or variable benefits, and contributory or non-contributory. The Pension Ordinance of 1951, which took effect retroactively on January 1, 1946, was Nigeria's first-ever piece of legislation addressing pension issues. The National Provident Fund (NPF) Scheme, which was founded in 1961, was the first piece of legislation to be passed to address pension issues for private organizations, according to Stephen, Moses, and Basil (2013). The Pension Act No. 102 of 1979 and the Armed Forces Pension Act No. 103 of that same year came 18 years after it. The Local Government Pension Edict and the Police and Other Government Agencies' Pension Scheme were both passed under the Pension Act No. 75 of 1987, which resulted in the founding of the Local Government Staff Pension Board in 1987. In order to protect workers in the private sector of the economy against a loss of employment income, the National Social Insurance Trust Fund (NSITF) Scheme was formed in 1993 by Decree No. 73 of 1993 to replace the defunct NPF Scheme with effect from 1st July, 1994.

In Nigeria, Pension Fund Administrators (PFAs) privately manage pension funds, and the National Pension Commission oversees their operations (PenCom). Pension plans have historically been non-contributory and funded by budgetary allocations (Fapohunda, 2013). The government's sole reliance on administration, regulation, and funding led to a number of issues, such as the misappropriation of remitted or allocated funds, the existence of ghost pensioners on the pension's payroll, a lack of records, incompetent administration, inadequate funding, and the delay or nonpayment of benefits after retirement (Sule & Ezugwu, 2009). The Pension Reform Act 2004 was created to address these issues by introducing introduced the Contributory Pension Scheme which is funded through monthly deductions from the employees' salaries and the contributions by the employer. For retirees to receive a high return on their investments in the future, pension funds must be administered as efficiently as feasible. The financial performance of pension funds must be evaluated in comparison to long-term ideal benchmarks (Oluoch, 2013). There are specific traits of pension funds that point to strong financial performance. By providing all interested parties with information on the financial performance of pension funds and the role of Pension Fund Administrators (PFA) in inspiring employees in Nigeria, this study seeks to address this issue.

Review of Related Concepts

Concept of Pension

A pension is a contract that commits a pensioner to receiving a set amount on a regular basis, usually after leaving the workforce (Ayegba, James & Udoh, 2013). Severance pay is distinct since it is paid in a single lump payment, whereas the former is paid in regular installments. An occupational or employer pension is a pension provided by an employer for the benefit of its employees. Pensions are also financed by labor unions, the government, and other institutions. Occupational pensions are a type of deferred pay that, typically for tax purposes, benefits both the employee and the company. Since many pension plans offer payouts to survivors or beneficiaries who are disabled, many of them also include an additional insurance component. The goal of a pension plan is to give employees of an organization a way to guarantee, upon retirement, a level of living that is

roughly comparable to what they experienced while working for the firm. In actuality, it encompasses all strategies, tactics, and legal actions used to secure and set aside money to fulfill the social responsibility of care that employers have to their workers upon retirement or in the event of a death. An effective strategy encourages new hires while keeping veteran workers on their toes. Therefore, it is the duty of a good company to formulate and create a good pension plan that will inspire employees. In this talk, we will look at the legal foundation that serves as the foundation for administering pensions. The government's ongoing efforts to ensure that retirement benefits are increased for both retirees and current workers who are due to join the pension pay-roll will also be observed.

The phrase "pension" is frequently used to refer to the payments one receives upon retirement, typically in accordance with predetermined legal and/or contractual criteria. According to Adams, Frank, and Perry (2011), a pension is a sum of money that an employee receives after reaching the legal retirement age, working for a predetermined amount of time, or being judged too old or ill to work. It is also considered to be a monthly payment paid to the retired officer till their death because they have worked for the organization providing the cash. Adebayo and Dada (2011) and Robelo (2002) state that another way to get a pension is by making a percentage-based pension plan contribution from one's working years' wages. The retirement income—also known as the pension—those results from the contributions is regarded as earned income. Income tax is due on this at the investor's marginal rate. A gratuity, on the other hand, is a one-time payment given to an officer who is retiring after a certain period of service. Pension is defined as "amount paid by government or company to an employee after working for some specific period of time, considered too old or ill to work, or have reached the statutory age for retirement" by Odia and Okoye (2012) in their article Pension Reform in Nigeria, a Comparison between the Old and the New Scheme. After leaving their employer's employment and fulfilling the necessary requirements, an employee is entitled to receive their pension.

Concept of Motivation

The variables that lead people to act in particular ways are the subject of the wide concept of motivation. Fielding (2006) reiterated that motivation is the power inside a person that causes them to act in a particular way in order to achieve some predetermined goals in support of this. According to Scott (2007), motivation refers to the mechanisms that determine an individual's level of commitment, focus, and perseverance in their pursuit of a goal. The recognition of unmet wants, whether conscious or unconscious, is thought to be the catalyst for motivation, according to a needs-related model of the motivational process. According to Armstrong (2006), the majority of people need to be more motivated in order to work efficiently. According to Huczynski and Buchanan (2007), motivation is a confluence of the objectives that guide human behavior, the methods used to pursue and accomplish those objectives, and the social forces at play. They added that direction, effort, and persistence are the three elements of motivation. As a result, motivation is a concept that is driven by needs and wants that must be met. Given this, managers must foster an environment that encourages employee motivation. Employee retention and reinforcement of productive behavior are improved by those who can motivate staff.

Fielding (2006) continued by saying that managers need to be aware of the significance of motivation since motivated workers perform better for their companies. The development

of a supportive organizational climate can help with this. According to Mitchell (1982), the fundamental conditions for motivating employees include relatively high pay, an equitable payment system, genuine opportunities for promotion, considerate and participatory management, a respectable level of social interaction at work, interesting and varied tasks, and a high degree of autonomy. Employee satisfaction will increase productivity and performance. According to Evans (1999), extrinsic and intrinsic motivations are the two main categories of motivation that Herzberg et al. first identified in 1959. In his opinion, extrinsic motivation refers to material rewards that are given to people, such as pay, salary, fringe benefits, or promotions, in order to motivate them. The term "intrinsic motivation" refers to the psychological and self-generated forces that cause people to act in a certain way. These include having the chance to put one's skills to use at work, having challenging employment opportunities, and receiving fair treatment.

Overview of the 2004 Pension Reform Scheme in Nigeria

Through the 2004 Pension Reform Act, the Federal Government of Nigeria began a Contributory Pension Reform Scheme that aims to harmonize the characteristics of the public service with those of the private sector in terms of rate of benefit contribution, key players, and regulation. This was done in response to the inadequacy of the Defined Benefit Pension Scheme, also known as the Pay-As-You-Go (PAYG) Pension Scheme. Before the 2004 Pension Reform Act became law, the Federal Government of Nigeria's pension liability was estimated to be around three trillion naira (ARM, 2004). In previous years, this amount made up a sizable chunk of Nigeria's average yearly budget. The 2004 Pension Reform Act effectively captures the 2004 Pension Reform Scheme in Nigeria, which has superseded the Defined Benefit Pension Scheme (PRA, 2004). The following are some of the 2004 Pension Reform Scheme's goals:

- (a) Ensuring that each individual who has worked in the Federal Capital Territory, the Public Service of the Federation, or the commercial sector receives their retirement benefits on time;
- (a) To encourage those who are unprepared to save money so they can support themselves in old life; and
- (c) To develop a unified set of guidelines, standards, and procedures for the management and payment of retirement benefits for the Federal Capital Territory, the private sector, and the Federal Public Service of the Federation.

Theoretical Framework: Positive Theory of Social Security

The Positive Theory of Social Security, advanced and widely adopted by Osler in 1910, served as the foundation for this study. The fundamental tenet of positive social security theory is that social security systems force retirement or force the elderly out of the workforce. Positive externalities in the average stock of human capital are used to model the age-related decline in abilities. The old lower the productivity of the young because they are less skilled than the average individual. When the skill differences between the young and the old are sufficiently wide, overall output is higher in an economy where the elderly do not work (Mulligan & Sala-i-Martin, 1999). Men are old at 40 and worthless at 60, according to the primary tenet of Osler's (1910) philosophy. The objective is to motivate the elderly to retire so that their employment can be filled by more productive young workers and to encourage the young to save enough money for their idle years (old age). The goal of the contributory pension program was to eliminate the whims of poverty

and misery in old age and retirement by encouraging early investment and improving worker retirement benefits. This is done to guarantee that the worker will be able to collect their retirement benefits when they are due. Unfortunately, a large number of Nigerian public employees put off retirement and keep working over the normal retirement age. Their performance is also negatively impacted by this. If the fundamental precepts of the positive theory of social security are applied in Nigeria, it will result in long-term social welfare for the elderly. Retirement benefit delays and denials will be kept to a minimum. Additionally, it will encourage retirement in the nation and provide jobs for young Nigerians. If the elderly retire, the output of the Nigerian economy will increase.

Methodology

The research design used in this study was a descriptive research design. This method was used because the study requires the researcher to collect information for the purpose of describing the study in details. Descriptive research design was considered appropriate for this study because it describe systematically a situation or an area of interest factually and accurately. Data for this study came from the primary and secondary data. The primary data was generated through the field survey using structured questionnaire as a major research instrument. The secondary data on the other hand were obtained from relevant literatures ranging from textbooks, journals, articles, periodicals, seminar paper dissertation, and internet. The population for this study consists of the entire staff of the Leadway pensure PFA Limited, Lagos, Nigeria. There are over 430 staff in Leadway Pensure PFA Limited Lagos Nigeria.

Results and Discussions

	Frequency	Percent	Valid Percent	Cumulative Percent
Retrieved copies	169	81.6	81.6	81
Un-retrieved copies	38	18.4	18.4	100.0
Total	207	100	100	

Source: Survey Data (2024)

The above table shows that 207 respondents were expected to administer questionnaires but due to time constraint, 169 were retrieved which is 81.6% of the whole sample size. The 169 filled questionnaires were used to analyze the study.

Section A

Demographic Information of Respondents

The basic information of respondents covered sex, working experience, educational qualification and occupation. These were the basic information that was deemed important to the objectives of the study.

Table1 Percentage Distribution of Sex

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	148	87.6	87.6	87.6
	Female	21	12.4	12.4	100.0
	Total	169	100.0	100.0	

Source: Survey Data (2024)

The above table shows that of the 169 questionnaires that were distributed to the targeted population, 148 persons were male representing 87.6% while the number of females were 21, representing 12.4% of the whole sample size.

Table 2 Percentage Distribution of Working Experience

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 - 5years	98	58.0	58.0	58.0
	6 - 10years	50	29.6	29.6	87.6
	11 - 15years	12	7.1	7.1	94.7
	16 - 20 years	9	5.3	5.3	100.0
	Total	169	100.0	100.0	

Source: Survey Data (2024)

The above table shows the working experience distribution of respondent of the questionnaires which was distributed to the targeted population, within the years of 1 – 5years were 98 representing 58.1%, 6 – 10years were 50 representing 29.6%, 11 – 15years were 12 representing 7.1% and 16 - 20years were 9 representing 5.3% of the whole sample size.

Table 3 Percentage Distribution of Academic Qualifications

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SSCE / GCE / NECO	33	19.5	19.5	19.5
	NCE / ND	72	42.6	42.6	62.1
	HND/B.sc/ B.ED	53	31.4	31.4	93.5
	MBA / MSC	11	6.5	6.5	100.0
	Total	169	100.0	100.0	

Source: Survey Data (2024)

The above table the study sought to establish the academic qualifications of the selected respondents. The table above shown that 33 respondents were SSCE/GCE/NECO as shown by 19.5%, followed by NCE/ND at a frequency of 72 representing 42.6%, 53 respondents representing 31.4% were HND/B.sc/B.Ed while 11 representing 6.5% were MBA/M.sc of the whole sample size.

Data Presentation and Analysis

The data gathered were analyzed in accordance with the objectives, research questions and hypothesis formulated in the study which is inter-related. Several statements on various variables to identify the role of Pension Fund Administrator's (PFA) in motivating employees in Nigeria using Leadway Assurance Company as a case study which were identified and the respondents were required to indicate the extent to which they agree. A four point Likert scale was provided ranging from: a scale of 1 to 5 where 5= Strongly Disagree, 4= Disagree, 3= Undecided, 2= Agree and 1= Strongly Agree. From the responses, standard deviation is used for ease of interpretation and generalization of findings.

SECTION B:

Table 4 Leadway Assurance Company contributes to employees Retirement Savings Account (RSA) monthly/quarterly for the purpose of retirement relief.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	16	9.5	9.5	9.5
	Agree	55	32.5	32.5	42.0
	Undecided	26	15.4	15.4	57.4
	Disagree	45	26.6	26.6	84.0
	Strongly Disagree	27	16.0	16.0	100.0
	Total	169	100.0	100.0	

Source: Survey Data (2024)

The table above Shows that 16 (9.5%) of the respondents strongly agree that Leadway Assurance Company contributes to employees Retirement Savings Account (RSA) monthly/quarterly for the purpose of retirement relief, 55(32.7%) equally agree, 26 (15.4%) were undecided, 45(26.6%) disagree while 27(16.0%) disagree of the whole sample size. However, according to the analysis Leadway Assurance Company does not contribute to employees Retirement Savings Account (RSA) monthly/quarterly for the purpose of retirement relief.

Table 5 Leadway Assurance Company keeps the retiree informed on annual rate of returns on the Pension Funds.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	98	58.0	58.0	58.0
	Agree	50	29.6	29.6	87.6
	Undecided	12	7.1	7.1	94.7
	Disagree	9	5.3	5.3	100.0
	Total	169	100.0	100.0	

Source: Survey Data (2024)

The table above shows that 98(58.0%) of the respondents strongly agree that Leadway Assurance Company keeps the retiree informed on annual rate of returns on the Pension Funds, 50(29.6%) equally agree, 12(7.1%) were undecided while 9(5.3%) disagree of the whole sample size. However, according to the analysis Leadway Assurance Company keeps the retiree informed on annual rate of returns on the Pension Funds.

Table 6 Leadway Assurance Company makes pension fund available for employee after retirement.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	72	42.6	42.6	42.6
	Agree	82	48.5	48.5	91.1
	Undecided	15	8.9	8.9	100.0
	Total	169	100.0	100.0	

Source: Survey Data (2024)

The table above shows that 72(42.6%) of the respondents strongly agree that Leadway Assurance Company makes pension fund available for employee after retirement, 82(48.5%) equally agree, while 15(8.9%) undecided of the whole sample size. However, according to the analysis Leadway Assurance Company makes pension fund available for employee after retirement.

Table 7 The annual reports on the performance of pension’s RSA and Retiree fund are available at the pensioners’ demand.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	95	56.2	56.2	56.2
	Agree	34	20.1	20.1	76.3
	Undecided	33	19.5	19.5	95.9
	Disagree	7	4.1	4.1	100.0
	Total	169	100.0	100.0	

Source: Survey Data (2024)

The table above Shows that 95(56.2%) of the respondents strongly agree that the annual reports on the performance of pension’s RSA and Retiree fund are available at the pensioners’ demand, 34(20.1%) equally agree, 33(19.5%) were neutral while 7(4.1%) disagree of the whole sample size. However, according to the analysis the annual reports on the performance of pension’s RSA and Retiree fund are available at the pensioners’ demand.

Table 8 Leadway Assurance Company ensures retirees are satisfied with the level of financial reporting disclosures as all information about the performance of the pension fund which is readily available.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	69	40.8	40.8	40.8
	Agree	89	52.7	52.7	93.5
	Undecided	9	5.3	5.3	98.8
	Disagree	2	1.2	1.2	100.0
	Total	169	100.0	100.0	

Source: Survey Data (2024)

The table above Shows that 69(40.8%) of the respondents strongly agree that Leadway Assurance Company ensures retirees are satisfied with the level of financial reporting disclosures as all information about the performance of the pension fund which is readily available, 89(52.7%) equally agree, 9(5.3) were undecided 2(1.2%) disagree of the whole sample size. However, according to the analysis Leadway Assurance Company ensures retirees are satisfied with the level of financial reporting disclosures as all information about the performance of the pension fund which is readily available.

Table 9 Leadway Assurance Company gets necessary pension information across to employees to motivate them for active engagement

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	70	41.4	41.4	41.4
	Agree	80	47.3	47.3	88.8
	Undecided	13	7.7	7.7	96.4
	Disagree	6	3.6	3.6	100.0
	Total	169	100.0	100.0	

Source: Survey Data (2024)

The table above Shows that 70(41.4%) of the respondents strongly agree that Leadway Assurance Company gets necessary pension information across to employees to motivate

them for active engagement, 80(47.3%) equally agree, 13(7.7%) were undecided while 6(3.6%) disagree of the whole sample size. However, according to the analysis Leadway Assurance Company gets necessary pension information across to employees to motivate them for active engagement.

Table 10 PFAs should adopt more sure suitable way to communicate how the pension scheme benefits employees even with unfavorable working condition.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	18	10.7	10.7	10.7
	Agree	30	17.8	17.8	28.4
	Undecided	54	32.0	32.0	60.4
	Disagree	48	28.4	28.4	88.8
	Strongly Disagree	19	11.2	11.2	100.0
	Total		169	100.0	100.0

Source: Survey Data (2024)

The table above Shows that 18(10.7%) of the respondents strongly agree that PFAs should adopt more sure suitable way to communicate how the pension scheme benefits employees even with unfavorable working condition, 30(17.8%) equally agree, 54(32.0%) were undecided, 48(28.4%) disagree while 19(11.2%) strongly disagree of the whole sample size. However, the analysis shows that PFAs should adopt more sure suitable way to communicate how the pension scheme benefits employees even with unfavorable working condition.

Discussion of Findings

The objective of the study is to examine the effect of the role of pension fund administrators in motivating employees at the Leadway Assurance Company, to examine the poor effectiveness of motivating employees in Nigeria. The result indicates that effective motivation significantly has a positive effect on employees on pension fund administrator's performance, there is a significant relationship between pension fund administrators and employees. The findings of this research revealed that effective motivating of pension fund administrators has positively impacted employees' performance effectively and efficiently.

Conclusion

Considering all that has been discussed, the review of related literature and research findings obtained in this study, it has been established beyond every reasonable doubt that When pension scheme is properly introduced to employees is means to create a better future for them, having a financial stability after retirement, employees feel more secured with the certainty that the organization have their best interest which motivate them to work effective and efficiently as expected. However, pension scheme tend to be a motivating factor to employees which triggers their effective and productive performance. The roles of Pension Fund Administrator's in motivating employee is key because the employees look up to their pension after retirement and any shortcomings from the PFAs might be of huge concern to the employees. Motivation in the other hand therefore concerned with factors that influence people to behave in a certain way to get them to achieve results. When work as expected actualizing the goals of the organization, it will not tell well on such employees to discover after retirement that PFAs were unable to safeguard their pension

as expected. Therefore, roles of pension fund administrator's in motivating employees are key in safeguarding the pensions of the employees.

Recommendations

Due to the findings from the study, the following recommendations are hereby suggested: Leadway Pensure should encourage contributory pension scheme among employees before their retirement and should endeavor to educate employees on what to know about the pension scheme before their time of retirement.

PFAs should adopt more sure suitable way to communicate how the pension scheme benefits employees even with unfavorable working condition and appropriate information technology should be used to training and encourage employees on pension scheme.

Employers should ensure that basic incomes of every employee are timely paid and consistent because irregularity of income will render employees reluctant to participate in the pension scheme.

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BANKING SERVICE RECOVERY STRATEGIES: ENHANCING RELATIONSHIP QUALITY AND BEHAVIORAL INTENTIONS

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Abstract: This study explored the effect of service recovery strategies (apologies, explanations, empathy) on customer relationship quality and repurchase intentions in the Egyptian banking sector. Data were collected from a large sample of 517 Egyptian bank customers who experienced service failure through an online survey. The data was analysed using SmartPLS 4 software, and the results showed that service recovery strategies such as apologies, explanations, and empathy significantly positively impact customer relationship quality. Moreover, the results also emphasized the critical role of high relationship quality in enhancing customers repurchase intentions. Consequently, these findings indicate the importance of banking organizations systematically adopting service recovery strategies and building strong customer relationships to maintain satisfaction and repurchase intentions. Furthermore, this study contributes to a better understanding of the role of service recovery strategies in customer relationship management in Egyptian banking.

Keywords: Apology, Explanation, empathy, relationship quality, repurchase intentions, banking sector, Egypt

Introduction

Service failure is inevitable, and despite the precautions service providers take to avoid it, they cannot prevent all service failures (Maxham, 2001). Financial services, especially banks, are among the service firms experiencing intense competition globally (Pereira Câmara Leal, de Oliveira and Feldman Soluri, 2003). Consequently, financial services characteristics are easily duplicated in intense competition (Gelbrich and Roschk, 2011). Therefore, financial service providers must differentiate their services and establish their position with competitors by offering value-added services. Hence, bank managers must adapt to evolving consumer demands and guarantee the fulfillment of customers' expectations. A service failure occurs when a company fails to deliver the services promised to customers, where any form of failure, whether primary or complicated in the banking services, may result in consumer losses (Singhal, Krishna and Lazarus, 2013). Banking managers may adopt suitable service recovery by analyzing the dynamics of the link between customer behavior and service failure severity to overcome some of the banking industry's major categorized causes that can contribute to service failures, such as slow banking, bureaucracy, and ATM-related problems such as a limited ATM network (Azemi *et al.*, 2019). Service recovery refers to the deliberate measures taken to address issues, change the unfavorable opinions of unsatisfied customers, improve their willingness to make future purchases, and ultimately maintain their loyalty (Miller, Craighead and Karwan, 2000). Consequently, service providers might gain advantages by addressing a service failure in a manner that customers find gratifying (Najjar, Smith and Kettinger, 2010). According to Kim and Tang, (2016), service failure presents a genuine opportunity

for a firm to enhance the quality of customer relationships. Hence, proficient service recovery is crucial in obtaining a competitive edge and has emerged as a pivotal subject in enhancing connection quality. (Michel, Bowen and Johnston, 2009). Consequently, while there is a substantial body of study on service strategies, comparatively little research has been undertaken on service-oriented businesses like banking, particularly in recovery. Moreover, there is still a continuous need to perform additional and renewable scientific research in this area, specifically in sight of the increasing growth of the services industry in the markets of various nations across the globe and the ongoing improvements of marketing and customer service technologies (Zhu, Sivakumar and Parasuraman, 2004). As a result, the current study focuses on how banks can efficiently retain lasting connections with their customers in the event of service failure. The primary objective of this research is to examine the impact of bank service recovery strategies on customers' relationship quality and repurchase intentions.

1.1 The relationship between service recovery strategies and relationship quality

According to Kim and Benbasat, (2006) the extent customers engage in relationship marketing is influenced by multiple factors, not just the personal connection between service providers and customers. Therefore, commitment, trust, and contentment were regarded as important aspects of relationship quality (Verma, Sharma and Sheth, 2016). Therefore, despite occasional service failures, service recovery significantly impacts the quality of the relationship between consumers and service providers. Thus, it instills confidence in customers that long-term service providers will deliver advantages. Conversely, if a customer is dissatisfied with the company's remedial actions, the customer-enterprise relationship may be terminated (Parasuraman, Zeithaml and Berry, 2002). Hence, service recovery is a component of quality management that aims to preserve a positive relationship between businesses and customers (Schweikhart, Strasser and Kennedy, 1993). As a result, good service recovery strategies such as apology and empathy can improve customer satisfaction and promote customer trust in businesses, and compensatory service recovery can improve customer satisfaction and enhance relationship quality (Chuang *et al.*, 2012). Furthermore, according to the literature analysis, satisfaction, trust, and commitment characteristics are essential for evaluating the construct of relationship quality. Consequently, prior research has shown that certain aspects of service recovery directly impact customer satisfaction with service recovery, which is considered a component of relationship quality (Kandulapati and Bellamkonda, 2014; Kandulapati and Bellamkonda, 2014). Thus, according to above discussion the following hypothesis will be formulated:

H1. Apology will positively influence relationship quality.

H2. Explanations will positively influence relationship quality.

H3. Empathy will positively influence relationship quality.

1.2 The relationship between relationship quality and repurchase intentions.

Relationship quality (RQ) pertains to consumer perception and evaluation of how well a relationship fits their needs, aspirations, expectations, and goals (Kim and Cha, 2002). Furthermore, a strong RQ indicates that the customer trusts the service provider's ability to deliver on commitments made in the past, which have been consistently satisfied (Olavarría-Jaraba *et al.*, 2018), consequently, higher levels of customer trust and affective

commitment correlate with elevated relationship quality standards. Thus, increased customer trust and affective commitment levels correlate with improved customer retention and behavioral intentions, generating a more favorable WOM and repurchase intentions. Furthermore, (Olavarría-Jaraba *et al.*, 2018; Shirkhodaie and Rastgoo-deylami, 2016) discovered a strong correlation between RQ and favorable WOM and RI. Additionally, (Nadiri, 2016; Garepasha and Aali, 2020) indicates that RQ significantly impacts consumers' WOM communication and propensity to repurchase. Similarly, RQ is a strong predictor of repurchase intentions and loyalty in the banking environment (Ngoc Phan and Ghantous, 2013; van Esterik-Plasmeijer and van Raaij, 2017). As a result, this study hypothesized that RQ plays a crucial role in determining RI. Thus, the following hypothesis will be formulated:

H4. Relationship quality will positively influence repurchase intentions.

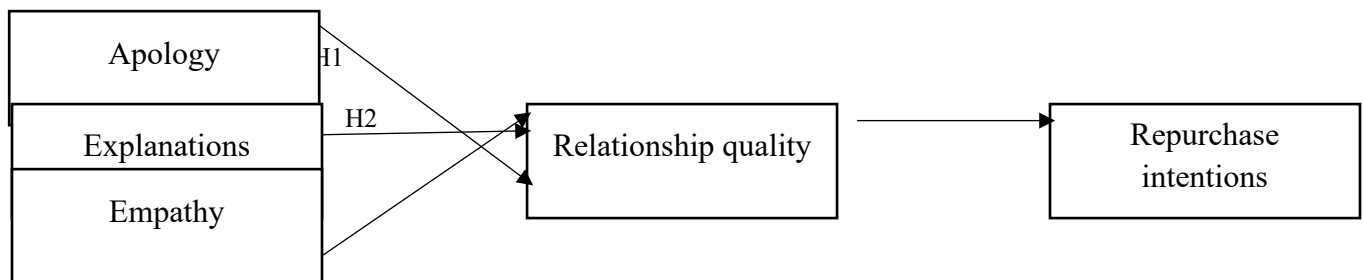


Figure 1. Proposed study model

Data collection and measures

Data for this comprehensive and detailed study was collected from the Egyptian banking industry through an online survey to explore and understand customers' views and perceptions about their experiences with service failure and recovery from banking failure situations. Therefore, to ensure that participants belonged to the target population for the study, some screening questions were used to verify that participants had active bank accounts and had experienced failures or service-related issues. Moreover, data were collected from a large and diverse sample of 517 bank customers who experienced a service failure while dealing with a banking institution in different geographical regions across Egypt, ensuring a fair representation of various backgrounds and experiences. Furthermore, the online survey collected participant responses through an elaborate questionnaire that used the popular five-point Likert scale ranging from "strongly disagree (1)" to "strongly agree (5)," allowing participants to accurately express their degree of agreement with various statements related to the topic under study.

The study survey used in this study was developed from existing instruments referenced in relevant marketing literature. More specifically, service recovery strategies such as offering apologies were measured using (4) items from previous studies (Varela-Neira, Vázquez-Casielles and Iglesias, 2010, Liao, 2007, Bradley and Sparks, 2012). As for the explanations, the component was measured using (4) items adapted from (Liao, 2007, Boshoff, 2005). At the same time, (3) items were used to measure empathy, derived from (Liao, 2007, Boshoff, 2005). Furthermore, (6) items were used to measure relationship quality (Aurier and Siadou-Martin, 2007, Grégoire and Fisher, 2008). Finally, (6) items to measure repurchase intentions were adopted from studies (Zeithaml, 2000; Bacile *et al.*,

2018). The questionnaire used in this study consisted of two main sections. The first section includes participants' demographic data such as age, gender, and education level. According to the general profile of the respondents, most of them were young people with a good level of education. The second section included 22 paragraphs covering the main variables of interest to the study. Demographic analysis revealed essential characteristics of the research participants. Thus, (53.2%) of the sample members were male, and (46.8%) were female.

The largest group was between 21 and 30 years old (50.7%). This was followed by individuals aged 31 to 40 (27.7%). Most participants (60.3%) had a bachelor's degree. Furthermore, most participants were full-time employees. Participants mostly had an excellent educational background, which fulfilled the survey requirements. Table 1 displays demographic data and provides complete descriptive information on participant characteristics.

Table 1. Sample Profile

	Egypt (N=517)	
	Frequency	Percent
Gender		
Male	275	53.2%
Female	242	46.8%
Age		
From 18 to 20	24	4.6%
From 21 to 30	262	50.7%
From 31 to 40	143	27.7%
From 41 to 50	30	5.8%
From 51 to 60	27	5.2%
More than 60	31	6%
Education		
Less than a high school diploma	9	1.7%
High school	51	9.9%
Bachelor's degree	312	60.3%
Postgraduate degree	130	25.1%
Other	15	2.9%
Work statue		
Full time	192	37.1%
Part-time	82	15.9%
Not employed and seeking employment	59	11.4%
Not employed and not seeking employment	10	1.9%
Student	79	15.3%
Retired	55	10.6%
Other	40	7.7%
Marital status		
Single	246	47.6%
Married	210	40.6%
Divorced	32	6.2%
Widowed	23	4.4%
Other	6	1.2%

Data analysis

The study employed Partial Least Squares Structural Equation Modeling (PLS-SEM) using Smart-PLS 4.0, a well-recognized method for evaluating path models with composites, mainly for theory testing. In the study's comprehensive evaluation of the internal consistency and reliability of our variables, we utilized both Cronbach's Alpha (CA) and Composite Reliability (CR), adhering to the guidelines of (Hair Jr *et al.*, 2021). Table 2 and figure (2) shows that all variables exhibit strong CA and CR values, all exceeding 0.7, affirming their robust internal consistency. Moreover, as indicated in Table 2, all items significantly exceeded the factor loading threshold with loadings above 0.70, and every construct also surpassed the AVE threshold, with values well over 0.50. These findings confirm strong convergent validity, consistent with the standards outlined by (Hair *et al.*, 2021). In addition, the Standardized Root Mean Square Residual (SRMR) results, used as a measure of goodness-of-fit for Partial Least Squares Structural Equation Modeling (PLS-SEM), showed a value of 0.051. Besides, the normed fit index (NFI) was found to be 0.91, indicating that the model satisfies the required criteria.

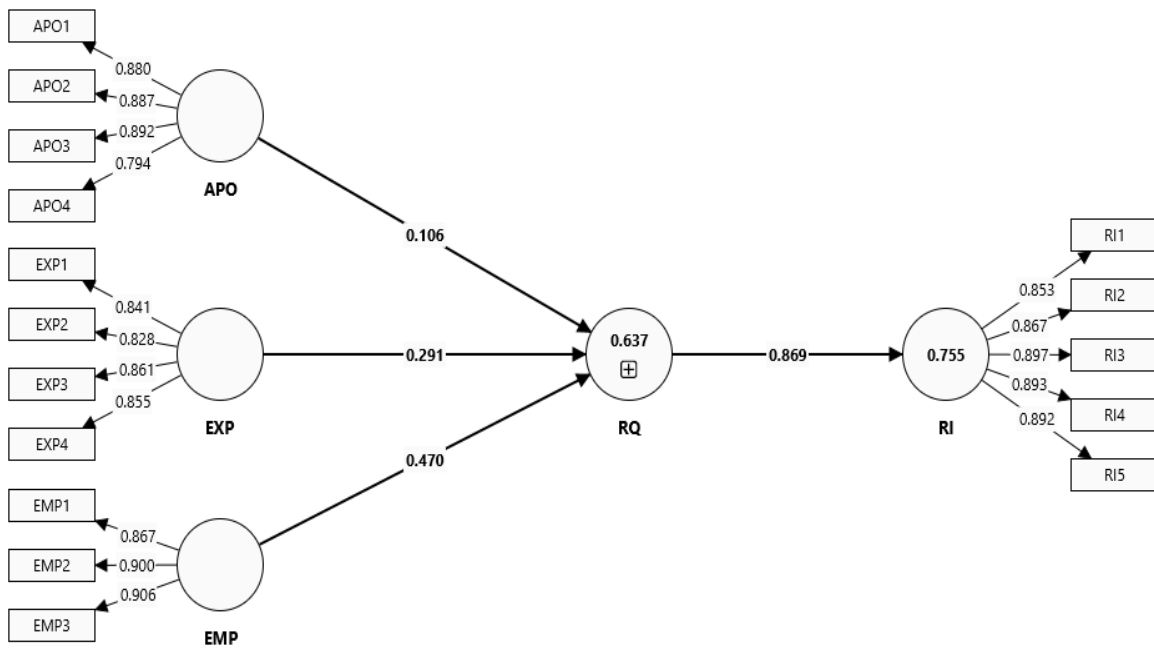


Figure 2. Measurement model assessment

Table 2. Assessment of measurement model

Variables	Codes	Outer loadings	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)	VIF
QR	RQ 1	0.775	0.907	0.908	0.928	0.683	1.922
	RQ 2	0.843					2.557
	RQ 3	0.839					2.504
	RQ 4	0.822					2.423
	RQ 5	0.836					2.379
	RQ 6	0.841					2.496
APO	APO1	0.880	0.886	0.888	0.922	0.747	2.895
	APO2	0.887					2.980
	APO3	0.892					2.722
	APO4	0.794					1.810
EMP	EMP1	0.867	0.871	0.876	0.920	0.794	2.120
	EMP2	0.900					2.371
	EMP3	0.906					2.507
EXP	EXP1	0.841	0.868	0.870	0.910	0.716	2.021
	EXP2	0.828					1.971
	EXP3	0.861					2.189
	EXP4	0.855					2.175
RI	RI1	0.853	0.927	0.928	0.945	0.775	2.489
	RI2	0.867					2.699
	RI3	0.897					3.716
	RI4	0.893					3.233
	RI5	0.892					3.576

Note: **Note:** APO: Apology; EXP: Explanations; EMP: Empathy; RQ; relationship quality; RI: Repurchase intentions

The Fornell-Larcker criterion was used to validate the discriminant validity of our measures and compare the diagonal values (square root of AVE) against the correlation values listed below.

Table 3. Discriminant validity using the Fornell-Larcker Criterion

	APO	EMP	EXP	RI	RQ
APO	0.864				
EMP	0.654	0.891			
EXP	0.634	0.785	0.846		
RI	0.561	0.719	0.704	0.881	
RQ	0.598	0.768	0.728	0.869	

Note: **Note:** APO: Apology; EXP: Explanations; EMP: Empathy; RQ; relationship quality; RI: Repurchase intentions

3.1 Structural model assessment and hypotheses testing

After a detailed examination of the measurement model, it focused on evaluating collinearity in the structural model. Hence, this involved an extensive analysis of key indicators such as the inner Variance Inflation Factor (VIF) and the coefficient of determination (R²) values. Table 4 shows that all the established R² and inner VIF thresholds were met, indicating no significant collinearity concerns. Moreover, the relationships between the study variables have been tested and showed that APO significantly positively affect RQ ($\beta=0.106$, $T=2.087$, $p < .005$), which is mean H1 is supported. Besides, it's evident that EXP positively influence RQ ($\beta=0.291$, $T=4.743$, $p < .005$), which means that H2 is supported. On the hand, EMP is significantly positively influence RQ ($\beta= 0.470$, $T = 7.314$, $p < .005$), which is means that H3 is supported. Furthermore, the findings showed that RI positively impacted by RQ ($\beta= 0.869$, $T = 56.575$, $p < .005$), thus H4 is supported.

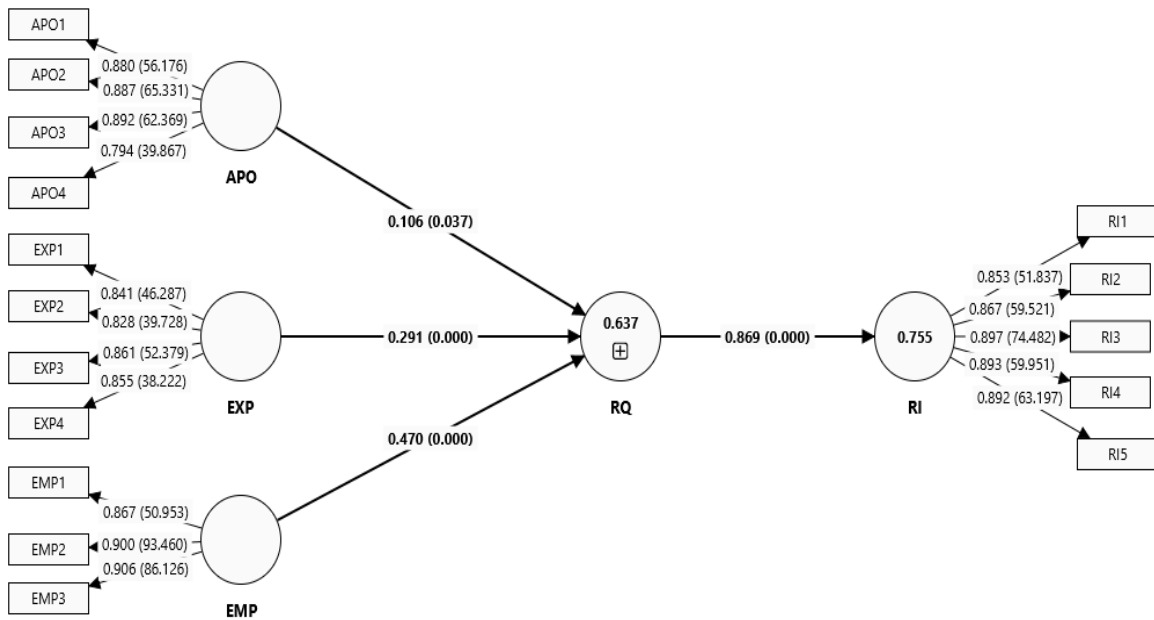


Figure 3. Assessment of structure model

Table 4. Results of hypothesis testing

Bath	B	T value	P values	R ²	VIF	Remark
APO -> RQ	0.106	2.087	0.037	0.637	1.870	Supported*
EMP -> RQ	0.470	7.314	0.000		2.920	Supported*
EXP -> RQ	0.291	4.743	0.000		2.792	Supported*
RQ -> RI	0.869	56.575	0.000	0.755	1.000	Supported*

Source: Author's analysis *Relationships are significant at P < 0.05

Discussion and conclusion

Due to the expansion of financial services, service failures have become inevitable. Consequently, these failures often involve mishandled consumer requests, insufficient disclosure of crucial transaction information, technological issues caused by financial professionals, and more (Wang, Hsu and Chih, 2014). Therefore, service managers must understand how to recover from these breakdowns and establish efficient recovery methods effectively. However, there is a lack of knowledge regarding how banks can implement service recovery strategies and how this impacts customer relationship quality and behavioral intentions.

The study's primary objective is to investigate the correlation between service recovery tactics, such as apology, explanations, and empathy, and factors like relationship quality and repurchase intentions. In addition, offer efficient and actionable suggestions to enhance the performance of the Egyptian banking industry. The result showed that APO positively impacted RQ. Thus, this indicates that offering sincere and kind apologies to service providers after a service failure enhances the overall quality of the customer relationship. An apology shows responsibility, remorse, and a desire to handle the failure, which can help mitigate the negative impact of a service failure, rebuild trust, and build a good relationship with customers. Moreover, when providers explain the reasons for service failure and how they can handle it, the reasons why, it helps customers understand the context and shows a commitment to addressing their concerns, which can foster a stronger, more durable relationship. On the other hand, when customers feel that their perceptions and emotions are acknowledged and validated, it can help relieve frustration, build emotional connections, and foster a feeling of care and concern by the service provider, which ultimately enhances the overall quality of the relationship. These findings consist of the findings of (Komunda and Osarenkhoe, 2012; Honore Petnji Yaya, Marimon and Casadesus, 2013; Kandulapati and Bellamkonda, 2014; Stratemeyer, Geringer and Canton, 2014) that concluded that service recovery strategies will improve relationship quality. Furthermore, the positive and significant effect of relationship quality on repurchase intentions confirms the crucial role of the relationship quality between customers and banking service providers in enhancing customer loyalty and retention and increasing purchase intentions. Thus, when customers perceive a high level of relationship quality characterized by trust, commitment, and satisfaction, they are more likely to continue dealing with the service provider and have higher intentions to repurchase their services or products. These findings are like the findings of (Sadachar, 2014; Park and Ha, 2016; Sharma, 2015).

In conclusion, service recovery strategies are critical in maintaining positive customer relationships after service failures. Thus, the results of this study show that offering apologies, clear explanations, and showing empathy from service providers has a significant positive impact on the quality of the relationship with customers. Furthermore, the results showed the importance of maintaining high-quality customer relationships linked to higher repurchase intentions. Therefore, it is vital that banks systematically adopt service recovery strategies and train their employees to handle service failures in a professional and empathetic manner. In addition, it must also focus on building solid and long-term relationships with customers through commitment, transparency, and responsiveness to their needs. Hence, this will help maintain customer satisfaction and loyalty, enhancing the long-term success and profitability of the bank. The study has some

limitations. For example, it was conducted in the context of the Egyptian banking industry only, which may limit the generalizability of the findings to other sectors or countries. Moreover, data were collected through an online survey, which may result in participant bias or inaccurate answers. Besides, the study focused on three main service recovery strategies (apologies, explanations, empathy), while there may be other strategies that were not addressed. Finally, the data was collected over a specific time, which may not reflect dynamic changes in customer perceptions and preferences over the long term. Despite these limitations, this study provides valuable insights into the importance of service recovery strategies and the quality of customer relationships in the banking sector.

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ASSESS THE FINANCIAL PERFORMANCE OF TECHNOLOGY TRANSFER ENTITIES USING EXISTING ECONOMIC AND FINANCIAL MODELS

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Abstract: This paper evaluates the financial performance of technology transfer entities (TTEs) by analyzing both economic and financial models. Traditional financial models, such as Discounted Cash Flow (DCF) and Capital Asset Pricing Model (CAPM), provide insights into investment viability and risk management in TTEs. Economic models, like IS-LM and growth models, help understand the macroeconomic environment's influence on technological innovation. Specific models, such as the linear innovation model and the Triple Helix framework, emphasize the collaboration between academia, industry, and government in fostering innovation. The integration of real options analysis and venture capital methods further supports investment decisions in high-uncertainty technological projects. This approach helps TTEs optimize resource allocation and strategic investments, contributing to sustainable economic growth.

Keywords: financing, innovation, technology transfer entities (TTE) financial models

Introduction

Traditional financial models are less frequently used in their classical form in the field of technology transfer, as this process involves not only financial aspects but also complexities related to innovation, intellectual property, collaboration between different entities and adaptation to market conditions. For this reason, both economic and financial models need to be analysed. Economic modelling focuses on the understanding and forecasting of economic phenomena, taking into account many macroeconomic and microeconomic factors. In contrast, the financial model focuses on analysing the financial performance of specific companies or projects, assessing the efficiency of investments. Although the two models interact and influence each other (e.g. economic conditions can affect the financial performance of companies), they serve different purposes and use distinct approaches and tools. Economic models provide a broad perspective on the economic context and impact of technology transfer, while financial models are geared towards the specific valuation and management of technology transfer assets and projects. Economic models are essential for understanding the general economic environment and the macroeconomic impact of innovation, while financial models are critical in the decision-making process regarding financial investments in technology transfer activities. The main difference between an economic and a financial model lies in the purpose, scope and variables used.

Economic models

Economic models are used for macroeconomic and microeconomic analysis, focussing on understanding broad (national or sectoral) economic dynamics and the complex interactions between markets and economic agents. These models explain and predict

economic behaviours, the impact of economic and fiscal policies, the dynamics of economic growth and how various market forces converge towards financial equilibrium. For technology transfer entities (TTEs), these models provide a framework for understanding the economic context of technology transfer, the influence of economic policies on innovation and research and development (R&D) investment, and the macroeconomic impact of technology transfer (Klein L. R, 2000); (Li H. and Wu X., 2015); (Navarro C. E. B. and Tomé R. M. B., 2022) Economic models are based on variables such as gross domestic product (GDP), inflation rate, unemployment, interest rates, demand and supply of goods and services, fiscal and monetary policies. Economic growth models are designed to explain the mechanisms and factors that contribute to long-term economic growth. Robert Solow's neoclassical economic growth model, developed in 1956, is a landmark in modern economic theory, providing a fundamental explanation of the dynamics of long-term economic growth. The model is based on three main factors influencing economic growth: capital accumulation, population growth and technological progress. Solow points out that although capital accumulation and labour force expansion contribute to economic growth, they have a limited long-run effect, leading to diminishing returns (Solow, R. M., 1956). Therefore, in the absence of technological progress, economies will tend to reach a point of equilibrium where growth stagnates.

A central element of the model is the 'Solow residual', which is the part of economic growth that cannot be explained by capital and labour accumulation. This residual is attributed to technological progress and efficiency gains, which are key factors in sustaining long-term economic growth. Technological progress is regarded as an exogenous variable, i.e. independent of economic decisions, suggesting that government policies should focus on creating an environment favourable to innovation and efficiency to stimulate growth. Solow's model has important implications for fiscal policies, highlighting the need for investment in physical and human capital, as well as R&D, to support economic growth. The model also suggests that, in the long run, the finances of technology transfer entities tend to converge to a stable rate of growth, influenced by technological advancement. Therefore, ETTs with higher saving rates will experience accelerated growth initially; however, in the long run, growth differentials between these technology transfer entities will narrow as they reach a point of equilibrium. On the other hand, the endogenous growth model emphasises innovation and education, technology transfer, which stimulates the accumulation of knowledge and human capital (Hunt S. D., 2012); (Dykas P. et al., 2022).

The IS-LM (Investment and Saving - Liquidity Preference and Money Supply)

Model The IS-LM model analyses the interaction between the goods and money markets. The IS-LM model helps to assess the impact of fiscal and monetary policies on FTEs and has its origins in Keynesian economic theory. Munir in his research on South Asia emphasises that money supply has a positive but insignificant effect on the gross savings of FTEs. In contrast, per capita GDP growth significantly influences saving behaviour. This result reinforces the idea that saving is not just a function of interest rates but is affected by broader economic conditions. Thus, in addition to interest rates, income and other macroeconomic factors such as monetary and fiscal policy have a significant impact on saving behaviour (Munir, K., 2023). Moreover, the relationship between savings and investment is further clarified by the work of Alguacil who provides empirical evidence supporting the idea that savings precede and cause innovation growth (Alguacil, M., et al.,

2004). This causal relationship supports the Keynesian assertion that higher savings can lead to higher levels of investment in innovation and, consequently, higher economic growth. Thus, domestic economies can play a crucial role in the investment process, contributing to the long-term development of national economies. This also aligns with the neoclassical growth model, which emphasises the importance of economies in determining investment, with Sothan confirming this relationship by emphasising the role that domestic economies play in stimulating economic growth (Sothan, S., 2014).

In addition, recent studies have also explored liquidity preference and its role in the investment behaviour of ETTs. In the context of economies with costly external financing, the relationship between savings and investment in innovations becomes more complex and dependent on contextual conditions, as supported by the model proposed by Tsoukalas. They suggest that the sensitivity of cash flows varies across investment regimes, which complicates investment analysis. In such contexts, ETTs' liquidity preference and behaviours become crucial factors in determining how much these firms save and invest (Tsoukalas et al., 2016). This view is also supported by research by Riddick and Whited, who explore how cash flows influence ETTs' propensity to save and ultimately their investment decisions in innovation. They argue that firms with higher cash holdings are more likely to save and invest because they have easier access to internal financing, thus avoiding the constraints imposed by the high costs of external financing (Riddick, L. A. and Whited, T. M., 2009).

Macroeconomic policies also play a key role in influencing the saving and investment behaviour of FTEs. Research by Farmer and Lahiri (2006) emphasises the importance of economic interdependence between countries and how this influences saving and investment patterns. They suggest that fiscal measures need to take these interdependencies into account in order to effectively stimulate economic growth. In globalised economies, macroeconomic policies cannot be conceived in isolation, as their effects extend beyond national borders, influencing the economies of trading partners and, reciprocally, domestic economies (Farmer, R. E. A., and Lahiri, A., 2006). Schmidt adds an international dimension to this discussion, suggesting that global economic conditions can have a significant impact on domestic saving behaviour and investment opportunities of FTEs. As economies become increasingly interconnected, global economic trends, such as changes in international interest rates, fluctuations in exchange rates and changes in trade policy, can influence the saving and investment decisions of domestic firms and governments (Schmidt, R., 2001). This emphasises the need to consider not only domestic but also international economic factors when analysing saving and investment dynamics.

General Equilibrium Models General equilibrium models are complex and attempt to explain market behaviour and resource allocation in innovation, taking into account the interactions between different markets. The best known example is the Arrow-Debreu model, which demonstrates the conditions under which a general equilibrium exists in the economy, ensuring an efficient allocation of resources (Arrow K. J. et al., 1983); (Townsend R. and Prescott E., 1984).

Financial models

Financial models are used to evaluate technology transfer assets, innovations, start-ups or spin-offs, with a focus on investment analysis, cost of capital and financial structure. The purpose of financial models is to estimate the present value of assets or projects, to analyse

the return and risk of investments and to optimise financial decisions. An example of such a model is the Capital Asset Pricing Model (CAPM - Capital Asset Pricing Model), which determines the expected rate of return of an asset in relation to its systemic risk (Montani D. et al., 2020).

Discounted cash flow (DCF) models

DCF models are valuation techniques used by Technology Transfer Entities to estimate the present value of future cash flows generated by an asset or innovation. They are essential in evaluating technology transfer projects as they help to determine their financial viability and intrinsic value (Montani, D., et al., (2020).

Term structure models of interest rates

Term structure models of interest rates, such as the Vasicek model or the Cox-Ingersoll-Ross (CIR) model, are used to describe the behaviour of long-term interest rates and to estimate the yield curve of innovations. These models play an important role in the valuation of fixed-income financial instruments and have major implications for the financing of technology transfer, especially in terms of the cost of financing and the selection of debt instruments. Understanding the structure of interest rates helps to model financing costs and (Montani, D., et al., 2020), to assess the risk associated with different financing strategies for technology transfer projects.

Real Options Analysis (ROA)

Real Options Analysis (ROA) is an advanced valuation method that provides flexibility in investment decisions in technology transfer projects. By treating technology investments as a series of options that can be exercised depending on market and technology developments, ROA is particularly useful in situations of high uncertainty, allowing the entities involved to make step-by-step decisions and capitalise on options such as project extension, postponement or abandonment (Montani, D., et al., 2020).

Venture Capital Method (VCM)

The Venture Capital Method (VCM), also known as the First Chicago Method, is used to evaluate start-ups and early-stage innovative companies, which is commonly associated with technology transfer. This method involves estimating the future value of the company based on growth expectations and applying a discount factor to calculate the present value, taking into account the amortisation rate expected by investors (Montani, D., et al., 2020). In conclusion, we can conclude that each of the financial models and methods of analysis discussed provide valuable tools for evaluating and managing technology transfer investments. These models contribute to decisions about resource allocation and investment strategies. Although many of these models can be considered as strictly financial orientated, their application in the finance of Technology Transfer Entities requires a deep understanding of the technology specificities, the target market, the technology life cycle and the associated risks. In practice, financial models are often integrated with technical and market analyses to ensure well-informed assessments and decisions.

Technology transfer specific models

In practice, technology transfer organisations (TTOs) also use other technology transfer specific models, which combine elements of all the above approaches. Financial models specific to TETs focus on the mechanisms and strategies by which knowledge and innovations are transferred from research to industry for commercialisation and deployment. Among the best known models in this context are: the linear innovation model, the Triple Helix model and the open innovation model.

The linear model of innovation

The linear model of innovation is one of the oldest and most simplified financial models describing the process of innovation and technology transfer. This model conceptualises the innovation process as an orderly sequence of phases, starting from basic research and ending with commercialisation. Although this model does not directly address financial analysis or market mechanisms, it has important economic implications, emphasising the role of basic research as a source of innovation. However, the model has been criticised for oversimplifying the innovation process and neglecting market feedback.

The Triple Helix Model

The Triple Helix Model, developed by Henry Etzkowitz and Loet Leydesdorff, proposes an innovative paradigm in the study of the dynamics of innovation and the finance of Technology Transfer Entities. This model goes beyond the traditional view of the separate roles of universities, industry and government, suggesting that synergy and collaboration between these three sectors can accelerate technological and economic progress. Universities are no longer just centres for research and education, but become active economic actors, contributing to start-ups and regional economic development. Industry also stimulates applied research and supports academic development through partnerships, and government facilitates collaboration through financial resources and an appropriate regulatory framework (Etzkowitz, 1998). The Triple Helix model promotes the creation of new hybrid structures, such as science parks and business incubators, which facilitate knowledge and technology transfer, helping to commercialise innovations and stimulate economic growth in a knowledge-based economy-oriented framework. Universities play a central role, not only through research activities, but also through their active involvement in entrepreneurship and innovation (Kunwar and Ulak, 2023); (Cai and Amaral, 2021). As we will show below the triple helix model has evolved by including various new components. For example, Prasetio introduces the concept of "ambidextrous organisationalism" to define an organisation that can balance profitability with innovation and development (Prasetio, T., et al., 2022).

The Open Innovation Model

The Open Innovation Model, conceptualised by Henry Chesbrough, has fundamentally changed the way innovation is managed in companies. It proposes an interactive framework where external knowledge and competences are systematically integrated into companies' innovation processes. The model emphasises that bidirectional flows of information and technology can enrich innovation capability and shorten time-to-market for innovative products (Chesbrough H., 2003). Technology transfer entities play a key role in this model, acting as nodes that facilitate interaction between companies,

universities and other research organisations. The open innovation model recognises the importance of cross-sectoral collaboration and knowledge sharing, supporting a dynamic and adaptive innovation ecosystem. Implementing this model requires a collaborative organisational culture and openness to external sources of innovation (Chesbrough H., 2003).

The University Technology Transfer Model

The University Technology Transfer Model provides a framework through which knowledge and innovations generated in academic institutions are transferred to industry and commerce for practical application. This model was fostered by the Bayh-Dole legislation, which allowed universities to own the intellectual property rights to federally funded inventions, stimulating collaboration between universities and industry. Dedicated structures, such as Technology Transfer Offices (TTOs), play a key role in identifying marketable innovations, protecting intellectual property and facilitating industrial partnerships, says Mowery. This model highlights the importance of synergistic relationships between universities, industry and government, recognising the need for an appropriate legislative and financial environment to maximise the impact of technology transfer (Mowery, D., 2015).

The Technology Transfer Through Intermediaries Model

The Technology Transfer Through Intermediaries Model emphasises the role of specialised entities, such as Technology Transfer Offices (TTOs), in facilitating the exchange of knowledge and technology between academia and industry. These entities assess the commercial potential of innovations, protect intellectual property and negotiate licensing agreements. Through OTTs, universities and companies collaborate effectively to transform scientific discoveries into innovative products and services (Feldman, 2002). This model recognises the significant added value of intermediaries in the innovation process, which optimise technology transfer through collaborative networks between universities, companies and other entities (Feldman, 2002).

The Academic Innovation Ecosystem Model

The Academic Innovation Ecosystem Model describes a complex and interconnected environment around universities, in which different actors work together to stimulate the innovation process. In addition to universities and Technology Transfer Offices, industrial partners, investors, incubators and government policies play key roles in this ecosystem. This model emphasises the importance of intense collaboration between academia, industry and other stakeholders to accelerate the innovation process (Angrisani et al., 2022; Angrisani et al., 2023). Angrisani's research explores the importance of the academic innovation ecosystem, emphasising the critical role of universities in promoting knowledge and technology transfer and facilitating entrepreneurship. The ecosystem includes interactions between innovation, entrepreneurship and technology transfer ecosystems (Angrisani et al., 2022).

Quadruple and quintuple helix models

The Triple Helix model has subsequently evolved into the quadruple helix model and, more recently, the quintuple helix model, which adds new dimensions to emphasise the

involvement of other actors in financial innovation ecosystems. In this extended framework, in addition to academia, industry and government, other entities such as civil society, business, NGOs and other research institutions are included. These extended models aim to enhance collaboration and innovation within entrepreneurial ecosystems, expanding the sphere of influence and contributing to financial and social development through technology transfer (Cloitre et al., 2022). An important step in the development of these models has been the integration of the circular economy into the fivefold helix. Borrero and Yousafzai emphasise the potential of the circular economy, from the integration of product and service systems to eco-industrial innovations, with universities being seen as central actors in this transition (Borrero and Yousafzai, 2024).

Unified Theory of Helicidal Architectures (EUTOHA)

Carayannis and Campbell extended the helical models by proposing an emerging Unified Theory of Helicidal Architectures (EUTOHA). Within this theory, the Quintuple Innovation Helix (QIH) model represents an advanced theoretical construct that integrates five dimensions essential for the sustainable and democratic development of modern knowledge-based economies: environment, civil society, government, academia and industry. This holistic approach is essential for addressing the complex challenges in knowledge-based economies (Carayannis and Campbell, 2022).

The Sextuple Helix Model

Gouvea and Li have adapted the quintuple helix model to analyse the relationships between people with disabilities and jobs in smart economies. The authors emphasise that countries with advanced information and communication technology (ICT) infrastructure have lower unemployment rates among people with disabilities. These societies also have robust education systems, effective health services and an open and dynamic business environment. In contrast, countries with high disability unemployment rates tend to perform more poorly on these six dimensions (Gouvea and Li, 2021). The Sextuple Helix framework provides an integrated approach to analysing disability unemployment, including ICT, education, health, economics and infrastructure, providing a comprehensive perspective on economic disparities (Gouvea and Li, 2021).

Integrating circular economy into helix models.

Successive helix models Integrating the circular economy into helix innovation models offers a significant opportunity for transforming economies. Universities, as centres of innovation, can become key contributors to the transition to a circular economy, aligning with their economic and societal responsibilities. This integration encourages the development of innovative eco-industrial practices and sustainable solutions in areas such as resource management and waste minimisation (Borrero and Yousafzai, 2024).

Conclusions

Existing economic and financial models provide a sound theoretical and practical framework for assessing the financial performance of technology transfer entities. Economic models, such as IS-LM and economic growth models, allow an understanding of the macroeconomic context and the impact of technology transfer at national or sectoral level. At the same time, financial models, such as the CAPM and DCF, are essential for

assessing the financial value of innovative assets and projects in the field of technology transfer. Technology transfer specific models, such as the linear innovation model, the Triple Helix model and open innovation models, are essential for understanding and optimising the technology transfer process. These models recognise the iterative and collaborative nature of innovation and emphasise the importance of integrating academic, industrial and government actors in financial innovation ecosystems.

Recent developments, such as the quintuple helix model and the mainstreaming of the circular economy, reflect the need for greater collaboration between different sectors to address contemporary economic and technological challenges. Universities play a central role in this process, not only as knowledge producers but also as facilitators of innovation and technology transfer. By adopting these models and approaches, technology transfer entities can maximise the impact of innovation and contribute to sustainable economic growth.

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EFFECT OF MONEY SUPPLY ON OUTPUT GAP IN NIGERIA

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Abstract: Estimate of output gap serves as the parameter used by policy makers in deciding the direction of a nation through the use of relevant monetary and fiscal policy instruments. However, the empirical link between output gap and other macroeconomic aggregates such as money supply has been scantily documented. This study examined the effect of money supply on output gap in Nigeria. The study adopted ex-post research design and used secondary data from 1994-2023, obtained from the World Development Bank Indicators (WDI). Data was analysed using Autoregressive Distributed Lag model (ARDL). The result showed that money supply ($\beta = -0.1793$, $t = -0.0513$) has a negative impact on output gap in the short-run while its effect ($\beta = 22.5016$, $t = 7.6706$) on output gap is positive in the long-run. The positive impact of money supply in the long run signifies that in the long term; money supply has a substantial impact on output gap. This study recommends the need to maintain prudent monetary policies to ensure stable money supply growth which can positively influence economic output over the long term.

KeyWords: Output Gap, Money Supply, Inflation, Interest rate.

Introduction

Output gap is an important macroeconomic indicator that provides valuable guide for decisions that concern the setting of monetary policy. It is often used by the central banks and international institutions to analyse and assess economic and price conditions (Takiyi et al, 2017). It is the difference between the actual and potential output measured as a percentage of potential output. Its estimate serves as the parameter used by policy makers in deciding the appropriate direction of a nation through the use of relevant monetary and fiscal policy instruments. It is a key determinant of inflationary pressure which arises when demand outshoots supply thereby constraining the capacity of the economy (Valadkhani, 2014). Output gap is useful in assessing the reliability and appropriateness of macroeconomics policies (Grigoli et al, 2015), the degree of pressure on a nation's economic capacity and the direction the economy is heading towards (Michaelides, & Milius, 2009). Due to the important role of output gap in setting microeconomic policies and managing inflationary pressure, it is attracting increasing interest in the empirical and theoretical literature.

Literature reveals that both negative and positive output gaps have effects on inflationary trend and consequently other macroeconomic variables including exchange rate and money growth through the effect on inflation (Valadkhan, 2014). However, existing studies differ

on the extent to which positive (rising) output gap and negative (falling) output gap affect inflation and the economy at large (Clements & Sensier, 2003; Clark et al, 2001). Studies have shown that when there is a large negative output gap, the required expansionary monetary policy to address the recession that is likely to occur will create more inflationary pressure (Valadkhani, 2014; Bonnet & Maron, 2010). Likewise, when there is a large positive output gap, the required contractionary monetary or fiscal policy to cushion the effect of the persistent increase in the general price level that is likely to occur may cause fall in output, low demand and worsen unemployment problem. Furthermore, there are differing views on the asymmetric effects of positive and negative output gap on inflation in the literature. While the traditional economists believed that aside positive output gap that is inflationary, negative gap may not necessarily lead to disinflationary pressure, the contemporary economists believed that inflation can emanate from both positive and negative output gaps (Nelson, 2009). So, Neither positive nor negative output gap is desirable for any economy (Julia & Stuart, 2018), the ideal state is when the actual and potential output are at equilibrium, that is, an economy is healthy when the actual and potential output are growing in the same pace such that the output gap remains at zero. Money supply is the total amount of money` in circulation in a country at any given time (Anyanwu, 1993). Increase in the supply of money can induce inflation but the link between the two variables is not direct. One channel through which money supply affects inflation is through its effect on output gap (Milas, 2009). Meanwhile, previous studies on the relationship between output gap and inflation have largely ignored this money supply transmission channel. Meanwhile, the role of money supply is important for a proper analysis output gap nexus since there is a direct link between money supply and output growth. Supply of money influences the equilibrium value of output and employment because an increase in the supply of money will raise price of goods, reduce rate of interest which will in turn raise the level of investment and output. Furthermore, as reiterated by Justine and Julein (2021), if financial variables such as money supply are excluded from the output gap estimations, an observed and common indicator of the business cycles, external or financial imbalances that may cause recession in future may not be captured. In the literature, there is an increasing interest of economic scholars on the link between money supply and output because of the important role it plays on economic growth of virtually all economies of the world (Dingela & Khobai, 2017). The contention of the new Keynesians is that changes in money supply affects real variables such as gross domestic product (actual output) and employment levels due to price stickiness and asymmetric information in the market. It means therefore, that economic growth may not be feasible in the absence of certain level of money supply and appropriate financial conditions (Domigo, 2001). Furthermore, the first set of indicators relevant for predicting price developments in the short-run are indicators on the cyclical state of the economy such as output gap and exchange rate (Asseninancher-wesch & Gerlach 2006). The second sets of indicators are monetary aggregates such as money supply which provide important information in the long-run price developments. These two set of indicators are used to predict inflation. Growth in money supply is correlated with shifts in aggregate demand which has impact on output gap in turn and hence; on inflation. However, the major concern of the central bank of Nigeria is the problem of imprecise level of output and unpredictable economic environment when formulating economic policies such as monetary policy rate (CBN, 2014, Onanuga et al, 2016). In Nigeria, various monetary policy measures have been

experimented over the years to regulate the cost and quantity of money in circulation and achieve equilibrium in actual and potential output. Among these policies is the implementation of the Minimum Rediscount Rate (MRR) which was the earliest policy regime. In recent years, the MRR was replaced with the Monetary Policy Rate (MPR) in addition to other intervention instruments comprising of Cash Reserve Ratio (CRR), Open Market Operation (OMO), and Foreign Exchange Net Open Position. These policies have remained less successful due to the inflationary trend and the rising macroeconomic uncertainties in the country (Agu, 2007).

Currently, Nigerian economy is characterized with structural rigidities and bottlenecks such as weak production base and undiversified nature of the economy, import dependent production structure and fragile export base. Weak non-oil export earnings have caused dwindling fortunes of the naira; consequently, negative output gap where output falls below its potential. In the midst of current exchange rate crisis in Nigeria, prices of commodities escalate on daily basis; the economic transition process in Nigeria is challenged by the decline in productivity as well as high rates of inflation. The high rate of inflation deprives the country's currency from functioning as a means of storing value due to its rapid and continuous slide against the US Dollar.

There has been increasing interest in the literature in the investigation of the factors such as output gap that serves as the parameter used by policy makers in deciding the direction of the monetary policy in terms of the volume of money that flows into the economy. However, some studies focused on using output gap to predict domestic inflationary pressures while the empirical link between output gap and other macroeconomic aggregates such as money supply has been rarely explored. This study addresses this gap by investigating money supply and output gap nexus in Nigeria. The study measured the output gap in the Nigerian economy with a view of assisting policy makers in effective implementation of their policies in the midst of the country's growth challenges and assist in determining the most effective set of policy measures. It will assist economists and financial managers in predicting future path of money supply stance of the monetary authority as it will provide a clear and quantifiable reactions and functions identifying a set of variables that forms the monetary policy. This research work will also help scholars to have clear knowledge on the importance of output gap and its relationship with money supply.

Literature Review

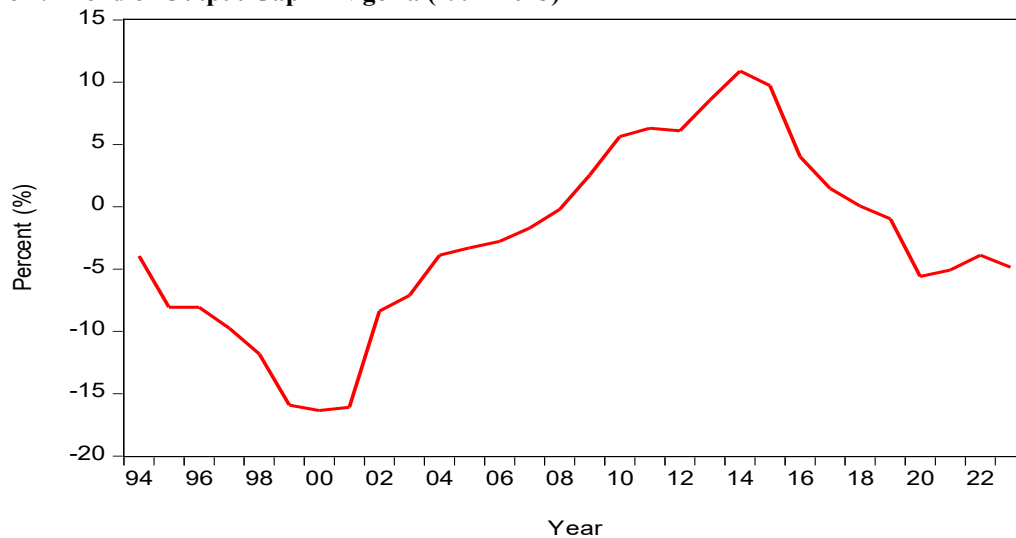
Output gap is a pertinent indicator that helps in decisions that concern the setting of monetary policy (Pedro & Adesina, 2022). Monetary and fiscal authorities frequently resort to output gap when analysing the cyclical position of the economy including deviations of unemployment from its natural rate (Grigoli et al, 2015). The derivation of output gap remains one of the most debated themes in empirical studies due to the biasedness of estimates and absence of uniformity in the measurement of potential output which to some authors, is not observable. Potential output is the sum of the average growth of labour input, capital and the efficiency with which these factors are used. The concept potential output may be seen from different angles; from the statistical perspective, it is the trend or smooth component of the actual output series. From economic point of view, it is seen as the sustainable aggregate supply capabilities of the economy (Luis et al, 2018). The output

gap and the potential growth rate are often used by the central banks and international institutions to analyse and assess economic conditions (Takiyi et al, 2017).

Potential output is an unobservable concept and due to the problems associated with its measurement, it has no uniform measurement. Some studies have used different statistical and theoretical constructs to measure potential output (Michaelides & Milos, 2009). The statistical approach includes the use of Hodrick-Prescott (HP) filter, the linear trend method, structural VAR and the quadratic trend method using the data on the actual output (Satti & Malik 2017). The theoretical construct on the other hand includes the simultaneous approach using the Extended Kalman Filter (EKF) (Valadkhani, 2014), and production function (Michaelides & Milos, 2009) through the use of the information provided in the production function such as labour, capital and technology. The production function does not take cognisance of the influence of structural shocks on potential output (Michaelides & Milos, 2009), and this may account for the reason why it is often less preferred to the statistical approach.

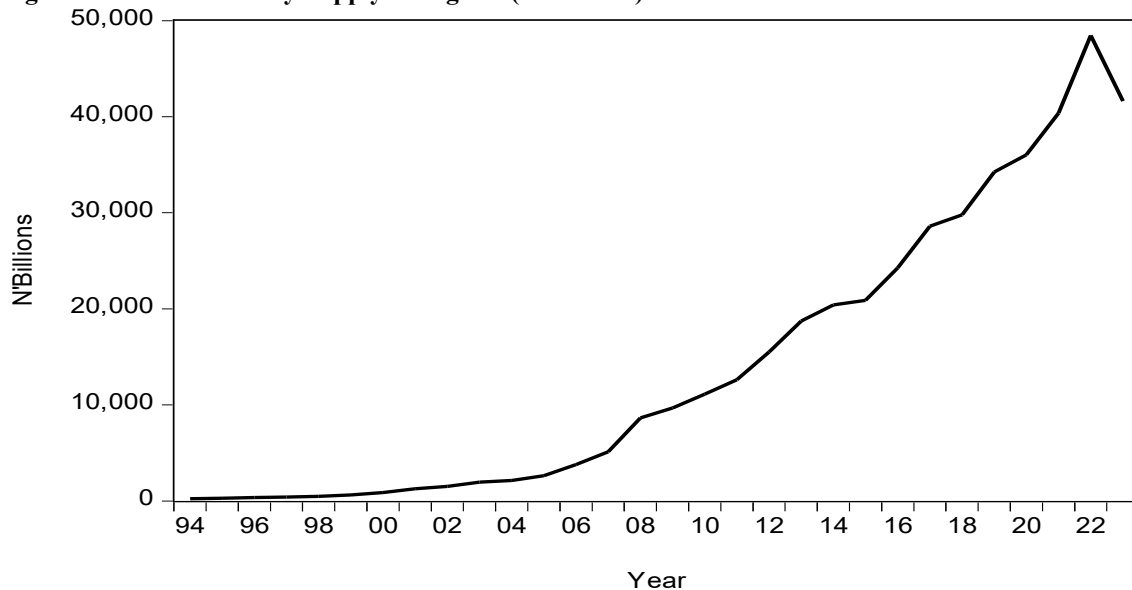
Money supply is the quantity of currency in circulation plus the amount of demand deposits in the bank (Adak, 2017). Generally, money supply is classified into narrow (M0 and M1) and broad money (M2, M3, M4, and M5). Narrow money includes coins and notes in circulation as well as their equivalents that are highly liquid, while broad money is narrow money plus short-term time deposits in banks, money market funds, and longer-term time deposits. However, what constitutes either of these components varies with countries. The broad money supply (M3) in the United States, for example, comprises M2 plus treasury bills, bonds and commercial paper (Maitra, 2018). The central bank of Nigeria has two measures of money supply; first, narrow money (M1) which is the total currency in circulation (CIC) with the non-bank public and demand deposits or current accounts in the banks (CBN, 2006). The second is broad money (M2) which includes narrow money plus savings, and time deposits. The CBN has however added (M3), which comprises (M2) and foreign currency; deposits ie domiciliary account to the definition of money supply. This study adopts M3 as the working definition of money supply. The trend analysis covers the trend of the key variables used in this study; output gap Nigeria, and money supply in Nigeria from 1994 to 2023.

Figure 1: Trend of Output Gap in Nigeria (1994-2023)



The trend in output gap in Nigeria for the period under review is displayed in Figure (2.2). It reflects significant fluctuations in the Nigeria's economic performance over the years. The negative output gap reaching almost -15% from 1994 to 2000 could indicate a period of economic underperformance, where actual output was below potential output, possibly due to political instability or economic policies that were not conducive to growth. The shift to a positive output gap from 2000, peaking above 10% around 2010 suggests a period of economic overheating, where actual output exceeded potential output. This could be attributed to factors such as increased oil prices, which significantly impact Nigeria's economy or reforms that boosted economic activity. The sharp decline back into negative territory from 2010 to 2018 indicates a contraction in the economy, potentially due to falling oil prices, global economic downturns and domestic challenges such as insecurity affecting economic activities. The slight rise towards a positive output gap towards 2022 again could reflect a recovery phase, possibly due to efforts in diversifying the economy or stabilizing oil prices.

Figure 2: Trend of Money Supply in Nigeria (1994-2023)



The trend in Figure (2) displays Nigeria's money supply from 1994 to 2023. In the Figure, from 1994 until around 2008, the money supply remained relatively stable. However, starting in 2008, there was a noticeable increase in the money supply, which became more pronounced between 2018 and 2022. A dip can be noticed in 2023. The increasing money supply could be influenced by various factors such as economic policies, inflation rates, and changes in government spending

Several studies abound on output gap and money supply nexus. Gaspar and Smet (2002) investigated how the presence of pervasive financial frictions and large financial shocks changes the optimal monetary policy prescriptions and the estimated dynamics in a new Keynesian model. Eleven quarterly observable series for the U.S economy were used while the financial accelerator model output gap features method was employed. The result shows that financial factors affect the optimal policy only to some extent. Rafiq and Malik (2008) examined the effect of monetary policy shocks on output in three Euro-area economies; Germany, France and Italy using a new VAR identification procedure. The

result showed that monetary policy innovations are potent in Germany. However, the study concluded that monetary policy innovations play a significant role in generating fluctuations in output for the three countries. Biswas (2014) analysed the impact of the output gap in market excess returns. The full sample study period covers 1948 to 2010 involving 756,252, and 63 total observations for the monthly, quarterly and annual returns respectively. The result showed that the output gap might be useful for forecasting market excess returns in real time.

London (1989) examined the role of money supply and exchange rate in twenty-three African countries for the period between 1974 and 1985. The application of the pure monetarist model of the Habergeon-type revealed that the growth in money supply and real income are significant determinants of inflation. Shafik (1995) covered the period of 1965 to 1988, employed Error Correction Mechanism to find the relationship between money supply and output growth in Ghana. The study suggests that growth in money supply is the principal variable that explains the Ghanaian inflationary trend.

Gaspar and Frank (2002) examined the reasons why monetary policy should primarily focus on price stability rather than the stabilization of actual and potential output. Assumption was based on Central Bank, private sector and the level of potential output. The result showed that emphasis on price stability helps to anchor inflation expectations leading to superior outcome in terms of overall macro-economic stability. Arestis and Sawyer (2008) employed autoregressive distributed lag model (ARDL) to investigate the effect of monetary and fiscal policy on economic growth in South Asian countries using annual data from 1990 to 2007. The result showed that money supply has a positive and significant effect on output in the short and long run. Zapodeanu and Cocuba (2010) investigated the link between money supply and output in Romania for period of 10 years, using Engle-Granger and ARMA model; the study inferred that money supply is closely related to output. Maitra (2010) examined the anticipated money, unanticipated money and output variation in Singapore between 1990 and 1992, using cointegration model, result showed that money supply and output are cointegrated.

Keneetti et al, (2016) studied the impact of exchange rate regimes on output growth in Nigeria in different periods from 1970 to 2014. Employing the Generalised method of moments (GMM) to estimate output equation as a result of endogeneity problem, the result revealed that deregulated exchange rate spurred growth in output as against the whole period of fixed exchange rate regimes. Mukhtar and Muhammed (2017) examined the effect of money supply on economic growth in Nigeria between 1981 and 2015 using vector error correction model (VECM) to measure the short run dynamics, Johansen cointegration approach to check the long run relationship among variables used and pairwise Granger causality test to check the direction of the causality between the variables. The result confirmed long-run relationship among the variables; interest rate has positive significant impact on output while real exchange rate has negative significant effect on output. A study on the impact of money supply on the growth of the Nigerian economy carried out by Udumuso (2019), using new classical production model and applied econometric techniques revealed that money supply has a negative impact on output in the run.

Iorember et al, (2021) scrutinised the impact of monetary policy shocks on domestic output growth in Nigeria between 1981 and 2019. The study employed Autoregressive Distributed Lag and VECM Granger causality and found that shocks in money supply have positive

impact on domestic output growth in the long run while shocks in exchange rate have negative impact on domestic output growth in the long run. There is also a unidirectional causality from money supply to real gross domestic product and from real GDP to exchange rate in Nigeria. Pedro and Adesina (2022) carried out a study on the impact of monetary policy shocks on output gap in Nigeria between 2002 and 2018 using the Autoregressive Distributed Lag and Differenced Ordinary Least Square estimation techniques. Result of findings showed that exchange rate is a significant and important macroeconomic variable for monetary policy and that inflation and interest rate is not relevant in the estimate and determination of output gap.

Methodology

This study assessed the effect of money supply on output gap. Ex-post facto research design was employed. The choice of the research design is because the issues investigated are events that have taken place and the researcher had no direct control over the endogenous variable and the two explanatory variables. This study hinges on the theoretical framework of the IS-LM model. The IS-LM model is a macroeconomic tool that describes the relationship between interest rates and real output in the goods and services market and the money market. It provides an explanation within the framework of Keynesian economics, addressing how the model can be used to represent Keynesian views on the economy (Hicks, 1980). The IS curve represents equilibrium in the goods market and shows the combinations of interest rates and output levels for which aggregate demand equals aggregate supply. It is represented by equation (3.1)

$$Y=C(Y-T)+I(r)+G+NX(e) \quad (3.1)$$

Where:

Y = Output; C = Consumption function; T = Taxes; I = Investment function; r = Interest rate; G = Government spending; NX = Net exports function; e = Exchange rate

The output gap directly affects the position of the IS curve. When the economy is operating below its potential (negative output gap), aggregate demand is insufficient to utilize all available resources. As a result, the IS curve shifts outward to the right, indicating that higher level of output is required to achieve equilibrium at a given interest rate. Equation (3.1) thus becomes

$$Y=C(Y-T)+I(r)+G+NX(e)+OutputGap \quad (3.2)$$

Where:

All else are as earlier defined but $OutputGap=Y-Y_{Potential}$

Where Y = Actual output, $Y_{Potential}$ = Potential output

On the other hand, the LM curve represents equilibrium in the money market and shows combinations of interest rates and output levels for which money supply equals money demand.

$$M/P=(L(r,Y)) \quad (3.3)$$

Where:

M = Money supply; P = Price level; L = Money demand function,

The output gap influences the position of the LM curve indirectly by affecting money demand. When output is below potential, money demand tends to be lower, leading to a lower equilibrium interest rate to maintain the equality between money supply and money demand. This results in a lower level of output than potential. Conversely, when output

exceeds potential, money demand increases, leading to a higher equilibrium interest rate.

Therefore equation (3.3) adjusts to

$$M/P=(L(r,Y+Y_Gap) \tag{3.4}$$

Where Y_Gap is output gap

The IS-LM model focuses on two main equilibrium conditions: the goods market and the money market. Each market is influenced by a key variable:

The IS curve reflects the equilibrium in the goods market, where total spending equals total output. The key variable here is the real interest rate (r). Changes in the real interest rate impact factors like planned investment, influencing equilibrium output (Y).

The LM curve represents the equilibrium in the money market, where money supply equals money demand. The key variable for the LM curve is the real interest rate (r) as well. However, in this context, the real interest rate affects the demand for money.

The effect of an increase in money supply on output gap can be analysed through its influence on interest rates and subsequently on aggregate demand. That is

$$Y_Gap=f(\Delta M) \tag{3.5}$$

Where ΔM is change in money supply

Changes in exchange rates can impact net exports, influencing aggregate demand and hence the output gap. Such that

$$Y_Gap=f(\Delta e) \tag{3.6}$$

Where Δe is change in exchange rate

The combined effects of money supply and exchange rate on output gap becomes

$$Y_Gap=f(\Delta M,\Delta e) \tag{3.7}$$

In an estimable form, equation (3.7) can be re-written as

$$Y_Gap=\beta_0+\beta_1 \Delta M+ \beta_2 \Delta e+\varepsilon \tag{3.8}$$

Where: Y_Gap is the output gap; ΔM represents the change in money supply; Δe represents the change in exchange rate; β_0 , β_1 and β_2 are the coefficients to be estimated, and ε is the error term capturing unobserved factors influencing the output gap.

Empirical studies that have evaluated output using the IS-LM include Nusair & Olson (2021) where the main determinants of output were real supply of money, the real exchange rate, and the real wage for ASEAN-5 countries. Another study is Mrabet et al, (2023) in a study on output response to fiscal policy in Syria.

This study estimated the output gap using potential output obtained by applying the Hodrick-Prescott (HP) filter on actual output data. The estimate of the output gap (OUG) is given as:

$$OUG = \frac{\text{Actual output} - \text{Potential output}}{\text{Potential Output}} \times 100$$

Where OUG = output gap, Actual Output = the total amount of goods produced (GDP), Potential output = the output level under the condition of full employment of resources

In an attempt to investigate the impact of money supply on output gap, this study adapted the model used in the work of Grigoli et al, (2015) which was extended by Pedro and Adesina (2022). This study is country specific, it is limited to Nigeria, the key variables are output gap (oug), money supply (ms), exchange rate (exch) and the explanatory variables; however, inflation rate (inf) and interest rate (int) is also incorporated and the model becomes:

$$Oug_t = \alpha + \beta ms_t + \theta exch_t + \lambda inf_t + \phi int_t + \xi_t \tag{3.10}$$

α is the constant value, β , θ , λ and ϕ are the parameter estimates, ξ is the error term while t is the time.

$$\text{Oug}_t = \alpha + \beta \ln \text{mst} + \theta \ln \text{exch}_t + \lambda \ln \text{inf}_t + \phi \ln \text{int}_t + \xi_t \quad (3.11)$$

Autoregressive distributed Lag (ARDL). The ARDL was employed due to the nature of data. Some are stationary at level while others are integrated in their first difference.

Output gap (OUG) was measure by the difference between the actual output of an economy and its potential output. A positive output gap indicates that the economy is operating above its potential, suggesting inflationary pressures, while a negative output gap suggests that the economy is operating below its potential, indicating a potential for increased economic activity).

Rate of exchange is measured as the official exchange rate in local currency units (LCU) per US dollar. The exchange rate represents the value of one currency in terms of another and plays a crucial role in international trade and capital flows. Money supply, specifically M2 includes currency, demand deposits (M1), as well as saving and time deposits. Monitoring the money supply is important as it provides insights into the overall liquidity in an economy. Lending interest rate is measured as a percentage (rate) and represents the interest rate charged by banks for lending money in Nigeria. This variable is important as it reflects the cost of borrowing for businesses and individuals, influencing investment decisions and overall economic activity. Inflation is measured as consumer prices in annual percentage. It represents the rate at which the general level of prices for goods and services is rising and, therefore, reflects the purchasing power of a currency.

Table 1 Definition of Variables, Unit and Measurement

S/N	Variables	Description	Unit	Measurement
1.	OUG	Output gap	Rate	Actual output minus Potential output/potential output x 100.
2.	EXR	Exchange rate	Official exchange rate in Naira	Real exchange rate
3.	MS	Money supply	Billions in Naira	(M ₂) i.e M ₁ + saving and time deposit
5.	INT	Lending rate	Percentage (rate)	Bank rate of lending in Nigeria.
6.	INF	Inflation rate	Consumer prices in annual %	Inflation rate

This study employed secondary time series data which covers 1994 to 2023. The data were sourced from various issues of the World Development Bank Indicators (WDI). In estimating the impact of exchange rate and money supply on output gap, time series data for period 1994-2023 was used. The estimation time series data involves several stages in order to determine the regression model to be estimated because time series data are usually non stationary at level. This study employed both descriptive and econometric techniques. The descriptive statistics deals with the estimation of the statistical characteristics of the variables under study. These include minimum, maximum, mean, median, standard deviation, skewness, kurtosis, Jarque-Bera probability, etc. Stationarity and cointegration test for the co-movement of all variables was conducted using Augmented Dickey-Filler (ADF) and Philip Peron unit root test; this showed that some series are in order of I(0) while others are integrated in their first difference, I(1). Autoregressive Distributed lag (ARDL) econometric technique was used. This technique was developed by Peseran and Shin (1999) and used by Peseran, Shin and Smith (2001). ARDL allowed for joint

estimation of relationships between money supply and output gap; exchange rate and output gap, it also helps to verify if the two independent variables, money supply have impact on output in Nigeria. It is an unbiased estimation of a long-run model which has advantages over some other conventional techniques.

Results and Discussion

The descriptive statistics table provides a detailed overview of several key economic variables, shedding light on their central tendency, variability, distributional characteristics, and normality. In the descriptive statistics result presented in table 4.1.1, the mean and median output gap of approximately -2.75 and -3.59 respectively suggest that, on average, the economy operates below its potential output level. However, the distribution of the output gap data appears to be relatively symmetric, as indicated by the skewness value close to zero (-0.03) and the moderate kurtosis (2.37), implying a moderately peaked distribution. Furthermore, the Jarque-Bera test confirms normality, with a high p-value (0.78), indicating that the output gap data closely resembles a normal distribution.

Money supply (MS) reflects the total amount of money circulating within the economy. With a mean money supply of approximately N14089.85b and a median of N9165.47b, it is evident that there was substantial variability in the amount of money in circulation, as indicated by the large standard deviation (14946.33). The positive skewness (0.82) suggests a right-skewed distribution, while the kurtosis (2.39) indicates a moderately peaked distribution. Although the Jarque-Bera test indicates a departure from normality with a p-value of 0.15, the deviation is not significant. Inflation (INF) measures the rate of price level increase in an economy, the data portrayed a highly right-skewed distribution, as indicated by the positive skewness (2.98). The kurtosis value (11.40) underscored the presence of extremely heavy tails and a highly peaked center, signifying substantial variability and deviation from a normal distribution. The Jarque-Bera test confirms this departure from normality, with a very low p-value (0.00), suggesting a significant departure from the expected distribution. The statistics of interest rate (INTR) reveals relatively stable measures, with the mean and median interest rates hovering around 17.64 and 17.25 respectively. The slight positive skewness (0.11) and moderately heavy tails, as reflected in the kurtosis (3.14), indicate a distribution slightly departing from normality. However, the Jarque-Bera test suggests that the data closely approximate a normal distribution, with a high p-value (0.96), indicating a high likelihood of observing the data under normal circumstances.

Table 2 Descriptive Statistics

	OUG	MS	INF	INTR
Mean	-2.745864	14089.85	17.64244	172.5740
Median	-3.587111	9165.470	17.24625	141.1900
Maximum	10.89308	48462.07	24.77083	425.9800
Minimum	-16.34729	230.2900	11.48313	21.89000
Std. Dev.	7.443675	14946.33	3.031953	118.3422
Skewness	-0.030235	0.820953	0.111679	0.726399
Kurtosis	2.374984	2.385073	3.139647	2.573957
Jarque-Bera	0.492877	3.842490	0.086738	2.865167
Probability	0.781580	0.146425	0.957558	0.238691

Observations	30	30	30	30
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Source: Author's Computation (2024)

The correlation table (Table 4.2) offers an overview of the relationships between various economic variables used in the analysis: the output gap (OUG), money supply (MS), interest rate (INT), and inflation (INF). Considering the relationship between the output gap and the money supply, the correlation coefficient of 0.370 indicates a weak positive correlation. This suggests that as the money supply increases, the output gap tends to widen, implying potential economic expansion. However, this correlation is not very strong, indicating that other factors beyond the money supply also influence the output gap. The correlation between the output gap and inflation is negative but weak, with a coefficient of -0.169. This suggests a slight negative relationship where as inflation increases, the output gap may narrow. While this correlation hints at a potential slowdown in economic growth as inflation rises, it is not significant enough to draw firm conclusions. The correlation coefficient of -0.426 found in the analysis for the relationship between the output gap and the interest rate reveals a moderate negative correlation. This suggests that as interest rates increase, the output gap tends to narrow. This relationship implies that monetary policy decisions, such as interest rate adjustments, can impact economic activity, with higher rates potentially curbing inflation but also stifling growth. Examining the correlations involving the money supply, exchange rate, inflation and interest rate, variety of relationships emerged. For instance, a strong negative correlation between money supply and interest rate (-0.703) suggests that as the money supply increases, interest rates tend to decrease significantly. Additionally, the strong positive correlation between money supply and exchange rate (0.756) implies that as the money supply expands, the domestic currency appreciates against the foreign currency.

Table 3 Correlation Matrix

Correlation	OUG	MS	INF	INT
OUG	1.000000			
MS	0.370276	1.000000		
INF	-0.169098	-0.174775	1.000000	
INT	-0.425965	-0.703238	0.218243	1.000000

Source: Author's computation (2024)

In Table 3, the unit root test for each series in the study is presented. The result presented both the Augmented Dickey Fuller (ADF) and the Philip-Perron (PP) unit root tests. From the result presented, it is observed that the unit root test for all other series are stationary after second differencing, apart from inflation which is stationary at level. This result of the unit root test (of variables that are stationary at level and at first difference) makes the ARDL modelling technique suitable for this study.

Source: Author's Computation (2024)

Unit Root Test Results							
Augmented Dickey-Fuller (ADF)				Philip-Perron (PP)			Conclusion
LEVEL	Constant	Constant and Trend	None	Constant	Constant and Trend	None	
Exr	0.1603	-1.9412	1.6729	0.4611	-1.4749	2.6917	Not Stationary
Inf	-3.530**	-3.1141	-2.8042***	-5.3901***	-4.5419***	-2.842***	Stationary
int	-1.0489	-2.3096	-1.0963	-1.1454	-2.4526	-1.0798	Not Stationary
ms	0.0183	-1.0533	-0.8037	1.3971	-1.8052	3.5284	Not Stationary
oug	-0.9499	-0.8696	-1.5645	-1.2980	-1.3965	-1.2119	Not Stationary

Unit Root Test Results							
Augmented Dickey-Fuller (ADF)				Philip-Perron (PP)			Conclusion
LEVEL	Constant	Constant and Trend	None	Constant	Constant and Trend	None	
exr	-3.703***	-3.6440**	-3.0981***	-2.3128**	-2.8408	-3.040***	Stationary
Inf	-	-	-	-	-	-	-
int	-4.850***	-4.7969***	-4.8068***	-4.8418***	-4.7751***	-4.806***	Stationary
ms	-0.0489	-3.0296**	2.0510**	-4.7532	-13.5875***	-3.472***	Stationary
oug	-3.617**	-3.6465**	-3.6822***	-3.6077**	-3.5518	-3.676***	Stationary

Given that the variables in the series are of mixed order of integration, the study proceeded to test if there is any possible long-run combination of the variables

Table 4 Bounds Test of Cointegration

Test Statistic	Objective 1	Objective 2	Objective 3
F-stat	8.7873		6.4219
K	3		4
Critical Value bounds			
I0 Bound	4.01		3.47
I1 Bound	5.07		4.57

Source: Author's computation (2024)

From the result presented, it is observed that despite the mixed order of integration, there is a long-run combination of variables to meet objectives one to three. From the result presented in Table 4.1.4, the F-statistic across the models for objectives one to three is greater than both the upper and lower bound of the Bounds test.

To achieve the objective, the appropriate lag length was selected. From the result presented in Table 4.1.5, it is observed that the optimal lag length for the model is 3.

Table 5 Lag Length Criteria

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-384.4117	NA	2317718.	28.84531	29.08528	28.91667
1	-254.6751	201.8124*	1027.995	21.08705	22.52687*	21.51518
2	-224.0611	36.28337	839.4246	20.67119	23.31086	21.45610
3	-188.0530	29.33993	704.1471*	19.85577*	23.69529	20.99746*

Note: Optimal lag length is 3, based on most of the decision criteria
 * indicates lag order selected by the criterion

LogL: Log Likelihood; LR: Likelihood Ratio; FPE: Final Prediction Error; AIC: Akaike Information Criterion; SC: Schwarz Information Criterion; HQ: Hanna-Quinn Information Criterion
 Source: Author’s computation (2024)

The objective of the study sought to analyse the impact of money supply on output gap. The first estimated model presented in Table 4.2.1 is the result of the analysed relationship between money supply and output gap.

Table 6 Impact of Money Supply on Output Gap (2, 1, 1, 0 model)

Dependent Variable: Output gap (OUG) Variable	Short-run				Long-run			
	Coefficient	Std. Error	t-Statistic	Prob.	Coefficient	Std. Error	t-Statistic	Prob.
Lag output gap OUG(-1)	0.227590	0.142714	1.594730	0.127				
Money supply (MS)	-0.179318	3.489670	-0.05136	0.959	22.501593	2.9335	7.6706	0.000
Inflation (INF)	-0.094807	0.102397	-0.92587	0.366	0.029710	0.1525	0.1948	0.848
Interest (INT)	-0.089378	0.215450	-0.41484	0.683	-0.180351	0.4222	-0.4271	0.674
Trend	-1.963504	0.448512	-4.37782	0.000	-3.962065	0.6606	-5.9975	0.000
CointEq(-1)	-0.495576	0.096477	-5.13675	0.000				
R-squared	0.9648							
Adjusted R-squared	0.9499							
F-statistic	55.5380***							
Prob(F-statistic)	0.000000							
Durbin-Watson	4.2965							

Source: Author’s computation (2024)

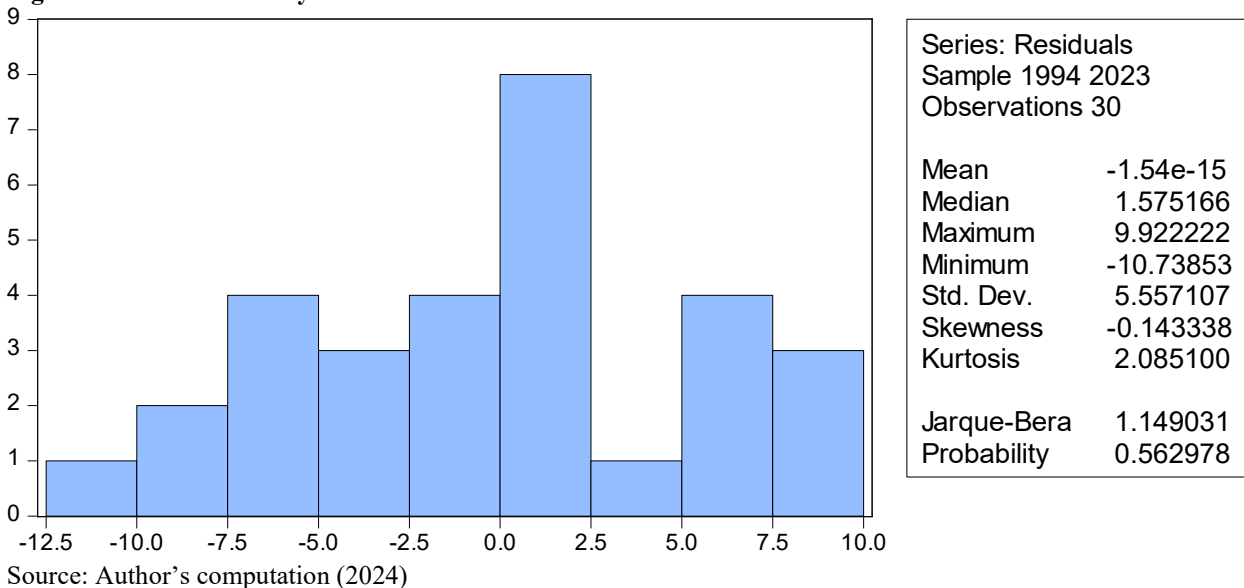
The result in Table 4.2.1 shows that in the short run, one-period lag in output gap exerted a positive effect on current output gap. The coefficient of 0.2276 suggested that one percent increase in the lagged output gap (from the previous period) is associated with an insignificant short-term rise in the current output gap by about 0.23 percent. This implies that recent increases in output gap have an immediate positive effect on current output gap. However, it is not statistically significant ($p > 0.05$). On the other hand, the effect of money supply on output gap is negative. The coefficient of -0.1793 implies that one percent increase in short run money supply was associated with a fall in output gap of about 0.18

percent. This relationship actually lacks statistical significance ($p > 0.05$). Furthermore, the effect of inflation on output gap is negative. From the result, it is observed that for every one percent rise in inflation, output gap fell by about 0.09 percent. This relationship is not statistically significant ($p > 0.05$)

In addition, interest rate has a negative effect on output gap. From the estimated model, the negative coefficient of -0.089 indicated that one percent increase in interest rate is associated with about 0.09 percent decrease in output gap. This relationship is not statistically significant ($p > 0.05$). The cointegration error correction term is negative and significant, further confirming the long run relationship existing among the variables. The error correction term of -0.4956 shows that when there is disruption in the system, about 49.6 percent of the previous equilibrium state will be recovered within a year.

In the long run, it is observed that money supply exerted a positive effect on output gap. From the estimate, the positive coefficient of 22.501593 suggests that one-percent increase in long run money supply was associated with 22.5 percent rise in output gap. However, this long run relationship has statistical significance ($p < 0.01$). Furthermore, in the long run, inflation exerted a positive effect on output gap. From the result, for every one percent rise in inflation in the long run, output gap increased by about 0.03 percent. This effect is not shown to be statistically significant ($p > 0.05$). The result of the estimated model further showed that in the long run, interest rate continued to exert a negative effect on output gap. The negative coefficient of -0.1804 implies that one percent increase in interest rate is associated with a long-term decrease in output gap by about 0.18 percent. This relationship is not statistically significant ($p > 0.05$). It was observed that in both the short and long run, the coefficients for the trend term are negative and statistically significant ($p < 0.01$), indicating a substantial negative trend in the output gap over time. The larger magnitude and statistical significance of this coefficient highlighted the importance of considering long-term trends in assessing the output gap's dynamics. The normality test is presented in Figure 4.1, given the non-significance of the Jarque-Bera probability ($p > 0.05$), it is concluded that the residual term is normally distributed.

Figure 3 Test of Normality



The serial correlation test result is presented in Table 7. From the result displayed, given that the probability of the chi-square statistics is not significant ($p > 0.05$), it can be concluded that the residual term does not suffer from the serial correlation problems.

Table 7 Breusch-Godfrey Serial Correlation LM Test Result

F-statistic	0.437583	Prob. F(2,19)	0.6519
Obs*R-squared	1.232928	Prob. Chi-Square(2)	0.5398

Source: Author's computation (2024)

The heteroscedasticity test result is presented in Table 8. From the result displayed, given that the probability of the chi-square statistics is not significant ($p > 0.05$), it can be concluded that the residual term is homoscedastic.

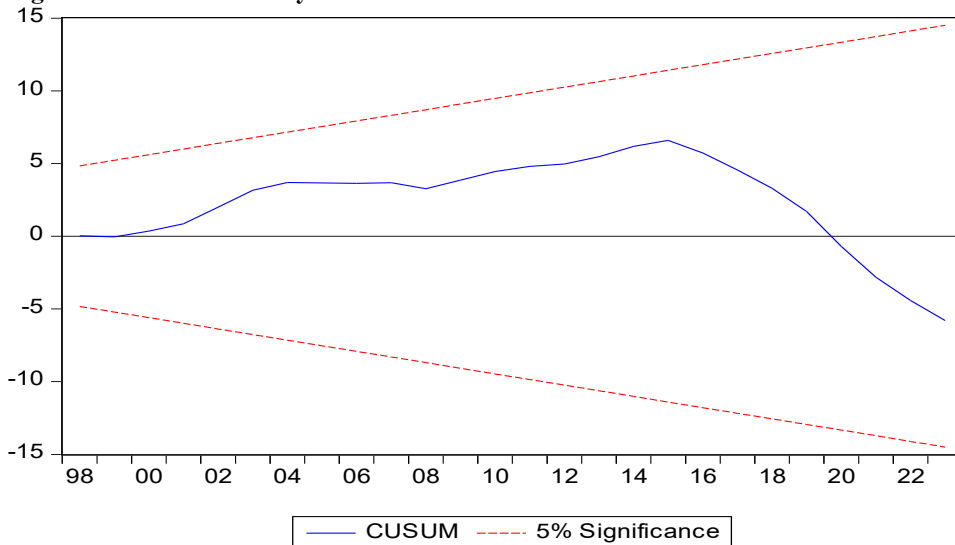
Table 8 Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.870210	Prob. F(3,26)	0.4691
Obs*R-squared	2.737407	Prob. Chi-Square(3)	0.4339
Scaled explained SS	1.115535	Prob. Chi-Square(3)	0.7733

Source: Author's computation (2024)

To test for the stability of the estimated parameters of the study, the cumulative sum (CUSUM) was carried out. Their result is presented in Figure 4.

Figure 4 CUSUM Stability Test



Source: Author's computation (2024)

From the stability test results, given that the CUSUM line lies within the 95% confidence intervals, it is concluded that the estimated parameters are stable.

Summary, Conclusion and Recommendations

An increase in money supply would shift the LM curve to the right, reducing interest rates and stimulating investment and consumption. This would lead to an increase in aggregate demand and output in the short run, resulting in a positive impact on the output gap. However, the insignificant coefficient suggests that the observed effect of money supply

on the output gap may be negligible or overshadowed by other factors; this is not in agreement with the findings of Babatunde and Shuaibu (2011) on the impact of money supply on output in Nigeria. In addition, the negative effect of inflation and interest rates on the output gap reflects the conventional IS-LM model's predictions, where higher inflation or interest rates dampen investment and consumption, leading to a decrease in output. Furthermore, the negative effect of money supply on the output gap in the short run reflects the conventional view of monetary policy transmission mechanisms. In economic theory, an increase in money supply typically leads to lower interest rates, stimulating borrowing, spending, and ultimately economic activity. However, the insignificant coefficient suggests that the short-term impact of monetary policy on output may be muted or overshadowed by other factors, such as expectations, fiscal policy, or external shocks. This is not in line with the short run statistically significant effect found by Yua (2022). Similarly, the negative effects of inflation and interest rates on the output gap reflect conventional economic intuition. Higher inflation erodes consumers' purchasing power and reduces real incomes, leading to lower aggregate demand and economic output. Likewise, higher interest rates increase borrowing costs, dampening investment and consumption, thereby suppressing economic activity. However, the lack of statistical significance suggests that these short-term effects may not be robust or may be influenced by other factors not captured in the model.

In the long run, the impact of money supply on the output gap becomes more pronounced. This finding is in line with that of Iremer et al, (2021) where long run relationship between money supply and economic growth was found for Nigeria. In the IS-LM framework, an increase in money supply would lead to a shift in the LM curve, lowering interest rates and stimulating investment and consumption. However, in the long run, the output level is determined by factors such as technology, labour force, and productivity, represented by the full-employment level of output. Therefore, while an increase in money supply can temporarily boost output in the short run, it may not sustainably affect the output gap in the long run. The significant positive coefficient of money supply on the output gap indicates that over time, changes in money supply can have a substantial impact on increasing the output level. The significant positive effect of money supply on the output gap in the long run underscores the importance of monetary policy in shaping economic growth over extended periods. A higher money supply can fuel spending and investment, leading to increased economic output and employment. This finding aligns with the Keynesian perspective, which emphasizes the role of aggregate demand in driving economic activity.

The positive but statistically insignificant effect of inflation on the output gap in the long run suggests that while moderate inflation may be conducive to economic growth by stimulating spending and investment, excessively high inflation rates can distort resource allocation and undermine economic stability. Therefore, policymakers need to strike a balance between promoting economic growth and maintaining price stability.

The continued negative effect of interest rates on the output gap in the long run highlights the importance of monetary policy credibility and stability. Persistently high interest rates can deter investment and consumption, constraining economic growth potential. Therefore, policymakers must carefully manage interest rate policies to support sustainable economic expansion while keeping inflation in check. The presence of a substantial negative trend in the output gap over time raises concerns about the economy's long-term growth prospects.

Persistent negative trends may reflect underlying structural weaknesses, such as insufficient investment in infrastructure, education, or technology, as well as institutional barriers to economic development. Addressing these structural issues requires coordinated policy efforts aimed at improving productivity, enhancing competitiveness, and fostering innovation.

This study investigated the relationship between money supply, exchange rate, and output gap in Nigeria from 1994 to 2023. While exploring both short and long-term dynamics, several economic factors were observed to influence the output gap. Short-term analyses revealed a positive relationship between recent output gap increases and the current gap, with money supply and interest rates showing negative impacts, though not statistically significant. However, in the long run, money supply exhibited a significant positive association with the output gap, while inflation displayed a positive effect, albeit not statistically significant. The following recommendations are made based on the findings of the study. Given the insignificant short-term effects on the output gap and its significant positive (22.501593) association in the long run, there is a need to promote monetary stability. Policymakers should focus on maintaining prudent monetary policies to ensure stable money supply growth, which can positively influence economic output over the long term. Despite the statistically insignificant short-term impact of inflation on the output gap, its negative effect(-0.224209) in the long run warrants attention. Policymakers should implement measures to control inflationary pressures, such as prudent fiscal management and effective monetary policy tools, to mitigate its adverse effects on economic growth and stability. Despite the lack of significant short-term impact, interest rates (-0.069063) continued to exert a negative influence on the output gap, particularly in the long run. Policymakers should adopt flexible interest rate policies that respond to changing economic conditions, ensuring that interest rates remain conducive to economic growth while also considering inflationary pressures and exchange rate stability. However, the findings of this study contribute to the existing knowledge in several ways. The result of the analysis on the impact of money supply on output gap in the short run and long run will help policymakers make decisions regarding choice of monetary policy instruments. The persistent negative effect of exchange rate on output gap informs the government and policy makers the damage exchange rate depreciation has done to the growth of Nigerian economy.

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INFLATION IN SOUTH AFRICA 2000 - 2022: A NEW-KEYNESIAN APPROACH

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Abstract: Inflation is a daily monetary process that occurs over a period of time. Monetary policy is based on the Phillips Curve (PC) which is a tool used to describe inflation dynamics. The PC shows that inflation and unemployment have a negative relationship (Phillips, 1958). The study employed the Hybrid New Keynesian Phillips Curve (HNKPC) to investigate inflation dynamics in South Africa (SA). Additionally, the Autoregressive Distributed Lags (ARDL) model was used in the empirical analysis. The study aimed to find the hybrid curve in SA and to determine if monetary and fiscal variables affect inflation. Using quarterly data the study found the relationship between inflation and unemployment to be positive. As a result, no HNKPC existed in SA. In addition, fiscal and monetary variables influence inflation and therefore have a role to play in determining price levels in SA.

Keywords: inflation, PC, HNKPC, unemployment, SA, ARDL, ECM

Introduction

Inflation and unemployment are global phenomena and economically important. According to Wardhono, Nasir, Qori'ah, and Indrawati (2021) inflation occurs when the general price levels of an economy increase. In addition, Totonchi (2011) stated that the cause of inflation in developed countries is a rise in money supply, which means it is a monetary phenomenon. However, in developing countries various other factors lead to changes in inflation. These are related to fiscal imbalances and include growth in money and exchange rates among other factors.

In South Africa (SA), inflation targets are based on the Phillips Curve (PC). Particularly, Leshoro and Kollamparambil (2016) stated that the South African Reserve Bank (SARB) uses a PC when deciding on monetary policy objectives of inflation targeting. Blanco (2018) stated that SA has high unemployment levels and low economic growth, which renders the PC important. Therefore, testing for the PC is critical in SA as it presents policymakers with the opportunity to exploit the relationship between the variables of interest, namely inflation and unemployment.

As it is generally known, price stability is central to monetary policy worldwide, including SA (Vermeulen, 2015; Phiri, 2016). Inflation targeting was adopted in SA in 2002 and the main aim was to keep inflation between 3% and 6%. To achieve this, the repurchase rate is used. However, although targeting inflation has led to less persistence (Dossche and Everaet (2005) defined it as the tendency of inflation to slowly revert back to central bank's

inflation target in response to macroeconomic shocks), it still results in high unemployment levels, low economic growth and high real interest rates. According to Vermeulen (2015), SA's unemployment rate for the last 25 years has ranged around 20-25%. In addition, Statistics South Africa (StatsSA) (2023) indicate that although the unemployment rate has decreased in 2022, it still remained high at 30%. The SARB's (2023) quarterly bulletin states that economic growth has a low growth trend and has declined by 2% in the last two years. The International Monetary Fund (IMF) (2023) projected that inflation, real GDP and the unemployment rate will decline in 2023-2024. However, unemployment will still be above 30%. Therefore, Vermeulen (2015) suggested that employment should be targeted instead of inflation.

Botha, Khan and Steenkamp (2020) stated that the PC is important in modelling inflation dynamics. In addition, it captures how much economic slack affects inflation (Economic slack can be measured by unemployment or output gap). Also, SA's situation can be described by the fact that a persistently negative output gap has not translated into lower inflation after the financial crisis. Furthermore, global inflation has been relatively stable despite fluctuations in unemployment. As a result, questions about whether the PC has flattened and become a less useful monetary policy tool arose. However, after inspecting SA data, the authors concluded that the PC is still a relevant analytical tool. For this reason, this study explores inflation dynamics using the PC, more specifically, the NKPC.

Leshoro and Kollamparambil (2016) used a HNKPC and found no PC in SA. On the other hand, Fedderke and Liu (2018) found that the NKPC performed poorly due to its theoretical and empirical assumptions. Leshoro (2020) also found that no PC exists in SA, while Botha et al. (2020) found a PC relationship in SA. Lastly, Zobl and Ertl (2021) stated that little empirical evidence exists for NKPCs in developing countries, including SA. This study aims to fill the research gap and investigate the need for analysing inflation dynamics in SA. The PC relationship was examined using a new Keynesian approach. Therefore, the specific objectives for this study are (a) to establish the existence of the Hybrid New Keynesian Phillips Curve in SA, and (b) to determine the fiscal and monetary variables that significantly influence inflation in SA.

The rest of the paper is organised as follows. Section 2 provides the literature review. The methodology is presented in Section 3. The findings are discussed in Section 4, while the conclusion is presented in Section 5.

Literature review

Theoretical literature

The theoretical premises of this study is the Hybrid New Keynesian Phillips Curve (HNKPC). However, it is worth mentioning the various versions of the PC. Starting with the traditional Phillips Curve (PC) originated in 1958 from A.W. Phillips. Phillips (1958) hypothesises that there is a relationship between the rate of change in money wages, the unemployment level and its rate of change. Other versions are the New Classical Phillips Curve (NCPC), the Gordon's triangle model, the New Keynesian Phillips Curve (NKPC) amongst others. Gali and Gertler (1999) are the original authors who motivated the HNKPC, which is largely an empirical approach, and extended the NKPC. Their implementation of the curve includes Marginal Cost (MC) as opposed to the output gap. This is due to the fact that productivity gains are directly accounted for, whereas the output gap has measurement errors. However, the authors stated that MC and output gap share a

log-linear relationship, and inflation is negatively related with lagged output. In addition, the pricing behaviour of backward-looking firms is included in the specification. Therefore, firms that look to the past to predict inflation follow certain assumptions based on the rule of thumb. The first assumption states that firms do not deviate from the rule and behave optimally. Secondly, current inflation depends on the previous period's inflation rate. In addition, firms are unable to distinguish the inflation behaviour of competitors. Moreover, inflation is dependent on expected and lagged inflation and the lagged term captures inflation persistence. Lastly, the hybrid curve also includes the NKPC (i.e., the forward-looking behaviour of firms). Expanding on the same logic, Dupuis (2004) states that the hybrid curve was extended to include sticky prices, whereas the NKPC did not. Therefore, the Calvo model was adapted to include the price setting behaviour of forward-looking and backward-looking firms. Similarly, Gordan (2011) argues that the NKPC excluded the backward-looking behaviour of inflation. Hence the hybrid curve was developed by Gali and Gertler in 1999. Therefore, the HNKPC includes both future expected and past inflation (i.e., backward-looking and forward-looking). However, the author stated that the differences between the NKPC and its hybrid version are minimal due to some form of past inflation being a proxy for inflation.

Phiri (2015) agreed with Dupuis (2004) that the hybrid curve includes the backward-looking component of inflation. The hybrid curve also relates current inflation to expected future inflation, lagged inflation and MC. Moreover, the hybrid version of the curve creates price stickiness, includes inflation inertia and various forms of the PC, namely the NCPC and NKPC. Lastly, output gap or labour share variables can be used in the specification to provide satisfactory results. More to the point, Phiri (2016) stated that the hybrid curve fits South African data well when the output gap is used.

Empirical literature

This section covers empirical studies on inflation dynamics. In doing so, the dynamics of the inflation process will be uncovered. Studies from other continents, Africa and South Africa are reviewed.

Chowdhury and Sarker (2017) studied the NKPC relation for Russia, Brazil and India. The study used monthly data from 1994 to 2011 to test the stability of the NKPC using Generalised Moment of Methods (GMM). To account for regime switching, the Hamilton model was introduced. This was done for output gap estimations. The findings showed that inflation is very persistent for India and Russia. In addition, there are no volatile business cycles present in the output gap variables for all countries involved. Most importantly, the hybrid PC was found to be structurally unstable for all countries under study. Kim (2018) studied inflation dynamics in the US and European areas; the study was based on various forms of the PC. These were the forward-looking and backward-looking NKPC and the HNKPC. A Dynamic Stochastic General Equilibrium (DSGE) model was used in the empirical study to test if forward-looking behaviour is more important in the relationship between output and inflation. The empirical findings showed that only the hybrid curve performed well when studying inflation dynamics for both countries. Likewise, Salunkhe and Patnaik (2019) investigated inflation dynamics for the period 1996Q2 – 2017Q2 in India. They used various forms of the PC such as the traditional PC, purely forward-looking NKPC, HNKPC, extended backward-looking PC and extended HNKPC. The authors concluded that the extended backward-looking PC and HNKPC best fits India. In addition,

anchoring inflation is important and using the output gap best explains inflation dynamics in India. Therefore, monetary policy plays an important role in this regard.

Zobl and Ertl (2021) investigated both the NKPC and HNKPC in Central and Eastern Europe (CEE) who use inflation targeting regimes in monetary policy, namely, Poland, the Czech Republic, Hungary and Romania. In addition, the study explored the possibility of the NKPC flattening. GMM and Bayesian estimation methods were used on various variables for the period 2003 to 2019. According to the pure NKPC results, inflation expectations and external shocks are statistically significant and a determinate of inflation for CEE. Therefore, the NKPC exists for all countries under review. In addition, various economic slack variables such as output gap, capacity utilisation, labour share and short-term unemployment rates were tested in the PC specifications. The results showed that labour market variables were the most suitable proxies. When the pure-NKPC was compared to the HNKPC results, the hybrid model was rejected due to the fact that lagged inflation was already included in inflation expectations. Furthermore, when faced with using core or headline inflation, empirical testing of the NKPC showed that core inflation is the most preferred choice. The evidence suggested that the NKPC has not flattened, and non-linearity only exists for Hungary.

Abbas (2022) studied inflation dynamics using Monacelli's (2005) approach to the NKPC and GMM estimations. Inflation dynamics were studied using different business cycles and threshold effects of various inflation targeting countries. These were Australia, Canada, New Zealand (NZ), the United Kingdom (UK) and the US. The study tested both the NKPC, and its hybrid version. The findings showed that both the NKPC and HNKPC exists for these countries. However, it depends on the business cycle stage (i.e., expansion or contraction) and the current inflation regime (i.e., low or high inflation). For example, the NKPC is flatter when inflation is low, that is inflation responds asymmetrically in different regimes and business cycles for all countries involved. Secondly, the forward-looking behaviour of inflation dominates in expansionary periods. Thirdly, inflation is unresponsive to business cycles and price stability changes when nominal price rigidities exist in domestic and imported markets.

Similarly, Demir (2022) estimated the HNKPC for the US only. The author used GMM estimations and followed Gali and Gertler's (2000) approach to the HNKPC using quarterly data for two samples. These were 1960 to 2000 to compare results with Gali and Gertler and 1960 to 2019. Inflation dynamics for the US are explained using calculations of the natural unemployment and output gap, and the natural output rate is estimated using logs, Okun's Law, various statistical procedures and Hodrick-Prescott (HP) filters. The empirical results revealed a dominant forward-looking behaviour of inflation, same as in Gali and Gertler (2000). However, the second sample showed that output gap had a positive sign and was statistically significant. This was contrary to Gali and Gertler's result of an insignificant output gap. Therefore, based on the empirical results, it can be inferred that the NKPC was found for the US and can be used to explain inflation.

Kobbi and Gabsi (2017) studied the NKPC in Tunisia. The study employed a Smooth Transition Regression (STR) modelling technique on quarterly data for the period 1993 to 2012. The empirical study tested linearity using two versions of the NKPC, namely, the forward-looking NKPC and HNKPC. Based on the results, the linear specification of the PC does not describe the inflation process in Tunisia. Asymmetry or non-linearity was

consequently tested. In addition, the STR results indicate that the PC relation is dependent on whether the economy is in expansion or recession, that is, regime-switching.

In the same way, Belinga and Doukali (2019) studied the NKPC for Morocco. The authors used two methods to estimate the PC, namely, GMM and TJIVE (Tikhonov Jackknife Instrumental Variable Estimator). The results showed that a new Keynesian approach to inflation dynamics is encouraged. Moreover, inflation is more forward-looking in nature and using the output gap produces significant and accurate results. Therefore, the HNKPC is dominant for Morocco.

In contrast, few studies exist for Zimbabwe following a new Keynesian approach to inflation dynamics. However, Mukoka (2019) studied the PC for the country using yearly data and Ordinary Least Squares (OLS) methods. The hypothesis of this study is aimed at finding a negative relation between unemployment and inflation, and it was found that the coefficients of inflation and unemployment share the correct sign. This confirmed the presence of the existence of the PC for Zimbabwe. In other words, when unemployment increases by one unit, inflation will decrease by 9.6 units.

Likewise, Ayinde, Akanegbu, and Jelilov (2021) estimated a HNKPC for Nigeria. The study used quarterly data ranging from 2000 to 2018. GMM and maximum likelihood methods were used in the empirical analysis, and the study found that inflation expectations play an important role in the process of inflation. In addition, the output gap is not a factor that determines inflation in Nigeria. A labour share of income variable was proxied for marginal cost to test for robustness. The results were similar, concluding that forward-looking behaviour of inflation is dominant in Nigeria. However, marginal cost is not a significant driver of inflation. On the other hand, Adjei (2023) studied variations of the NKPC in Ghana. Using OLS regressions, the hypothesis was rejected as there was no evidence of the curve in the economy. Afterward, a structural break was confirmed and the period under study was broken into two subsets, namely, 1971-1992 and 1993-2020. Thereafter, estimations revealed that the PC had flattened in Ghana, implying that output had a smaller effect on inflation. and concluded that it does not exist. The variations included the expectations-augmented PC, accelerationist PC, the Lucas supply curve, HNKPC and the NKPC.

Phiri (2015) studied asymmetry in the PC for SA using an STR model. The use of this model was to capture non-linearity. The study used the NCPC, NKPC and HNKPC as well as extensions to each curve in the linear testing. Extensions to these curves included adding supply sock variables, using an output-based and marginal cost NKPC, and adding inflation inertia in the hybrid version. The empirical findings showed at least one non-linear relationship for each PC specification. In particular, the NCPC and NKPC were not applicable to SA. However, the marginal cost and output-based extensions of the HNKPC produced the best result for SA data. The authors concluded that monetary policy only has the ability to affect the economy on the demand side asymmetrically. In addition, this effect occurs via inflation expectations and inertia. Leshoro and Kollamparabil (2016) studied the existence of the PC in SA. The main objective was to find the PC in SA and whether inflation is determined by forward-looking or backward-looking components. as previous studies disagreed that the PC exists. The authors used HNKPC together with OLS and GMM methods. The OLS and GMM methods found no PC in SA, which means there was no trade-off between inflation and demand-side variables. In addition, OLS showed that

inflation is more forward-looking in SA, while the GMM methods found mixed results about whether inflation is forward-looking or backward-looking.

Chowdhury and Sarker (2017) empirically tested the HNKPC for SA using monthly data for a period of 17 years for the following variables: CPI, money supply, Real Effective Exchange Rate (REER) and Index of Industrial Production (IIP). The empirical estimator used in the study was GMM. The study found that output gap estimations revealed that inflation is very persistent in SA and forward-looking. Finally, the study revealed that the NKPC is unstable for the country.

Similarly, Fedderke and Liu (2018) studied inflation dynamics in SA using a range of PC models. These include the Gordon model, Gali model, NKPC, and HNKPC. The study covered quarterly data from 1970 to 2015. These different PC models were tested against a benchmark model, and the findings of the benchmark model were that inertia is present in SA. The Gordon model produced weak results of an output gap and inflation relationship. On the other hand, the Gali model found that the price level is a significant determinant of cost of production. In addition, results from the NKPC approach using OLS methods showed that wage costs had the strongest influence on inflation. Therefore, the output gap played no role. The GMM estimations provided poor results. In all these PC type models, the MC measure (unit labour cost) provided the most robust results of inflation dynamics.

Likewise, Leshoro (2020) studied inflation dynamics in SA using quarterly data for two separate time periods, namely, 1995-2014 and 2002-2014. In contrast to the other SA studies above, Leshoro (2020) incorporated fiscal policy in the inflation process. In addition, an augmented Gordon's model was used as a basis for the PC. By applying Vector Error Correction Model (VECM), the findings revealed that inflation was positively related to output growth, suggesting no PC in SA. Likewise, the coefficient on output gap was found to be statistically insignificant. The author concluded that the country's deficit, exchange rate and price of electricity are economically important. In addition, these variables significantly determine inflation rates in SA. Therefore, Fiscal Theory of the Price Level (FTPL) applies in SA, which means that fiscal and monetary policies have an effect on inflation.

From the literature reviewed, it can be concluded that the existence of the PC for each country depends on economic conditions. The results relating to SA are mixed and the latest study was reviewed in 2020. This study included an updated time period and sought to update the results of the PC for SA. Moreover, a vast majority of the literature has been done in other countries, specifically in the US and European countries. Most of the studies included in the literature review has made use of GMM methods. However, according to Nason and Smith (2008) using GMM to test for the hybrid PC does not produce reliable results due to weak identification or non-identification of the variables. In addition, GMM is not able to identify the HNKPC. As a result, this papers made use of an ARDL approach, and therefore fills a research gap of using a different estimation approach to studying inflation dynamics in SA. In doing so, the literature for SA is updated as well.

Research methodology

The study followed the theory of the PC developed in 1958, namely the PC reflects a negative relationship between inflation and unemployment. A new Keynesian approach was used together with the HNKPC originally developed by Gali and Gertler (1999), which

also includes inflation inertia. The hybrid curve accounts for monetary policy effects in the process of inflation for a longer time period, and as a result, current inflation is correlated with expected and past inflation. In addition, the NCPC and NKPC were included in the hybrid specification of the PC. Gali and Gertler (1999) represented the HNKPC as follows:

$$\pi_t = \lambda mc_t + y_f E_t\{\pi_{t+1}\} + y_b \pi_{t-1} \quad (1)$$

From equation 1 above:

$$\lambda \equiv (1 - \omega)(1 - \theta)(1 - \beta\theta)\phi^{-1} \quad (2)$$

$$y_f \equiv \beta\theta\phi^{-1} \quad (3)$$

$$y_b \equiv \omega\phi^{-1} \quad (4)$$

$$\text{And } \phi \equiv \theta + \omega[1 - \theta(1 - \beta)] \quad (5)$$

In equations 1 to 5, MC instead of output gap is used. The coefficients of θ , ω and β represent price stickiness, backward-looking price setting behaviour and the discount factor irrespectively. When the coefficient of ω is zero, firms are forward-looking, and the model becomes the NKPC. Alternatively, when β equals one, the model represents the HNKPC and the sum of $y_f + y_b = 1$.

One of the hypotheses of the study was to determine if monetary or fiscal variables has a more significant impact on inflation. Therefore, inflation (CPI), the repurchase rate, money supply (M3), and the Real Effective Exchange Rate (REER) were included as proxies for monetary variables. Final consumption expenditure by government (i.e., government spending) and taxes were included as fiscal variables. In addition, unemployment rate, real GDP (RGDP) and unit labour cost (MC) were included. These variables are represented in the function below:

$$\text{inflation} = f(\text{unemployment rate}, \text{REER}, \text{RGDP}, \text{M3}, \text{government spending}, \text{taxes}, \text{repurchase rate}, \text{unit labour cost}) \quad (6)$$

As a result, equation 6 above can be transformed into equation 7 below to include the expected sign of the variables:

$$\text{CPI} = c - \text{unemployment rate} + \text{RGDP} + \text{M3} - \text{REER} + \text{taxes} - \text{repurchase rate} + \text{government spending} + \text{unit labour cost} \quad (7)$$

In equation 7, CPI is the dependent variable while unemployment rate, RGDP, M3, REER, government spending, repurchase rate and unit labour cost are the independent variables. In addition, a proxy for MC, the forcing variable is included, which is unit labour cost. The HNKPC equation thus shows that MC should have a positive sign with inflation (Equation 1). On the other hand, RGDP is added as a measure of output gap to determine if it has a stronger effect on inflation than MC. The expected sign indicates a positive relationship (Gordon, 2011). In addition, inflation and unemployment are expected to have a negative sign in the short run as indicated by the PC (Phillips, 1958). According to the quantity theory of money, money supply positively affects inflation (Mohr et al., 2018), and according to the authors, money supply causes inflation and therefore has a positive sign in the above equation.

Moreover, under the interest rate channel of monetary policy, when the repurchase rate is adjusted, it has ripple effects for other interest rates. AD, income and inflation are also affected when expansionary or contractionary policy is used (Mohr et al, 2018). Therefore, expansionary policy entails reducing the repurchase rate whereas contractionary policy

indicates when the repurchase rate is increased. Van De Merwe and Mollentze (2010) stated that as the repurchase rate is increased due to contractionary monetary policy, inflation will decline. The opposite is true for expansionary monetary policy. As a result, a negative relationship between inflation and the repurchase rate is expected. In the same way, under the exchange rate channel of monetary policy, exchange rates and inflation have a negative relationship. If the exchange rate appreciates, it results in lower inflation. On the other hand, a depreciating currency leads to a high inflation rate (Van De Merwe and Mollentze, 2010). According to the FTPL, inflation can be determined by government debt, spending, and taxes (Bassetto, 2008), but these variables have no direct relation to monetary policy. The study thus included government spending and taxes in the above equation. Mohr et al (2018) stated that fiscal policy uses government spending or taxes. Expansionary fiscal policy is when government spending is increased or when taxes are decreased. If such policies are implemented, the price level will increase. On the other hand, a decrease in government spending or an increase in taxes occurs under contractionary fiscal policy. As a result, inflation will decline. Therefore, government spending has a positive relationship, and taxes have a negative relationship with inflation. An Autoregressive Distributed Lags (ARDL) model and an Error Correction Model (ECM) were used in the study. This approach was developed by Pesaran, Shin and Smith (2001) and includes a bounds test to cointegration to ascertain if long-run relationships exist in the model. In addition, the main attraction of the method is that the variables can have mixed integration orders, ranging from zero to one. However, variables should not be integrated for order two or higher. Most importantly, the authors mentioned that this model can be used in econometric analysis of the PC and is a linear equation. Additionally, the authors argued that the main feature of using this model is testing for long-run relationships which accommodate multiple processes of adjustment. For example, variables can be integrated of different orders and a single step equation can distinguish the long-run from the short-run. More specifically, the authors agree with Pesaran et al (2001) that an ARDL can be used when analysing the PC. Next, a detailed description of the steps followed in the model are provided.

The initial step for time-series analysis is to conduct unit root testing. This was done to determine the order of integration. This study used the Kwiatkowski-Philips-Schmidt-Shin (KPSS) tests. According to Nkoro and Uko (2016) the KPSS unit root tests the null hypothesis that the variable is stationary against the alternative hypothesis that the variable is not stationary. The null hypothesis is rejected if the calculated value of the KPSS is greater than the critical values.

The next step is to determine the optimal lag length through the VAR model. This is usually determined by the various criterion which include the Akaike Information Criterion (AIC), the Schwarz Information Criterion (SIC), the Hannan-Quinn Criterion (HQC), the Final Prediction Error (FPE), and the Bayesian Information Criterion (BIC). These criteria are successful in selecting the correct lag length; however, AIC and FPE provide the most correct results, with AIC being the more popular choice, especially in small samples of less than 120. Moreover, using AIC or FPE avoids the possibility of selecting a lower lag length. Following the determination of the optimal lag length, the next step is to determine the existence of the long run. According to Shittu et al (2012) and Nkoro and Uko (2016), cointegration is important when one wants to know if long-run relationships exist between variables. This is determined by using the F-statistic of the bound test to cointegration. The

null hypothesis is that there is no cointegration whereas the alternative hypothesis is that there is cointegration. When the calculated F-statistic is greater than both the upper $I(1)$ and lower bounds $I(0)$. The null hypothesis of no cointegration will be rejected. Alternatively, if the F-statistic is lower than the upper and lower bounds, the variables are not cointegrated.

The existence of the cointegration warrant the estimation of the Error Correction Model (ECM). Verbeek (2004) states that the ECM can be estimated using OLS methods, and the model shows how the explanatory variables causes the explained variable to change. As a result, the model gives an indication of when long-run equilibrium will be restored. Particularly, Shittu et al (2012) stated that the ECM is the solution to distinguishing between the short- and long-run in an ARDL model. Nkoro and Uko (2016) put it well by stating that the error correction term indicates the amount of time taken for equilibrium to be restored in the dependent variable.

Lastly, the diagnostic testing is done to ensure that the coefficients estimated are robust. In addition, various tests have been conducted, which include coefficient and residual diagnostic tests. Residual testing involves making sure that the error terms are independently and identically distributed. As a result, serial correlation and heteroskedasticity have been tested for. On the other hand, coefficient testing ensured that the coefficients of the model specified were stable. Thus, Cumulative Sum (CUSUM) and Cumulative Sum of Squares (CUSUMSQ) tests have been carried out (Shrestha and Bhatta, 2018).

The data used in the study are quarterly secondary time-series data for the period 2000 – 2022. The variables were inflation (CPI), real gross domestic product (RGDP), money supply (M3), repurchase rate, real effective exchange rate (REER), government spending, unit labour cost, taxes and unemployment rate. CPI, RGDP, repurchase rate and M3 were sourced from the Federal Reserve Bank of St. Louis (FRED). Government spending, taxes, unit labour cost and unemployment rate data came from the SARB. REER data was sourced from the IMF, while RGDP and government spending were logged to allow for uniformity of data.

Empirical findings

Table 1 shows the results of the KPSS unit root test. This was done to ensure that the data was not integrated of order two or higher. The results revealed that the variables have mixed orders of integration, namely zero and one. This is for both intercept as well as intercept and trend. Thus, the mixture of stationarity levels ($I(0)$ and $I(1)$) suggest an ARDL model can be estimated.

Table 1: KPSS unit root test results

Variable	Intercept		Trend and Intercept	
	Level $I(0)$	1st difference $I(1)$	Level $I(0)$	1st difference $I(1)$
<i>CPI</i>	0,0490***	0,0904	0,0476***	0,0889
<i>UNEMPLOYMENT</i>	0,6275*	0,2274	0,2713	0,0477***
<i>REER</i>	0,8078	0,0378***	0,0754***	0,0378
<i>M3</i>	0,6265*	0,1423	0,1017***	0,1399
<i>LN RGDP</i>	1,1503	0,4548**	0,2967	0,0726***
<i>REPURCHASE RATE</i>	0,8684	0,0820***	0,0939***	0,0371
<i>UNIT LABOUR COST</i>	1,2503	0,3531**	0,2118*	0,1049

LNGOVERNMENT SPENDING	1,2433	0,3815**	0,2977	0,0891***
TAXES	0,2651***	0,0372	0,0419***	0,0334

Source: author's own compilation. Note: *** do not reject at 10%, ** do not reject at 5%, * do not reject at 1%

The lag length criteria results are shown below in Table 2. The table shows the various lag lengths selected according to FPE, AIC, SC and HQ. According to FPE, AIC and HQ, eight lags should be used in the model. However, SC shows that one lag should be used. Based on these results, the model made use of AIC test results in estimating the relationships of inflation dynamics. This is due to the fact that AIC provides accurate results (Liew, 2004).

Table 2: Lag length criteria

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-1328,5860	NA	548,0695	31,8473	32,1077	31,9520
1	-671,9744	1156,8870	0,0006	18,1423	20,7467*	19,1892
2	-564,1340	166,8959	0,0003	17,5032	22,4516	19,4924
3	-448,9317	153,6031	0,0002	16,6889	23,9813	19,6204
4	-286,3989	181,8819	0,0000	14,7476	24,3841	18,6214
5	-193,8657	83,7205	0,0001	14,4730	26,4535	19,2890
6	-57,3973	94,2282	0,0000	13,1523	27,4768	18,9106
7	159,5282	103,2979*	0,0000	9,9160	26,5845	16,6166
8	543,0050	100,4344	0,0000*	2,7142*	21,7266	10,3570*

Source: author's own compilation

Table 3: Cointegration results

Sample Size	F-static				6,5634	
	10%		5%		1%	
80	I(0)	I(1)	I(0)	I(1)	I(0)	I(1)
Asymptotic case	-1,0000 1,8500	-1,0000 2,8500	-1,0000 2,1100	-1,0000 3,1500	-1,0000 2,6200	-1,0000 3,7700

Source: author's own compilation

Table 3 presents the results for cointegration test. The findings show that the calculated F-statistic is greater than both lower and upper bounds. Thus, the null hypothesis of no cointegration was rejected. This means that there is cointegration in the model and at least one variable shared a long-run relationship with inflation.

Table 4: Long- run dynamics of ARDL

Variable	Coefficient	t-Statistic	Probability
CPI(-1)	0,2613	2,7774	0,0070
CPI(-2)	-0,1694	-1,8157	0,0737
CPI(-3)	0,1152	1,2862	0,2026
LNGOVERNMENT SPENDING	6,3756	2,3953	0,0193
LNGOVERNMENT SPENDING(-1)	-2,1539	-0,9738	0,3335
LNGOVERNMENT SPENDING(-2)	8,9075	3,9773	0,0002
LNGOVERNMENT SPENDING(-3)	-1,9188	-0,8282	0,4104
LNGOVERNMENT SPENDING(-4)	-11,6402	-4,2731	0,0001

LNRGDP	0,9340	0,2414	0,8099
M3	0,0301	0,6958	0,4889
REER	-0,0142	-1,6302	0,1075
REPURCHASE RATE	0,5587	4,2521	0,0001
REPURCHASE RATE(-1)	-0,5919	-4,8838	0,0000
TAXES	-0,0084	-1,4399	0,1544
UNEMPLOYMENT	0,1195	2,6390	0,0102
UNEMPLOYMENT(-1)	-0,1183	-2,4902	0,0151
UNIT LABOUR COST	0,0048	0,2126	0,8322
C	-6,5307	-0,1911	0,8490
SUMMARY STATISTICS			
R-squared = 0.7178			
Adjusted R-squared = 0.6493			
F-statistic (Prob) = 10.4735 (0.0000)			
Durbin-Watson stat = 2.2397			

Source: author's own compilation

The long-run dynamics of inflation in SA is represented in Table 4 above. As can be seen, unemployment has a positive relationship with inflation. This contradicts theory since in the long run, there is no relationship between inflation and unemployment (Szentmihályi and Világi, 2015). On the other hand, the coefficient of lagged unemployment becomes negative. Both unemployment and lagged unemployment are statistically significant as the probabilities are less than 5%. Furthermore, inflation and RGDP share a positive but insignificant relationship. This positive relationship is supported by Gordon (2011).

Moreover, government spending bears a positive coefficient. This is correct as theory dictates that spending should increase due to expansionary fiscal policy, leading to a rise in inflation rates (Mohr et al., 2018). Furthermore, the probability value indicates that the variable is statistically significant, especially when lagged by two and four quarters. In addition, the relationship between inflation and M3 is found to be positive but statistically insignificant. Moreover, according to Mohr et al (2018), the quantity theory of money implies that as money supply increases, price levels will increase. This means that a positive relationship exists. Furthermore, the findings that government expenditure and M3 share positive correlations with CPI, corroborates the findings of Fedderke and Lui (2018). Taxes are negatively related to inflation since it is generally known that a decrease in taxes due to expansionary fiscal policy leads to a rise in inflation (Mohr et al, 2018). However, the probability value is more than 5%, making it insignificant.

Similarly, exchanges rates (REER) have a negative relationship with inflation. This has been theoretically proven by the exchange rate channel (Van De Merwe and Mollentze, 2010). According to the authors, exchange rates and inflation move in opposite directions. If the currency appreciates, the result would be lower price levels and vice versa. However, the probability value of 0,1075 indicates that it is statistically insignificant. When compared with unemployment, repurchase rates shares a positive relationship with inflation which is opposite to theory. According to the interest rate channel, if the repurchase rate is increased, prices will decline. Alternatively, a drop in the repurchase rate results in an increase in inflation (Van De Merwe and Mollentze, 2010). However, when the repurchase rate is lagged by one quarter, the coefficient becomes negative. In addition,

irrespective of the coefficient of the repurchase rate, the variable is statistically significant according to Table 4. On the other hand, inflation and unit labour cost are positively related, but the probability indicates that unit labour cost is an insignificant variable. Most importantly, lagged inflation is significant in the short run. This indicates that inflation is persistent. However, the coefficients vary from positive to negative.

Table 5: Error Correction Model

Variable	Coefficient	Standard Error	t-Statistic	Probability
ECT(-1)	-0,7929	0,0921	-8,6065	0,0000
D(CPI(-1))	0,0542	0,0891	0,6083	0,5447
D(CPI(-2))	-0,1152	0,0782	-1,4737	0,1445
D(LNGOVERNMENT SPENDING)	6,3756	1,6222	3,9303	0,0002
D(LNGOVERNMENT SPENDING(-1))	4,6516	1,7319	2,6858	0,0088
D(LNGOVERNMENT SPENDING(-2))	13,5591	1,6656	8,1406	0,0000
D(LNGOVERNMENT SPENDINGC(-3))	11,6402	1,7666	6,5889	0,0000
D(REPURCHASE RATE)	0,5587	0,0886	6,3074	0,0000
D(UNEMPLOYMENT)	0,1195	0,0376	3,1762	0,0021
SUMMARY STATISTICS				
R-squared = 0.7187				
Adjusted R-squared = 0.6902				
F-statistic (Prob) = 25.2294 (0.0000)				
Durbin-Watson stat = 2.2397				

Source: authors own compilation

The error correction results are shown in Table 5 below. The table also shows the short-run relationships of the model; government spending shares a positive sign with inflation in the short run. In addition, government spending and inflation are positively correlated in the long run as shown above in Table 4. This positive sign is correctly predicted since an increase in spending increases inflation (Mohr et al, 2018). In addition, the variable is statistically significant, especially when lagged up to three quarters. Furthermore, the relationship between the repurchase rate and inflation remains positive and significant in the long and short run. In conclusion, monetary and fiscal policies affect inflation (Leshoro, 2020) due to their significance.

Similarly, the coefficient of unemployment is positive and statistically significant. However, this is opposite to theory which states that a negative relationship exists (Phillips, 1958). Therefore, it can be concluded that the PC does not exist in SA, agreeing with Leshoro and Kollamparabil (2016). A positive relationship suggests that the triangle model of inflation exists. Furthermore, lagged inflation becomes insignificant. Most importantly, the error correction term reveals that it will take approximately 79% every quarter for variables to converge to long-run equilibrium. In addition, the DW statistic shows no problem of autocorrelation, and the ECM is statistically significant as indicated probability of the F-statistic. Finally, the adjusted R² reveals the model has an explanatory power of about 69%.

Table 6: Heteroskedasticity

F-statistic	0,6576
Obs*R-squared	12,1193

Scaled explained SS		6,3170
Prob. F(17,70)	Prob. Chi-Square(17)	Prob. Chi-Square(17)
0,8324	0,7929	0,9908

Source: author's own compilation

The Breusch-Pagan-Godfrey test was used to test for heteroskedasticity. Table 6 shows that the null hypothesis of homoscedasticity could not be rejected since the probability values of 0.8324 is greater than the 5% significance levels.

Table 7: Serial correlation

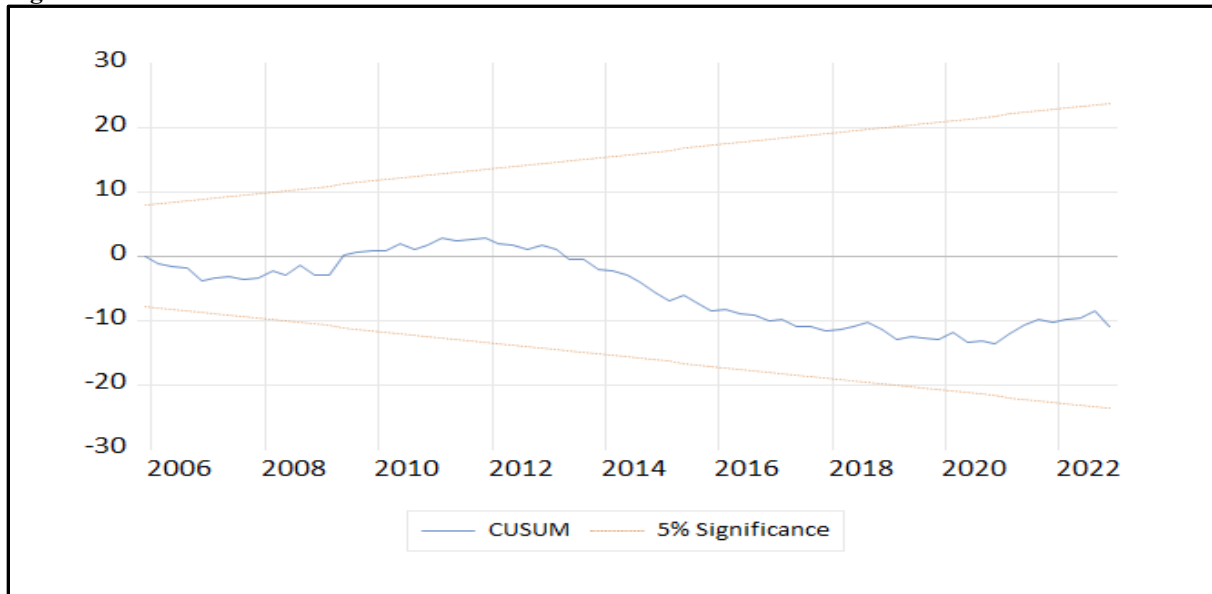
F-statistic	1,1971
Obs*R-squared	11,7740
Prob. F(8,62)	Prob. Chi-Square(8)
0,3156	0,1616

Source: author's own compilation

Table 7 revealed that the null hypothesis of no serial correlation could not be rejected. Specifically, the probability value of 0.3156 is greater than 5% level of significance (based on the Breusch-Godfrey LM test).

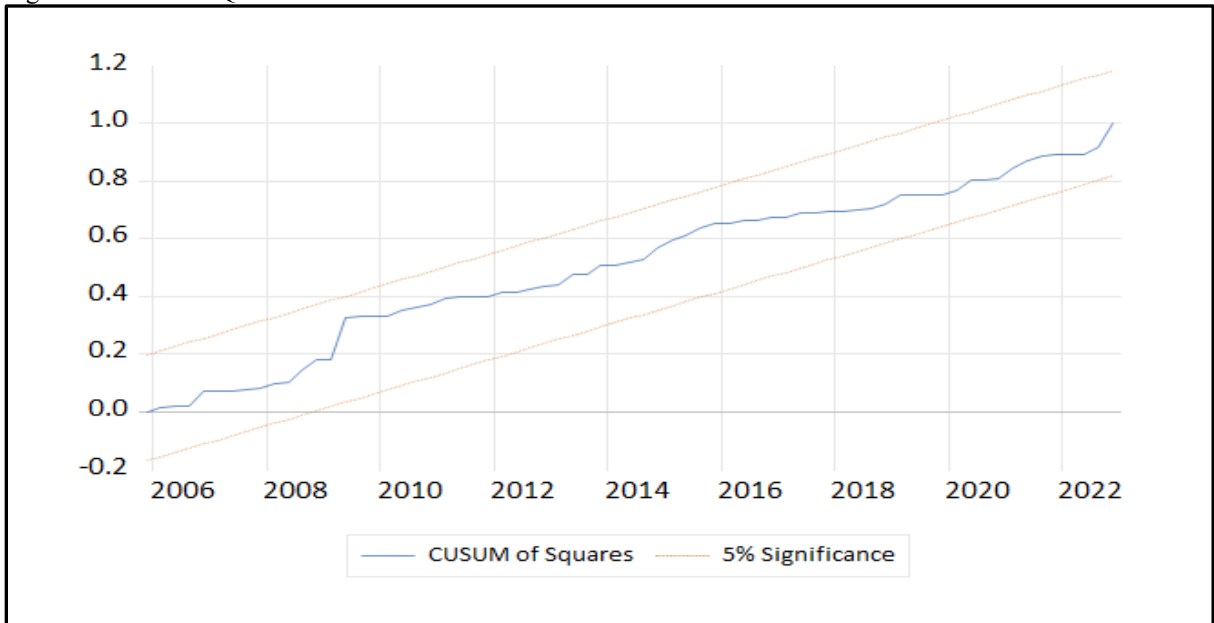
The CUSUM and CUSUMSQ graphs (Figures 1 and 2) show the stability of the model and coefficients in the long run. Figures 1 and 2 below show that the blue line falls within the bandwidth of the 5% significance level. Therefore, the regression and model is stable and constant over the sample period.

Figure 1: CUSUM test



Source: author's computations

Figure 2: CUSUMSQ test



Source: author's computations

Conclusion

This research study aimed to investigate inflation dynamics in SA using the new Keynesian approach. This approach is based on the assumption that inflation should be influenced by inflation persistence (i.e., lagged inflation) and inertia. The HNKPC was utilised as it included more than one type of PC, and the empirical study applied an ARDL model together with an ECM to fulfill the objectives and prove or disprove its hypotheses. The basic hypothesis of the study was to determine if a HNKPC existed, and to identify the other factors that influence inflation. Consequently, a secondary hypothesis was included to investigate if both monetary and fiscal factors play a role in determining inflation in SA. For this purpose, quantitative research methods were employed using quarterly data for the period 2000 - 2022.

The study found that inflation and unemployment move in a positive direction both in the short and long run, and the relation becomes negative when unemployment is lagged. This could indicate that the triangle model exists in SA. RGDP and unit labour costs had the correct signs but were statistically insignificant in affecting inflation. Lagged inflation was significant in both the short and long run, proving that a new Keynesian approach was the correct route to take. In addition, government spending, the repurchase rate and unemployment were the only variables to affect inflation in both the short and long run. These variables all proved to be significant, and the results indicated that the HNKPC does not exist and that monetary and fiscal variables play a pivotal role in inflation dynamics. Inflation and unemployment are two very important variables. Both affect people's livelihoods, buying power and economic growth. Unemployed people cannot fight the cost of inflation, and it is important to find the correct balance between the two. Policies aimed at keeping both inflation and unemployment as low as possible should be implemented since this affects economic growth. In addition, both monetary and fiscal policies should be considered when studying inflation dynamics and the PC. The scope of these variables

should also be widened when studying inflation dynamics. Most importantly, inflation is a continuous process; policies should regularly be updated to achieve better results and alternative theories should be considered when analysing inflation.

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DIASPORA INVESTMENTS AS A MECHANISM FOR FINANCING DEVELOPING ECONOMIES: A REVIEW OF THE NIGERIAN DIASPORA BOND EXPERIENCE

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***Abstract:** Despite the extensive economic literature on diaspora or migration and its negative impacts on origin economies, there is a growing trend among governments to explore mechanisms for leveraging this phenomenon to support economic development in the origin countries. This is particularly evident in efforts to encourage remittances and investment in financial instruments and products offered by institutions and governments of these countries. This study, within a descriptive and analytical framework, aims to examine the contribution of the diaspora in financing the economy, with a focus on the case of Nigeria, one of the African economies where the diaspora constitutes a significant percentage of the global migrant population. The study found that the diaspora plays a crucial role in financing the economy, whether through remittances or investments. However, there are several challenges and issues that need to be addressed to ensure the sustainability of diaspora financial flows to the origin countries.*

***Keywords:** Migration, Diaspora, Remittances, Diaspora Bonds, Financing, Nigeria.*

Introduction

Migration has consistently been a prominent and influential pattern that defines the global economy, with large waves of migration, particularly from developing to advanced and emerging economies. Various circumstances and factors explain this phenomenon, such as the quest for job prospects and the escape from difficult living conditions. The African continent, in particular, experiences substantial migration activity, with a significant influx of migrants migrating inside the area and beyond. Most international migration occurs within Africa, and according to the latest available data on (International Organization for Migration, 2019), an estimated 21 million Africans resided in a different African nation. This marks a significant increase compared to 2015, when it was estimated that approximately 18 million Africans resided beyond their nation of origin, however still inside the African area. Additionally, the population of Africans residing in various

locations outside of Africa increased within the same time frame, the number of individuals increased from over 17 million in 2015 to over 19.5 million in 2020. Since the year 2000, there has been a substantial increase in global migration inside Africa, and since 1990, the population of African migrants residing outside of Africa has increased by almost 100%. The growth in migration to Europe has been particularly notable, and by 2020, the majority of African-born migrants who live outside of Africa are now residing in Europe (11 million), Asia (approximately 5 million), and North America (around 3 million) (International Organization For Migration, 2024, p. 56).

Given this large African diaspora worldwide, many African countries have sought to leverage it by offering various incentives and implementing policies aimed at re-engaging their diaspora with their countries of origin or finding ways to enhance their investments in their home countries. Among these countries is Nigeria, whose diaspora constitutes a significant proportion of the global diaspora. The relationship between Nigeria and its diaspora is particularly noteworthy, making it a subject worthy of study. The purpose of this investigation is to investigate the contribution of the Nigerian diaspora in funding the economy, with a focus on the Nigerian diaspora as a case study.

Literature Review

The topic of diaspora and its role in the economy is one of the important subjects that has gained increasing attention in both academic and practical circles, particularly in light of the growing trend of this phenomenon. Governments are attempting to leverage the outflow of human resources and convert anticipated negative impacts into confirmed positive effects. There are several previous studies on this topic, among which is the study by (Duke, 2011), which aimed to highlight the significance of diaspora bonds as an external funding source for Nigeria. The study examined various international experiences with diaspora bonds, clarified the challenges and requirements for issuing diaspora bonds in Nigeria, and concluded that the large number of Nigerian diaspora members and the high inflow of remittances are key factors in Nigeria's ability to increase external funding through the issuance of these bonds.

Another study by (Bouoiyour, 2008) aimed to highlight the interaction between the diaspora and development in Morocco by reviewing Morocco's migration policy and the extent to which Morocco benefits from its diaspora through financial remittances and diaspora investments. The study concluded that Morocco does not adequately benefit from its diaspora through remittances, nor does it achieve significant gains from these investments (through technology transfer).

On the other hand, the study by (Williams, 2018) aimed to examine the evolution of policies seeking to mobilize and maximize diaspora investments in their countries of origin. The research examined the economy of three Balkan countries—Bosnia and Herzegovina, Kosovo, and Montenegro—each of which has significant diaspora populations. The research illustrates that in the aftermath of conflicts, economies strive to engage the expatriate community in order to address the adverse effects of economic disruptions.

In the same context, the study by (Aja, Nnaji, & Okorie, 2024) aimed to analyze trends in remittance flows and their corresponding contribution to Nigeria's GDP and national income. The study also analyzed the direct influence of financial remittances on social factors and the economic well-being of families receiving assistance in Nigeria, and identified the motivating factors and long-term effects of Nigerian citizens' migration to

foreign countries. The study revealed that remittances from the Nigerian diaspora constitute a significant portion of GDP and national income, and financial remittances were found to enhance the social and The economic well-being of local recipients is enhanced by financial assistance provided by relatives living abroad, which is often used for investment in entrepreneurial endeavors.

Similarly, the study by (Owotemu, Ifechi-Fred, & Faleti, 2024) aimed to evaluate the possible influence of financial remittances on economic development, examining the manner in which host nations and beneficiary families make use of their remittances. In the event that remittances are allocated to infrastructure investment, investing in human capital development, healthcare, and education has the potential to significantly impact long-term economic growth and development. The research revealed that financial remittances have a favorable influence on the economy development by bolstering and broadening family income, promoting company activity, and fostering investment.

Methodology

The primary objective of this investigation is to investigate the contribution of the diaspora in funding the economies of emerging nations. To achieve this objective, an analysis of the Nigerian experience was conducted, as it is one of the most prominent examples among developing countries. The Nigerian diaspora represents a substantial share of the worldwide migrant population, and Nigeria is a major beneficiary of remittances from its diaspora.

Therefore, this research aimed to address the following inquiries:

- What efforts has the Nigerian government made to strengthen its relations with the diaspora?
- To what extent does the Nigerian diaspora contribute to funding and supporting the local economy?
- What are the main challenges facing Nigerian diaspora bonds?
- What are the key lessons learned from the experience of diaspora bond financing in Nigeria?

To answer these questions, the study relied on the descriptive method, which aims to highlight current issues and addressing issues by gathering and analyzing data in a manner that enables a comprehensive depiction and examination of the circumstances. As noted by (Manjunatha, 2019), this method is particularly suitable for addressing various social phenomena, especially those of an economic, administrative, or financial nature, in order to achieve the most accurate results.

Regarding the sources of information, the study drew on various previous studies on the subject, including journals, books, conferences, and websites. When analyzing the Nigerian experience in diaspora financing, the focus was on reports issued by official international organizations.

The Conceptual Framework of Diaspora Investments

The term "diaspora" is a relatively modern concept in the field of social sciences. Before 1980, this term was associated with few scholarly works and research, and the connection between the diaspora and the Jewish people was very evident, making it difficult for researchers to apply it to other social groups.

The Nature of the Diaspora

The diaspora, also referred to as expatriate communities, denotes the stock of migrants or long-term migrants (Wickramasekara, 2017, p. 06). As per the International Organization for Migration, diaspora refers to individuals from ethnic and national groups who have migrated from their home countries but nevertheless have connections with them. The word diaspora refers to transnational communities who reside in one location while maintaining ties with their countries of origin, being both 'here' and 'there' (International Organization for Migration, 2019). The concept of diaspora is closely linked to human migration, and it is not new to humanity. People have migrated for trade, employment, relocation to preferred places, or as a result of wars and human disasters (Diaspora, Ministry of Foreign and Kenya, 2024, p. 01). In his pioneering research, Tololyan observed that the term "diaspora" in Greek has been in use since ancient times, the phrase originally denoted the dispersion of Jewish people, and later extended to include the scattering of Greek and Armenian groups. The three classical diasporas were primarily historical events characterized by consecutive waves of human movement driven by economic or political factors. The contemporary use of the word diaspora, referring to foreign populations, expatriates, minorities, and other groups, originated in the late 1960s (Gevorkyan, 2021, p. 03).

The concept of diaspora only started attracting significant scholarly attention after 1980. Authors like Médam (1993) observed that its use had become so frequent that it was losing its scientific validity, as it referred to numerous phenomena characterized by the dispersal of populations from a national area across many receiving countries.

The theorization of the concept of diaspora primarily originates from Anglo-Saxon research. Gabriel Sheffer (1986) traces its emergence to Armstrong's (1976) article, which argued that it is a mistake to consider the term diaspora applicable only to the dispersal of Jews, noting that other diasporas, such as the Phoenician and Assyrian, existed or even preceded it (Tchouassi, 2010, p. 212). The many interpretations of the word diaspora, along with the intricate nature of migratory history in every nation and the ever-changing patterns of movement, the exact determination of the magnitude of the diaspora is a tough issue. For instance, estimates suggest that the size of the Nigerian diaspora ranges between 1.2 to 1.7 million individuals, depending on the specific definition of diaspora employed. The United Nations estimates that the Indian diaspora is the largest in the world, with around 18 million people, boasting a substantial global reach and playing a vital role in fostering development through contributions to trade and venture capital. The Chinese diaspora has considerable importance as well, both in terms of its immense population of 10 million inhabitants and its vigorous activities. This diaspora is notable for its distinctiveness by a profound feeling of cultural affinity with the native country, it has enabled the diaspora to actively engage in Chinese global business, advancements in technology and investments from foreign entities.

In addition to the above, the Jewish diaspora is considered a special case, as many of the communities belonging to this diaspora predate the establishment of the Israeli entity, with these communities being widely dispersed (Fang & Wells, 2022, pp. 5-6).

Types of Diaspora Networks and Their Potential

Given the interactions that can occur between various individuals who belong to the diaspora and the nations from which they come, two types of diaspora networks may form: (Maatoug & Bouriqui, 2024, p. 465)

Primary Network: This connects expatriates residing abroad with their countries of origin, facilitating the transfer of resources to these countries.

Secondary Network: This involves members of the diaspora connecting with each other within the same country or across different countries of origin, which enhances the potential for resource mobilization within the diaspora community.

Given the diaspora's simultaneous belonging to the nations from whence they originate and their residential countries, they have the ability to serve as catalysts for change and possess knowledge of the overall circumstances in both nations. The International Organization for Migration (IOM) classifies the potential of the diaspora as follows (Shayan, 2021, p. 10):

- **Human Capital:** Diaspora members living abroad can enhance their knowledge and skills, and they can share these skills and experiences with their countries of origin.
- **Social Capital:** This refers to the communication networks of the diaspora, as they connect with the nations from whence they originate, with individuals from the same diaspora in other countries, and with friends and relatives. Social media facilitates this communication.
- **Economic Capital:** The business initiatives led by expatriates between countries of origin and residence, additionally, investments of both small and major sizes are included and financial remittances to families and relatives, contribute to increased employment opportunities and poverty reduction in the countries of origin.
- **Cultural Capital:** Due to their transnational nature, expatriates can serve as a bridge for establishing cultural relations and mutual understanding amidst the nations they were born in and the nations they now live in.

Diaspora Investments (Importance and Types)

Diaspora investment refers to the process of mobilizing wealth by migrants, which can result in financial and developmental advantages for both the migrants themselves and their countries of origin. Typically, commercial enterprises, government organizations, or non-governmental organizations receive diaspora investments, distinguishing them from financial remittances usually received by families (Larisa, Cancel, Clifford, Russell, & Aikins, 2022, pp. 7-8). Diaspora investments offer multiple benefits to the receiving countries, including the following (Tavakoli & Charumathi, 2017, p. 08):

- Providing additional resources for development financing;
- Expanding capital markets;
- Enabling access to lower-cost credit;
- Encouraging confidence and investment from non-expatriate investors;
- Providing a more reliable flow of resources, not solely dependent on the rate of financial return, especially in the face of increasing global uncertainty.

Diaspora investment can take many forms, and it primarily includes the following:

Expatriate Bank Accounts: Financial accounts held at a bank for expatriates may be given in either domestic or international currency. and may include incentives to promote investment, examples of such benefits include advantageous interest rates and/or less taxes on the accrued interest. Regarding the nations that get anything, these accounts provide as a cost-effective means to attract and manage foreign cash inflows, thereby enhancing the nation's current account surplus. These accounts allow individuals of the diaspora to participate in other types of investing as well (Larisa, Cancel, Clifford, Russell, & Aikins, 2022, pp. 07-08). An example of this is the accounts offered by the Central Bank of Turkey

for the diaspora, which include fixed-term deposit accounts denominated in foreign currencies and Super FX accounts are exclusive to those holding Turkish passports who live outside of Turkey. These fixed-term accounts are available in several currencies such as euros, dollars, pounds, etc. They have a minimum deposit requirement of \$1,000 and a minimum term of two years. The annual interest rate for all currencies is 0.25% (Agunias, 2012, p. 208).

Diaspora Debt (Diaspora Bonds): The primary way through which expatriates can one way to invest in a country's debt is by purchasing diaspora bonds, which may be issued in either the native currency or a foreign currency. Diaspora bonds refer to bonds issued by governments targeting citizens and individuals who belong to a country but live elsewhere. Thus, they represent a form of government debt directed at the country's community abroad (Oji, 2015, p. 08). These bonds are typically pooled into the government budget and used for developmental projects. The country that intends to adopt this mechanism sells the bonds to diaspora communities abroad at a national rate, meaning a low-interest rate, making them public debt obligations to be repaid in the future. Investors are not necessarily focused on returns when purchasing these bonds, as they are primarily motivated by national aspirations to contribute to their country. expatriate bonds refer to financial instruments issued by governments or government agencies with the specific intention of attracting investment from their expatriate population, giving expatriates the option to invest part of their wealth in their homeland in the form of diaspora bonds (Akkoyunlu & Stern, 2018, p. 58).

Diaspora bonds are a kind of financial instrument that a nation, sub-sovereign organization, or private firm may issue to obtain cash from people in the diaspora who live overseas (Ratha & Ketkar, 2010, p. 252). The use of diaspora bonds originated in the early 1930s by Japan and China and has endured until the current time, with the Israeli diaspora bond raising nearly \$25 billion over the past thirty years. India also raised approximately \$11 billion from diaspora bonds issued immediately after the sanctions imposed on the country following its nuclear bomb test (Shimeles, 2010, p. 05).

Diaspora bonds take two forms, as illustrated in the following table:

Table (1): Forms of Diaspora Bonds

Temporary Diaspora Bonds	Periodic Diaspora Bonds
Issued on an exceptional basis and aimed at crisis resolution	Issued annually and targeted toward development
Small or no national discount rate at issuance	Considerable national discount rate
Registration with the Securities and Exchange Commission is not necessary.	Registered with the Securities and Exchange Commission.
Bonds with variable interest rates and non-negotiable terms	Bonds with fixed interest rates and non-negotiable terms.
Maturity of 5 years with fast redemption	Maturities ranging between 1-20 years
Distributed in collaboration with the issuing state institution and international banks	Direct distribution through a dedicated institution in the issuing country
Restricted to national expatriates	Open to both national and international expatriates.

Source: Prepared by the researchers based on (Ado, 2020, p. 05).

The motivations behind issuing or purchasing diaspora bonds are as follows:

- For governments: For governments of developing countries that suffer from liquidity shortages and have no access to external financing, diaspora bonds offer a favorable way to tap into the savings of diaspora members who are emotionally connected to their homeland. It is even believed that the symbolic appeal to second- and third-generation immigrants can be strong, and the amount of resources that can be mobilized is presumed to be significant (Asian Development Bank, 2016, p. 05). Additionally, as many migrants become successful entrepreneurs in their countries of residence, it is increasingly recognized that they are capable of playing a significant role in sending or enabling the movement of foreign investments repatriated to their respective nations. Foreign investment by migrants and diaspora actors may indeed lead to increased capital and technology in the source countries, creating jobs, generating foreign exchange earnings, and contributing to economic growth and poverty reduction (United Nations, 2016, p. 02).
- For members of the diaspora community: The primary motivations for diaspora investment are nationalism and the strong emotional ties that migrants, especially the first generation, feel towards their homeland. There is a widely held belief that the diaspora is willing to accept a lower return in order to help their home country progress (Asian Development Bank, 2016, p. 05).

Equity investment: In the private sector of the nation in which they are domiciled, equity investment is the act of a member of the diaspora investing. The classification of this investment as a direct investment or a portfolio investment is contingent upon the extent of the investor's control and influence, as follows (Larisa, Cancel, Clifford, Russell, & Aikins, 2022, p. 08):

Direct diaspora investment: This phenomenon arises when a diaspora investor acquires a direct ownership interest in a firm located in their country of origin, often gaining a certain degree of authority or sway over the firm (typically a minimum of 10% of the equity, with some direct management of the company and possibly a mentoring role).

Portfolio investment:

Diaspora portfolio investments refer to the method by which a Investor from the diaspora acquires a minority stake in a company's ownership in the nation where they reside, however, it does not have a direct impact on daily tasks and routines. Common investing options often include the purchase of stocks or mutual funds.

Other forms: In addition to the above, other forms of diaspora investments can be added, including:

- Diaspora mutual funds: Mutual funds for the diaspora are expertly overseen pooled investment vehicles that let private investors to mitigate risk by acquiring shares in a variety of financial products, usually consisting of monetary market funds, government bonds, debt securities issued by corporations, and stocks.
- Cross-border loans: These loans are of a small amount and are offered by banks or lending institutions that allow migrants to apply for loans and repay them in their home countries while residing abroad. This is for expanding businesses, improving housing, purchasing homes, and covering educational expenses. Mortgage financing has achieved the highest level of success, and cross-border loans facilitate the extension of credit to relatives in the home country while taking advantage of the credit history built in the place of residence and exercising complete authority over the loan.

- Securitizing remittance flows: Expatriates might accidentally help to increasing the assets of local banks in their home countries by securitizing remittance flows. Securitizing remittance flows is a relatively modern financial innovation that allows creditworthy borrowers with standard remittance receipts for eligibility to get overseas loans with advantageous interest rates (Terrazas, 2010, pp. 14-19).
- Philanthropy: Diaspora philanthropy is a significant means of providing financial support for development. However, it is not in accordance with the concept of financial investment, as migrant contributors do not expect or receive a financial return or profit. It refers to a kind of progress in which recipients get both immediate and lasting social and economic advantages (Faal, 2019).

The Nigerian Experience in Relying on Diaspora Financing and the Lessons Learned

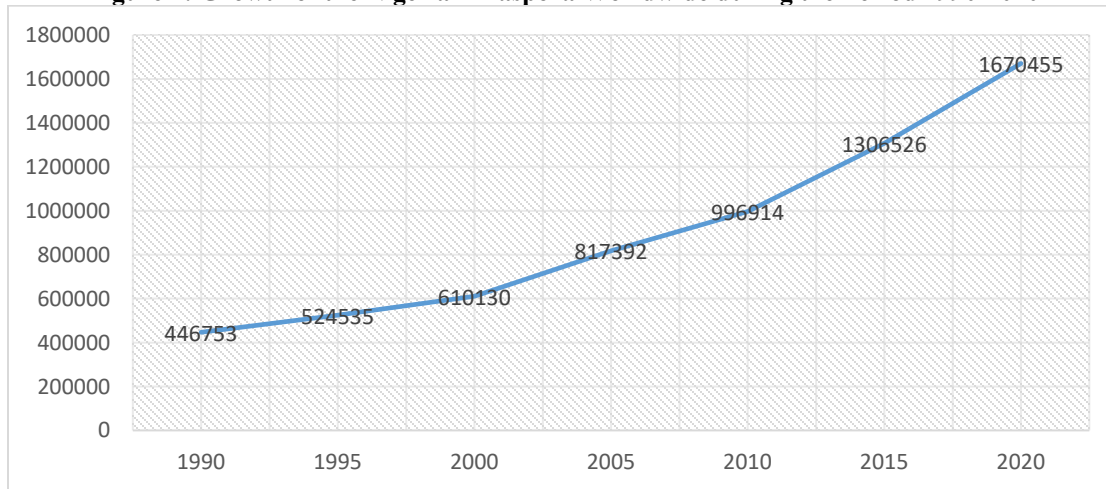
Nigeria is situated in the West African area and is a federal republic, adjacent to the north is the Republic of Niger, to the east by the Republic of Chad and republic of Cameroon, bordered by the Republic of Benin to the west, and its southern coast faces the Atlantic Ocean. Nigeria has an area of 923,769 square kilometers, and its population is estimated to be around 200 million people.

Overview of the Nigerian Diaspora

Nigerians reside in almost every country in the world, and the country receives remittances that are beneficial for development from Nigerians in the diaspora. Recognizing the need to enhance the financial, social, cultural, and technological contributions of the diaspora, Nigeria has, over the past two decades, encouraged the establishment of diaspora associations to facilitate easy access to the diaspora in various countries. Nigerian diaspora organizations have been established as part of a global network for all Nigerians living outside Nigeria, enabling focused contributions to development through collective efforts (Global Forum on Migration & Development, 2013, p. 02).

Nigerians are present in several nations throughout the globe; however, the precise magnitude of this exodus is still uncertain. According to the Pew Research Center (2019), the Nigerian diaspora is estimated to consist of a population ranging from two to fifteen million individuals. The International Organization for Migration estimated that around 3.4 million Nigerians live in the United States of America, this group of migrants is among the biggest in the nation. Large numbers of Nigerians also reside in the United Kingdom, South Africa, the United Arab Emirates, and other European and Asian countries (Wapmuk, 2021, p. 91). The following table shows the growth in the global diaspora of Nigerians between 1990 and 2020:

Figure 1: Growth of the Nigerian Diaspora Worldwide during the Period 1990-2020



Source: United Nations Department of Economic and Social Affairs.

The table highlights that the number of the Nigerian diaspora increased from over 446,000 people at the beginning of the 1990s to over 610,000 people at the start of the third millennium. By 2010, the diaspora population had reached 996,914 people, meaning the number of diaspora members doubled over two decades. The latest available data indicated that the figure reached approximately 1.7 million people in 2020.

Several factors have driven Nigerians to migrate, including, but not limited to, slavery, colonial labor policy, and military rule, and post-colonial conflict, such as the Nigerian Civil War from 1967 to 1970, as well as economic hardships resulting from structural adjustment policies and neoliberalism. Additionally, the allure of international colleges and the predicament in the Nigerian education system, marked by periodic labor stoppages and instability, have had a significant role in the formation of an academic diaspora. This diaspora's emergence is based on Nigerians' pursuit of academic excellence abroad. According to the International Organization for Migration, Nigerians are "highly educated, with about 62 percent holding a bachelor's, master's, or doctoral degree" (Wapmuk, 2021, p. 91). The figures also indicate that the United States is home to the biggest Nigerian diaspora community, with about 400,000 people, followed by the United Kingdom with over 200,000 people, as per a report by the Migration Policy Institute (Aja, Nnaji, & Okorie, 2024, p. 183).

According to the available data recorded on the Data Mapping Portal, launched by the Nigerians in Diaspora Commission to collect comprehensive and accurate data on Nigerians in the diaspora, as of the end of the first half of 2021, migrants from 28 countries had registered on the portal. An analysis of the data provided by the commission showed that Nigerians registered in the United Kingdom accounted for 22.5%, followed by the United States with 21.4%, and the United Arab Emirates with 5.4% of the registered expatriates. Other countries include Qatar with 4.8%, Canada with 4.4%, South Africa with 4.0%, Germany with 2.5%, Saudi Arabia with 2.3%, Italy with 2.3%, Ghana with 1.5%, Malaysia with 1.1%, France with 0.9%, Spain with 0.9%, and Uganda with 0.7%.

The study also indicated that Australia has 0.7%, China 0.7%, the Republic of Benin 0.7%, Sierra Leone 0.7%, Turkey 0.7%, Switzerland 0.7%, Russia 0.6%, the Philippines 0.6%, the Republic of Niger 0.6%, Ireland 0.6%, and Ukraine 0.5% (Gift, 2023).

Efforts by Nigeria to Strengthen the Government-Diaspora Relationship

The Nigerian government has been working to encourage the diaspora's contribution to the national economy by establishing several committees at the international level and offering various incentives to the diaspora to enhance their contribution to the Nigerian economy. Under President Olusegun Obasanjo's tenure (1999-2007), Nigerians residing overseas were formally acknowledged as stakeholders and esteemed collaborators in the nation's progress. The president unveiled novel approaches with the objective of repatriating Nigerian professionals and experts who are currently living and working elsewhere. This led to the creation of a global organization encompassing all Nigerian diaspora in 2001, known as the Nigerians in Diaspora Organization (NIDO), with branches established in the United States, Europe, Russia, and Asia (Wapmuk, 2021, p. 91). The Nigerian government recognizes NIDO as an official platform through which Nigerian individuals in the diaspora, their community organizations, and institutional bodies can direct their developmental efforts towards Nigeria. The organization collaborates with Nigerian community/professional organizations as well as public and private enterprises specialize in specialized sectors such as foreign direct investment, stakeholder advocacy, medical missions, and educational assistance, and transfer of skills to Nigeria (NIDO, 2024). Other diaspora organizations have also been established, for example, the Central Association of Nigerians in the United Kingdom (CANUK), the Nigerian People's Forum in the United States, the Nigerian Advancement Organization in the United States, and other similar organizations.

One of the tangible outcomes of the interactions between the government and the diaspora following this decision was the government's 2002 decision to provide Nigerians the ability to acquire foreign citizenship without forfeiting their Nigerian citizenship. Several annual science and technology conferences have also been held between Nigerians at home and abroad. Furthermore, the Nigerian government ratified the legislation enacting the Nigerians in Diaspora Commission in 2017, resulting in the establishment of the Diaspora Commission. The Diaspora Commission actively collaborates with Nigerians living abroad to harness their intellectual and professional abilities as well as their material assets, in order to contribute to the progress of the country. In 2016, the Federal Republic of Nigeria created a preliminary national policy on matters concerning its diaspora. which accepted contributions from Nigerians living abroa. Additionally, in partnership with the International Organization for Migratio, in 2015, the government formulated the National Migration Policy, which specifically tackles several aspects of migration, such as ensuring secure labor movement.

Contribution of Nigerian Diaspora Bonds in Financing and Supporting the Local Economy

Records have shown that the flow of remittances to Nigeria ranks second only to crude oil revenues as a means of generating foreign currency, surpassing the level of foreign direct investment and government development support, and portfolio investment flows. For example, in 2018, remittances accounted for 83% of the government's budget, the value is 11 times more than the amount of foreign direct investment and 7 times greater than the net official development aid of \$3.4 billion in 2017 (Aja, Nnaji, & Okorie, 2024, p. 184). According to (KNOMAD, 2024) data, Nigeria ranks among the leading beneficiaries of remittances, alongside India, China, Mexico, the Philippines, Egypt, Bangladesh,

Guatemala, Pakistan, and Ukraine, with remittances amounting to \$19.5 billion in 2023 (KNOMAD, 2024). The following table shows remittances to Nigeria by source:

Table 2: Remittances to Nigeria by Source

Source	Share of Remittances to Nigeria
United States of America	0.3
United Kingdom	0.2
Cameroon	0.12
Italy	0.05
Ghana	0.04
Spain	0.04
Germany	0.03
Benin	0.03
Other countries	0.19

Source: World Bank, 2023

The table highlights that the United States of America and the United Kingdom alone account for about half of the diaspora remittances, due to the significant concentration of the Nigerian diaspora in these two countries. Meanwhile, Cameroon accounts for 12%, followed by Italy, Ghana, Spain, Germany, and Benin, with shares ranging between 3-5%. The remaining diaspora scattered across various countries around the world shares the rest of the total remittances. As for the experience with diaspora bonds, the borrowing plan for 2011-2012 by Nigeria's Debt Management Office included a proposal to issue diaspora bonds worth \$100 million. On August 28, 2013, the Debt Management Office of the Nigerian government published the terms of reference seeking technical advisers (by March 10, 2014) for the bond issuance. In January 2014, Nigerian President Goodluck Jonathan wrote to the Senate requesting to triple the amount of diaspora bonds from \$100 million to \$300 million due to the growing interest from expatriates since the bond proposal was announced in 2013. Nigeria conducted four years of consultations with Nigerian expatriates and foreign regulators through mobile presentations in the diaspora, coordinating with embassies, missions, and the Senior Special Adviser to the President on Foreign Affairs and Diaspora is responsible for controlling the diaspora groups. (Faal, 2019, p. 72). In 2017, Nigeria, a federal republic, became the first African nation to issue diaspora bonds, which were structured as international bonds (global bonds), jointly listed on capital markets in the United Kingdom and the United States, and subject to the regulation of the Securities and Exchange Commission (SEC) and the Financial Conduct Authority (FCA). They were packaged as a retail instrument and marketed through wealth managers and private banks (Faal, 2019).

The primary objective of issuing these bonds was to finance the budget deficit in Nigeria's 2017 financial allocations. The rationale for issuing these bonds included the following (Debt Management Office, 2022, p. 06):

- Diversifying the investor base in Nigerian securities and sources of financing;
- Providing the Nigerian diaspora with the chance to contribute to the progress of their nation;
- By decreasing the amount of borrowing from the local market, there will be more opportunities for the private sector to borrow.

The following table highlights the main characteristics of the Nigerian diaspora bonds for 2017:

Table 3: Main Characteristics of the Nigerian Diaspora Bonds (2017)

Source	Federal Republic of Nigeria
Issue Date	27-Jun-17
Maturity Date	27-Jun-22
Issue Size	\$300 million
Minimum Subscription	\$2,000 with increments of \$1,000 above that
Yield on Issue	56.25
Registration/Non-Registration	Registered with the Listing Authority in the UK
	Registered with the Securities and Exchange Commission (SEC) (No. 216840)
Primary Listing	London Stock Exchange/New York Stock Exchange
Secondary Listing	Nigerian Stock Exchange and FMDQ Securities Exchange
Governing Law	New York Law

Source: Debt Management Office, 2022, p.04

The Nigerian government used diaspora organizations' databases to send a persistence notice to them with bank contact details. Additionally, the Diaspora Committee conducted a series of promotional campaigns. Those with bank accounts in Nigeria were also able to invest (African Development Bank and Making Finance Work for Africa, 2019, p. 90). The diaspora bond distribution plan included the allocation of bonds to four banks responsible for purchasing the original bond amount of \$300 million. The issuance managers included international lead managers and Nigerian lead managers, enabling them to reach individual investors. The institutional offering transitioned to retail, and the following table highlights the Nigerian diaspora bond distribution plan (2017).

Table 4: Nigerian diaspora bond distribution plan (2017)

Subscriber	Country	Subscription Size
Merrill Lynch, Pierce, Fenner & Smith Incorporated	United States of America	\$112,500,000
The Standard Bank of South Africa Limited	United Kingdom	\$112,500,000
First Bank of Nigeria	Nigeria	\$37,500,000
United Bank for Africa	Nigeria	\$37,500,000
Total		\$300,000,000

Source: Prepared by the researchers based on: (The Federal Republic of Nigeria, 2017).

The issuance was successful, with the bond being oversubscribed, primarily due to the Central Bank's history of never defaulting on bond payments. Although detailed information about the profiles of different investors is not readily available, initial bond applications reached 190%. The subscription rate for the initial Nigerian diaspora bonds attained 130% at the conclusion of the auction. Interest payments to bondholders are made twice a year, on June 27 and December 27 of each year, starting from December 27, 2017. For example, for every original amount of \$1,000 of bonds purchased on June 27, 2017, an interest of \$28.13 is paid on June 27 and December 27 each year until maturity (unless the bonds are sold). Interest is computed using a 360-day year consisting of 12 months, with each month having 30 days (The Federal Republic of Nigeria, 2017). The interest rate offered for the diaspora bonds was lower compared to the Nigerian government's Eurobond issuance—\$2.5 billion in 2018 with an interest rate exceeding 7%, and \$3 billion in

Eurobonds issued in 2017 with interest rates ranging between 6.5% and 7.5% (African Development Bank and Making Finance Work for Africa, 2019, p. 90).

The net proceeds from the diaspora bond issuance, after deducting underwriting fees and the issuer's share of offering expenses estimated at \$2 million, amounted to approximately \$295.6 million, as shown in the following table:

Table 5: Net Proceeds from the Subscription of Nigerian Diaspora Bonds (2017)

Statement	Per Bond	Total
Public Offering Price	1	\$300,000,000
Subscription Discount	0.008	\$2,400,000
Revenues Before Issuer's Expenses	0.992	\$297,600,000
Expenses		\$2,000,000
Net Proceeds		\$295,600,000

Source: Prepared by the researchers based on: (The Federal Republic of Nigeria, 2017).

In addition to the net outcome of diaspora bonds, the benefits derived from investing in Nigerian diaspora bonds include the following: (Debt Management Office, 2022, p6)

- With the registration of the prospectus with the U.S. Securities and Exchange Commission and the British Securities Authority, Nigeria has joined the ranks of nations that have implemented the most stringent disclosure requirements for the issuance of securities;
- This initiative contributed to the growth and sustainability of Nigeria's presence in the global securities market, while also attracting foreign direct investment;
- The contribution to foreign reserves resulted in a strengthening of the local currency's value.

Key Challenges Faced by Nigerian Diaspora Bonds

Despite the effectiveness of the Nigerian diaspora alliance experience, there are some challenges worth noting:

- **Regulatory Challenges:** The biggest challenge for the Nigerian diaspora bond experience was the regulatory environment in the United Kingdom and the United States, which restricted the retail market.
- **High Issuance Costs:** The total costs of issuing the bonds (including the underwriter's discount and the issuer's share of the offering expenses) as previously indicated amounted to \$4.4 million (1.5%), making the issuance more expensive than launching Eurobonds.
- **Lengthy Marketing Period:** Diaspora bonds took longer to market as there were many marketing roadshows before the issuance.
- **Difficulty in Reaching the Diaspora:** Significant efforts were made to reach the diaspora, and there is no way to know if it was expatriates who invested or institutional investors.

Lessons Learned from the Nigerian Diaspora Bond Financing Experience

Many lessons can be drawn from the Nigerian experience in issuing diaspora bonds, including the following: (Cyrus, 2018, pp. 3-4).

- Diaspora bonds are intricate financial instruments with several distinct features; they must be meticulously crafted to accommodate the unique circumstances of each nation. Important factors to examine are the general objectives, dates of issue, quantities,

currencies, maturities, provided interest rates, and minimum subscription requirements, etc.;

- Tapping into diaspora savings is a long-term process that takes several years, and its success depends on political, economic, and technical factors, particularly a stable economic environment free from risks related to the repatriation of interest and money is ensured without any exposure to currency concerns;
- Creating effective tools to engage with the diaspora requires a clear understanding of the size, the migrant diaspora encompasses information on the geographic locations, as well as the economic and demographic attributes of the migrants. This includes details such as the migrants' age, gender, skill level, planned destination, degree of savings, financial assets, and commitments in their nation of origin. However, for several African nations have limited access to comprehensive data, both inside their own borders. and restricted in host nations;
- The expenses associated with the preparation, promotion, and distribution of diaspora bonds are substantial, particularly when there is a need to adhere to regulatory requirements in several jurisdictions, it might nullify the advantages of using diaspora savings. As per the United Nations Development Program, the expenses might amount to 4 or 5% of the nominal value of the bond instrument.

Conclusion

Although migration is considered a negative phenomenon by many theorists, it can be harnessed if the appropriate conditions are provided, allowing governments to benefit directly or indirectly from remittances and investments of diaspora funds in various ways. Diaspora bonds are among the significant investments that governments, which have a substantial diaspora population and suffer from savings deficits, can rely on to finance various projects, especially those related to infrastructure. Looking at the Nigerian experience with diaspora bond financing, the Nigerian government successfully used these bonds to obtain the required financing despite the incurred costs, the lengthy marketing period, and the difficulty of obtaining information about the targeted diaspora. This calls for the need to overcome obstacles to diaspora fund transfers while continuing to build a database that includes diaspora information.

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FACTORS AFFECTING REWARD SYSTEM AND COMMITMENT OF NIGERIA POLICE FORCE

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Abstract: This study examines the factors affecting reward system and employee commitment of Nigeria Police Force. These factors include evolving workplace cultures, employer management styles, the impact of jobs, employee personal traits, organizational structure, working conditions, interdepartmental relations, workplace diversity, and improved job prospects. This study concluded that evaluating commitment is a contemporary and significant problem for government institutions, including police departments. Despite their critical role in upholding law and order, police officers frequently work in stressful and frustrating environments. As a result, the study recommended that the Nigeria Police Force should make a concerted effort to revisit, assess, and reevaluate the police personnel financial reward programs. The majority of reward programs and packages are antiquated and out of tune with Nigeria's present economic conditions, which are marked by price increases, inflation, and rising interest rates. This is due to the possibility that using the current compensation systems indefinitely could demoralize staff members and cause them to become less devoted to providing the institutions with high-quality services.

Keywords: Reward system, employee commitment, Nigeria Police Force

Introduction

Researchers and academic scholars have placed a lot of emphasis on the nature of human resource practices and their effects on employee commitment and overall organizational success over the years (Okolie, Irabor & Udom, 2017). Nigeria's government must not only retain the best police officers but also incentivize them to stay in the force in light of the rising wave of insecurity and escalating interethnic and community strife. Due to differing criteria, employee commitment reward management has reached its zenith in a number of nations, including but not limited to the United States, France, Canada, Spain, Norway, and Germany. These governments routinely evaluate the pay and benefits that they provide to their employees, which makes it difficult to pinpoint cases of employee corruption. Some African countries have suffered greatly as a result of the negative effects of poor worker performance as well as the pervasiveness of corruption and bribery in public services, especially in West African countries. Many West African economies have suffered as a result of these stigmas, most notably Nigeria's (Ibikunle, Sanusi & Balogun, 2023; Okolie & Edo, 2023). Discussions about the elements that lead to police officers' inefficiency in providing their services have been sparked by the serious concern raised by the problem of corruption in the Nigerian police force.

Divergent views are held by authors concerning the discriminatory character of the stipends that the government offers to public personnel, including those in the Nigerian police force. Nmakwe and Ojiabo (2018) contend that these stipends have a coercive effect on public servant behavior, while Mandong (2017) maintains that police force appointments are not based on merit. There is a belief, according to Ekere and Amah (2014), that a sizable portion of officers were appointed due to nepotism or favouritism, which had a negative effect on service delivery. For almost a decade, certain parts of Nigeria have been beset by an ongoing state of instability marked by episodes of abduction, armed robbery, militancy, and banditry. The law enforcement organization in charge of upholding public order is asking for a pay raise. A new police welfare package was approved by the government under President Muhammadu Buhari's administration. Its objectives were to increase the size of the police force, improve pay, and eventually improve service quality while reducing insecurity in Nigeria. The government believed that the introduction of this new pay scale would act as a stimulant for higher employee motivation, which would enable the delivery of services to a national level.

Unveiled on November 25, 2018, the welfare package policy has generated a lot of interest and questions. These concerns concern the efficiency and effectiveness of service delivery by the Nigerian police, even with the introduction of a new welfare package for the force. Has there been a decline in bribery and corruption among Nigerian law enforcement officials after the introduction of the benefit package designed to lower crime rates? Because of this, creating a strategic incentive framework for a company is usually a challenging process, but it is essential to the firm's survival in a competitive and ever-changing environment. Therefore, in order to address the different demands of the workforce particularly those related to motivation and general well-being reward systems must be conceived, developed, and specifically suited to the organizational environment and they cannot be duplicated from other organizations. In lieu of salary increases, golden handcuffs and the like, rewards are designed to help organizations meet their most important needs that is, to engage, attract, motivate, and retain employees by employing a strategy that is more efficient and able to produce long-term outcomes. The aim of rewards is to maximize the positive benefits that a range of rewards can have on commitments, job satisfaction, motivation, and job engagement (Armstrong, 2019; Okolie & Igbini, 2023). In the words of Shields, Brown, Kaine, Dolle-Samuel, North-Samardzic, McLean, and Plimmer (2015), the demands of the workforce should be the determining factor for compensation. Some workers believe that monetary rewards are enough to help them reach their objectives, but others would rather get other benefits like paid time off, a car, or a piece of real estate. A reward system must incorporate an effective balance of monetary and non-monetary incentives and awards in order to satisfy staff demands and expectations regarding the management system. According to Manimalar (2022), when workers receive fair compensation, their performance is more likely to be improved, and they are more likely to exhibit positive performance indicators including strong job morale, work devotion, efficient performance of duties, and high levels of productivity. According to Zwingina and Zainab (2019), there is a strong positive association between employees' motivation and both monetary and non-monetary awards. According to Uzochukwu, Nwankwo, and Okafor (2023), a favorable correlation between incentives and motivation raises workers' job satisfaction. A rise in job satisfaction also raises an employee's sense of success and accomplishment in their work.

A study by Zwingina and Zainab (2019) found a significant relationship between workers' satisfaction at work and their commitment to doing their jobs well. Zeb-Obipi & Ikoromasoma (2021) conclude that as a result, organizations of all sizes have made significant investments in the laws and policies that encourage employee engagement and attitude. Even though various organizations have varied definitions of commitment, certain trends frequently surface. These themes include how much people like and believe in their work, how much they feel their employer values their contributions, and how happy employees are with their jobs and how proud they are of their employers. The more engaged workers is at work, the more likely they are to "go the extra mile" and do exceptionally well on the job. Furthermore, motivated employees may be more dedicated to remaining with their existing company. The efficacy of an organization can be influenced by engagement and attitude. A cheerful disposition suggests a deep feeling of commitment to a company. Qing, Asif, Hussain, and Jameel (2020) define it as the affect, belief, and behavioral intention of an employee toward his work. An individual's attitude might reveal their feelings toward a circumstance or an institution.

According to Meyer & Allen (1991), referenced in Uzochukwu et al. (2023), a committed person's attitude as action is evident when they behave in a specific manner out of a sense of ethical duty as opposed to self-interest. From a motivational perspective, the organizational attitude is a state of being in which members of the organization are bound by their beliefs and actions that justify their participation in the organization and its operations. An employee's belief in sticking with the organization, accepting its aims and values, and being willing to help it achieve those goals and values is referred to as their organizational attitude, according to Qing et al. (2020). An employee's organizational attitude thus serves as a link to the organization. An employee's dedication to their organization is one of the most significant professional attributes that influence their success.

Employees that are more committed to their organization frequently perform more effectively than their coworkers as well as peers. They contribute to the success of the organization, fit in well, and know what its goals are. Affective commitment is the degree of a worker's desire to stay with the organization they work for. A worker who has a strong emotional connection to their organization desires to be employed there for long-term. Generally, they are happy with their work, feel like they belong to the organization, and identify with its objectives. Effectively dedicated employees are valuable assets for organizations, and represent their employers' brands (Okolie & Egbon, 2024). Furthermore, they reaffirm that favorable working circumstances and strong organizational commitment are fostered by an efficient reward system and sufficient performance recognition in a company. Employee morale is raised when they see that their work is recognized and appreciated, which is a result of performance acknowledgment. A positive work environment encourages employees to become more committed, which eventually improves the organization's overall performance.

In accordance with Meyer & Allen (1991), referenced in Armstrong (2019), employee commitment is the bond that workers have with their company. Employee commitment decreased employee absenteeism, turnover, and intention to leave while also improving performance and job satisfaction. Therefore, maximizing employee performance will be challenging for firms that struggle to locate and retain competent people. In addition to the direct expenses of recruiting, there are additional hidden costs including missed

productivity and management time while new recruits adjust to their responsibilities (Zwingina & Zainab, 2019). Studies on the relationship between the Nigerian reward system and commitment of staff have been undertaken recently (Zwingina & Zainab, 2019; Ayeni, Peter, Uwague, Olojede, Fayemi, Ajagbe & Osazuwa, 2022; Opara & Emore, 2022; Fubara & Needorn, 2023; Uzochukwu et al., 2023; Okolie & Egbon, 2024). Nonetheless, it is puzzling that there is still a low degree of commitment among Nigeria's public sector workers, particularly the police officers. Therefore, this study examined the variables influencing the Nigerian police force's commitment and reward system.

Literature Review

Nigerian Police Force: An Overview

To completely comprehend the issue and importance of this study, as well as to identify the precise distinctions in organizational structure and culture between the Nigerian Police Force and other law enforcement agencies operating in West African nations, it was necessary to present some general background information about the force. Therefore, the brief history of the Nigerian Police Force is shown below.

Nigeria's history with police dates back to the colonial era. In Nigeria, police has always been a reflection of the society that gave rise to it. During this time, the colonialists' political and economic agendas were the main goals of the police. The police brutally oppressed people and put an end to opposition to colonial control in many places. Law enforcement tactics in Nigeria have been characterized by a dislocation in the connection between the police and local communities since the beginning of the colonial era, which was signaled by the use of brutality and repression. Despite this colonial endeavor in Nigerian policing, the police are at the forefront of the criminal justice system, and for most people, their only direct interaction with the system is through their local police department (Nwauche, 2014).

In line with Oji and Nanji (2015), traditional African policing techniques have their roots in the community and are strongly related to social and religious institutions, drawing from pre-colonial experiences. However, local, decentralized police forces were founded by the British as they sought colonial expansion throughout the regions that are now part of Nigeria. In 1861, the Lagos colony's police force was established as the first of its kind. The protectorates that would later become the north and south saw the formation of subsequent constabularies. These police forces had different compositions based on where they were stationed. For instance, policemen from the culturally and linguistically diverse Hausa ethnic group from the country's north were employed in the Lagos colony as part of a planned strategy. The local community that the police were hired to enforce seemed to view them negatively as a result of this conduct. In contrast, the Hausa chiefs and emirs in the northern Nigerian protectorate operated under an indirect rule structure, which bolstered the emir's pre-existing police force (Afolabi, Adebawale & Omodunbi, 2021).

In accordance with Odisu (2016), the Nigeria Police Force, the first national police force, was formed in 1930 when the police forces from the north and south combined. An Inspector General of Police (IGP) oversaw this. Additional alterations to the force's structure were made in the next years, including the establishment of regional commands to better represent Nigeria's federal system. The federal government and the local governments now shared responsibility for upholding law and order. When Nigeria gained independence from the British in 1960, the fundamental institutions remained in place.

Thus, the Nigeria Police Force and local police forces were established under the Republican Constitution of 1963 and the Independence Constitution of 1960. Odisu (2016) states that country's first police force, was founded in 1930 as a result of the union of the police forces in the north and south. An Inspector General of Police (IGP) was in charge of this. The force's organizational structure saw other modifications in the years that followed, including the establishment of regional commands to better represent Nigeria's federal structure. The federal and municipal governments now had a shared responsibility for maintaining law and order. After Nigeria gained independence from the British in 1960, the fundamental institutions remained in place. Thus, the Nigeria Police Force and local police units were founded under the Republican Constitution of 1963 and the Independence Constitution of 1960.

The 1999 constitution established Nigeria's centralized police force, which it still has today. Section 214 (1) of the 1999 Constitution states: No other police force shall be constituted for the federation or any part thereof, subject to the requirements of this section. There shall be a Police Force for Nigeria, which shall be known as the Nigeria Police Force. Therefore, the Nigerian police force was founded as an organization to safeguard citizens' lives and property. Among her responsibilities are dealing with armed robberies, banditry, recovering stolen property, conducting case investigations, and resolving interpersonal violence-related conflicts. Like any other institution, her activities are predicated on a set of moral principles and behavior that ensures checks and balances in her interactions with regular people (Mohammed & Mathias, 2020).

But none of the policing issues of late have generated as much controversy as the use of force. The public's trust in the police has been damaged by documented cases of excessive force against police personnel in Lagos, Kaduna, Kano, Enugu, Port-Harcourt, and numerous other places. Police abuse of excessive force against citizens is not only criminally prohibited, but it is also ethically and leads to a situation where no one wins (Aborisade & Ariyo, 2021). In truth, the extent and nature of interactions between the police and public are primarily constrained to law enforcement circumstances. People feel resentful of these circumstances because they view them as restricting. The public's perception of the Nigerian police is negatively impacted by their inefficiency, which is a result of inadequate funding, facilities, and manpower. These circumstances cause a rift between the people and the police, as well as animosity and violence between the two groups (Chinedu, 2023).

Similarly, it has been noted that the Nigeria Police Force (NPF) does not share or become bound by the values, interests, or sentiments of the people it is supposed to protect; rather, it is too structurally and psychologically removed from them. The cause of this predicament was the Federal Police's colonial past, which had a negative impact on the caliber of applicants hired for police positions as well as the harsh and oppressive training and orientation they received. These factors ultimately had an adverse effect on how the police perceived and interacted with the public. Nigerians no longer trust the police and are reluctant to approach them as a result of their unfavorable impression and treatment of them (Aborisade & Ariyo, 2021). In addition, accusations of corruption, perversion of justice, arbitrary use of authority, and delays in the execution of justice have been made against the police and its staff, some of which have turned out to be accurate. Nevertheless, "god fatherism" is the source of these accusations. The idea of godfatherism has taken center stage in Nigerian politics and is impeding the administration of justice throughout

the nation. Nigerian public officials in senior positions have a history of influencing the legal system due to their proximity to the government. The cops are frequently drawn in, which explains their involvement in a number of unsolved crimes across the nation (Chinedu, 2023).

In a same spirit, Nigeria's police system has become political. In many Nigerian metropolitan areas, party politics hampered the creation of professional police units. Provincial political leaders realized that keeping the police under control allowed them to hold onto power while enabling their political allies and criminal cronies to break the law with impunity. As a matter of fact, in several states, the police were blatant agents of the state party machine, which sought to control every aspect of communal life. This was recently seen in Rivers State, when the state's commissioner of police was charged with participating in political parties. When lawbreakers offered police cash, assets, or special treatment, the police sometimes working with local politicians, sometimes acting alone were more than happy to overlook infractions (Aborisade & Ariyo, 2021). Similar to this, there has been debate over police abuses of human rights. The maintenance and defense of the human rights of its citizens and other foreign nationals is one of the main duties of the government. However, the public has frequently criticized the Nigerian police force for their dismal human rights records. This was particularly evident during the years of military rule, when the people's demand for the protection of human rights was given a utopian bent due to the military's custom of undermining the rule of law (Chinedu, 2023). The wider community continues to believe that the Nigerian police pay relatively little attention to the civil rights of the common person, despite repeated attempts by successive police administrations to improve the force's human rights reputation.

Another problem is corruption within the police. Law enforcement officer corruption has existed in Nigeria practically since the start of official police. Police officers have bought their jobs and promotions, offered protection, and disregarded legal infractions for financial gain throughout history. Why is policing in Nigeria so vulnerable to corruption in the form of bribery and other illicit activities? (Uduma, Nwasum, Abaneme & Ituma, 2020). This basically has to do with the fusion of two essential aspects of the police's social role. The police are able to employ force to ensure that laws are followed, which is one aspect of their authority. However, they also have the option to choose not to apply the law (Eze, 2021). These two characteristics work together to render the police susceptible to corruption, including bribery. In this setting, regular reports of police corruption surface. These can take many different forms, such as collecting money through bribery to rig the system to benefit the highest bidder or extorting drivers at unlawfully erected roadblocks (Aborisade & Ariyo, 2021).

However, policing in Nigeria is fraught with difficulties, necessitating a unique set of skills for police work. However, individuals who possess the following traits quick decision-making, the autonomous character of police employment, danger, and filthy labour are more equipped to fulfil the challenging service role required of law enforcement personnel (Aborisade & Ariyo, 2021). But the recent wave of armed robberies is making it extremely difficult for Nigerian law enforcement to be effective. The authorities have been attempting to stop this threat, but their efforts have been hindered by their obsolete weapons and inadequately prepared officers. Recently, the Inspector General demanded that officers working for banks have better bulletproof vests. Yet, nothing has been done; therefore, the

Nigeria Police should equip the officers with modern and sophisticated weapons (Uduma et al., 2020).

In Nigeria, human trafficking has also been a recurrent decimal. Nonetheless, the Nigeria Police Force is in a natural position to address human trafficking issues because it is the main law enforcement agency in the nation. The goal of this intervention should be to stop, apprehend, look into, and prosecute incidents of human trafficking. Even though the police have made significant progress in this area of policing, several obstacles remain in the way of this issue's overall success (Talabi, Nwokolo, Oloyede, Boluwatife, Adefemi & Celestine, 2021). The victims' mindset was the main issue that arose during the procedure. The traffickers compelled them to take terrifying oaths of secrecy, which they firmly believe will be effective, which is the reason for their uncooperative behaviour. Additionally, the advancement of the unit has been hampered by improper coordination of anti-human trafficking units, which is the result of ineffective communication among the twelve units dispersed around the nation (Aborisade & Ariyo, 2021).

An additional problem facing Nigerian police is the recent identifying advancement in criminal investigations. The discovery of DNA profiling and fingerprinting has been one of the most important developments in criminal investigation. While this has been successfully arresting and convicting millions of criminal suspects in developed nations like the United States and Great Britain, the situation in Nigeria is appalling. Despite having received training to this scientific degree, the Nigerian police have a hurdle in that the Federal Government does not provide the necessary equipment for them to demonstrate their work (Ojo, 2014). Language barriers between ethnic nationalities, particularly among the illiterate, which hampered police investigations, recruiting educated men and women, appropriate funding and budgetary allocation, and many other issues are among the challenges facing Nigerian police (Chinedu, 2023). The Nigerian Police Force is confronted with a number of difficulties in the context of this study, including a lack of legitimacy, financial limitations, corruption, inadequate training, strained community relations, legal restrictions, organizational problems, and security issues. These difficulties are further compounded by societal problems like disinformation, issues with privacy, and public resistance.

But frequently, the procedures and practices of reward management are employed to punish, intimidate, oppress, and repress certain people while also favouring those who are able and willing to follow the lead of the Nigerian Police Force, even when they are not deserving of rewards, promotions, or appointments to key positions. Because of this, the police officers who genuinely deserve their jobs and who wish to contribute their all to the advancement and achievement of the Nigerian Police Force's goals and objectives may become discouraged (Nwankwo & Oginyi, 2015). Affected employees may think they have no obligation to give their all because the Nigerian Police Force's reward system is built on nepotism, favouritism, and partiality. In the long term, this results in internal strife, interference with the Nigerian Police Force's programs running smoothly, police officers not cooperating with one another, soldiering, dishonest inclinations, and attempts to take advantage of and scam the system (Adekannbi & Bello, 2021). In the opinion of Armstrong (2019), this is not consistent with the concepts of objectivity, egalitarianism, fairness, equality, or equity.

Factors Impacting Employee Commitment and Reward System in Public Organization

Numerous factors influence employee commitment and reward systems in the workplace. Ahuga, Padhy, and Strivastava (2018) state that perceived structure, process and climate, job satisfaction, organizational culture, person-organization fit, and organizational socialization are examples of organizational factors. Personal variables include ages, sex, academic achievement, job options, sense of competence, and controls within the organization. Saha (2016) noted that in order for organizations to guarantee the psychological and social well-being of their workforce, variables influencing workers' dedication need to be taken into consideration. Changing organizational culture, organizational structure, diversity in the workforce, employer management style, job-related influences, positive working relationships within the organization, employee personal traits, improved employment opportunities, and the working environment are a few of these factors. We provide an outline of a few of the components in this study:

management Style of Employers

Employee commitment to an organization is significantly impacted by the leadership style that the top leadership of that organization uses to plan its workers' actions. A good "management style helps to demand organizational commitment and goals, aspirations, and objectives by encouraging employees' involvement in organizational activities" (Dalkrani & Dimitriadis, 2018). Similar to this, Saha (2016) noted that managers need to demonstrate specific leadership traits that would inspire and motivate staff members to put in more effort if they want to grow their commitment, loyalty, morale, and attachment to the organization.

Changing Organizational Culture

Anindita and Seda (2018) state that downsizing, mergers and acquisitions, and leadership changes frequently result in changes to an organization's culture, making it more difficult to hold onto valuable personnel. Sustaining an affective commitment is the most evident problem associated with such changes, since they may elicit certain unpleasant emotions that diminish an employee's emotional relationship to the organization. Maintaining normative organizational commitment in the face of a shifting organizational culture is difficult since downsizing undermines the belief that employees ought to stick with their firm (Saha, 2016; Okolie, Mukoro & Otite, 2023; Okolie, Mukoro & Otite, 2024).

Personal Characteristics of Employees

Suryani (2018) posits that individual with greater experience and a higher degree of satisfaction with their work performance, together with those who are older and less experienced, are more likely to demonstrate a higher level of organizational commitment. This suggests that senior workers have a tendency to be more devoted to a company than do younger workers. Employee personal traits like age, sex, education, experience, and race might also have an impact on organizational commitment (Dalkrani & Dimitriadis, 2018).

Job-Related Influence

Amanita and Seda (2018) posit that work roles that lack clarity might result in a deficiency of commitment, and that opportunities for advancement can either increase or decrease organizational commitment. Organizational commitment is generally adequately influenced by a number of work-related factors, including job effort, possibilities for advancement, absenteeism, amount of responsibility, accountability, withdrawal behaviours, turnover, performance, and job position. Dalkrani and Dimitriadis (2018) make the following argument in favour of the aforementioned: a job gets less repetitive and more fascinating as its level of responsibility increases, and the employee's level of devotion to the job also increases. In order to provide workers with any kind of motivation, willingness, and desire to dedicate themselves to the organization they work for, it is crucial that they are held accountable and responsible for the work they do and the productivity level they deliver (Saha, 2016).

Organizational Structure

According to Anindita and Seda (2018), organizational commitment is significantly influenced by an organization's structure. For example, organizational dedication is typically negatively impacted by bureaucratic organizations. Organizational commitment is more likely to be improved in terms of employee loyalty and attachment to the company when bureaucratic hurdles are removed and more adaptable structures are created within the organization (Okolie & Ochei, 2020).

Better Employment Opportunities

In the words of Suryani (2018), workers who think they have a possibility to land a better job tend to be less dedicated to the company they work for. However, there is a high level of organizational dedication when there are no alternative employment opportunities. The number of employment options might affect organizational commitment in the workplace.

the Working Environment

The structure of the workplace, job design, working conditions, and how employees are handled by managers and other employees are all parts of the work environment (Armstrong, 2019). Some factors that may affect an organization's working environment are organizational ownership and human resource practices, such as recruiting and selection (Okolie & Airhunmwunde, 2018; Okolie, 2018). Employers and workers feel more valued and a part of the organization when they are recognized as stakeholders. Workers who are given the opportunity to participate in organizational decision-making processes typically exhibit higher levels of organizational commitment than workers who do not (Suryani, 2018).

Workplace Diversity

It is necessary not merely to tolerate all sorts of differences but, supporting, fostering and leveraging distinctions to the organization's advantage is referred to as diversity management (Dalkrani & Dimitriadis, 2018). According to Suryani (2018), the growing diversity of the workforce is one of the most obvious trends impacting the workplace. there is a risk that older or minority workers will become marginalized in these networks as work groups become more varied in terms of age, gender, race, and origin, which could lower their affective organizational commitment. Similarly, foreign-born workers could feel less

a part of their occupations, have fewer connections to the workplace, and be less a good fit for the local communities. This could make them feel less committed to the organization going forward (Dalkrani & Dimitriadis, 2018).

Good Working Relations in Organization

People carry out their tasks inside the intricate framework known as an organization. According to Armstrong (2019), an organization is a thing that exists to accomplish a goal through the combined efforts of the people who work for or within it. As they collaborate, the individuals' employers and employees often form specific working connections. Groups, teams, and supervisory connections are a few examples of these kinds of relationships. Positive working relationships among employees in an organization foster a sense of mutual respect that enables them to dedicate themselves fully to the organization they work for (Anindita & Seda, 2018).

Conclusion

For law enforcement agencies and other government entities, the evaluation of commitment is a contemporary and significant issue. Despite their critical role in upholding law and order, police officers frequently work in stressful and frustrating environments. For instance, police officers must devote a great deal of their time to a number of optional activities. However, there aren't many opportunities in the public sector for offering staff incentives above and above base pay. As a result, public organizations typically are not able to provide bonuses or other financial incentives. Consequently, in order to foster a healthy work ethic in their staff, public managers must rely on emotive factors like pride, obligation, and devotion. In theory, this study adds to the body of knowledge about how rewards affect police officers' commitment in Nigeria.

The financial award policies and packages should be carefully reviewed, revised, and re-examined by the Nigeria Police Force. The majority of reward programs and packages are antiquated and out of step with Nigeria's present economic conditions, which are marked by price increases, inflation, and rising interest rates. This is due to the possibility that using the current compensation systems indefinitely could demoralize staff members and cause them to become less devoted to providing these institutions with high-quality services.

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ASSESSMENT OF ELEMENTS LEADING TO POOR COMMUNITY SERVICE DELIVERY IN SOUTH AFRICAN MUNICIPALITIES

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Abstract: The study is an evaluation of community satisfaction on community services and facilities provided by the Matatiele Municipality. The study's goal was to ascertain whether the municipality was providing community services at the rate and expectations of citizens around them and determine whether the citizens are utilizing some of the facilities provided by the municipality, and how happy they are in utilizing such facilities. The study shows that there is a lot of non-satisfaction in terms of services received and, on the responses provided by the municipalities when coming to the complaints about the services and usage of municipal facilities. It is obvious that the municipality still has a long way to go before it can satisfactorily resolve citizen complaints and try to satisfy them with the services they receive.

Keywords: Public Service, Local Government, Community service, South Africa.

Introduction

The preservation, regulation, development, and promotion of flourishing societies can be seen as the government's role in service delivery in the modern state. These duties highlight the complexity of the government's more extensive delivery commitments. Regarding municipal administration, municipalities are required in order to meet both the urgent need for necessities and the Long-term community demands for socioeconomic development. Extended macro-service provision requirements consist of the creation of an environment that is favorable for regional economic expansion, advancing sustainable development, increasing community wellbeing and prosperity, and building municipal infrastructure. Daily needs include the availability of fundamental or necessary utilities including water, electricity, housing, and sanitary facilities.

Research methodology

The study followed a quantitative research method using a questionnaire as the data collection instruments. The quantitative method was chosen because it is perceived to be objective in nature and involving the examination and measurement of the phenomena being studied. The qualitative method was therefore considered to be the best to suit the collection data from the community of Matatiele Municipality. The study used the community members of Matatiele municipality as the study population. The study participants were randomly selected to participate in the study giving every member among

the populace an opportunity to take part in the research. The collected study data was statistically analyzed using the SPSS statistical package for data analysis.

Literature review

Public Service Delivery

Kim (2012) claims that the provision of services consists of an array of relatively localized acts conducted by delegates from governmental departments and private firms to supply residents with the necessary products and services in a way that meets with standards. Local governments satisfy the required duties to supply citizens within their authority regions with essential services such as water reticulation, town roads, housing, solid waste removal, energy, and environmental protection. According to Bachmann and MacCleery (2006, referenced in Murimoga and Musingafi 2014), high standards for public services promote local economies, but inadequate service levels degrade local living standards, slow local growth of the economy, and erode popular belief in local authority. Hernandez (2006) highlights the significance of efficient provision of services in the struggle against poverty, the Sustainable Development Goals (SDGs) have replaced the Millennium Development Goals (MDGs) (United Nations Summit 2015). The study demonstrates that the majority of the delivery of public services in poor countries is ineffective, costly, red-taped, cumbersome, not transparent and excessively procedural (Tamrakar, 2010). Inadequate governance and poor service delivery remain grave issues for the majority of local governments. According to Majekodunmi (2012), institutional capacity issues in Nigeria are the cause of the nation's impoverished service delivery due to shortage of needed persons and capabilities, not being transparent, inadequate performance of ward committees, an absence of responsibility on the members of the council, the absence of public engagement in topics of government, disregard for local ordinances and other laws, neglecting to prioritize community needs, and more.

Maropo (2018) described "external factors" to mean "national rules that have an impact on a local authority, such as the legal and oversight framework to keep an eye on the local government and strategies for enhancing abilities". Tamrakar (2010) claims that traditionally, public personnel have acted more like masters than like servants to the people, showing no accountability or transparency. The majority of the time, the employees of local authorities lack the necessary expertise to assist the public with local administration. However, as citizens are now aware of their fundamental right to take part in the services provided by their local government, communities will be using open demonstrations as a means of expressing their dissatisfaction with Town Council service delivery.

Barasa (2010) claims that Kenyan local governments have not been able to deliver even the most fundamental services for several years due to a reduction in their ability. Thus, inadequate delivery of services was brought on by the area's inadequate infrastructure for most municipal governments and their lack of planning to accommodate the growing population residing in their cities. Barasa (2010) identified several internal issues and significant difficulties with delivery of services in Kenya as insufficient base of resources, mismanagement, inadequate institutional and technological resources to broaden service provision, and absence of preparation.

South Africa's local government and service provision

As per Section 152 of the 1996 Constitution of South Africa, local government is responsible for delivering vital services. In addition to other duties, local governments are responsible for fostering social and economic growth, ensuring community service delivery that is sustainable, and the promotion of an atmosphere of safety and security (Constitution, 1996). South Africa has 8 metropolitan cities, 44 municipal districts, and 226 local government municipalities in accordance with an established classification simplified according to the Organized Local Government Act (1997), (South African Government, 2017). The primary duties of all these various kinds of municipalities include providing access to water, sanitary conditions, markets, rubbish collection, and land administration.

Owusu-Ampomah and Hemson (2004) state that providing services is increasingly crucial for municipal government in emerging nations as compared to industrialized countries. They contend that due to constitutional requirements and high poverty rates, in South Africa, the provision of services is seen as a mechanism for the social contract to encourage social integration and increase the degree of comfort for most of the formerly impoverished people due to apartheid administration. According to their perspective, in their 2006 study, Bratton and Sibanyoni found that majority of African people view democratic reform in practical terms, i.e., under the prism concerning if socioeconomic commodities are supplied. Less than half of South African adult inhabitants believed that the country's brand-new local government system was operating effectively, according to their analysis of data from the 2006 Afro Barometer. They discovered that evaluations of local government are frequently subjective, particularly when it comes to how well councilors are regarded to be serving their communities and listening to their concerns.

Voting, according to Diamond and Morlino (2004), is a form of vertical accountability, is one way that the public can express its discontent with municipal government. Dissatisfaction may also be expressed via protests meant to ensure that locals have access to public services if elections are thought to be insufficient to make sure that "Politicians in office have an obligation to account for their conduct." (Diamond & Morlino, 2004). Local political protests, according to Alexander (2010), can take the form of gatherings in large numbers, the development of memos, petitions, toyi-toying, march, abstention, and electoral boycotts, obstruction of roadways, flaming tires, looting, destruction of buildings, ejecting disfavored people from townships, clashes with the law, and the compelled resignation of political figures. Alexander (2010) also points out that rather than the wealthier suburbs, protests about the delivery of services appear to come from poorer districts, particularly shack settlements and townships.

Between 2004 and 2016, there were, South Africa experiences 94 protests annually, on average, according to Municipal IQ (2017), a study team which collects information about demonstrations involving service provision by local governments. This data indicates that, as Bratton (2012) argues, many South African communities lack trust in municipalities' accountability for service delivery. Even if services are now more easily accessible, demands made by demonstrators usually centre on inadequate calibre of the services offered by the city (Hunter, 2015).

Reasons for inadequate provision of services

According to Gwayi (2010), there are several reasons why town governments offer mediocre services, because of a councilor's meddling in the administration, poor

community involvement, the financial plan that is not properly in line with what the federal government demands, political and administrative leadership deficiencies, poorly constructed infrastructure and lack of expertise. According to Makanyeza, Kwandayi, and Ikobe (2012), Sarshar and Moores (2006) conducted a study in the UK that identified the subsequent as the primary obstacles to service provision:

Lack of strategic awareness: According to the research, a large number of employees in charge of practitioners and supervisors were unaware of the concerns raised within the important national framework of guidelines and practices and the impact that ought to have been on their daily activities.

Insufficient abilities: The results of the study's review demonstrated that the operational crew was largely unfamiliar with demands of the requirements for national controls and responsibilities that went along with them. The absence of training or specialized procedures for the organization to include workers at this level was discovered to be the cause of the awareness gap. Because of this, employees were carrying out their responsibilities without the required training, putting their clients' safety as well as their own in danger.

Poor performance monitoring: Monitoring of performance was the issue that impacted on all services, even though they were all equipped with monitoring systems. This was brought on by a general absence of integration and standardization between the various systems.

Poor coordination procedures: Even though each service had own processes that are efficient for identifying the required services, setting up delivery, and overseeing suppliers, Coordination within the directorate was still done through informal means, such as in-person interactions and communicating in person, and the different service groups did not have clear performance criteria that can be enforced. This led to continuing disputes between a few of the groups that provide services, and this diminished the level of service excellence.

Increased worker turnover: Additionally, it was noted that there were not enough managerial resources available and that there was a high incidence of employee turnover among the operational staff, both of which affected the way in which services were delivered.

Results and discussion

Community services

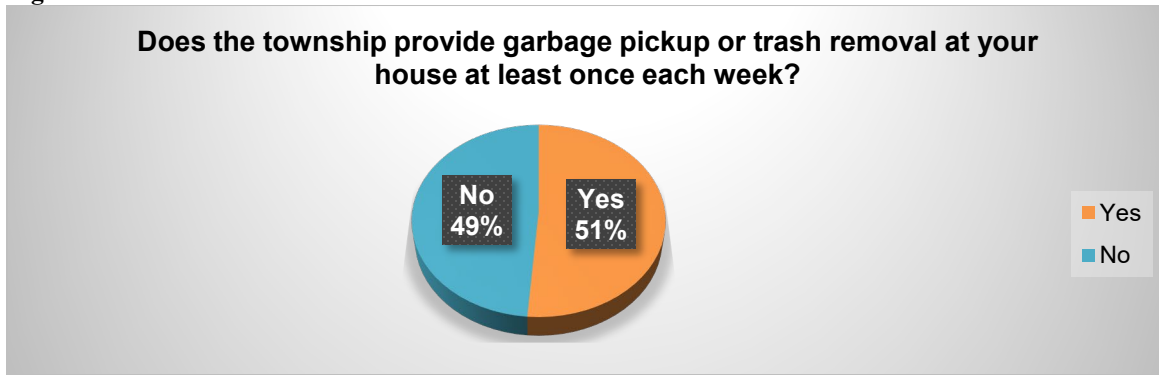
In terms of individual evaluations of their own lives and society, human well-being refers to how well people's needs in society are met on a range of levels, including those related to their physical, economic, social, environmental, emotional, and spiritual requirements (Jowell & Eva, 2009; Gilbert, Colley & Roberts, 2016). The responsibility for delivering such services to citizens often rests with the governments that collect taxes from citizens and companies. The provision of services to the community, including tangible and intangible goods, and/or benefits to the community, is referred to as service delivery, according to Nealer (2014). In a similar vein, providing residents with public activities, benefits, or satisfactions is how Fox and Meyer (1995) and Akinboade, Mokwena, and Kinack (2014) provide a definition of public service. The municipality should provide such basic services through the rates and taxes collected from their communities. Below

are the results about the satisfaction level relating to the services provided by the municipality.

Refuse Removal

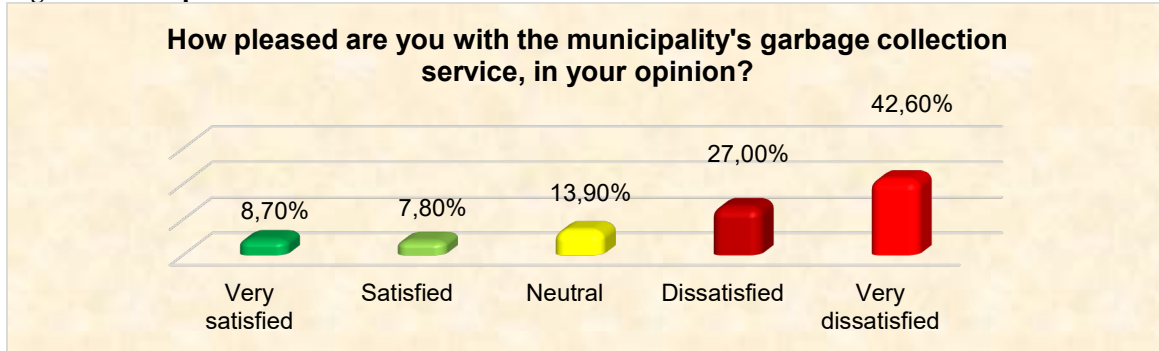
Systems for managing solid waste and providing services can be beneficial for public health, environmental sustainability, economic growth, and eradicating poverty. By reducing the chance for disease-carrying rodents to thrive, as they do at uncontrolled local dumpsites, an improvement in public health can be achieved with efficient solid waste management systems. They help to improve environmental quality by safeguarding water courses and groundwater, as well as combating unlawful dumping and littering. The municipalities are tasked with the responsibility to manage and provide refuse removal services to keep their environment clean.

Figure 1: Refuse removal services



As shown in Figure 1, 51% of the respondents agreed that the municipality is offering refuse removal service. However, 49% disagreed that they do receive such a service from the municipality. It is perceived that those in disagreement are mainly from the rural areas.

Figure 2: Perceptions about the refuse removal services



From the chart above in Figure 2, the most common request is, by far, for refuse removal services. The data reveal that 42,6% of the respondents are very unhappy about the refuse removal services from the municipality. Another 27% of the participants are dissatisfied with the services rendered by the refuse removal department. Only 13,9% of the participants did not comment on the issue of refuse removal. Only 7,8% of respondents acknowledged they feel satisfied with the services of garbage removal, while 8,7% said that they are extremely satisfied with the services.

Figure 3: Refuse collection in the past three months.

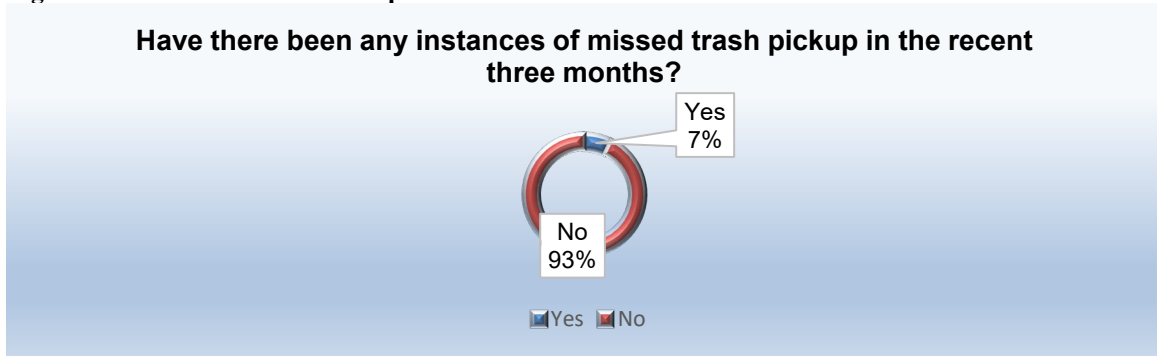
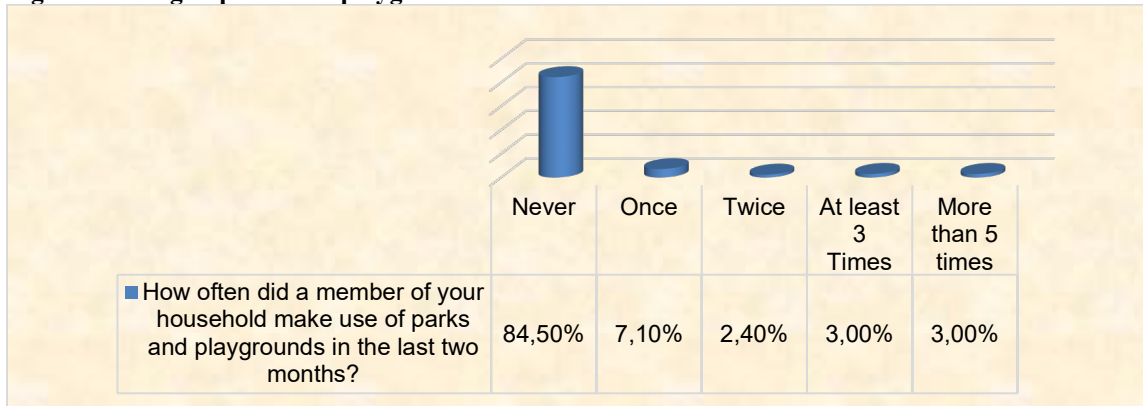


Figure 3 shows that 93% of respondents denied that they experienced instances where the trash wasn't collected in the previous three months. Only 7% of the respondents said there have been instances where the trash wasn't picked up in their particular locations.

Municipal Parks and Playgrounds

Playgrounds in parks, neighborhoods, and municipalities provide so much more than encourage children to be active. They promote the acquisition of critical life skills, habits, and attitudes. Municipal parks and playgrounds make it easier for parents, grandparents, and other caregivers to spend time with their children and engage in multi-generational play. They improve people’s lives by bringing them together and giving them a sense of belonging. In this section, the respondents were asked to comment on their municipal parks and playgrounds and the results are presented hereunder.

Figure 4: Using of parks and playgrounds



Respondents were asked in this section of the study to provide information on how frequently their household members had visited parks and playgrounds in the two months prior. In the past two months, a staggering 84,5% of people, as shown in Figure 4, never visited parks or playgrounds. This might be fueled by the spread of COVID-19 where people are trying to observe the pandemic’s protocols of social distancing and to avoid crowded places. In the past two months, just 7,1% of participants said their family members had visited parks and playgrounds at least once. Similarly, another populace agreed that 2,4% of the members of their households went to the parks and playgrounds at least twice in the past two months. Nonetheless, those who visited the parks at least three times in the

past two months accounted for 3% and those who went to the parks and playgrounds more than five times were also at 3%.

Figure 5: Number of parks and playgrounds within the municipality

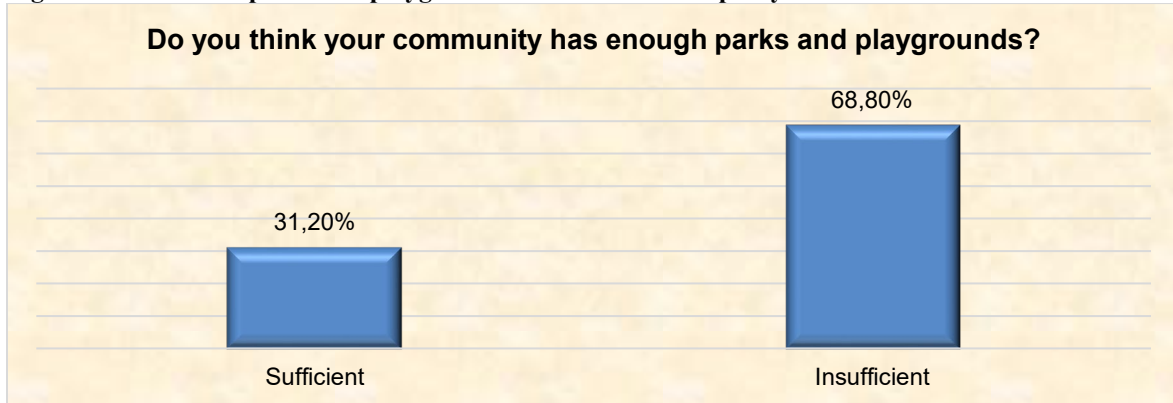
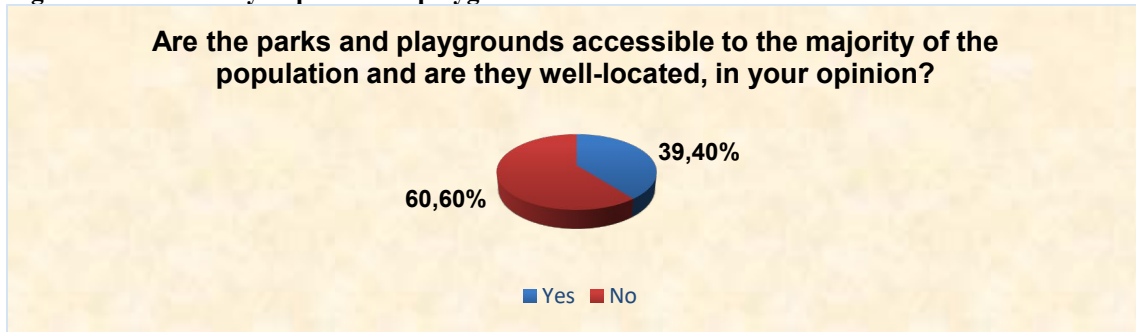


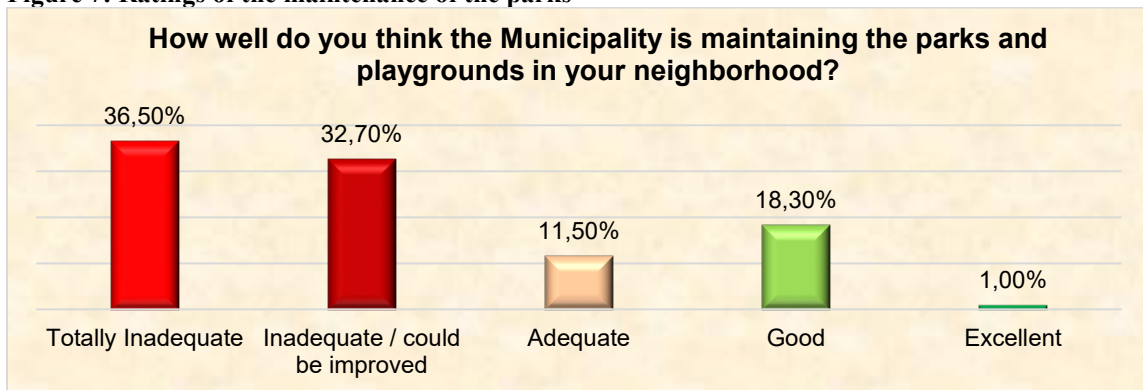
Figure 5 illustrates that 68,8% of participants claimed that there are no sufficient parks and playgrounds in the municipality whilst 31,2% agree that there are sufficient parks and playgrounds in the municipality.

Figure 6: Accessibility of parks and playgrounds



The majority of individuals who responded to this question (60,6%) believed that the parks and playgrounds were not conveniently located and that the bulk of the community could not reach them. Only 39,4% of the participants claim that the playgrounds and parks are well situated and accessible to the community.

Figure 7: Ratings of the maintenance of the parks



When the participants were asked ‘How well do you think the Municipality is maintaining the parks and playgrounds in your neighborhood?’, the majority 36,5% commented that the maintenance is inadequate, 32,7% also claimed that it is inadequate but they could be an improvement. Only 11,5% agreed that the parks and playgrounds are adequately maintained. But 18,3% stated that the parks and playgrounds are in a good state. In the end, 1% of the participants posit that the parks are well maintained they are excellent.

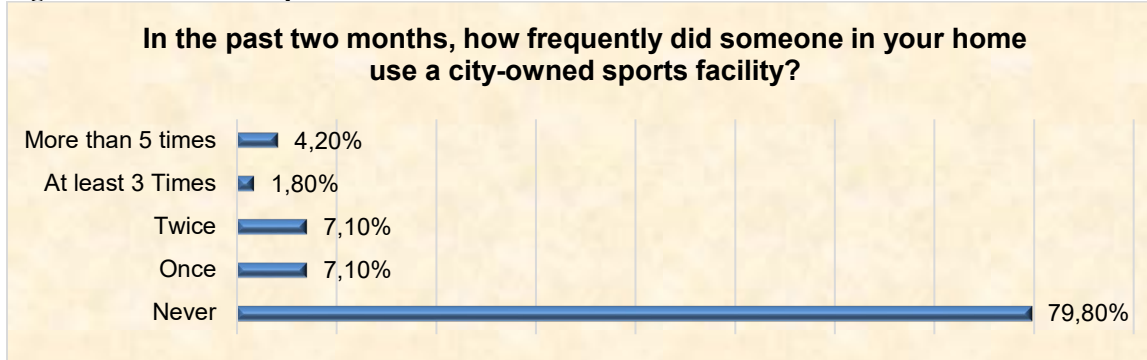
Figure 8: Complaints regarding parks and playgrounds in the past three months



In the pie above in Figure 8, 88,5% claimed that they never complained about the status of the parks and playgrounds in the past three months. Only 11,5% of the respondents complained about the state of the parks and playgrounds in the previous three months.

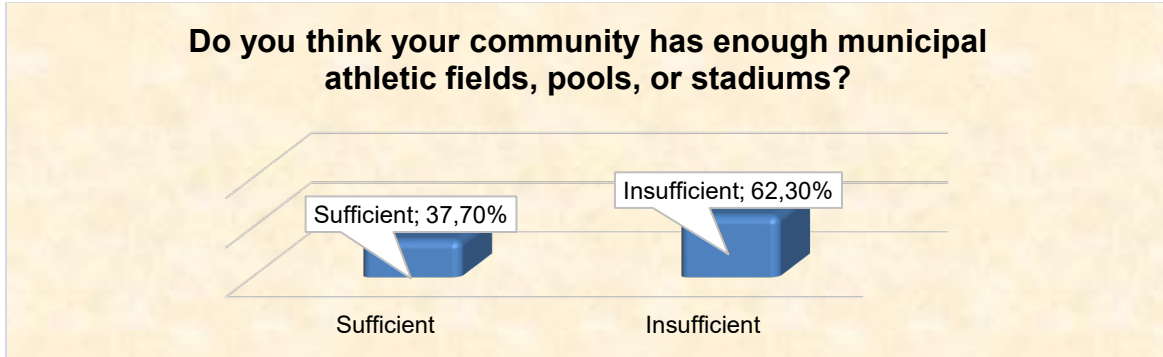
Municipal Sports Fields and Stadiums

Figure 9: Utilization of sports facilities



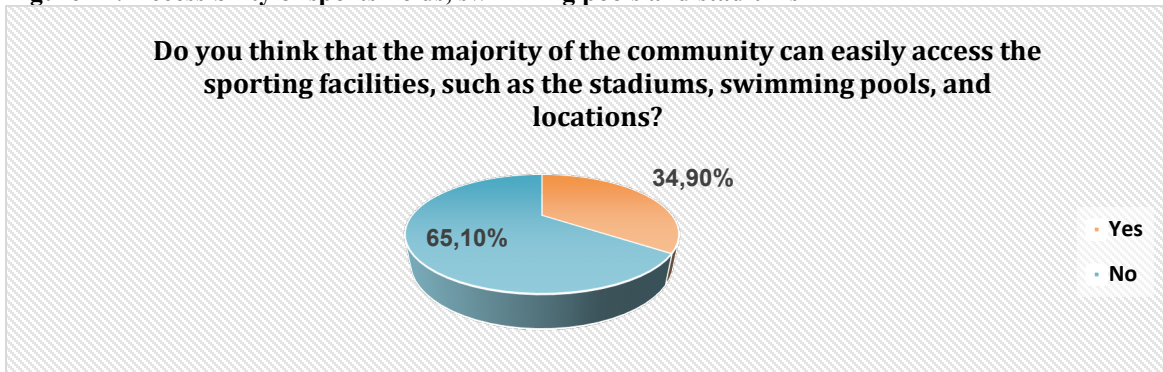
Nearly 79,8% of the participants, as shown in the statistics in Figure 9, did not use the municipal athletic complexes in two months. At least 7,1% of the respondents claim that they have used the sports fields and stadiums once or twice respectively. Those who used the facilities of the municipality at least three times in the past two months accounted for 1,8%. In the end, 4,2% of the participants used the facilities more than five times.

Figure 10: The quantity of sporting venues, swimming pools, and stadiums in local governments



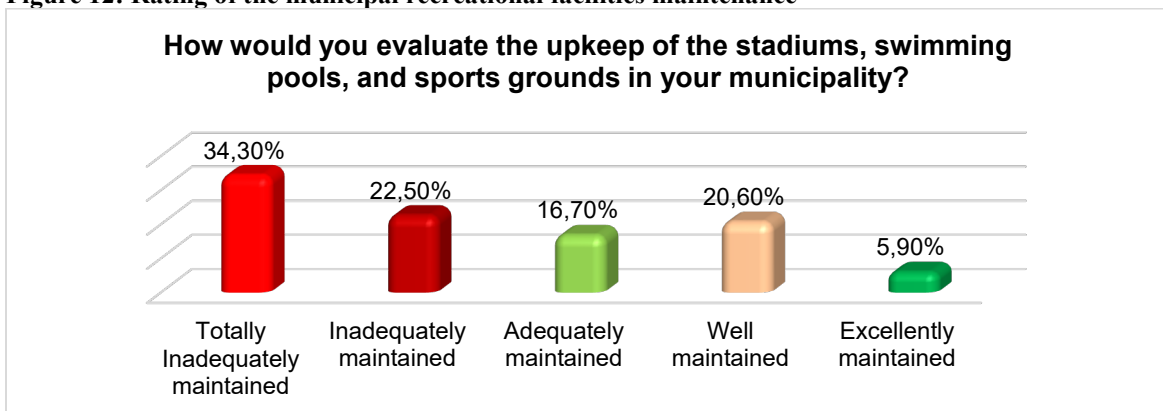
There are insufficient municipal athletic fields, pools, or stadiums? in Matatiele Local government. In all 62,3% claim that the facilities are insufficient whilst 37,7% argue that the facilities are sufficient.

Figure 11: Accessibility of sports fields, swimming pools and stadiums



The data in Figure 11, shows that 65,1% of the participants claim that recreational facilities like sports complex, pools and stadiums are not available to the majority of the population. Only 34,9% agreed that the stadiums, sports fields and swimming pools are accessible to the community.

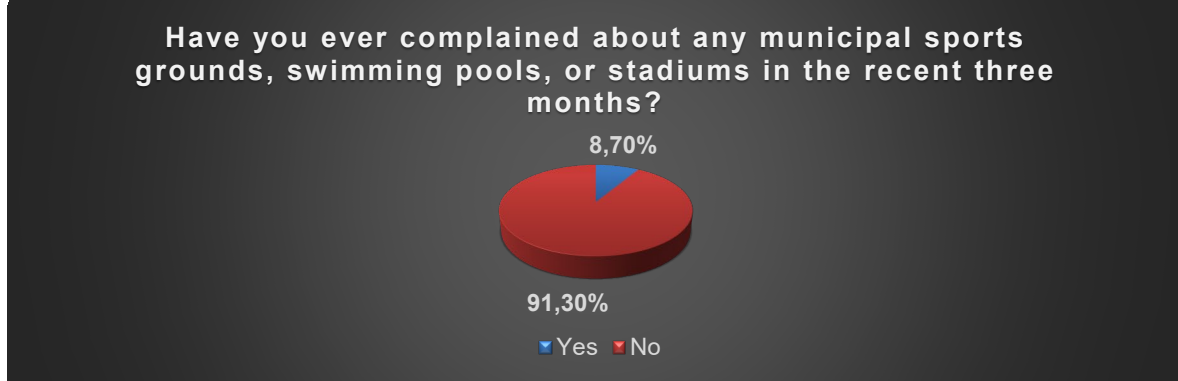
Figure 12: Rating of the municipal recreational facilities maintenance



When the participants were asked ‘How would you evaluate the upkeep of the stadiums, swimming pools, and sports grounds in your municipality?’, the majority 34,3% commented that the maintenance is inadequate, 22,5% also claimed that it is inadequate but could be an improvement. Only 16,7% agreed that the parks and playgrounds are

adequately maintained. But 20,6% stated that the parks and playgrounds are well maintained. In the end, 5,9% of the participants posit that the parks are well excellently maintained.

Figure 1: complaints regarding the condition of public stadiums, swimming pools, and sports fields

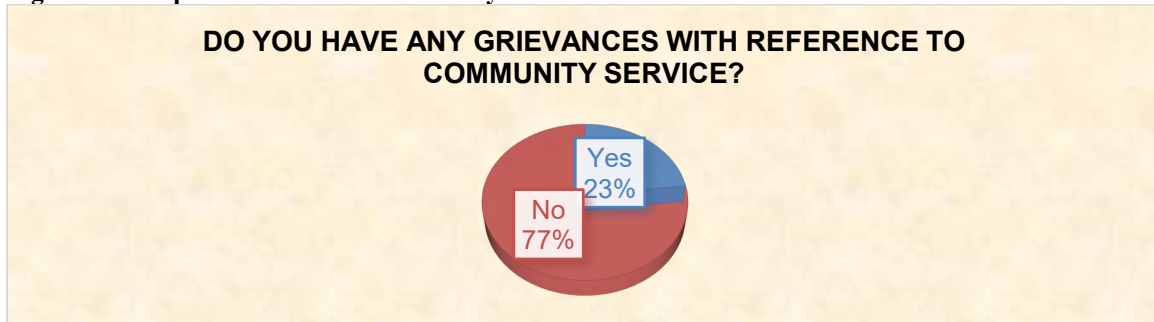


In the pie above in Figure 13, 91,3% of the participants claimed that they never complained about the status of the stadiums, athletic facilities, and swimming pools in the past three months. Only 8,7% of the respondents complained about the upkeep of athletic fields, swimming pools, and stadiums in the previous three months.

Complaints Regarding Community Service

The main responsibility of the community service directorate is to maintain municipal infrastructure as well as to ensure that decentralized administrations with effective service delivery practice cooperative governance and public engagement. Community Services ensures that local citizens have access to at least the most fundamental services. There are huge numbers of services available. These services directly and immediately affect the standard of living for local residents in the area. Poor water quality or irregular rubbish collection, for instance, will lead to the development of unsanitary and hazardous living conditions. Mediocre services can create difficulties in drawing businesses and industries to a location, restricting job opportunities for residents. Compared to metropolitan areas, rural communities may demand different basic services. Often than not, the community complains about the lack of sufficient services in their communities. Therefore, in this dimension, the participants were asked about the range of their complaints to the municipality.

Figure 2: Complaints about the community service.



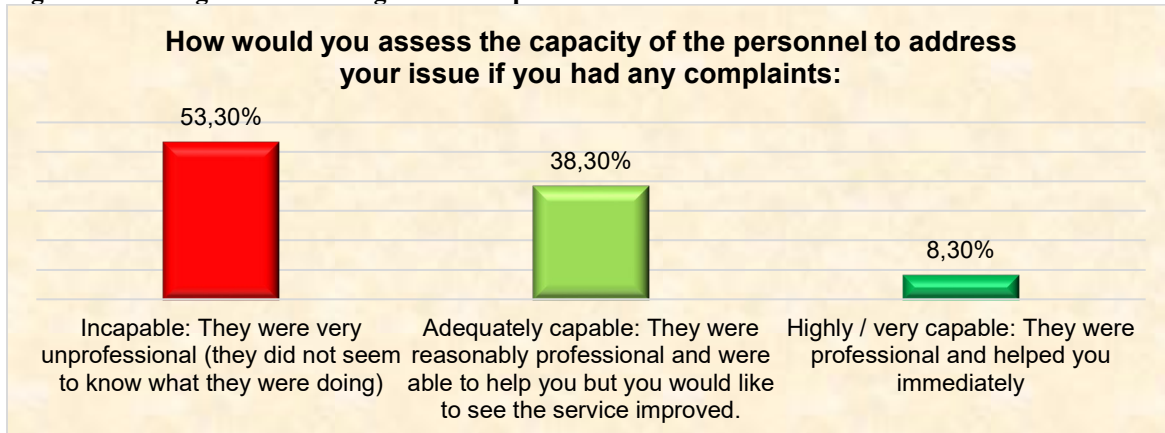
The majority (77%) of those who responded to this item indicate that they never lodged any complaint against the municipality. Only 23% of the respondents have laid a complaint to the municipality.

Figure 3: The handling of the complaints by the municipality.



The majority of responders (69%) expressed the opinion that the municipality cannot handle their problems. They revealed that the officials were very unprofessional and seemed not to know what they were doing. Only 22,4% of respondents say the municipal authorities were helpful and exhibited a respectable level of professionalism, but they would want to watch the performance enhanced. This means that only 22,4% of respondents think the municipal officials were adequately capable of managing their problems. Some (8,6%) of the respondents felt that the respondents were very capable. They further suggest that the officials were professional and helped them immediately.

Figure 16: Rating of the handling of the complaints



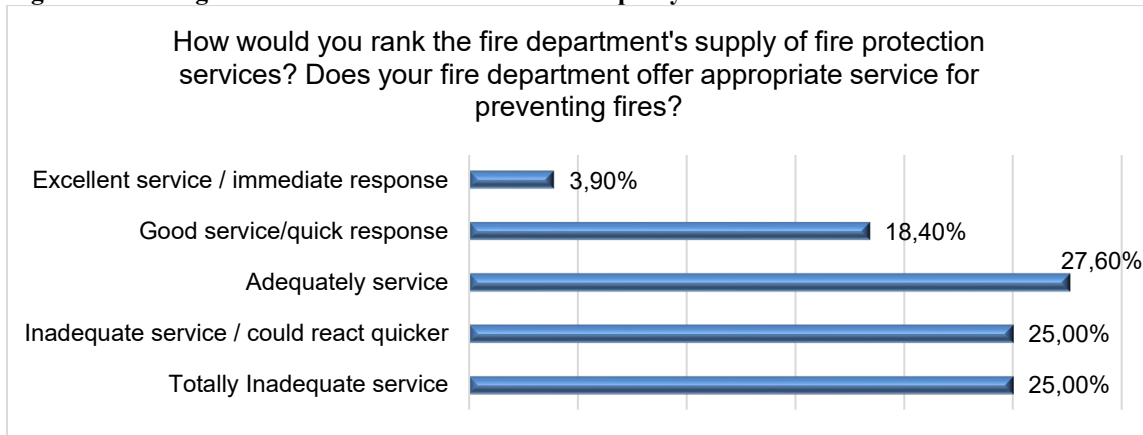
In the data above 53,3% of those who were interviewed indicated that the staff members of the municipality are incapable of dealing with their problems. Only 38,3% suggest that the staff is adequately capable, whilst 8,3% of the respondents suggest that the staff members are highly capable of dealing with their problems.

Fire Department

The Fire Brigade's mission is to deliver a community-centered approach to fire prevention, to combat fires and provide rescue to reduce the calamities caused by nature or humans

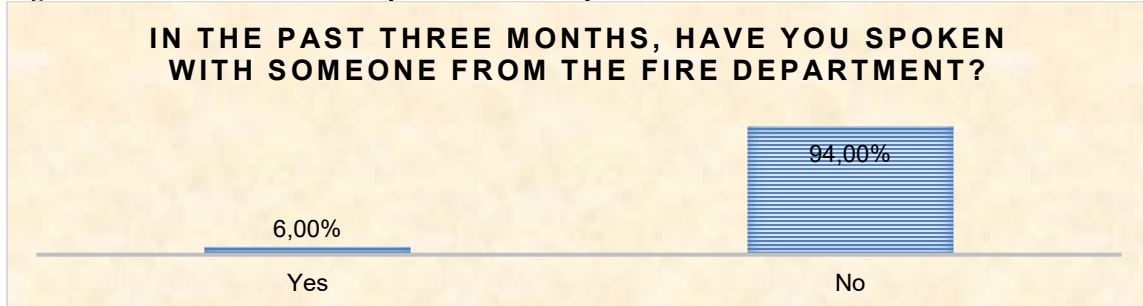
that result in the loss of lives and property. Below are statistics about the performance of the fire services at Matatiele Local Municipality.

Figure 17: Rating of the fire service within the municipality



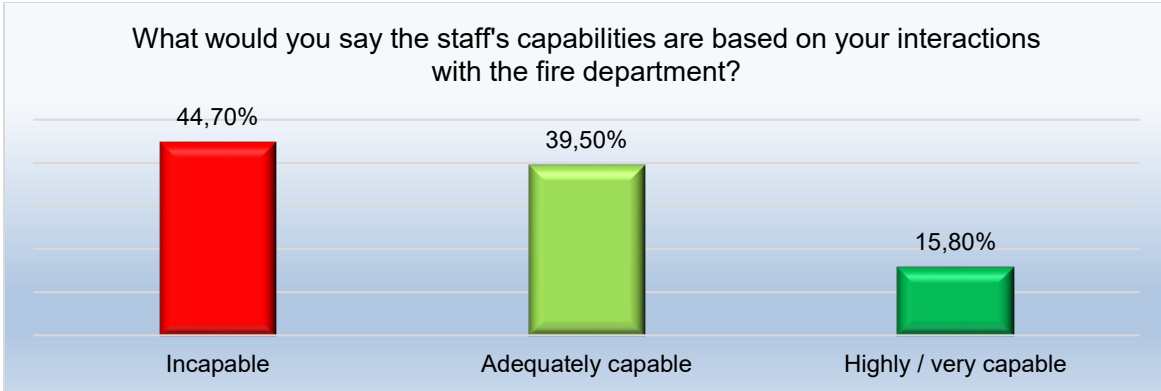
Of the 237 participants who responded to this question, ‘What grade would you give the fire department's delivery of the fire protection service?’ 27,6% reported that the fire department provides adequate service. Almost 50% of the participants lamented that the service is inadequate. Only 18,4% of the participants posit that the fire department is quick to respond to an incident. Was 3,9% of the respondents claim the fire department provides excellent service.

Figure 4: Contact with the fire department for the past three months.



Six percent (6%) of those questioned claimed to have interacted with the fire service within the previous three months. On the other hand, 94% of the participants indicate they haven't spoken to the fire department in the recent three months.

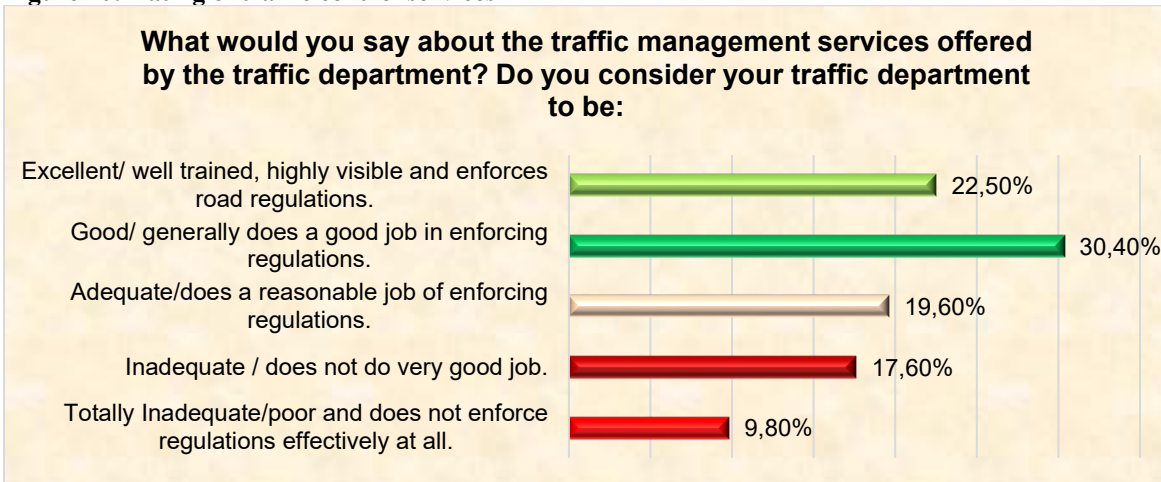
Figure 19: Rating the capability of fire department staff.



The participants in Figure 19 argue that the fire department staff are incapable of handling their queries. But 39,5% suggest that the staff is adequately capable of handling their queries. Only 15,8% of the participants praised the fire department staff for being excellent in their work.

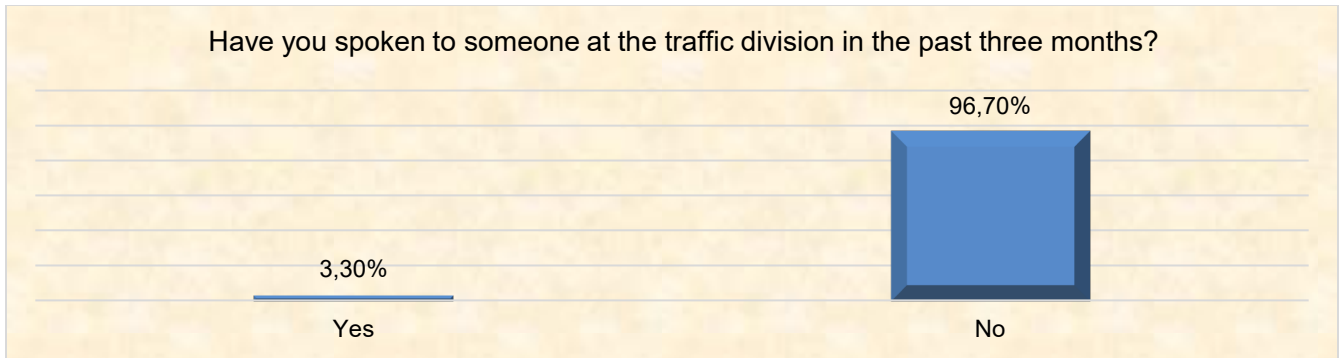
Traffic Services

Figure 20: Rating of traffic control services



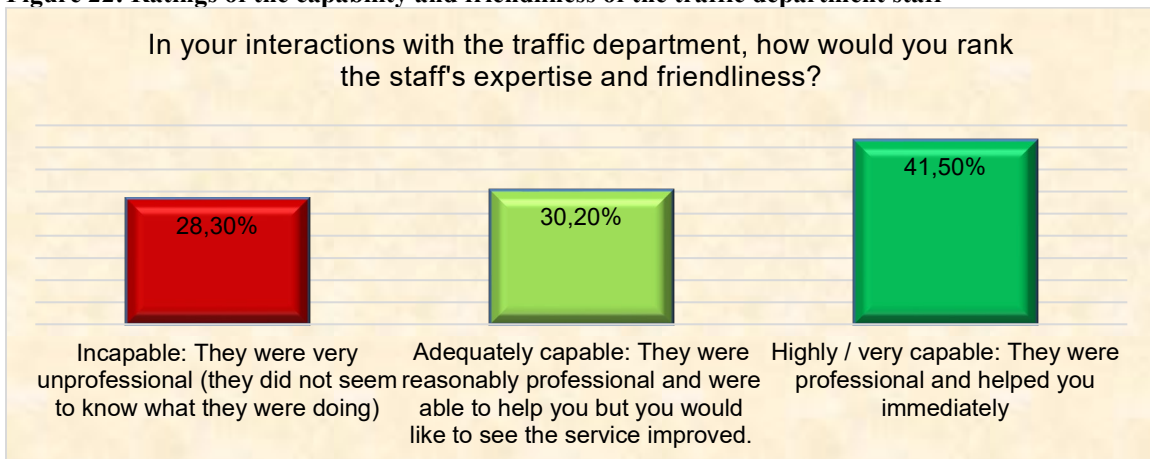
Only a tiny percentage of respondents (9.8%) said the traffic department is insufficient or subpar and ineffective at enforcing laws. Another 17,6% indicated that the traffic department is inadequate in providing the traffic control they do not do a good job according to them. Some participants (19,6%) expressed the belief that the traffic department is doing an adequate job when enforcing the traffic regulations. Almost 30,4% of the respondents argue that the traffic control department is doing a good job in enforcing the regulations. In the end, 22,5% said the traffic department is doing an excellent job, they are well trained and are highly visible when enforcing road regulations.

Figure 21: Contact with the traffic department in the past three months.



In response to the question: ‘Have you spoken to someone at the traffic division in the past three months?’, a range of responses was elicited. Almost 76,7% of the respondents have not contacted the traffic department in the last three, whilst only 3,3% of the participants have been in contact with the traffic department.

Figure 22: Ratings of the capability and friendliness of the traffic department staff



The vast majority of respondents (41,5%) to this question in figure 22 said that the traffic department was very capable of handling their workload and that they were very professional and quick to assist individuals. However, another 30,2% felt that the staff is adequately capable, are reasonably professional and can assist the customers but the respondents further indicated that they would love to see improvement. But 28,3% argue that the traffic department staff is incapable, very unprofessional and they seem not to know what they are doing.

Conclusion

The study evaluated the community service deliveries and facilities received by the citizens across South Africa’s municipalities. The study established that although municipalities are providing community services needed by the citizens, most citizens are not happy with most of the services provided. Most citizens are also not happy with how their complaints on services received and facilities provided by municipalities are handled. Municipalities certainly have a lot to do to ensure that they respond to the complaints of the citizens as and when they lodge compliance. By handling and responding positively to the community service and facilities complaints municipalities could move to a better position in community service deliveries and satisfaction of municipal citizens.

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POLITICAL WILL AND POLICY OVERVIEW – THE CHALLENGES OF EFFECTIVE SOLID WASTE MANAGEMENT IN NIGERIA

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Abstract: Collecting and managing Solid Waste generated by the households, markets, industries and the communities are sometimes not as tasking as the process involved, which essentially include the political will on the part of the government, the need for advancement in the know-how and the effective policy implementations. The experience of the years of political interference, and policy implementation default in the management of solid waste in Oyo State, Nigeria is a phenomenon. The implication of poor solid waste management often results in the loss of life, sometimes, through associated flooding, diseases, property loss and distortion of government projects or policy mandate. Solid-waste management problems stem from the government inability to enforce appropriate law, regimes interference, lack of vision to develop a modern and an advance approach that could engender a sustainable policy that would make solid waste, more of an investment and business endeavour. The objective is to show and reviews the current trend and, identify some policies undermining solid waste management in Oyo State, Nigeria. Articles, journals, data and environmental reports from previous publications were used for these study.

Keywords: Flooding, Management, Solid-Waste, Political-interference, Policy-implementation,

Introduction

Solid Waste generation and management is as long as other human endeavours, and it remains a major environmental concern for all globally. In Nigeria it is one of most prominent environmental problems, especially in the towns and cities because of inefficient management system. Solid waste Management has been a major topic of discussion because of its effect on the attainment of sustainable Development Goals; as it has direct and indirect impacts on all the sustainable development goals objectives (Alaka & Osman, 2023). Izugbara & Vmoh (2004) added that to a large extent, waste management contributes to socio-political and environmental costs. These costs are thought to have enormous implications for the economy and the populace. However, Afon & Okewole (2007) noted that solid waste management is not regarded as important in the scheme of things by the three tiers of government in Nigeria, as they are either underfunded or short of policy implementation.

Solid Waste Management is a standard used to measure good and healthy living, as it is crucial to socio-economic development of a nation. Countries' performance in effective

solid waste management is used as an assurance and sustainability of other sectors, especially, the health and investment interests. Oyo State is situated in the southwestern region of Nigeria, stands as an inland state renowned for its historical cultural eminence (Wikipedia, 2023). Within its border lies the capital city of Ibadan, an urban centre that holds the notable distinction of being the third most densely city in Nigeria. According to Golub (2019) Ibadan ranked as the second most populous city across the entire African continent. In Nigeria, the states are responsible for the protection of the environment and in accordance with Sec. 20 of the Nigeria constitution “The state shall protect and improve the environment and safeguard the water, air and land, forest and wildlife of Nigeria”, and the same constitution specifically assigns the responsibility of environmental sanitation to the local government, the third tier of government Omoleke (2004).

The history of solid waste management in Oyo State dated back to the early 60s when Ibadan City Council was responsible for the maintenance of Ibadan city solid waste. Years after years it transmits from local arrangement to a statewide commitment. Subsequent military and democratic regimes emphasize the importance of effective solid waste management in their policy actions. The government has a responsibility to undertake policy procedures that protect its citizens from the dangers of pollution of the environment (Wachira, 2017). Therefore, regulatory schemes were set out banning traditional and unhealthy disposal approach to the implementation of sustainable waste management techniques.

The present study aims at examining and reviews the current trend and, identify some policies undermining solid waste management in Oyo State, Nigeria. To reach the study’s objective, it is important answer the following questions:

What is the political history of administration and waste management in Oyo state?

What is the policy implementation derived from the arrangements?

Is there any sustainability in the policy implementation?

The significance of this article lies in its ability to enhance our understanding through the political will and policy overview in relating to the challenges of effective solid waste management in Oyo state, Nigeria. Furthermore, this article stands out for its recommendations beneficial for stakeholders such as NGOs, private sectors, governmental agencies, academicians, and environmentalists.

The structure of the study is as follows: After this introductory section, section 2 presents the review covering political history administration and waste management in Oyo state. Section 3 outlines the policy implementation derived from the arrangements, discussing the issue from political arrangement reviewed. Section 4 focuses on sustainable approach to solid waste management, encompassing sorting, recycling, among others. Section 5 concludes the paper and gives some recommendations.

The Political History of Administration and Waste Management in Oyo state

The Oyo State government enacted an edict establishing the Ibadan Waste Management Authority (Gazette No, 8, Vol. 22 of 16th May 1997), authorizing Local Government Councils in Ibadan area to collect, transfer and dispose solid waste. It translates to the transferring of functions to local Councils under the 1979 constitution. Oyo State House of Assembly passed a law to establish the Ministry of Environment and Water Resources, which commenced functioning on 1st January 2001. The Ministry is responsible for the formulation and enforcement of policies, statutory rules and regulations on waste

collection, and disposal, general environmental protection, control and regulation of the ecological system, among others.

In 1988, the Federal Military government promulgated Decree No. 58 of 1988 which charged the Federal Environmental Protection Agency with the responsibility of maintaining decent environment in Nigeria cities and towns. Section 4 of the decree charged the agency with the responsibility for the protection and development of the environment in general. In furtherance of the institutional arrangements to enhance environmental sanitation, Oyo State government introduced another micro level arrangement of kerbside and beautification of the environment. The innovation was a prelude to May 1999, World Youth Soccer tournament preparation.

Table 1: Political History of Administration and Waste Management in Oyo state

Year	Government	Key developments in solid waste administration
1999-2003	Governor Lamidi Adesina	Repair and refurbish trucks and skip eater for waste management that was bought by the government of Bola Ige (1979-1983) in 1999. Instituted a new board of management led and comprised of political appointee. None are experienced or professionals in solid waste management. Zoning and re-zoning of areas of operation of existing private solid waste management contractors to accommodate new entrants for political benefits
2003-2011	Governors Rasheed Ladoja & Alao Akala	New board of management instituted twice consisting of political appointee. Registration and re-registration of private solid waste management contractors. The engagement of a foreign based businessman (Ijoba-ni) to take the control of the Solid Waste Management in Oyo State. Not identified with skill, professionalism and equipment. Opposition by existing private contractors ensue. Thereafter Ijoba-ni went underground. The development was a mark of instability in the waste management process in Oyo State
2011-2019	Governor Isiaka Ajimobi	Disbanded the Oyo State Solid Waste Management arrangement, and hands-off the government workers Engaged West Africa ENRG as the consultant to manage waste in Oyo State and bequeathed it with the State structure and equipment. No single truck, machine or equipment was brought by the consulting firm. Thereafter, the consulting firm terminated the contract of private solid waste contractors and seek for re-application on a stringent measure. Legal battle between the consulting firm, the private Solid Waste Management Contractors, and Oyo state government lasted till the inception of Governor Seyi Makinde.
2019-to date	Governor Seyi Makinde	On October 1, 2020, the board of management of OYOWMA was suspended and an Ad-Hoc committee was set up. July 29, 2022, Oyo State government barred the existing solid waste management contractors from waste collection, to give way to a new direction but not different from previous government. Mountainair Accredited Franchisees Consulting was subsequently engaged to manage waste in Oyo State till date.

Source: Authors Findings

Issues in Policy Implementation

It is pertinent to state that the approach to waste management in Oyo state over the years had been checkered and inconsistent on policy implementation, and without advancement into value addition. There are a lot of concerns around the approaches to waste management in Oyo -State. It has generated some issues, and this will be discussed in this section.

Political profiteering is often derived from solid waste management, as each regime and succeeding governments, engage new management team, and recently politically connected consultant are engaged, as their appointment are short of required due process, essentially not passing through the state bureau of public enterprise. Likewise, some ill equipped private solid waste contractors are engaged, not minding the sensitive nature of the service to be rendered. By extension there is lack of common standard in the registration and engagement of prospective solid waste contractors. Categorization and engagement of private solid waste management contractors into residential, commercial and industrial zones are sometimes not done based on professional experience and capacity. The implication of the inconsistency resulted in poor commitment on the part of those involved, low success rate and sometimes missing the target or mandate of solid waste management in Oyo State. Omuta (1987) noted that a major flaw in waste management administration in developing countries is the unavailability of proper waste management policy.

Political manipulation of clean environment, as different regimes work for and against street trading. Most dirt that is blocking the drainage is often from street trading and the refusal to use locked up shops built by the government and the private developers. It was on record that the government of Senator Abiola Ajimobi (2011-2019) worked assiduously to discourage street trading, thereby built shops in strategic locations in Oyo state. It is expected that the succeeding government should go steps further to discourage street trading and encourage the use of market stores. Political interest of winning elections doesn't allow politicians to do what is right at the right time. A major barrier is lack of continuity in policy objectives. Ezeah & Robert (2013) reported that political interference results in instability in waste governance and lack of continuity. Policies are often set aside due to changes in administration of waste management bodies. Ezeah & Robert (2012) noted that the legal framework on waste management is weak and not considered a priority. Their view is that the waste policies in place do not have strategies for realization.

The neglect or poor attitude to the promotion of legal principle for proper adherence to solid waste management control is clear evidence that are either not implemented effectively or sidelined. Appropriate sanctions on the violation of waste management rules are often not implemented or sideline when elections are coming. Oyeniyi (2011) emphasized that solid waste management legislation must be enforced, while the existing solid waste management policy objectives must be adhered to. Policy and planning framework needs to be updated for effective management and to accommodate present day objective of value addition. As a result of the management challenges, Adefemi & Awokunmi (2009) reported a breakdown of law and order in relation to waste management. The engagement of ill-equipped and insufficient private solid waste management contractor often results in irregular schedule of solid waste evacuation, poor disposition by the residence and consequential illegal solid waste dump in the neighborhood and on the road median. Imam et al (2008) argues that for there to be sustainability in waste management, proper policy, planning and aggressive enforcement of waste management legislation must be implemented.

Structural Gap and condemnation of some existing dump sites. The dump sites, apart from not been modern and hygienic, are not enough to match the population vis-à-vis the increase in tonnage of waste generated. While some transfer stations, such as Orita-Aperin in Ibadan were closed down, it could have been used for other purpose within the cycle of solid waste management. The current approach to managing waste involves depositing all sorts of refuse into widespread formal dumps, located in depressive and low-lying areas within the communities. The proximity of the dump site to living area is posing health challenges, and better still an eyesore on the major roads.



The above pictures are the remnants of the Oyo State solid waste management transfer station at Orita Aperin, Ibadan, recently demolished by the state government to give way for other purposes. The Bodija market, Ibadan organic fertilizer plant, built inside the cattle market area, had long been cattle dung serves as raw material for the factory. The transport sand mechanical workshop of Oyo State solid waste management authority at Agodi-Bus stop now serves as Motor Park. Remark: The above and others could have been transformed and expanded to other zones, bearing in mind the growing population that comes along with an increase in solid waste generation. Better still, put to good use in other aspect of the cycle of solid waste management.

Corruption in its wider meaning can be attributed to the act of dishonesty by those in authority and their subordinates. The system and the process of solid waste management is enmeshed with deliberate sabotage. It ranges from acquisition of low capacity or substandard machines and trucks for solid waste management. Subtly, engagement of solid waste management consultant without due process, no clear evidence or intension to do things differently and lack of material capacity to do the job. Adewole (2009) argued that the inability to deliver a sustainable waste management service in Lagos may be due to corruption. He stated that waste management officials are known to demanding bribe. Dishonesty security men and solid waste truck drivers are "gangs" in sharp practices. Sometimes siphon fuel from trucks and refused to take data as expected at the dump sites. Agunwamba (1998) added that personal interests have often led to delays or stoppage of environmental policies by the government and other stakeholders. Mostly, because of financial gratification. The above and others are human factors, in the process which translates to inefficiency and failure in the effort to achieve effective solid waste management.

Dumping and dump sites: Solid waste disposal method of pick and dump by the government and its agents, is not fashionable, as it makes use of landfilling. The landfill approach has not been technologically set out to prevent further damage to the land and the environment. The recycling and waste to wealth scheme has not been promoted at the community level. In Oyo state and Nigeria at large, the process of solid waste management practice, which should prioritize reduction, reuse, recycling and composting has been overwhelmed by the reliance on the landfilling (Alaka & Osman, 2023). Waste management techniques and approaches have changed dramatically across the globe to decrease in waste generated and disposal to the dump the sites has witness a technological driven process of recycling. (Wachira, 2017). One major problem with Oyo State is that waste generated is not separated. They are dumped together in the various, unprotected landfill dumps. Managing the existing dump sites and their locations is inappropriate due to rapid urbanization and population growth. They have become “eye sore” for commuters and residents. Besides the air pollution that comes with the poor system. In addition, Sangodoyin (1993) argues that urbanization has increased the difficulty of getting enough and vast land needed for the siting of landfill dump sites.

Urban Town Planning and solid waste management are connected. Poor planning of houses and structures constitutes a barrier to effective sanitation, and solid waste management especially when the roads and pathways are too narrow to be motorable and sometimes impassable in the dry and rainy season. When garbage trucks are available, they may not be able to pass through for evacuation of refuse. Omolawal & Shittu (2016) stated that in the cities core areas, solid waste management does not have standard approach except one-off, discretionary long interval and picking that are not measurable for effectiveness. Agunwamba (1998) added that the lack of planning and adequate development makes solid waste collection a difficult task. Poor and uncoordinated town planning efforts, negligence and graft have independently and collectively affected effective solid waste management in Oyo State. Bammeke & Sridhar (1989) cited unplanned development as a major cause of the current waste management practices in the major cities of Oyo State. No saner rules prevail on building construction approval and monitoring. Houses are built, converted or restructured for commercial purposes without consideration for road setbacks, sewage, space and provision, for solid waste containers (Oyeniya, 2011). Town planning is an institutional measure that can be used to promote effective solid waste management, especially when it has to do with the populated core area. Ogbazi (2013) stated that most government bodies on urban planning have approached planning developments haphazardly, and lack of planning impacts negatively on solid waste management. Alaka & Osman (2023) opined that if infrastructure is conducive, residents are likely to engage actively in sorting and recycling as it leads to saving on waste disposal fees.

Sustainable Approach to Solid Waste Management

The government must lead in the efforts to create a technological driven, multiple investment opportunities and employment in solid waste management. Starting from sorting to reduce the tonnage of waste, evacuation, mechanised street sweeping, gutter and drainage cleaning at regular intervals and value addition through recycling of assumed solid waste into useful products. All stakeholders in the public and private sectors need to be on board to study and be involved in solid wastes and the management method that will

be sustainable. Machine and tools manufacturing companies are important, especially at the primary stage of solid waste management (Amasuomo, & Baird, 2016).

Sorting: is an essential stage in the process of solid waste mgt. It is a stage that determines cost implications, reduces solid waste tonnage, value addition, health implication, and efficient management. Solid wastes need to be sorted at source as much as possible, and the primary sources are the households, communities, markets and industries. According to Rishabh Srivastava (2016), effective waste management strategies involve a synchronized system of controlling the production and disposal of wastes. He further emphasised that most developed countries are using advanced management techniques, such as mobile sorting, that has proved to be very helpful in eluding the waste as well as creating a better probability of recycling and reuse. It also enables the recovery of valuable components from the waste. Sorting as an important process prevents waste materials being created. It facilitates some materials for re-use, possibilities of repairing of some broken items and encouraged some items to be redesigned for refill or reusable. Alaka & Osman (2023) emphasized that waste collection, sorting, composting and selling recycled materials to business and manufacturers, boost economic incentives and promote sustainable waste practices.

Mode and timing of solid waste collection and disposal needs to be prioritized to reduce air pollution, likely to come with high temperature during the day, traffic jams caused by solid Waste management truck and picking along the median. Broken-down trucks are some of the environmental displeasures occurred or associated with the process. In some developed and developing countries, solid waste is picked and disposed off with the consideration of traffic direction, at the wee hours of the working days and done extensively at the weekends.

Recycling can be referred to as a resource recovery practice, that involves the collection, and reuse of waste materials. The commonest in Nigeria are empty plastic, beverage containers, other types are damage plastic, aluminum, old iron and steel. The materials from such items are further reprocessed into new products. Gafar et al (2012) as described by the IPT/CEMPRE (2000) explained that recycling is a process involved in a number of activities aimed to reduce and divert waste from its initial state and to be utilised as secondary raw materials for goods manufacturing. Pontes & Cardoso (2006), explained that recycling as a process is an idea which has gained considerable recognition, aiming at promoting the recovery of materials considered as solid waste, and processing them into raw materials to be used in another material production process. Recyclable materials are sometimes collected in separate or dedicated bin in an organised waste management setting to facilitate effective process. Adesiyan (1998) asserted that substantial part of waste generated are recoverable and recyclable plastic, metal, bottle and organic substance, which if recovered at source can provide income as well as reduce the quantity that will be pass to final disposal site. Likewise, the owner of the waste many required separating materials in bins, e.g. for paper, plastics, metals, before its collection from the various household and industries. Recycling is not only a systematic diversion of waste or recovering useable materials, it facilitates cleaner environment, reduce tonnage of waste and cost effective management. Alaka & Osman (2023) further emphasized the sorting recyclable materials and selling them to either the middlemen or recycling plants. He said such practices is an economic incentives to reduce waste and primarily for financial benefits.

Adopting the right technology and technical know-how requires the attention of the government. These can be achieved through collaboration with the private sector. The solid waste often generated by the households are more of natural, local, heavy waste that can be recycle into organic useable materials for farming. Therefore, the machine and equipment needed for such process can be designed locally for effective sorting, grinding and compaction. Therefore, Shittu and Saka (2019) emphasized that appropriate method and facilities would save waste management a lot by reducing cost incurred in waste disposal, extend economic benefits in terms of job creation and further means to tap into the potentials in waste generated. However, emphasise should be on selling recyclable materials to accredited middlemen and plants for safety, security and efficient solid waste management.

Effective policy implementation on waste management is a nonnegotiable and a lifeline step in the process of having a clean environment and value-added waste management. According to Omoleke, effective enforcement of all regulations concerning refuse collection, disposal and other sanitation laws are important. Making use of sanitary or environmental inspectors from the state, Local Government, Non-Governmental Organisation and the private sector participants on erring waste management contractors, residence and the industries appropriately for contravening any environmental law in accordance with provision under offence related matters is a must. Promotion of the existing environmental courts, establishment of new ones and the enhancement of the capacity of the mobile courts is enough to get a high degree of compliance. Policy and it implementation on solid waste management sets the foundation for a reliable and sustainable clean environment, therefore, the policy must be relevant, at all time, to the activities, products and services of the solid waste management authority (Wachira, 2017), it is expected to be documented, and available in the public domain to encourage compliance and avoid undue penalty.

Data Bank: The relevance of keeping statistics for all the processes in solid waste management is important. It gives the assurance of immediate needs and appropriate forecast for effective solid waste management. Data banks need to be available and findings published at regular intervals for public digestion to get feedback, proper assessment and academic research. It enables waste management authorities to measure trends, optimize collection routes and the allocation of resources efficiently. Lack of data-evidence in decision making in waste management systems, both local and national policies on health and environment, may be affected adversely. Generating comprehensive information on the quantity and type of recyclables and recoverable materials helps to prioritize the recovery opportunities. It helps to find areas where more waste are generated excessively, find how the process can be efficient and identify opportunities to reduce waste.

Conclusion and Recommendation

Government needs to institutionalise and encourage the marketing of recycled materials as regards the economic gains and clean environment. A value added and properly sited engineered landfilled dump sites needs to be constructed in earnest. Such that dump site can generate some levels of energy. The abandoned solid waste transfer stations and the defunct market sited organic fertilizer plant must be reintroduced for early and better utilization or the establishment of more to meet the challenging population increase.

Composite plants and organic fertilizer plants in the major markets need to be considered and promoted to create employment, income generation and poverty alleviation. Partnership with the private sectors cannot be underestimated.

Recycled products and materials can be promoted for local contents in agriculture and manufacturing. It can be standardized to reduce pressure on Scarce resources and reduction in the tonnage of solid waste.

Annual conference on solid waste management needs to be facilitated by the Oyo State Government, the private sector, Academia, Engineering companies, health experts, agriculture and other stakeholders, for assessment and projection for the future. Such conference will develop a comprehensive master plan or assessed the existing one by anticipating development in solid waste management with the objective of adding value to the process.

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A COMPARATIVE SYSTEMATIC REVIEW OF INDIRECT FORMS OF GENDER DISCRIMINATION FROM ROMANIA AND DENMARK AMONG HIGHER EDUCATION EMPLOYEES

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Abstract

Background: Romania, a country with only 3 women rectors out of 54 public state universities, is at the opposite pole of gender equality to Denmark, which reached a 30% threshold of females in higher management positions in academia. Nevertheless, despite the cultural differences, this paper manages to identify similar indirect discrimination issues between the two countries.

Methods: Extending a previous systematic review focused on Romania, the study employs similar research methods to draw a comparison between Denmark and Romania. Four databases (Research Gate, ProQuest, JSTOR, and EBSCO) were searched for academic papers referring to indirect forms of discrimination that occurred at some point in the Danish Higher Education. The papers had to fit one of the four categories previously identified: recruitment & selection, evaluation, promotion, and collaboration with students, colleagues, and supervisors.

Results: A total of 11,056 articles were identified in the first step of the search, however, only 24 checked all the selection criteria and were included in this systematic review. The focus was to identify if current issues still happening in Romania, occurred at some point in Denmark too. This reasoning helps us to not only draw a comparison between the two countries but also to identify the period when a leading country dealt with similar indirect forms of discrimination.

Discussions: Stereotypes affect women's careers even in a country where the vast majority of the population embraces gender equality. In Danish Academia, more women than men were employed in temporary positions or part-time contracts, and the glass ceiling and glass escalator effects are still encountered, but at a lower rate. Furthermore, in a similar manner to the Romanian culture, the segregation was attributed to individual preferences, instead of recognizing systemic discrimination occurring in the workplace.

Keywords: gender segregation, higher education management, indirect discrimination

Introduction

With a quota raging between 27%-30% of female managers in the higher education environment since 2017, Denmark, together with other Nordic countries, is considered an etalon for the rest of Europe, when it comes to gender equality (Denmark Statistics, 2023). The same trend is encountered at the highest level of government too, with women holding up to 31.8% of the council seats even back in the 2009 elections (Baekgaard & Kjaer, 2012).

On the opposite end, Romania and other former communist countries, despite managing to reduce forms of direct discrimination, are still facing vertical gender segregation in public administration, especially in higher education institutions. According to the latest data from the European Union (2021), in 2019 Romania only had 11.1% of women as heads of institutions, one of the lowest percentages after Cyprus.

Nevertheless, Denmark didn't always have the representation it has today. In 1981 for example, the share of female employees in higher education reached only 15% out of 603 staff members included in the study (Moore, 1987). This led us to ask ourselves what kind of obstacles women encountered in the past in Denmark, and to what extent we can draw similarities to current issues women experience in their careers in countries where parity is still far from being achieved.

The current paper extends an existing study that, based on a systematic review, identified current forms of indirect discrimination that women in Romanian higher education still deal with. As a clarification, indirect discrimination refers to situations that are considered to be fair for both males and females, however, in reality, one gender is disadvantaged compared to the other (Wilson, Marks, Noone, Hamilton-Mackenzie, 2010). This might be a result of policies and strategies only having the profile of white men in mind in the elaboration process, thus not taking into account the different needs each gender has (Mavin, Bryans, Waring, 2004). (The study was presented during the 30th NISPAcee Annual Conference 2022, Bucharest Romania and published in Gâscă G. F., Macarie F. C., 2023. The impact of gender stereotypes on women representation in higher education. a systematic review, in Baba, C, Buftic, A, Matea, K., *Contribuția studenților doctoranzi la studiul administrației publice din România*, Accent, Cluj-Napoca, 978-606-561-240-2 (forthcoming))

We recognize that Denmark is still not at the level of its neighboring Nordic countries, which both managed to reach parity in management positions for several years now (European Commission, 2021). The country encountered a stagnation when it comes to progress in the gender equality field, and compared to Norway and Sweden, in Denmark, there is a weaker emphasis on gender equality policies in the academic field (Nielsen, 2017). Here, vertical segregation is seen more as a result of women's ambition and competitiveness, than a matter of discrimination (Nielsen, 2014).

Nevertheless, from the perspective of this comparative paper, it turned out to be an advantage, as a similar mindset is currently encountered in Romania. Furthermore, as Denmark already reached a 30% quota, the country can represent a starting point for identifying best practices to be applied in Romania, or similar countries (Statistics Denmark, 2021). As an observation, the ~30% quota is an important threshold, required by European law to be achieved by 2026 (EU Directive No.2381/2022). Even though the law refers to large private companies, the public sector and the higher education system can act as a role model.

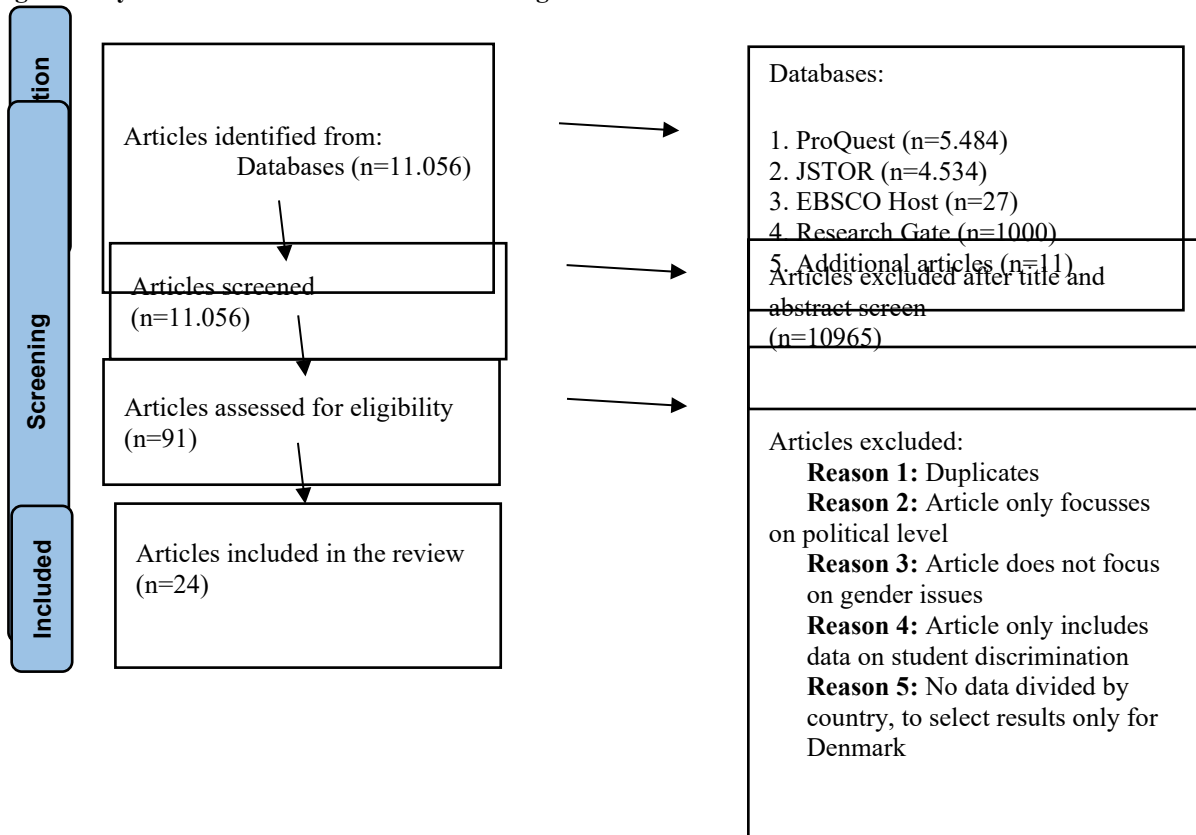
As a starting point, this paper identifies issues that women dealt with in Denmark's Higher Education Institutions, starting from the ones that were identified in Romania, based on the previous study. By understating the similarities in problems between the two countries, plus the period when these issues occurred in Denmark, can later help us in identifying the practices used to combat indirect discrimination. The next section will present the search and selection criteria for the systematic review, while the third section presents the results of the analysis. Conclusions and further steps are elaborated in the end.

For the purpose of this comparison, it is important to add that both countries follow a meritocratic system in terms of advancement in academic grades. The universities in both countries work based on a pyramidal structure, starting from research assistant/ university assistant, all the way up to professorship (Eurydice, 2023 a). When it comes to higher management positions, there are some differences between Romania and Denmark, nevertheless, having the right network is important in both countries. The rector in Romania (the highest management role) is appointed based on a vote from all teaching and research staff in the university, plus representatives of students. On the other hand, in Denmark, starting with 2003, this position is assigned based on the university board's decision (Carney, 2007). In both countries, the deans are selected by the rector based on a public contest, while heads of departments are appointed through a vote in Romania, and by the rector in Denmark (Eurydice, 2023 b).

Search Strategy and Selection Criteria

As stated before, this systematic review draws on the results of a previous study that identified indirect forms of discrimination in Romanian Higher Education, based on what the academic literature discovered until 2020. For the current paper, to be able to create a comparison between the results, the same search and selection methods were used. Therefore, the paper is constructed using the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) criteria (Page, et al., 2021) and the same four databases were searched as can be seen in Figure 1. Additionally, 11 articles were added from external sources.

Figure 1: Systematic Review PRISMA Flow Diagram



Identification & Selection

In terms of selection, we started with the screening of the titles and abstracts, as stated in the PRISMA criteria. The databases returned a total of 11,056 articles, out of which 91 passed the first process of the screening. In the second step, consisting of the reading of the full text, studies were excluded for several reasons. First, the study needed to be based on data from Denmark. Comparative studies on several countries were included in the review if the data and results were clearly divided by each country. Furthermore, the data had to be connected to higher education institutions or the general level of public administration. Studies focusing strictly on the political level were not included in the review. Lastly, as the paper draws a comparison with a previous study, only the studies that fit into the same categories previously identified (described in the next section) were selected. This led to a total of 24 articles being included in this review.

Analysis

The Romanian systematic review uses the triangulation method to link key concepts from both quantitative and qualitative studies (Erzberger & Kelle, 2003). Concepts in the qualitative studies were identified using a three-step process (Thomas & Harden, 2008), by selecting important information from each study, grouping them into categories, and lastly taking into consideration each concept's impact on the bigger category. The data from quantitative studies was selected using narrative analyses (Munn, et al., 2014) and then grouped and connected with the other information.

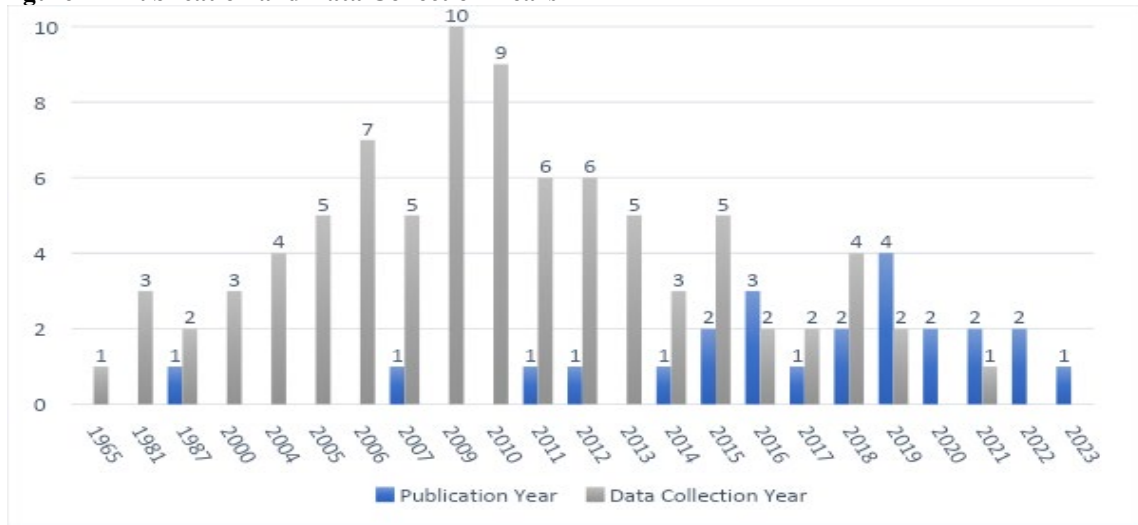
In the current study, we kept the same categories that were created in the paper on which we extended, therefore, there was no need to use the three-step process created by Thomas and Harden (2008) as previously. The four main areas that we were interested in finding situations dealing with indirect forms of discrimination were: recruitment & selection, evaluation, promotion, and collaboration. Therefore, we only used narrative analyses this time in order to analyze the information that would be relevant in answering the first research question, no matter if it was a qualitative, quantitative, or mixed-method study.

Results

This systematic review is based on 24 articles that passed all the selection criteria presented above. The oldest paper dates back to 1987, while the newest was published in 2023. However, the majority of the studies included were published between 2015 and 2022, as can be seen in Figure 2. Nevertheless, the recent publication year of the papers does not automatically mean that the issues described in the studies are as new. In order to identify the periods when Denmark dealt with indirect forms of discrimination in the higher education environment, and therefore answer one of our research questions, we looked at the years from when the data was collected.

Several of the papers are based on data that span over multiple years, starting with 1965. The majority of the information in all papers was collected between 2004 and 2015, with the peak being reached in 2009 and 2010. There was one study that was based on data from 2021, which focused on the pandemic impact on issues still present in the Danish academia.

Figure 2 – Publication and Data Collection Years



Out of the 24 articles included, the number of papers based on quantitative methods is almost equal to the number of papers based on qualitative methods. Therefore, as seen in Figure 3, we have 10 quantitative papers, 9 qualitative and the rest of 5 combine both research methodologies. Eight papers out of 24 used more than one research instrument, several of them analyzing trends from statistics, employees’ CVs, or institutional procedures over the years. The rest of the data in the papers were gathered either through interviews or questionnaires.

Figure 3 – Research methodology per study

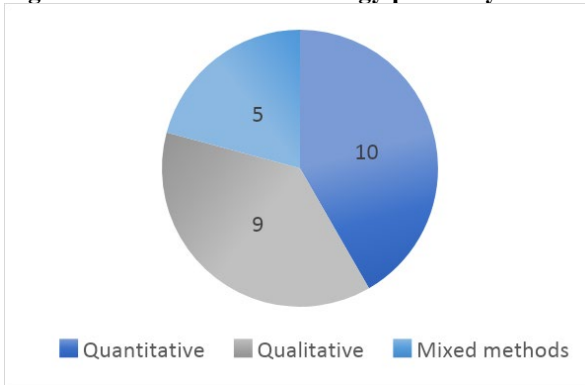
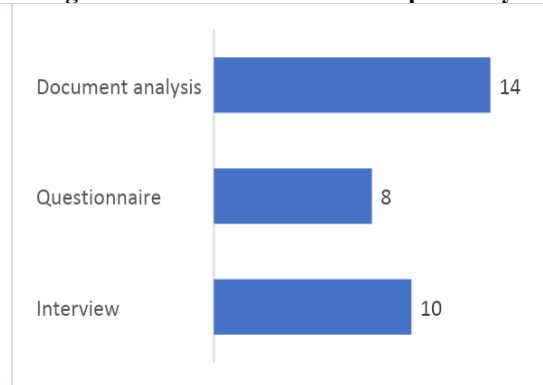


Figure 4 – Research instrument per study



As mentioned in the previous section, in this review we included both studies referring to higher education employees, as well as studies that are focused on the general level of public administration. Nevertheless, the vast majority of information is based strictly on data from teachers, researchers, and administrative workers in academia, as only 6 out of the 24 articles selected talk about the bigger level of public administration. Three other papers analyze different public workers but divide the data by profession.

Discussions

Despite Denmark being an example for other European countries when it comes to gender equality, the state has its own set of issues regarding situations when women were

discriminated in the past. In this chapter, we identified indirect forms of discrimination in the Higher Education System, that occurred at some point in the country's history. The chapter is presented through a comparative lens with similar situations that still occur in Romania, gathered into four main sections: recruitment & selection, evaluation, promotion, and lastly collaboration with people inside or outside the department. Each subsection will start with a summary of the results obtained from the previous study focused on Romania's higher education, before diving into the data obtained from Denmark. All results will be analyzed from a comparative perspective.

Recruitment & Selection

The Romanian education system still deals with both vertical and horizontal gender segregation among its staff. Women are more often encountered in entry-level positions and up to middle management positions, and a bigger percentage of them are employed in temporary contracts compared to men (Macarie & Moldovan, 2015; Apostoaie, et al., 2019; European Commission, 2021, p. 81). Furthermore, more women are encountered in fields like humanity, agronomy, or health, in concordance with the stereotypes that women are more nurturing (Macarie & Moldovan, 2012; Macarie & Moldovan, 2015; Drumea, et al., 2020). Lastly, during the recruitment process, women still deal with questions related to their personal lives, due to the belief that women are more responsible for the family life, thus affecting their careers in the long term (Macarie & Moldovan, 2013; Cărauşan, 2012). A similar horizontal gender segregation was encountered in Denmark until around 2017. At the higher level of public administration, there were significant differences in departments, with men being collocated in the financial departments, or those departments that are considered more prestigious (Gram & Grøn, 2020). The higher education system was no exception, with more men than women reaching the title of full professors in STEM fields (science, technology, engineering, and mathematics) (Nielsen, 2017). Between 1997 and 2006, the highest percentage of women employed in a technical Danish university was 12.1%, even lower than the EU average at that time (Colatrella & Gomard, 2011).

The international theory behind gender segregation is vast, explaining the phenomenon both as a result of gender roles and stereotypes existing in the organization, but also as a consequence of personal preferences (Dicke, et al., 2019). Nevertheless, at a closer look, the two are strongly connected as stereotypes are ingrained in one's culture and affect even the way children are raised based on their gender, therefore leading to different preferences in the future (Liben & Signorella, 1980; Koenig, 2018). In addition, in the public administration sector in Denmark, even when there was no preference from the candidate, women still had a higher chance to be assigned to a department related more to the nurturing field, than to a technical one (Baekgaard & Kjaer, 2012).

In terms of vertical segregation, the percentage of women used to be greater in the lower level positions, working as "research assistants, instructors and among junior ranks of the non-tenured faculty" (Moore, 1987; Skewes, et al., 2019). A similar trend was encountered in administrative positions, with women being over-represented there (Skewes, et al., 2019). In addition, based on data from 2009-2010, it was discovered that there were greater chances for a woman to be employed in a part-time or temporary contract, similar to what studies concluded in Romania (Nielsen & Madsen, 2019; Macarie & Moldovan, 2015). Just in 2011-2013, 62% more women were employed in such positions, compared to only 35% of men (Nielsen, 2016).

This can be a result of men and women being selected on different criteria, or being examined on harsher standards based on gender. Studies have shown that men with a curriculum vitae that fits outside of the job description still have a higher chance of being selected for the job, while women tend to start in lower positions and only be recruited internally for advancement in other roles (Gram & Grøn, 2020).

Lastly, in both countries there were situations where women tended to be assigned more teaching activities than men, drastically affecting the time they could dedicate to research (Moore, 1987; European Commission, 2021, p. 81). We will later see in the next sections how important one's research results are for their career, as both countries put more emphasis on research than on teaching. The COVID pandemic that started in 2020 in Europe brought to the surface even more the inequality that this arrangement creates, leading to even fewer publications by women (Constantinescu & Pozsar, 2022).

Evaluation

Men and women are evaluated differently, many times leading to women having to work harder to prove they are suitable for the position they work in (Albulescu & Herrera-Saldana, 2016; Ward, et al., 2014). Since in Romania, higher education management is mostly dominated by men, the culture that is formed promotes men's performances "because the past showed that men are good leaders" (Apostoaie, et al., 2019). Furthermore, due to the lack of feminine role models, women tend to be harsher on themselves when it comes to their skills, and many times correlate the idea of success with external factors instead as a result of their capabilities (Macarie & Moldovan, 2013; Ward, et al., 2014). The difference in evaluation can lead to an increase in the gender pay gap in the long term, as several bonuses are offered based on one's performance (Cărauşan, 2012). Gender stereotypes are the ones that mold one's perception of someone, influencing how capable they see them or what kind of behavior is expected from them (Charles, 2011; Heilman, 2012; Koenig, 2018). Despite Denmark having a more advanced integration of gender equality in their culture, in 2012 stereotypes were still present in the academic environment. Women researchers were considered "soft actors in a hard world of science" (Nielsen, 2014).

Denmark did not always have the 30% quota that the country managed to reach today in the public sector. Back in the days when women were tokens (being in a gender minority), including in the academic world, having management aspirations was negatively correlated with their gender (Nielsen & Madsen, 2018). This connects with the results obtained in Romania and with international literature referring to stereotypes threat theory. More precisely, negative stereotypes referring to one's behavior, roles, and capabilities are more common to be used when judging a woman, having a direct impact on these women's future aspirations and on the way they see their performances (Ryan & Haslam, 2008; Spencer, et al., 2016; Gram & Grøn, 2020). As a consequence, in the years 2004-2013, between 8% and 16% of women academics hesitated to apply for a higher position leading to professorships (Nielsen, 2016).

In terms of paychecks, the system works similarly to Romania, leaving no place for discrimination at first glance, but in reality, disadvantaging women due to the connection between performance and bonuses. When it comes to equal wage agreements in Denmark, there were rules imposed as early as 1973 (Borchorst & Siim, 2008). However, despite

having fixed base salaries, the differences in wages occur from the remuneration of extra tasks or performance bonuses (Nielsen, 2015; Stritch & Villadsen, 2018).

We already observed women tended to be employed in temporary or part-time contracts, positions that are usually excluded from performance bonuses. Furthermore, motherhood can have an impact too, with studies showing that women with children earn less than women without children. Nevertheless, starting with the age of 29, all women start to earn less compared to men in similar positions and the wage gap continues to widen with age (Stritch & Villadsen, 2018).

Promotion

Romania is a country that is still confronting with the glass ceiling and glass cliff phenomena in public administration (Macarie & Moldovan, 2011, pp. 101-102; Ryan & Haslam, 2008). In the international literature, these are defined as an invisible barrier that stops women from attaining leadership roles or women being promoted to these roles in times of instability (U.S. Glass Ceiling Commission, 1995, p. 25; Ryan & Haslam, 2005; Powell & Butterfield, 2015). The previous study identified four main factors that led to this. Firstly, there is a lack of clear, transparent criteria needed for one to advance in grade or explain how candidates are differentiated during the recruitment process. (Ward, et al., 2014; Manciu, et al., 2015; Albulescu & Herrera-Saldana, 2016). Secondly, research activity is the most important measurement, however, women tend to get more teaching activities, thus drastically impacting the time they can dedicate to research (Bădoi, 2019; Ichim, 2020). The last two factors refer to the work-life balance and the ability to form a network that would choose and support you in the higher management positions, due to the lack of female communities in the upper tier of positions (Macarie & Moldovan, 2013; Ward, et al., 2014; Bădoi, 2019; Apostoaie, et al., 2019).

Based on data from 2009-2010, Denmark too dealt with a glass ceiling effect. Despite the ability of the public sector to attract female candidates, most of them remained in the lower positions. If at the entry level, there were only 10% female tokens, compared to 33% male tokens, the ratio was inversely proportional as we got closer to the top (Nielsen & Madsen, 2018). The situation still remains today, as there are only 30% women in board members across the public sector (Statistics Denmark, 2021). One interesting aspect is that women have a lower interest in management positions than men, with 41% of women aspiring towards such a position (Nielsen & Madsen, 2018). However, their motivation is directly impacted by the representation around them. Having female role models and female communities around leads to an increase in this percentage (Nielsen & Madsen, 2019).

Another phenomenon that the two countries have in common is the glass cliff, as women reach leadership positions in times of struggle. At the political level, there are more chances for a woman to lead parties that are losing seats, as the post becomes less desirable to men (O'Brien, 2015). However, those positions involve a higher risk and usually come with lower benefits (Ryan, et al., 2016). The same trend was encountered in higher education institutions, where women were usually promoted to less desirable positions, which would impact their future aspirations and career paths (Moore, 1987). On the other hand, men get promoted more easily, even when their profile does not meet the typical path normally required for a specific position (Gram & Grøn, 2020). In addition, more men than women start their careers in recognized departments, a fact that will lead to them reaching an executive position with “2.3 years faster than the average woman” (Gram & Grøn, 2020).

Lastly, another similarity that the Romanian and Danish academic worlds have in common is the accent put on research results. When it comes to promotions, both countries measure results based on the number of publications in journals with high-impact factors and based on the index of the publications (Skov, 2021). However, as already presented in the first section of this chapter, the type of contracts women are employed into or the types of responsibilities they get leave less time for research activities.

Therefore, the lack of women promoted to higher management positions is a result of both personal aspirations and indirect discrimination in the workplace (Nielsen, 2016; Dahlerup, 2018). It is important to note that the two notions are strongly connected, as discrimination along the career path will shape future aspirations.

Collaboration

Collaboration with students, colleagues, and supervisors impacts all aspects of a person's life in the academic world and gender stereotypes influence the way women are treated. As they are considered patient beings, women receive more administrative tasks than their male colleagues, while masculine stereotypes referring to ambition and competitiveness will make men be seen as more favorable by students and colleagues (Moldovan, et al., 2019; Ichim, 2020). Furthermore, the vertical segregation present in Romania leads to feelings of isolation, lack of mentoring, or limited access to information and opportunities (Macarie & Moldovan, 2013; Ward, et al., 2014; Apostoaie, et al., 2019). The literature in Romania also identified how women are discriminated when it comes to international mobilities. Women have both a harder time accessing international opportunities (due to work-related mechanisms and personal responsibilities) and more difficulties when trying to work in a country's culture that has a different level of gender inclusion (Morley, et al., 2018; Bădoi, 2019; Ichim, 2020).

Compared to Romanian legislation that started to guarantee most gender equality rights after the fall of the communist regime and in the first part of the current century, Denmark's legislation goes back to 1970 (Larsen, 2005; Tănase, 2018). Nevertheless, one important aspect that the two countries have in common is the fact that vertical segregation is not recognized to be a consequence of gender discrimination, but rather of personal aspirations and choices (Nielsen, 2014; Nielsen, 2016). This can lead to matters of discrimination and misogyny being dismissed when they happen, or being cataloged as "Danish humor" (Guschke, et al., 2022; Skewes, et al., 2019).

In addition, positive measures enforced to increase the number of women in leadership roles are often critiqued in terms of fairness and necessity (Segaard, et al., 2023; Utoft, 2020; Skewes, et al., 2021). Compared to its neighboring countries (Norway and Sweden), Denmark has no regulations based on which to sanction universities that do not provide regular reports on gender equality (Nielsen, 2014).

However, the belief that gender discrimination is a present issue is majorly influenced by the number of women in the institution. In studies done at the level of parliament, up to 30% more women than men recognized vertical segregation as a consequence of indirect gender discrimination, and more women engaged in gender equality policies (Dahlerup, 2018; Holli & Harder, 2016). This correlates with international literature stating that the number of women directly impacts attitudes, behaviors, and perceptions of gender inequality (King, et al., 2010).

International mobilities are also harder for Danish women to attain, with a ratio of 1 to 3 women compared to men having international experiences during the course of their careers (Gram & Grøn, 2020). Institutional factors contributing to this phenomenon are connected to the lack of female representation in the upper positions, which disadvantages women in having one-to-one relationships, mentorship, or easy access to new opportunities (Bilimoria, et al., 2006; Nielsen & Madsen, 2018). In an analysis made at the end of the past century, men had several advantages over women, such as easier access to “best graduate programs, better financial arrangements, and introduction and participation in collegial network”, all based on recommendations from their peers (Moore, 1987). The argument is strengthened by other recent studies, proving that one’s connections in academia are important even when there is open competition for a position (Colatrella & Gomard, 2011; Nielsen, 2016).

There were also differences identified in the way teachers interact with students and how much time they spend for supervising activities according to their gender. Female teachers with a higher level of empathy tend to initiate contact with students more often and schedule future meetings in advance, compared to male colleagues who only respond when students reach out to them (Nielsen, 2015). This, same as in Romanian teachers’ case, drastically impacts the time they can dedicate to research, networking, and mobilities, all important to advance in grade and higher management positions. Furthermore, this might shape students’ attitudes towards their teachers, as one study identified students see male teachers as being assertive and self-reliant, and male students see the same gender teachers as having a better performance (Binderkrantz & Bisgaard, 2024).

Conclusions

In the context of gender equality, Romania and Denmark are two countries at opposite ends of the European ranking (European Institute for Gender Equality, 2023). With such a difference in numbers and with the fact that the Danish society embraced the concept of equal rights as early as the 70s, at first glance it is difficult to draw any similarities between the two countries.

Nevertheless, before managing to reach the 30% quota of women leaders in public administration around 2017, Denmark still dealt with several forms of indirect discrimination as it was identified in this systematic review. With a focus on only discrimination issues similar to Romania, the years between 2004 and 2015 turned out to be the most problematic. Without a doubt, some of these issues are still present, as Denmark has not been able to reach parity as other Nordic countries and seems to be stuck at the same numbers since six years ago. The literature review supports this argument, as the most recent study, published in 2023, still uncovered several barriers in women’s academic careers.

More concretely, women tend to be discriminated as early as recruitment and selection go. Romania confronts with horizontal and vertical segregation, with more women being encountered in lower positions (university assistants and lecturers) and in fields considered to be more nurturing (humanity, agronomy, or health). However, in a similar mindset encountered in Denmark too, this is not recognized as a matter of gender inequality and is attributed instead to personal preferences.

However, at a closer look, the literature points out several gender-blind scenarios. For example, in both countries, women are more often employed in part-time positions or

temporary contracts and are also dealing with more teaching hours than male colleagues. This drastically impacts the time they can dedicate to research activity, affecting, in the long term, their chances of being promoted to a higher grade.

Other factors that used to influence women's career paths in Denmark and are still present in Romania are related to the differences in evaluation that occur between the two genders and to the differences in interactions generated by being a token in the workplace. Women tend to be evaluated on harsher criteria than their male colleagues, and, at the same time, women themselves impose harsher standards on themselves the higher they are in their careers. However, based on the international literature, this also might be a result of observing behaviors and expectations of the people around them, therefore another result of existing systemic discrimination (Nadal, et al., 2021)

The lack of recognition of these issues leads to defensive attitudes towards positive measures meant to reduce discrimination, many considering that they are too much. However, as studies proved, the awareness of gender discrimination is positively influenced by the number of women in the institutions. Therefore, having more women is important not only for the existence of role models, communities, and support groups but for recognizing and combating gender discrimination.

Nevertheless, despite some issues still being present in the Danish Higher Education, most of the situations present in Romania were encountered in Denmark in the years 2009 and 2010. Therefore, moving forward, researchers can look at these specific years and the years right after for strategies and good practices implemented there to solve indirect discrimination. It is important to understand and analyze strategies both at the national level and at the institutional level, that allowed Denmark's Higher Education to reach a quota of 30% women leaders.

This systematic review proved that despite the cultural differences between the two countries, there are several similarities when it comes to women's discrimination in higher education. This is an important discovery, as it proves that countries at the top of the gender equality index can represent role models for countries that are still far from an equal society.

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Annex 1

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ASSESSING THE PUBLIC DEBT SUSTAINABILITY USING THE PENALIZED SPLINE REGRESSION. EMPIRICAL EVIDENCE FOR ROMANIA

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Abstract: Since the 2008 financial crisis, public debt sustainability has been a major topic in economic discussions. With the added strains of the COVID-19 pandemic and ongoing global conflicts, the conversation around managing and maintaining public debt has only intensified. In the paper, we study governments' reactions to the accumulation of debt from Romania, using annual data from 2000 to 2023. The empirical approach applied in the paper include time series estimations using penalized spline regression. We use a semi-parametric model with time-varying coefficients and we include in the model some control variables which are particularly relevant in the case of Romania.

Keywords: public debt, sustainability of public debt, penalized spline regression, Romania economy.

Introduction

Studying public debt sustainability is increasingly crucial in today's world due to its profound impact on economic stability, fiscal policy, and social well-being. High levels of unsustainable public debt can lead to severe economic crises, including defaults or inflationary pressures, which undermine investor confidence and hinder economic growth. Effective debt management ensures that governments can maintain essential social programs and public services while avoiding excessive financial burdens on future generations. Sustainable debt levels also provide the fiscal flexibility needed to respond to economic shocks, such as the recent pandemic, which has highlighted the need for robust fiscal policies to manage unprecedented spending and economic disruptions.

The COVID-19 pandemic has underscored the importance of studying debt sustainability as governments worldwide have increased borrowing to support public health and economic recovery. Managing this heightened debt responsibly is essential to prevent long-term fiscal instability and ensure that future generations are not unduly burdened. Moreover, sustainable debt levels are critical for maintaining public trust and international credibility, which are vital for accessing capital markets and navigating global financial relations. By focusing on debt sustainability, policymakers can better address current and emerging risks, including those posed by global health crises and economic uncertainties, thereby safeguarding both domestic and international economic stability.

In the context of Romania, studying public debt sustainability is particularly important as the country navigates both the economic impacts of the COVID-19 pandemic and broader fiscal challenges. The pandemic has significantly increased Romania's public debt as the government implemented substantial fiscal measures to support health care, economic recovery, and social protection. Managing this increased debt is crucial to ensuring that

Romania can maintain economic stability, avoid excessive borrowing costs, and continue investing in infrastructure and public services. Sustainable debt levels will help Romania balance its fiscal responsibilities with the need for economic growth and development, while also safeguarding its ability to respond to future crises and maintain investor confidence. Addressing these challenges effectively will be key to Romania's long-term economic resilience and its position within the European Union, where adherence to fiscal norms and sustainability criteria is closely monitored.

In the current geopolitical climate, including the ongoing conflict in Ukraine, studying public debt sustainability in Romania has become even more pressing. The war has introduced additional economic uncertainties and potential disruptions, impacting energy prices, trade routes, and overall economic stability. As Romania faces increased defense spending and humanitarian support costs, the strain on public finances is compounded, making it essential to manage debt sustainably to avoid exacerbating fiscal pressures. Balancing increased expenditures with effective debt management will be critical for maintaining economic stability and resilience. Sustainable debt policies will enable Romania to navigate these turbulent times while preserving its economic growth and stability, ensuring that it remains well-positioned to handle both immediate and long-term challenges.

The primary aim of this paper is to assess the sustainability of Romania's public debt. The empirical study will utilize several statistical variables, including the primary surplus, net public debt ratio, public debt expenditures, a measure of economic cycles (real GDP fluctuations), rule of law, political stability and regulatory quality. Data for these variables, covering the years 2000 to 2023, has been obtained from the International Monetary Fund (IMF) and the World Bank. The analysis of public debt sustainability will employ spline regression as the statistical method. This approach is used to uncover the distinctive features of the country included in the sample.

The paper is structured into four comprehensive sections. The first section offers a succinct review of existing literature on public debt and its sustainability, outlining key theories and findings from prior research. The second section thoroughly describes the data sources and methodological framework used to evaluate public debt sustainability, detailing the approaches and techniques applied in the analysis. The third section provides an in-depth empirical analysis with a specific focus on Romania. Finally, the fourth section summarizes the key conclusions drawn from the study, highlighting the main insights and implications for fiscal policy and debt management.

Literature review

The analysis of whether a government meets its long-term budgetary constraints began with the work of Hamilton and Flavin in 1986. They investigated whether the US federal government was adhering to its present-value borrowing constraints by examining annual data from 1960 to 1984. Their study focused on determining if the data on US federal public debt included any speculative bubbles. The presence of such bubbles would imply that the public debt was exceeding the present value of expected future surpluses, suggesting an unsustainable fiscal policy. Through a range of statistical tests, Hamilton and Flavin provided evidence that supported the sustainability of the US federal debt policy during the period they analyzed. In 1989, Wilcox challenged the approach used by Hamilton and Flavin, arguing that their method failed to consider the impact of fluctuating

interest rates on the analysis. To address this issue, Wilcox introduced a new testing method that evaluates the discounted time series of public debt. According to this approach, if the discounted debt series trends towards zero, it signifies that the debt is sustainable. Applying this revised method to the same dataset used by Hamilton and Flavin, Wilcox discovered evidence indicating that the US federal debt was, in fact, unsustainable.

Wilcox's findings were notably influenced by the choice of discount rate used in his test, which is a variable subject to randomness. Because past interest rates do not reliably predict future rates, the results of his test could be heavily affected by the specific discount rate selected. To mitigate this issue, Hakkio and Rush proposed an alternative approach in 1991 that focuses on analyzing the cointegration between government revenues and expenditures. Their method suggests that if revenues and expenditures are cointegrated, it indicates that their first differences are stationary, which supports the notion of a sustainable debt policy, provided that the interest rate remains positive. This approach aims to offer a more stable assessment of fiscal sustainability by examining the long-term relationship between revenues and spending.

Bohn (1995, 1998) criticized the reliance on interest rates in sustainability tests, highlighting the issue that future interest rates are inherently unpredictable. Instead of focusing on interest rates, Bohn suggested an alternative method: examining how the primary surplus as a percentage of GDP responds to changes in the debt-to-GDP ratio. Specifically, he proposed that if the primary surplus increases in response to higher debt levels, ideally in a linear fashion, it would indicate that the debt-to-GDP ratio tends to revert to a more manageable level, thus supporting the sustainability of the debt in a growing economy. This approach is appealing because it aligns with economic intuition—if a government faces high debt, it should increase its primary surplus to ensure long-term sustainability. Bohn's method, known as the fiscal response function, has become a prominent tool in fiscal sustainability research. Beqiraj et al. (2018) provided a comprehensive review of this approach. Recent studies have expanded on Bohn's work by exploring non-linear fiscal behaviors. For instance, the concept of "fiscal fatigue," introduced by Ghosh et al. (2013), suggests that the responsiveness of the primary surplus to debt levels may diminish or even become negative when debt ratios reach very high levels. This phenomenon has been further examined by Checherita-Westphal and Zdarek (2017) and Fournier and Fall (2017), highlighting that the relationship between debt and fiscal responses may not always be straightforward.

The methodological framework of this study is based on the approaches developed by Bohn (1998), Greiner and Fincke (2016), Berti et al. (2016), and Owusu et al. (2023). We used annual data from 2000 to 2023 to estimate models for Romania in our sample. Each model is semi-parametric, addressing the non-linear relationship between the primary balance and the debt ratio, as identified by Greiner and Kauermann (2005). The estimation technique employed is penalized spline regression, which provides more robust estimates compared to ordinary least squares (OLS), as demonstrated by Hastie and Tibshirani (1990) and Ruppert et al. (2003). Early developments in penalized splines were significantly advanced by Hastie and Tibshirani (1990), who pioneered generalized additive models. These models allowed for a more flexible approach to capturing complex relationships between dependent variables and predictors. Building on this foundation, Wood (2000) introduced the concept of mixed models for penalized splines, enhancing their application by incorporating random effects. Additional key contributions to the methodology include

Ruppert et al. (2003), who refined the estimation techniques for penalized splines, and Eilers and Marx (1996), who developed smoothing techniques that improved model fitting. Greiner and Kauermann (2005) further extended the theoretical framework, contributing to a deeper understanding of the properties and advantages of penalized spline methods in various statistical applications.

Recent advancements in penalized spline methodologies have significantly enhanced the analysis of public debt sustainability. Current contributions by Wood (2017) have introduced sophisticated extensions of penalized splines in Bayesian and spatial contexts, which improve the handling of complex, non-linear relationships in economic data. Marra and Wood (2012) have further refined these techniques for use in mixed models, enabling more accurate analysis of hierarchical structures within economic data. Additionally, Sim and Wright (2019) have focused on computational improvements and extensions to high-dimensional settings, enhancing the robustness of spline methods in dealing with large-scale data. These advancements are particularly relevant for studying public debt sustainability, as they allow for more nuanced modeling of the non-linear dynamics between debt levels, primary surpluses, and economic growth, thereby providing deeper insights into the sustainability of fiscal policies and the long-term viability of public debt.

Data and methodology

This paper investigates how the Romanian government has managed its public debt accumulation. We analyzed data from 2000 to 2023, obtained from the International Monetary Fund (IMF) and the World Bank. Our approach is based on the methodologies developed by Fincke and Greiner (2012) and Greiner and Fincke (2016). Specifically, we examine how the primary surplus—expressed as a percentage of GDP—responds to changes in the public debt ratio, also expressed as a percentage of GDP. To ensure that our analysis accounts for specific national factors, we include control variables that reflect the institutional context, including indicators such as the rule of law, political stability, and regulatory quality.

The rule of law measures how much confidence individuals have in and adhere to societal rules, specifically focusing on the effectiveness of contract enforcement, protection of property rights, the performance of police and judicial systems, and the prevalence of crime and violence. The percentile rank reflects the country's position relative to all other countries included in the aggregate indicator, with 0 representing the lowest rank and 100 the highest. These percentile ranks have been adjusted to account for shifts over time in the countries included in the World Governance Indicators (WGI).

The political stability and absence of violence/terrorism indicator assesses how people perceive the likelihood of political instability or politically motivated violence, including terrorism, within a country. This measure uses a percentile rank to show how a country compares to others globally: a percentile rank of 0 represents the lowest level of stability and security, while a rank of 100 denotes the highest level. The percentile ranks are adjusted to account for changes in the composition of countries evaluated by the World Governance Indicators (WGI) over time. This adjustment ensures that the rankings remain consistent and comparable despite shifts in the global landscape of countries assessed.

Regulatory quality assesses how effectively the government is perceived to design and enforce policies and regulations that facilitate and encourage private sector development. The percentile rank represents the country's position relative to others, with 0 indicating

the lowest performance and 100 the highest. This ranking is adjusted to reflect changes in the countries included in the Worldwide Governance Indicators (WGI) over time, ensuring that shifts in the indicator are not solely due to changes in the sample of countries but reflect actual variations in regulatory quality.

The econometric models estimated in this paper are based on the approach used by Bohn (1998), Greiner and Fincke (2016), and Berti et al. (2016). For the time series estimations, we employed a semi-parametric model, as detailed below:

$$PB_t = \beta_0 + f(Debt_{t-1}) + \beta_1 Expend_t + \beta_2 GDP_t + \beta_3 Z_t + \varepsilon_t .$$

In the model, PB_t denotes the primary surplus as a percentage of GDP, while $Debt_{t-1}$ refers to the debt ratio lagged by one period, accounting for the fact that budget plans are typically set a year in advance. The variables $Expend_t$ and GDP_t represent public spending and real GDP fluctuations, respectively, with the latter acting as a business cycle indicator. These were calculated by removing the long-term trend from the series using the Hodrick-Prescott filter. The Z_t variables are control factors that capture the specific economic characteristics of the countries studied, such as rule of law, military spending and age dependency ratio. $f(Debt_{t-1})$ is a smoothing function, which is unknown but smooth and estimated from the data, applied to the lagged debt ratio. The coefficients β_i , $i = 1, 2, 3$ correspond to the variables $Expend_t$, GDP_t , and Z_t , respectively. The term ε represents the error component.

The relationship between the primary surplus ratio and public debt is generally linear for most variables, except for the lagged debt variable, $Debt_{t-1}$. As highlighted by Greiner and Kauermann (2005), this lagged debt variable has a nonlinear effect on the primary surplus ratio. The strength of the primary surplus's response to changes in the public debt ratio is indicated by a time-varying coefficient. This coefficient reflects how sensitive the primary surplus is to shifts in the debt ratio. According to Greiner and Fincke (2016), nonlinear models can be approximated by linear models with time-varying coefficients if the changes in parameters are gradual, a concept supported by Granger (2008). For public debt to be considered sustainable, it is generally sufficient for the reaction coefficient to be positive and sufficiently large on average.

The analysis utilizes penalized spline regression due to its superior ability to handle nonlinear relationships compared to ordinary least squares (OLS) regression. As detailed by Hastie and Tibshirani (1990), Wood (2000), and Ruppert et al. (2003), penalized spline regression provides more robust and accurate results by applying smooth functions that adjust for complexity within the data. To further ensure the robustness of our findings, we also test various combinations of variables.

The analysis relies on data from the International Monetary Fund (IMF) and the World Bank.

Empirical findings

This paper's empirical study focuses on evaluating the sustainability of public debt in Romania. Prior to discussing the findings, we first offer a concise overview of the variables under analysis and then proceed with the time series estimations.

Data summary

The empirical study utilizes annual data for Romania covering the period from 2000 to 2023. Missing values were addressed through basic imputation techniques. The dynamics of the variables are illustrated in Figures 1 to 7.

The primary surplus

The primary surplus, defined as the difference between general government revenues and general government expenditures (excluding interest payments) and expressed as a percentage of GDP, is illustrated for Romania from 2000 to 2023 in Figure 1:

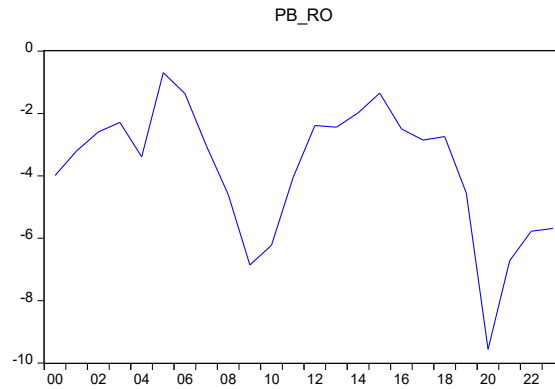


Figure 1. Primary surplus (% of GDP) dynamics for Romania, from 2000 to 2023

Figure 1 illustrates that Romania experienced primary deficits throughout the entire period from 2000 to 2023. Although there were several attempts to better manage government spending and significantly improve revenues, resulting in modest improvements in the primary surplus, these efforts were generally insufficient, even if the country struggled to achieve substantial progress.

Romania experienced primary deficits around 2009 and 2020 due to significant economic disruptions in those years. In 2009, the global financial crisis led to a severe economic downturn, reducing tax revenues and prompting the government to increase public spending to stimulate the economy and address rising unemployment. This combination of decreased revenues and elevated expenditure resulted in a primary deficit. Similarly, in 2020, the COVID-19 pandemic caused a substantial economic slowdown, which, along with lockdowns and decreased economic activity, led to a sharp decline in government revenues. The Romanian government responded with increased spending on healthcare and economic support measures, further exacerbating the primary deficit. Both periods reflect how external economic shocks and increased fiscal measures to counteract these shocks can strain public finances.

Public debt rate

The graph for the public debt ratio for Romania covering the period from 2000 to 2023, is represented in Figure 2.

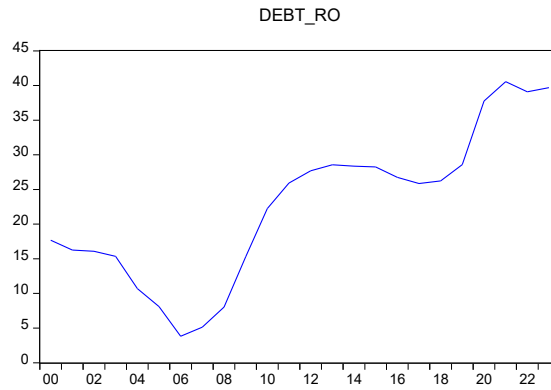


Figure 2. Public debt ratio dynamics for Romania, from 2000 to 2023

From 2000 to 2023, Romania's public debt has experienced notable fluctuations, influenced by various economic and geopolitical events. The debt ratio increased significantly during global economic crises, such as the 2008 financial downturn and the 2020 COVID-19 pandemic, driven by elevated government spending and decreased revenues. Additionally, recent geopolitical tensions and conflicts, such as the ongoing war in Ukraine, have further strained Romania's public finances through increased defense spending and economic disruptions.

Business cycle

The business cycle for Romania, highlighting the variations in real GDP from 2000 to 2023, is illustrated in the graph below, Figure 3.

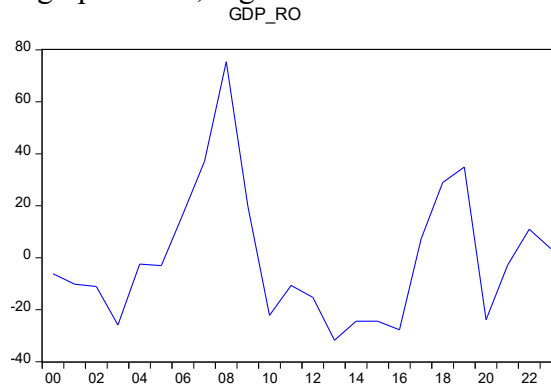


Figure 3. Business cycle dynamics for Romania, from 2000 to 2023

This visualization highlights periods of economic expansion and contraction, reflecting how the country's economic output has varied in response to various domestic and international factors. By examining these changes, one can gain insights into how economic growth and downturns have impacted Romania's overall economic performance and influenced fiscal and monetary policies. This information is crucial for understanding the broader economic context in which public debt and other economic indicators should be evaluated.

Public debt expenditures

Below is a graph depicting the fluctuations in public debt expenditure as a percentage of GDP for Romania from 2000 to 2023, showing how this variable varies around its trend.

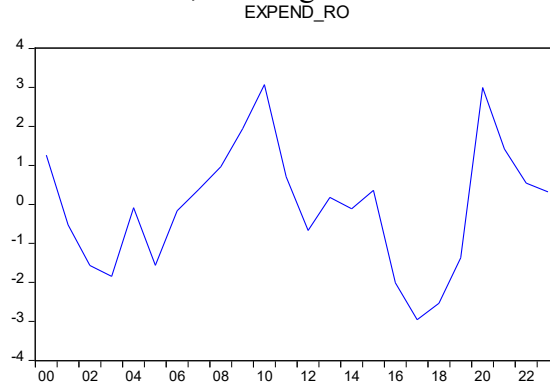


Figure 4. Public debt expenditure dynamics (% of GDP) for Romania, from 2000 to 2023

The graph illustrates how public debt expenditure in Romania, expressed as a percentage of GDP, has fluctuated from 2000 to 2023. By comparing these fluctuations against the long-term trend, the graph provides insights into the variability of debt-related spending over time. This analysis helps in understanding how public debt expenditure has responded to different economic conditions and fiscal policies, revealing periods of higher or lower spending relative to the trend. Such information is valuable for assessing the effectiveness of fiscal management and the impact of economic events on debt expenditure.

Rule of law

The visual representation of the rule of law for Romania from 2000 to 2023 is shown in Figure 5.

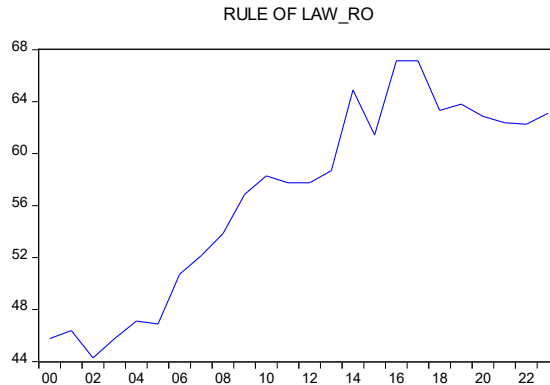


Figure 5. Rule of law for Romania, from 2000 to 2023

The visual representation of the rule of law for Romania, depicted in Figure 5, provides a snapshot of how perceptions of legal and institutional quality have evolved from 2000 to 2023. This figure highlights trends and changes in the effectiveness of contract enforcement, property rights, and the functioning of legal and judicial systems over time. By examining these trends, one can assess how improvements or declines in the rule of law may have influenced Romania's governance, economic stability, and overall investment climate. Understanding these dynamics is essential for evaluating the broader implications of legal and institutional quality on the country's economic and fiscal performance.

The upward trend in the rule of law for Romania from 2000 to 2023 indicates significant improvements in the country's legal and institutional quality. This suggests that over this period, Romania has strengthened its legal framework, enhanced the enforcement of contracts, and improved property rights protection, contributing to a more reliable and secure business environment. Such advancements are likely to foster greater economic stability and attract investment, reflecting positively on the country's overall governance and economic performance.

Political stability

The graph that illustrates the trends in Romania's political stability from 2000 to 2023 can be seen in Figure 6.

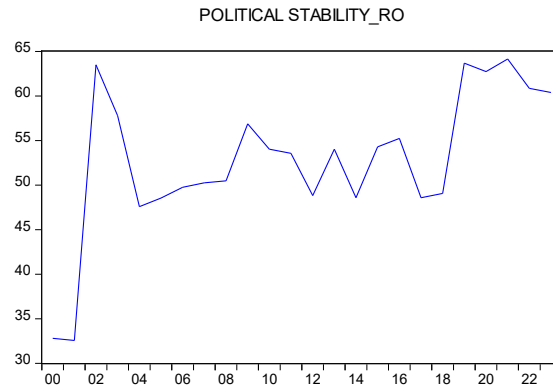


Figure 6. Political stability for Romania, from 2000 to 2023

From 2000 to 2023, Romania's political stability has been marked by both progress and challenges. The early 2000s saw Romania navigating post-communist transitions and aligning with EU standards, culminating in its EU membership in 2007. Throughout this period, the country faced fluctuations in stability due to economic crises, political conflicts, and governance issues.

Regulatory quality

The visual representation of the regulatory quality for Romania from 2000 to 2023 is shown in Figure 7.

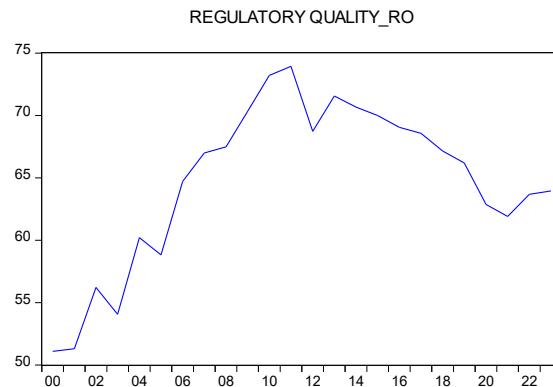


Figure 7. Regulatory quality for Romania, from 2000 to 2023

For Romania, the improving regulatory quality from 2000 to 2011 likely supported economic growth and contributed to better debt management during that period. The subsequent decline after 2011, however, could indicate emerging challenges such as policy reversals or increasing inefficiencies, which may negatively affect economic stability and public debt sustainability. This deterioration suggests potential risks to Romania’s ability to effectively manage and sustain public debt, emphasizing the need for renewed focus on regulatory reforms to stabilize and improve fiscal health.

Estimating spline regression

The results from estimating the econometric models for Romania, which include control variables such as the rule of law, political stability, and regulatory quality, are shown in Table 1. These tables display the models selected based on the lowest generalized cross-validation (GCV) statistic and the highest adjusted R-squared (Adj. R²) value. Only the results where the coefficient of the smooth function is statistically significant are included.

Estimated regression coefficients

The estimated equations are presented in Table 1, with each model incorporating different sets of control variables. Model 1 represents the baseline model without any control variables. Model 2 includes rule of law as a control variable. Model 3 incorporates political stability as the control variable. Finally, model 4 features regulatory quality as the control variable.

Table 1: Coefficients for the four analyzed models (Dependent Variable: primary surplus as a Percentage of GDP)

Variables	Model1	Model2	Model3	Model4
Constant	-3.493 **	12.738 **	1.143	1.238
	(1.500)	(5.573)	(2.753)	(9.510)
PB_{t-1}	0.101	0.084	0.124	0.107
	(0.213)	(0.180)	(0.209)	(0.216)
$Debt_{t-1}$	-0.126	-0.150	-0.035	-0.103
	(0.129)	(0.114)	(0.141)	(0.130)
$Expend_t$	-1.030 ***	-0.973 ***	-0.984 ***	-0.946 ***
	(0.220)	(0.178)	(0.224)	(0.259)
GDP_t	0.002	0.003	-0.001	0.005
	(0.014)	(0.010)	(0.015)	(0.016)
Rule_of_law _t		-0.336 **		
		(0.105)		
Political_stability _t			-0.037	
			(0.040)	
Regulatory_Quality _t				-0.072
				(0.147)
sm_t	F.stat.	F.stat.	F.stat.	F.stat.
	3.063 **	7.125 ***	2.432 *	2.614 *

Standard error in brackets
 ***p<0.01; **p<0.05; *p<0.1.

The data in Table 1 shows that, for Romania from 2000 to 2023, the coefficients for government spending are significant negative across all models. This significant negative relationship indicates that, during periods of higher public expenditures, the primary surplus ratio tends to decrease. In other words, as government spending increases, the primary surplus, which is the fiscal balance excluding interest payments, becomes smaller. This suggests that higher levels of public spending are associated with a reduced capacity to generate a surplus, highlighting the impact of expenditure on Romania's fiscal balance over the observed period.

In model 2, we observe that for Romania, the coefficient for the rule of law is significantly negative. This result implies that an improvement in the rule of law is associated with a decrease in the primary surplus. Specifically, this negative relationship suggests that while stronger rule of law institutions are generally beneficial for economic stability, they might be correlated with lower primary surpluses in the short term. This finding can be interpreted as follows: enhancements in the rule of law may lead to increased public spending or investments in legal and regulatory reforms, which could temporarily reduce the primary surplus. These expenditures, while potentially lowering the primary surplus in the short run, are likely to foster a more stable and transparent economic environment in the long term. Such improvements can contribute to better fiscal management and economic growth, potentially leading to higher primary surpluses in the future as the benefits of stronger legal institutions take effect. Therefore, the negative coefficient should be understood in the context of a broader fiscal strategy where short-term reductions in the primary surplus are offset by long-term gains in economic stability and fiscal health. This underscores the importance of balancing immediate fiscal objectives with investments in institutional quality, which can enhance overall fiscal sustainability and economic performance over time.

The statistically insignificant results for net debt across all four models imply that there is insufficient evidence to dismiss the hypothesis that Romania's public debt policy may be unsustainable. Specifically, the lack of significant findings suggests that the relationship between net debt and the primary surplus does not support a conclusion of fiscal sustainability. This means that, based on the data analyzed, there is no strong indication that Romania's current approach to managing public debt is adequate to ensure long-term fiscal stability. Consequently, the hypothesis that Romania might be following an unsustainable public debt policy remains plausible.

Validation of the estimated models

The validation of the models relies on two key criteria: the adjusted R-squared and the cross-validation approach. The adjusted R-squared measures the proportion of variance explained by the model, adjusted for the number of predictors, providing insight into the model's explanatory power. Cross-validation, on the other hand, involves systematically excluding one data point at a time to assess how well the model predicts that excluded point. This process helps ensure that the model's performance is robust and not overly fitted to the included data, often described as the "leave-one-out" or "drop-out" method. By minimizing the residual sum of squares (RSS) while excluding individual points, this technique helps evaluate the model's generalizability and accuracy.

Formally, this method is defined as $CV(\lambda) = \sum_{i=1}^n \{y_i - \hat{f}_{-1}(x_i; \lambda)\}^2$, where $\hat{f}_{-1}(x_i; \lambda)$ represents the spline function fit excluding the point (x_i, y_i) . This approach enables us to find λ for a given spline basis that minimizes this value, considering the prediction of new points while avoiding overfitting. However, a significant issue with this method is its computational intensity. Each iteration requires finding a new spline fit, which demands substantial computation time for large datasets.

This computation time can be substantially reduced using an approximation from Ruppert et al. (2003), which is generally valid. The approximation is given by $\hat{f}_{-1}(x_i; \lambda) = \frac{\sum_{j=1, j \neq i}^n S_{\lambda, ij} y_j}{\sum_{j=1, j \neq i}^n S_{\lambda, ij}}$, where S_{λ} is the smoothing matrix of the penalized linear spline function.

Consequently, the cross-validation criterion can be rewritten as $CV(\lambda) = \sum_{i=1}^n \left(\frac{y_i - \hat{y}_i}{1 - S_{\lambda, ii}} \right)^2$.

This revised form significantly reduces computation time, as it relies on the normal residual of the originally adjusted model and requires only the diagonal entries of the smoothing matrix, thereby eliminating about half of the steps involved in the previous approach.

The optimal outcomes from this estimation process are achieved when the cross-validation criterion is minimized and the adjusted coefficient of determination is maximized. Specifically, a lower value of the cross-validation criterion indicates a better fit of the model to the data, as it reflects reduced prediction error when excluding individual data points. Meanwhile, a higher value of the adjusted coefficient of determination signifies that the model explains a greater proportion of the variability in the dependent variable, while accounting for the number of predictors. Thus, the ideal model balances a minimal cross-validation criterion with a high adjusted R-squared, demonstrating both robust predictive performance and strong explanatory power.

The results of the model validation criteria for Romania, based on the four models analyzed over the period from 2000 to 2023, are summarized in Table 2.

Table 2: The results for Adj. R2 and GCV tests for the four analyzed models (Dependent Variable: primary surplus as a Percentage of GDP)

	Model1	Model2	Model3	Model4
Adj. R ²	0.830	0.913	0.809	0.811
GCV	1.516	0.982	1.727	1.7476

By comparing the empirical results from the econometric models estimated for Romania, which incorporate various statistical variables reflecting the country’s specific characteristics—such as rule of law, political stability, and regulatory quality—it becomes evident that Model 2, which includes the rule of law, performs the best. This model stands out due to its achievement of the lowest generalized cross-validation (GCV) values and the highest adjusted R-squared, indicating superior accuracy in replicating the data generation process. The model’s robust performance suggests that it is better at capturing the underlying dynamics affecting Romania and, by extension, could serve as a more valuable tool for economic policy development. Its effectiveness in reflecting the complexities of the Romanian context makes it highly useful for crafting informed and targeted economic strategies.

Conclusions

In this paper, we analyze the sustainability of public debt in Romania from 2000 to 2023, a period marked by significant economic and political shifts. Romania's journey through these years includes its accession to the European Union, which brought both opportunities and challenges. The sustainability of public debt has become a pressing issue, especially given the country's historical context of rapid economic reforms and ongoing macroeconomic vulnerabilities. The situation was further complicated by the global financial crisis of 2008, the economic impacts of the COVID-19 pandemic, and recent geopolitical tensions, including the ongoing war in Ukraine. These events have exerted additional pressure on Romania's fiscal policies and debt management strategies. This analysis seeks to provide insights into how Romania's public debt dynamics have evolved in response to these multifaceted challenges and to evaluate the implications for future economic stability and policy formulation.

In assessing the sustainability of public debt, we adopted the approach outlined by Fincke and Greiner (2012) and Greiner and Fincke (2016), which is particularly relevant given Romania's unique economic and institutional context. This methodology allows us to rigorously evaluate the long-term viability of Romania's public debt within the framework of its historical and structural characteristics. Moreover, our econometric model is enhanced by the inclusion of control variables that reflect crucial institutional dimensions. These variables encompass rule of law, political stability, and regulatory quality. By incorporating these factors, we aim to account for the broader institutional environment that influences fiscal policy and debt sustainability. The rule of law captures the effectiveness of legal frameworks and enforcement, political stability addresses the consistency and predictability of the political environment, and regulatory quality measures the efficiency and transparency of regulatory practices. This comprehensive specification helps to ensure that our analysis of public debt sustainability is robust and takes into consideration the complex interplay between economic policies and institutional factors.

Our analysis of the four models reveals that model 2, which includes the rule of law as a control variable, provides the most accurate representation of the data generation process. This conclusion is supported by its superior performance, as indicated by the lowest generalized cross-validation (GCV) values and the highest adjusted R-squared.

The significantly negative coefficient for the rule of law in Model 2 suggests that improvements in legal institutions are associated with a reduction in Romania's primary surplus. This outcome may initially appear counterintuitive, as stronger rule of law typically fosters economic stability and efficiency. However, it likely reflects the short-term fiscal costs of investing in legal and regulatory enhancements. While these investments may temporarily decrease the primary surplus, they are crucial for long-term fiscal health and economic resilience. Strengthening legal institutions can improve governance and reduce economic risks, ultimately supporting more sustainable fiscal policies and higher primary surpluses in the future. Thus, the negative association highlights the importance of considering both immediate fiscal impacts and long-term benefits when evaluating the effects of institutional reforms.

The statistically insignificant results for net debt across all four models suggest that there is insufficient evidence to reject the hypothesis that Romania's public debt policy may lack sustainability. The lack of a significant relationship between net debt and the primary

surplus implies that current data does not adequately demonstrate fiscal stability. Consequently, this data does not provide a solid basis to confirm that Romania's approach to managing public debt is sufficient for long-term fiscal health. Therefore, the possibility that Romania's public debt policy could be unsustainable remains a valid concern.

Despite the limitations of our research, notably the small data series, the results are consistent with existing literature for similar countries and suggest important considerations for Romania's fiscal policy. The statistically insignificant findings related to net debt imply that the hypothesis of an unsustainable public debt policy cannot be rejected. Therefore, even within the constraints of the available data, these results advocate for Romania to consider a more cautious and prudent fiscal approach to enhance long-term economic stability.

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ROMANIA'S PUBLIC DEBT IN THE CURRENT ECONOMIC CONTEXT

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Abstract: *The public debt expresses the sum of the amounts borrowed by the central public administration, territorial administrative units and other public entities from natural or legal persons (in the internal market and on the external market) and remaining to be repaid at a given time. The amount of public debt is a fundamental indicator for the sustainability of a country's public finances. If public debt is at a very high level, as a percentage of gross domestic product (GDP), it may signal difficulties in meeting financial obligations, which can lead to economic instability. In this article we intend to analyse the structure and evolution of the public debt of Romania motivated by the fact that lately it is recording a significant increase. In the first part of the paper, we clarified some theoretical aspects regarding public debt by presenting the notion, forms and indicators of appreciation of public debt. In the second part of the paper, we conducted the analysis of the evolution and structure of the public debt of Romania based on the official data available on the website of the Ministry of Finance, Public Debt Section. We note that in the period 2017-30 April 2024, public debt increased almost threefold and gross domestic product doubled. So economic growth has not kept pace with the growth of public debt. Alarming is not necessarily the size of the public debt or the percentage it holds in gross domestic product. Most countries use loans to finance various public expenditures. What we should worry about in Romania is the lack of balance and fiscal discipline that the governors of our country show year after year.*

Keywords: *loan, public debt, public debt service, gross domestic product, interest*

JEL Classification: H63

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Research methodology

The research methodology of this study combines qualitative and quantitative approaches to ensure an exhaustive understanding of the research field within the article. This mixed approach allows for the collection and analysis of various data, providing a complete and detailed picture of public debt. The first step in our approach was to clarify some conceptual aspects regarding the public debt and to identify the indicators for analysing the structure and dynamics of the public debt. Of the research methods specific to the fundamental research, we used in this paper we mention: registration, classification, measurement and comparison of all characteristics/quantitative data.

In the field of applied research, the method used is the quantitative analysis of official data available on the website of the Ministry of Finance, the Public Debt Section to highlight the size and evolution of the public debt of Romania. Then, these data were subjected to

statistical techniques to identify trends, anomalies and effects on the economic life in Romania. The statistical analysis provided an objective basis for drawing conclusions and proposals regarding the evolution and structure of the public debt of Romania in the current economic context.

Public debt – The concept and appreciation indicators

The concept and the classification of public debt

The internal and/or external public loan generates public debt. To express the quantitative proportion of the public loan, the expression public debt is used, which is what some specialists in the field think (Costaş, 2016) that it represents the synthetic index of appreciation of the financial situation of the states from this point of view. The literature (Văcărel, 2003, p. 463) defines public debt as „all amounts borrowed by central public authorities, administrative-territorial units and other public entities, from natural or legal persons on the domestic market and abroad, remaining to be reimbursed at a given time.” A criterion according to which value judgments are made on the structure of the public debt is the degree of its exigibility (Moroşan, 2017, p.535). Short-term amounts payable form floating debt, while those payable at medium and long terms - consolidated debt. It is obvious that for a country the financial effort it has to make to repay the outstanding debt and pay the related interest in the coming months is more important, than the one that appears on a horizon over 5-10 years or more. Therefore, the higher the share of floating debt in the total public debt, the more pressing the need for financial resources and the more difficult their procurement.

The classification of public debt:

- depending on the term contracted: short-term public debt and public debt in the long and medium term;
- depending on the purpose of contracting the public debt: financing the budget deficit, financing investment objectives of national interest, refinancing the internal public debt, other needs approved by special laws;
- depending on where it is contracted: internal public debt and external public debt;
- depending on the level at which the public debt is contracted: government public debt (contracted by the Government, government, at central level in the name and on behalf of the state) and local public debt (contracted at local level, by the local public administration authorities on behalf of and on behalf of the territorial administrative units).

According to the legal provisions (Romanian government, GEO no. 64/2007), the contracting and guaranteeing of internal and external loans repayable in the medium and long term and the management of public debt is exercised by the Government, through the Ministry of Public Finance.

The Ministry of Public Finance is authorized to grant guarantees on behalf and account of the state for domestic bank loans, in the short, medium and long term, in the, as well as for external loans contracted by economic agents with state and sometimes private capital and public institutions, for objectives such as: implementation of restructuring programs, projects of national interest (Romanian Parliament, Law no. 109/2008).

Appreciation indicators of public debt

The characterization of the public debt and the state indebtedness capacity can be made on the basis of indicators that highlight both the absolute or relative size of the public debt, its

structure and dynamics, and, as well as the financial effort that the public debt demands and the ability to honor it. For the assessment of the level of public debt, it is possible to use first the indicator „Public debt in absolute value” at the level of the year or at a time. At its turn indicator „Public debt to gross domestic product ratio” shows at macroeconomic level the degree of indebtedness of a country at a given time and is determined according to the formula: $P_{dp} = \frac{D_p}{PIB} \times 100$ (1)

This indicator shows to what extent the newly created value in a year is encumbered by public debt or otherwise what percentage of gross domestic product should be used if public debt should be paid in full in that year. We point out that this indicator has a purely theoretical value, because no country could allocate the entire GDP to the full payment of public debt, but only the portion of it left after making absolutely indispensable levy on the consumer fund and gross capital formation.

Compared with the indicator „Public debt in absolute value”, this indicator is more relevant and therefore more widely used as it relates the volume of public debt to the capacity of the economy to generate new value, expressed in terms of GDP, from which to ensure its amortization. For similar reasons (Oprea & Cigu, 2013), this indicator is also useful in making international comparisons regarding the indebtedness of a country.

Alongside indicators on the level of indebtedness of a country, a particular interest is the indicators that characterize the annual financial effort, which the public debt requires. This effort materialises in „Public debt service” (S_{dp}) which includes payments due for the repayment of public debt, representing the principal instalments due over a period of one year (R_{dp}) to which are added the interest and related fees, as well as the expenses occasioned by the issue and placement of securities (DOB_{dp}) and is computed according to the formula: $S_{dp} = R_{dp} + DOB_{dp}$. (2)

Considered alone, however, this indicator has no special relevance, it must be reported at different sizes. Thus, in practice, the indicator „Public debt service to GDP ratio” is used (P_{sdp}) which is computed as: $P_{sdp} = \frac{S_{dp}}{PIB} \times 100$. (3) This indicator shows in percentage, how much of a country's gross domestic product is intended in a year for payments due on account of public debt, thus providing an image of the nation's annual financial effort determined by borrowing.

Similarly it can be computed and used as an indicator „Public debt service to expenditures of the state budget ratio” (P_{sdpch}) which is determined by the formula: $P_{sdpch} = \frac{S_{dpe}}{CH_{bs}} \times 100$.

(4) This indicator expresses in percentage terms how much of the total expenditure in the state budget in a year is intended to pay the public debt service and can serve to assess the impact of the country's debt on the state budget.

As well as the indicator named „Share of public debt interest in GDP” (P_{Dobdp}) provides an insight into the extent to which interest as well as expenses sustained by borrowing encumber budgetary expenditure. This indicator is determined by the formula: $P_{Dobdp} = \frac{D_{obdp}}{PIB} \times 100$ (5)

In order to make comparisons with other states, a key factor that must be taken into account is the population. Thus, in this respect, the indicators can be calculated the absolute size and the average size per inhabitant of the public debt and the public debt service.

For external public debt is calculated „Indicator on the ratio of external debt to exports of

goods and services” shows how long (months or years) could repay the external debt of a countries on account of the currency received from sales of goods and supplies of services across the border. We agree with the opinion (Moroşan, 2017, p.545) that this indicator also has a theoretical value, because the entire currency acquired in this way is never used for the purpose of repayment of external loans, but only a part of it, the other, more consistent part, intended for the payment of imports of goods and services, the payment of interest and commissions on debt, and the performance of other expenses.

Similarly, indicators such as *the share of the external public debt service in the volume of exports of goods and services and the ratio between the amount of interest payments due and the value of exports* can be calculated.

The analysis of Romania’s public debt

In order to highlight the indebtedness degree of the Romanian state and to identify the trends and effects of public debt on public finances and the prospects of economic development of our country, I will conduct an analysis of the evolution and the structure of the public debt of Romania for the period 2017- 30 April 2024 based on the official data available on the website of the Ministry of Finance, public debt and data section of the National Bank of Romania website on foreign public debt and balance of payments.

Analysis of the evolution of Romania’s public debt

In the table below are centralized the data on the evolution of some indicators that express the size of the public debt of Romania in the period 2017-april 2024.

Table 1 Evolution of Romanian public debt in the period 2017-april 2024

Indicators (billion lei)/ Year	2017	2018	2019	2020	2021	2022	2023	april 2024
GDP	857,8	951,7	1063,7	1066,7	1189,0	140,3	1605,5	1638,0
Total public debt	300,7	330,5	372,9	498,5	576,3	665,4	783,5	852,8
Public debt-to-GDP ratio (%)	35,1%	34,7%	35,1%	46,7%	48,5%	47,5%	48,8%	52,1%
Public debt service	49,9	55,8	59,3	60,5	72,0	110,6	137,8	125,3
Public debt service-to-GDP ratio (%)	5,81	5,86	5,57	5,67	6,05	7,89	8,58	7,64

Source: processing.gov by mfinante.ro, Governmental debt, own calculations

The data in the table show us that from 2017 to 30 April 2024, the public debt of Romania increased from 300.7 billion lei to 852.8 billion lei, so it almost tripled. The government debt-to-GDP ratio also increased over this period from 35.1% to 52.1%. We note that Romania's public debt has increased year by year, but the growth rate has accelerated since 2020 when it increased by 33% compared to 2019. The same „never seen before” pace is maintained in the following years. The indicator „Public debt service” has also increased from 49.9 billion lei in 2017 to 125.3 billion lei. lei in April 2024 which puts pressure on the consolidated general budget of our country.

For a more suggestive illustration of the state of affairs regarding the public debt of Romania, we will graphically represent the evolution of the indicators „Total public debt” and „Public debt service”.

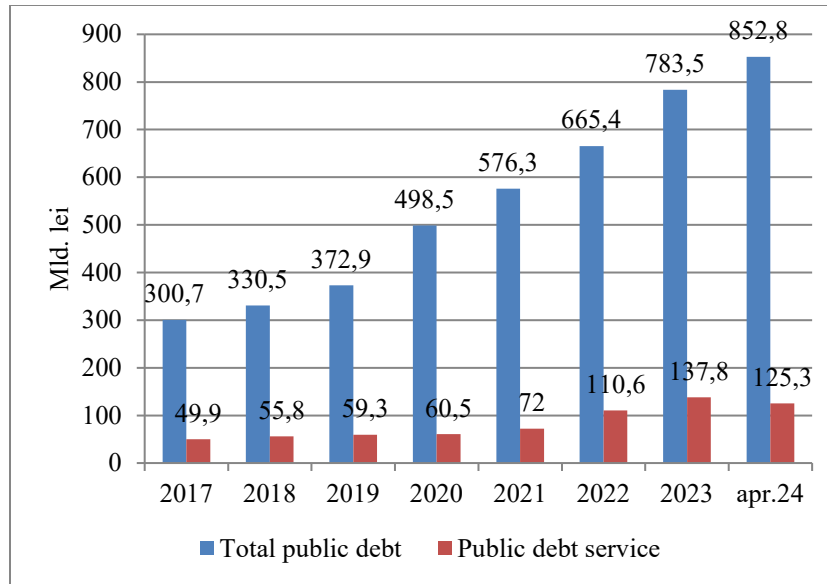


Figure 1. Evolution of the total public debt and the Romanian public debt service in the period 2017-april 2024

In the graph above, there is an accentuated upward trend of the two indicators representing the level of public debt of Romania. Public debt has a worrying path in recent years. The indebtedness rate was 12.3% of GDP in 2008, 35% in 2019 and reached up to 52% in 2024 according to official data available on the website of the Ministry of Finance. The reasons for the increase in public debt are, on the one hand, loans that have matured and must be paid, and on the other hand, loans that have matured, it is the problem of the budget deficit which is very large and which can only be covered by loans. The problem is that the borrowed money is mostly spent on pensions and salaries, not on investments.

Analysis of the public debt structure of Romania

Viewed from the perspective of the structure, the analysis of the public debt of Romania can be made taking into account the following criteria: the term on which it contracts, the place from which the loan is contracted and the currency in which the loan is contracted. Thus, according to the first criterion, we note that the largest share is held by the public debt in the medium and long term, that is, with maturities of over one year, fact which we consider positive because it determines a reasonable level of public debt service with favourable implications for annual public expenditure. In the period 2017-April 2024, the public short-term debt increased from 14.9 billion to 50.8 billion lei and the public debt on medium and long term increased from 285.7 billion lei (in 2017) at 801.9 billion lei (in April 2024).

Table 2 Structure of the public debt of Romania in the period 2017-april 2024

Indicators	2017	2018	2019	2020	2021	2022	2023	April 2024
GDP	857,8	951,7	1063,7	1066,7	1189,0	1.401,3	1605,5	1638,0
Total public debt	300,7	330,5	372,9	498,5	576,3	665,4	783,5	852,8
Domestic public debt	154,6	172,5	199,8	245,1	292,7	335,3	385,0	424,1

%GDP	18%	18.1%	18,8%	23,0%	24,6%	23,9%	24,0%	25,9%
External public debt	146,1	158,0	173,0	253,4	283,6	330,1	398,4	428,6
% GDP	17%	16.6%	16,3%	23,8%	23,9%	23,6%	24,8%	26,2%
Short term debt	14,9	10,6	11,4	17,6	29,3	40,9	50,8	50,8
Medium and long debt	285,7	319,8	361,4	480,9	546,9	624,5	732,7	801,9
Public debt in lei	144,5	164,1	190,9	237,8	268,7	307,2	377,6	412,3
Public debt in euro	130,6	136,2	151,0	219,2	262,4	300,7	337,1	354,5
Public debt in dollars	23,6	28,2	29,1	39,8	43,7	56,2	67,6	84,6
Public debt in another currency	1,9	1,9	1,7	1,6	1,4	1,2	1,1	1,1

Source: *processing.gov* by *mfinante.ro*, Governmental debt, own calculations

From the data presented in Table 2 it follows that the domestic public debt-to-GDP ratio is approximately the same as the external government debt-to-GDP ratio and ranges from 17-18% in 2017 it reached 26% in April 2024. It is worrying, however, that the foreign public debt reached the value of 428.6 billion lei in April 2024, which shows us that Romania is „dependent on the international financial market, the internal market cannot provide the necessary amounts for financing needs in good conditions” (Moroşan, 2021).

The structure of the public debt of Romania according to the criterion of the currency in which it is contracted reveals that the loans in the Euro currency occupy the largest share (on average over the period of time analysed by 43%). Follow the loans in dollars that record values that have steadily increased from 23.6 billion lei in 2017 to 84.6 billion lei in April 2024. This level of public debt contracted in foreign currency puts pressure on the exchange rate and the costs of foreign currency loans are higher compared to the costs of loans in lei. The analysis carried out in the above must be correlated with the image of the evolution of public debt in the other states of the European Union. Romania is not the only country where the Government debt-to-GDP ratio has increased rapidly in recent years, a phenomenon encountered throughout the European Union where this indicator has increased from 77.8% from GDP at the end of 2019 (Ministry of Finance, 2019) to 81.7% at the end of 2023 (Ministry of Finance, 2024). We note that at the end of the IV quarter of 2023, Romania's public debt accounted for 48.8% of GDP, a net level below the level recorded in the European Union of 81.7% of GDP, and the Eurozone of 88.6% of GDP.

Conclusions

The realization of this work has allowed us to create a basis for drawing conclusions and appreciations on the public debt of Romania in the current economic context.

The size of the public debt is a fundamental indicator for the sustainability of a country's public finances and can be appreciated through indicators that highlight both the absolute or relative size of the public debt, the report said, its structure and dynamics, as well as the financial effort required by the public debt and the ability to honor it. Of these indicators, we believe that the most important is „Public debt to gross domestic product ratio” because it expresses the indebtedness of a country at a given time, showing to what extent the newly created value in a year is encumbered by public debt, or in other words, what percentage of gross domestic product should be used if public debt should be paid in full in that year. This indicator has seen an alarming increase in recent years from 35.1% in 2017 to 52.1% in April 2024. During this period, public debt almost tripled while gross domestic product

doubled. So public debt has grown faster than the economy. And the size of the indicator „Public debt service” increased sharply from 49.9 billion lei in 2017 to 125.3 billion lei in April 2024. We note that out of the 137.8 billion lei paid in the account of the public debt service in 2023 (expenditure with interest and commissions plus capital rates), 29.4 Billion is just interest and commission expenses. They are expected to increase in 2024 to 35 billion lei, almost double compared to 2021, according to data from the Ministry of Finance.

Alarming is not necessarily the size of the public debt or the percentage it holds in gross domestic product. Most countries use loans to finance various public expenditures. What we should worry about in Romania is the lack of balance and fiscal discipline that the governors of our country show year after year.

From the perspective of structure, we note that the largest share is public debt in the medium and long term, that is, with maturities of over one year and the share of domestic public debt in GDP is about the same as the share external public debt in GDP. The analysis of the public debt structure of Romania according to the criterion of the currency in which it is contracted reveals that the loans in the Euro currency occupy the largest share (on average over the period of time analysed by 43%). Follow the loans in dollars that record values that have steadily increased from 23.6 billion lei in 2017 to 84.6 billion lei in April 2024. If we compare with the countries of the European Union, the public debt of Romania related to GDP is small. But it must be said that those countries are developed countries and a developed country is credible in international financial markets and finds funding. On the other hand, if we consider how the public debt of Romania has evolved in recent years, the growth rate is alert and too steep growth can cause financing problems.

We conclude by expressing our opinion that the excessive indebtedness of Romania is not only a financial problem, he said, but also a moral problem because it is unfair for future generations to be loaded with the burden of huge debts due to the attitude of today's decision makers in our country and Romania cannot continue on this path of reckless indebtedness.

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THE ROLE OF THE INFORMAL ECONOMY ON LOCAL ECONOMIC DEVELOPMENT IN SOUTH AFRICA

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Abstract: The study's main goal is to find out how South Africa's informal economy contributes to local economic development. In terms of generating jobs and supplementary income, the informal economy is significant in South Africa. Participation in national products generates demand for skilled laborers and provides a low-cost stimulus for the growth and development of human resources. The literature has made public the significance of the informal economy for economic expansion and job creation in developing countries' rural and urban areas. Growing dissatisfaction among rural and urban officials to draw in more workers is expected to accompany the unprecedented rate of urban population growth in emerging nations. The role that the informal economy plays in providing relief from the growing problem of unemployment is receiving more attention. Despite decades of both tacit hostility and blatant disdain, the informal economy is important in developing countries. In order to gather information about respondents' experiences with economic survival, the scholarship conducts in-person interviews with members of the Thembisile Hani municipality. The study's findings indicate that the rise of the informal economy is threatened by a number of factors, including capital, infrastructure, appropriate skills, onerous rules, and security concerns. Furthermore, the study demonstrated that jobs are generated in the un-organized sector to combat poverty and boost the economy. Moreover, the government's exclusion of informal economy participants from economic planning procedures necessitates inclusive economic development. To build a bridge between the unofficial economy and a sustainable LED in the nation, relevant authorities should see to it that the fundamental knowledge base is expanded and that the informal economy participants have improved working conditions.

Keywords: Local Economic Development, Informal Economy, employment creation, poverty reduction, inclusive economic development

Introduction

The early 1970s saw the emergence of the informal economy notion. It appeared as a way to conceptualize the illegal actions of the impoverished in the third world and gave rise to a number of academic discussions. Consequently, it was recognized as a shared feature of the modern economy. The informal economy has been used, both in industrialized and developing nations, and has thereby improved the state of the national economy overall. Similar observations revealed that 60% of the labor globally seems to be employed in the un-organized sector (Schneider, Buehn, & Montenegro, 2010:34). Following the initial tentative 1993 worldwide statistical definition of an informal economy, a more comprehensive idea and a more logical summary were achieved with the release of a second tentative definition in 2003, throughout an ongoing workforce survey (Charmes, 2012:103–132). All businesses, regardless of size or recordkeeping, are considered to be part of the informal economy, and workers in precarious employment, such as domestic helpers, are considered to be informal economy employees. Since employees are hired on an informal basis by formal businesses, it is also helpful to distinguish between informal enterprise and informal economic activity (Benjamin et al., 2014:8-9).

Long-standing common belief held that waged labour performed mostly in workshop-like environments by impoverished people out of necessity made up the entirety of the informal economy (Ghezzi, 2010:737). Past research has shown that structuralists have traditionally dominated the informal sector. They believed that the rise in informal waged labour was a result of enhanced downscaling, contract-out, and outsourcing of operations that emerged under unrestrained global capitalism (Slavnic, 2010:15). Informal economic activity has a major role in the impoverished populations of developing countries and emerging markets. About 70% of all employment in these economies is informal, and the output of the informal economy makes up around one-third of GDP on average. More than 90% of all employment in some Sub-Saharan African nations is in the informal sector, and 62% of official GDP is derived from informal activity (World Bank 2019:129).

Literature Review

Impact of the Informal Economy

In South Africa, the informal economy is significant in terms of both generating jobs and supplementary income. Participation in national products generates demand for skilled labourers and provides a low-cost stimulus for the growth and development of human resources. The literature generally acknowledges the contribution of the informal economy to economic growth and job creation in emerging nations' rural and urban areas (Todaro & Smith, 2015:349). Together with the unprecedented rate of urban population growth in developing countries that is expected to continue, there is also growing dissatisfaction among rural and urban officials regarding their inability to draw in additional workers. More attention is being paid to how the informal economy might help address the growing problem of unemployment. Despite years of both benign neglect and blatant hostility, the informal economy is important in emerging economies. In many developing countries, the informal economy employs over half of the working population (Todaro & Smith, 2015:349-349). In an environment of high unemployment, underemployment, poverty, gender inequality, and insecure employment, the informal economy flourishes. Its relative ease of entrance and low requirements for capital, education, skills, and technology make it a key player in such conditions, particularly in income production. To subsist and have access to basic income-generating activities, however, the majority of individuals enter the informal economy by need rather than choice (ILO, 2014:3).

Four schools of thought—structuralist, dualist, legalist, and voluntarist—drive the conversation on the nature and makeup of the vast and diverse informal sector. According to Chen et al. (2016), these four schools of thought primarily agree on the economic value of the informal sector due to its contribution to the national GDP and the development of jobs for the underprivileged, including developing countries and both rural and urban areas of improvement. According to Chen et al. (2016), there is still disagreement over the fundamentals, nuances, economic issues, and protocols pertaining to the informal economy, hence this consensus is not very durable. But, certain methods and techniques don't always fit neatly into these four theoretical categories, and fresh debates keep coming up within each school of thought (Chen et al., 2016:335-336).

Significance of the informal economy

The informal economy has presented rising countries with significant challenges, according to Ghecham (2017:594). It has been the topic of many talks that discuss measures

that promote national economic growth and the fight against poverty. The main thing that undoubtedly informs the scholarship on the informal sector is how it affects economic growth. The slackness of the economy is linked to the nation's decreased tax revenue. It features employment that is not socially protected and limited investment from businesses that are too big. As a result, there are inefficient public services, underpaid and underproductive labourers, and wasteful businesses. Moreover, the future of many countries is weakened by the pervasive danger, according to Ghecham (2017:594). Considering the total size of the informal sector in the inclusive economies of developing and less developed countries However, more recent research shows the informal sector as a window of opportunity for many individuals and businesses, as Adams, De Silva Razmara (2013) in Ghecham (2017:595) pointed out. In an extremely organised formal economic environment, it would be difficult to have the opportunity to earn money and find employment in the informal economy. Additionally, the informal economy provides people and businesses with a thoughtful platform to encourage entrepreneurial views creating wealth, as mentioned by Adams et al. (2013, in Ghecham, 2017:595).

This platform is now large enough to accommodate businesses involved in fabrication processes and is no longer limited to risky operations. According to certain theories, the informality stage of small business development is essential since without it, the business won't survive. Informality may be a crucial evolutionary stage that protects bright entrepreneurs from difficult business circumstances that could otherwise impede their growth or sink their venture entirely (Adams et al. (2013, in Ghecham, 2017:595). Still, Ruzek (2015:25–26) proposed using the term "informal economy" to describe the shift from the informal to the formal sector. By 2020, two-thirds of all workers worldwide are anticipated to be included. This suggests, presumably, that the current economic structure is not adapting to changing demands.

There is a potential that the growth of the unofficial economy is linked to the collapse of the legal economy. The casual economy's current growth and scale indicate these disappointments and the need to change the perceived proper market economy's status (Ruzek, 2015:25–26). Furthermore, according to Ruzek (2015:26), in many countries the informal economy is sometimes the only one that is operating during times of hardship, economic conflict, or recession. Trade in goods and services is allowed in the informal sector without the need for government support or legislation. The unemployed, underemployed, and unemployable should be able to find work in the informal sector. This facilitates the efficient and prompt intake of excess labour, an ability not found in the formal sector (Ruzek, 2015:25).

Without a doubt, the unofficial economy can support the local trade of commodities around the world when certain goods are purchased from a single seller. The informal sector is still an option globally, but it is no longer a requirement of the economy in emerging nations (Ruzek, 2015:27). if state rules don't inhibit the growth of the informal economy. It can create national economies that are each tailored to the demands, demands of society, and shifting trends. This eco-localism can provide the necessary changes to move communities and towns towards legitimate futures (Ruzek, 2015:27). However, as noted by Ruzek (2015), one of the characteristics of the informal economy is that it is rare for any street market vendor to be selling to a specific culture. In the midst of numerous street vendors and their goods, local vendors hardly ever make long-distance sales. It becomes devoted and necessary for the success of enterprises since each vendor is only concerned with the

resident society. Since domestic society makes up a small portion of their business, large multinationals are dependent on one another. However, Rachmawati (2014:27) argued that there is a widespread belief that the informal sector is a substandard substitute for the formal economy. Because it guarantees work in terms of wages, security, and protection from manipulation in relation to things like advancing terms, labour norms, and mandated engagements. Additionally, adding value to the country's products is the casual economy. A vast range of goods and services produced by the sector in a nation like South Africa attest to the casual economy's importance to the local economy (Rachmawati, 2014:27).

Poverty

The history of Apartheid in South Africa is noteworthy. where African, Coloured, and Indian people had poor educational and employment opportunities due to race-based dogmas. As a result, poverty and inequality reached amazing heights. Though it is now an upper-middle-income state, South Africa continues to be one of the world's most unequal societies, resulting in persistently high levels of poverty (Lilenstein, Woodlard, & Leibbrandt, 2016:1-2). The primary finding of the South African poverty literature is that the well-known decrease in income poverty over the previous few years has been primarily caused by the increase in state transfers in the early 2000s (Leibbrandt et al., 2010:44; Posel & Rogan 2012:102-103). Vermaak (2010, cited in Rogan and Reynolds 2015:19) has studied the relationship between labour market income and income poverty. To some extent, this enormous effect of state transfers on poverty alleviation has a trend to dominate the contribution of other income sources to reducing aggregate poverty levels. Approximately 41% of workers in the informal economy were below the poverty line in 2012, according to a study by Rogan and Reynolds, and 37% of South Africa's working poor come from this sector (Rogan & Reynolds, 2015:15-16).

Unemployment

In the context of mass unemployment, it is critical to recognise the important role that the informal sector plays in giving millions of low-skilled people a means of support and work (Turok, et al., 2017:32). Social grants for adults without jobs do not exist. There is a strong case for the government to support and endorse informal endeavours as a way of self-sustenance that keep people out of poverty (Turok, et al., 2017:32). As such, individuals create jobs through starting small businesses. After then, grow somewhat by identifying niches and avoiding a lot of formality (Turok, et al., 2017:33). Poverty causes or results in unemployment for some people. People who are unemployed lack income and are unable to pay for necessities including food, shelter, healthcare, and education. Physical frailty, vulnerability, and loneliness are frequently contributing factors to unemployment (Swanepoel & De Beer, 2013:6). According to Aldrich & Dickie (2013), quoted in Du Toit et al. 2017:1, Mckenzie (2013), cited in Du Toit et al. 2018:1; Sage (2017):4; Sherman (2013), cited in Du Toit et al. 2018:1, unemployment is a social status attribute as well as a specific one. Sage (2017:4) discussed the psychological suffering associated with a decline in life satisfaction as well as the possibility of mental health issues and substance abuse. Labelling, drawing erroneous conclusions, and sidelining are associated with the social standing that is assigned to unemployed (Aldrich & Dickie, 2013; Dawson, 2014; Mckenzie, 2013; Sherman, 2013 referenced in Du Toit, et al 2018:4). As important as personal level intermediations are, policy level intermediation and increased social support

for the unemployed are necessary to alleviate the effects of unemployment on individuals (Shattuck & Roux, 2015:2).

A record of the unemployment-related scholarships offered in wealthy countries, with a very small number offered in African developing nations (Plattner & Gonzo, 2010, referenced in Du Toit et al 2018:8). Among historically underprivileged South Africans, unemployment is estimated to be 60%. Africans who live in the haphazard urban settlements that have developed over the past 20 years make up the bulk of the unemployed. Additionally, there were negative effects of the 1958–1994 discriminatory era, which resulted in racial segregation and the formation of an inferior class (Burger, Van der Berg, Van der Walt & Yu, 2017). Nonetheless, there is a thriving market for casual work in South Africa (Fourie, 2011, 2012; Llyod & Liebbrandt, 2013, 2014). In 2013, an estimated 1.5 million people operated unofficial businesses, 70% of them were unemployed and relied on this source of income. There are casual-income workers and casual self-employed people in the informal economy (Statistics South Africa, 2014).

It appears that most research supports the use of the controlled economy. Forgetting that, many people from developing countries all around the world work in the unregulated sector. Moreover, SA's exorbitant unemployment figures were compared to those of similar countries with substantial informal self-employment sectors (Yu, 2012, referenced in Du Toit et al., 2018:1). According to research by Du Toit, De Witte, Rothmann, and Van Den Broeck, African society's residents believe that the negative effects on their personal and societal status stem from their inability to find work in the formal sector. The important impact on an individual level was a depressing sensation of being abandoned by a wider political and cultural leadership. They familiarise themselves with obstacles, arising from the necessity of being involved in the community's valued and functional donations, which cannot be met because of their unemployment (Du Toit et al., 2018:4).

The potential of the informal economy

The major developmental challenges of poverty, inequality, and unemployment still beset South Africa. In order to achieve equitable economic growth and expansion, it is necessary to investigate various approaches to economic development. In economic policy analysis, the casual economy is frequently ignored. more focus on the informal economy due to the idea that it employs a significant number of people and, as a result, can help reduce poverty (Ndabeni, 2014:1). Resolving social and economic issues and overseeing economic transition processes are increasingly being handled by local governments. A more inclusive method of economic growth is required, one that emphasises the significance of incorporating the informal sector into the planning of local economies, as economic expansion planning has not been inclusive (Ndabeni, 2014:2). This is more significant and directly related to the expansion of the local economy because of the jobs and revenue opportunities created by the casual economy (Ndabeni, 2014:2). encouraging policies that acknowledge the informal sector as a vital contributor to the growth of the local economy. Local governments will be committing to supporting and accelerating an environment that allows informal economy participants to make a living (Ndabeni, 2014:2).

Municipalities are being encouraged to see the casual economy as a vital component of their service delivery, according to SALGA (2012, cited in Ndabeni 2014:2). Particular barriers impacting particular informal economy operations are better defined and dealt with locally (Ndabeni, 2014:2). An established way to address South Africa's rising

unemployment and poverty is through explicit self-employment in the unofficial sector (Hobson, 2011:1). The conversation on the growth and economic significance of the informal economy. Is the general consensus that many operators would prefer stable employment, viewing it primarily as a survivalist issue? Additionally, lack the resources and skills necessary to run a successful formal business (Turok et al., 2017: 35). As a result, they trade in saturated markets, adding little value to their goods and services in comparison to their rivals. As a result, they produce little money and have minimal returns. Nonetheless, another hopeful perspective suggests that the unofficial sector might cater to essential niche markets and heighten the importance of other occasions (Turok et al., 2017: 35). Ranis and Stewart's 1999 paper, which distinguished between "Modernising Informal Enterprises," which are growth-oriented, was noted by Rakabe (2017) and the World Bank. Furthermore, possess greater production and value-added levels. Additionally, "Traditional Informal Enterprises" have a stronger survivalist bent. Economies of scale can be developed and created by the prior. According to Rogan and Skinner (2017), the latter may have a greater effect on the objectives of impartiality and deprivation relief for women, inexperienced adults, and other vulnerable groups. Apart from the inclinations and goals of the individual entrepreneur, the most important question is whether the peripheral restrictions impede the growth of unofficial businesses. Markets, capital, investment finance, and infrastructure are comparable (Rakabe, 2017:1). The role that governmental agendas and state procedures have in these firms' development prospects is equally significant. Public procurement, trade registration, public arrangement and service provision, and counting rubrics leading goods markets (Rakabe, 2017:1).

Local economic development

Strategic planning is seen as the focal point of a collaboration for local economic development. Additionally, prioritised the internal need to accelerate employment growth, alleviate poverty, and improve living conditions via improved financial circumstances. Moreover, domestic economic development is seen as a means of bringing stakeholders together to discuss ways to allocate money, foster skill development, and lessen poverty (Koma, 2014:40; Yatta, 2015:7). Blakely and Leigh believed that when a community's standard of living could be preserved and raised, domestic economic expansion was finished. Similarly, via a process of advancement that is grounded on the ideas of sustainability and equality, both human and physical. Inequality between demographic and spatially defined groups is lessened by economic progress (Blakely & Leigh, 2013:75-76). Local government in South Africa uses the major expansion strategy of domestic economic progress. Primary local government responsibility that serves as a national model allowing for the pursuit of economic progress and socioeconomic reparations (Nel & Rogerson, 2015:1).

Local economic growth is moving forward, according to Blakely and Leigh (2013: 74). Consequently, it needs to be distinguished from economic growth in the same way that the majority of the body of theory that sought to explain local or regional economic development has not done so. Growth theories concentrate on the immediate expansion of the local economy, which is how they differ from development theories. In addition, consider neoclassical theory and the economic foundation, among other things. Development theories concentrate on how the economy changes structurally and evolves over time. Additionally, it incorporates notions of entrepreneurship and staples, among

others (Blakely & Leigh, 2013: 74). One of the major reform strategies that South African local government is pursuing is the discussion of the idea of domestic economic growth. One of the primary domestic government directives that is conceptualised nationally is domestic economic expansion. Permitting the pursuit of both economic and socioeconomic advancement at the same time (Nel & Rogerson, 2015:1). Despite the significant grant application for growth in the domestic economy for almost two decades. A latent over-focus on pro-poor domestic economic growth at the expense of concurrently engaging with the private sector on pro-market measures has resulted in outcomes that are both unconfident and concerning. They are acknowledged to be a barrier to the local economic development approach's potential success (Nel & Rogerson, 2015:1).

Growth in the domestic economy in recent years has been recognised globally, primarily because of its presumed latent ability to promote home improvement and address localised economic and social encounters. It has increasingly gained recognition as a strategy with the potential to discuss issues related to local reform, particularly in the global South. However, the traditional top-down approach has largely failed to inspire significant local changes (Barca, McCann, and Rodriguez-Pose, 2012; Rodriguez-Pose & Palavicini-Carona, 2013, quoted in Nel & Rogerson 2015:2). Twenty-one years after South Africa became an independent nation, Johnson (2015), Marais (2011), and Habib (2013) (quoted in Nel & Rogerson 2015:2) contended that the nation's problems continued despite a number of efforts to ameliorate conditions. Counting, local economic development, and the republic's generally passive approach to high levels of economic development up until the financial crisis of 2008–2009.

Policy Impacts on Local Economic Development and the Informal Economy

The six pillars discuss more general issues related to local economic growth, which is relevant to our study. But the second component highlights how pertinent the national framework for local economic expansion is to this investigation, since it tackles the problems of creating a local economy that is inclusive. Six concerns that, from the standpoint of local economic development, are similar to the informal economy are introduced by the inclusive local economy development plan. Consequently, a brief discussion of each topic will be given below (Department of Cooperative Governance, 2018:41-422).

Development of informal economies

Inclusion is covered in this issue along with the National Framework's objective for regional economic development. Because it provides jobs for many impoverished South Africans and serves as an inspiration for the formal sector, the informal economy is therefore considered a characteristic of all South African local economies. The South African informal sector contributes significantly to GDP and serves as a basis for the development of a more innovative and locally rooted economy. Townships and rural economies are where the informal sector is most significant. On the other hand, similarly noticeable in cities where a great number of people make their living from activities like roadside sellers, spaza shops, and rural craft enterprises. It is divided into groups according to relative wealth of entry and departure, with a focus on family ownership, local resources, moderate manoeuvrability, and the use of labour-concentrated and adapted knowledge. Unofficial enterprises maintained by foreign economic immigrants have offered the chance

to develop a more competitive industry. The many unofficial businesses offered their initial independent source of income. Furthermore, it is strong enough to create jobs with little initial investment. Local governments are motivated to build dynamic and precise plans for supporting and growing the unofficial sector in order to preserve its growth and well-being (Department of Cooperative Governance, 2018:41-422).

Township economic development

Townships contain resources that are underutilised for future economic growth, but many informal settlements serve as ruses for poverty. Townships must implement compact plans to stimulate economic growth by ensuring enough infrastructure, housing, and transit improvements. Moreover, the development of employment opportunities tailored to youth. Townships' local economic development planning should start with these. This approach backs the planning strategy that locates communities closer to economic opportunities in order to reduce spell and nomadic costs (Department of Cooperative Governance, 2018:39).

Inclusive and integrated rural economies

Through creating a successful rearrangement of the land and abundant agriculture. It is necessary to create comprehensive strategies for rural economic expansion that prioritise basic facilities. Those include first-hand contact holders, grassroots innovation support, vast farming, widespread land rearrangement, and agro-industries. Integrating rural and urban areas through value chain approaches is important for local economic development (Department of Cooperative Governance, 2018:41-422).

Small town economic development programme

A viable and vibrant network of small towns is being created under the economic development strategy for small towns. Additionally, the revenue stream within strategically located regional hubs for social and economic activity. The program's goals are to increase access to basic facilities and withstand investment inside lined zones. Planned and spatially oriented sites also generate economic opportunities through investments in human advancement and infrastructure. Consequently, promoting economic growth, the creation of jobs, and the reduction of poverty. It will also help rural municipalities promote honourable administration and governance (Department of Cooperative Governance, 2018:42-43).

National development plan

The National Development Plan articulated the urgent need to combat the vulnerability of the impoverished in rural areas in order to support the pro-poor local economic growth approach. The discovery by the National Development Plan that there are about 3 million jobs in the un-organised sector is a major advance. Moreover, it was highly anticipated that it might create an additional one to two million jobs by 2030 (National Planning Commission, 2011:121). It also expressed strong concerns about the possibility of industrial health, safety, and protection threats arising from informal staff shortages for collective safety (Turok et al., 2017:42).

Land use planning and management

The goal of South Africa's land use planning and management systems is to encourage competition for urban space between alternative uses. Furthermore, to lessening the negative effects that urban development has on the social, economic, and environmental spheres. The primary tool for doing this is land-use zoning. It grants certain uses—residential, office, and industrial—to particular parts of the city. Where land density is highest due to development, informal settlements, and unofficial enterprises, that is where the method's test is strongest. Furthermore, the public's ability to purchase land and property is lowest in those areas (Turok et al., 2017:46-47). The slow process of statutory change has made things more difficult, as most townships were still structured under outdated zoning and apartheid laws until recently. Insufficient infrastructure and zoning privileges that validate their enterprise procedures are thus a problem for many township enterprises (Turok et al., 2017:47). All previous rules have been replaced by the new legislative framework, the Spatial Planning and Land Use Management Act 16 of 2013 (SPLUMA). According to Turkok et al. (2017), it strengthens municipal planning mandates and offers opportunities for novel approaches and ideas that are communicated through bylaws. Townships could normalise current activities by assigning rights to designated areas under new zoning schemes. Similar to this, municipalities might employ new zoning laws to control the integration of side gigs and microbusinesses into retail centres, public spaces in more affluent neighbourhoods, and new public transportation hubs (Turok et al., 2017:47).

Methods and Material of the Study

Because it elaborates on research participants' perceptions and experiences regarding the relationship between the unofficial economy and LED in the South African municipality of Thembisile Hani, a qualitative design technique was employed in this investigation (Bless, Higson-Smith & Sithole, 2016:58). A carefully designed interview questionnaire was used to collect data from the research subjects. Using the narrative interview methodology to target opinions on a particular problem, the researcher used the purposive sampling method. Three research sites form the sample of 199 individuals. There are three sizable shopping centres, one each in KwaMhlanga, Phola, and Kwaggafontein, at these road crossings where informal commerce occurs. To collect data for the study, a questionnaire with four parts—A, B, C, and D—was employed.

Analysis and Discussion of Data

Socio-demographic Information

Data on age brackets, gender, trading licences, education, and kind of job were among the demographics gathered. The largest percentage of responses (3%), or 43% of participants, were 60 years of age or older. The participants' ages ranged from 30 to 39. Of the sample, 137 respondents were female and 62 were male, or 69% and 31%, respectively. This suggests that women made up the majority of the sample. 61% of the participants possessed trading licences, however 39% lacked the necessary licences to conduct business in Thembisile Hani Local Municipality. Seventy-five per cent of the participants had completed secondary education, whereas 4% had not attended any formal schooling. Of the responders, 17% had only an elementary education, whereas 8% possess an education diploma. One per cent of research participants were employed, while 86% of individuals worked for themselves. Thirteen percent of those surveyed did not have a job. The majority

of research participants were self-employed, according to the results. According to research, 37% of South Africa's unemployed people work in the unofficial economy, and 63% of the income from official employment comes from unofficial self-employment (Rakabe, 2017).

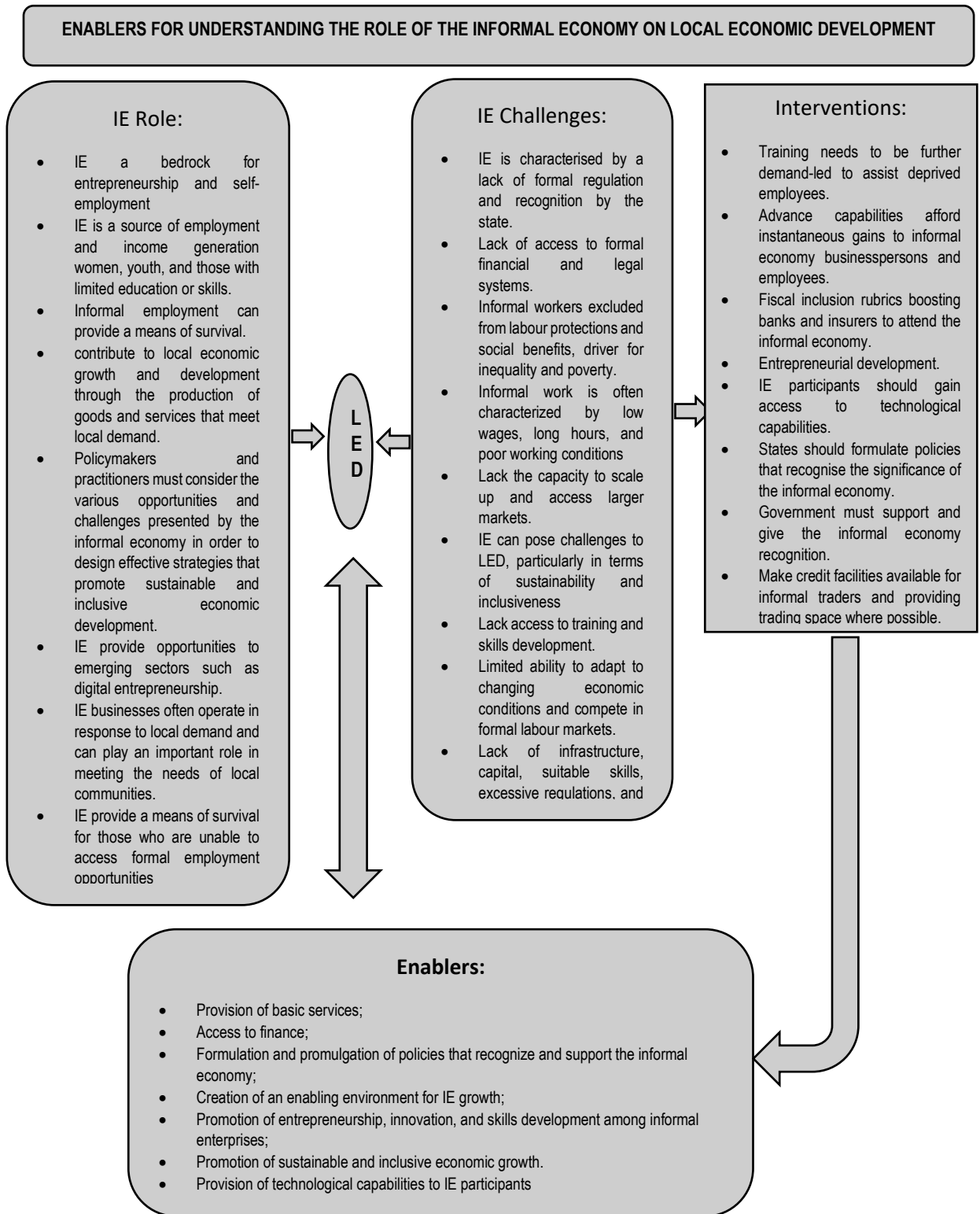
Research Findings

Enablers for understanding the role of the Informal Economy on Local Economic Development

Local economic development is significantly impacted by the informal economy, which is defined as unregulated economic activity that frequently operates outside of the official legal framework. By creating items and services that satisfy local needs, the informal sector can boost the local economy and create job possibilities. Enablers have to be in place for the informal economy to significantly contribute to local economic development. The supply of necessities like electricity, water, and sanitary facilities is the most important. Since it can cut down on the time and effort needed to carry out their economic activities, having access to these services is crucial for the productivity and well-being of independent contractors. In the same way as having access to power allows street vendors to operate at night, extending their business hours and generating more revenue, having access to water can facilitate the cleaning of their food stands. The ability to obtain financing is a key facilitator of the informal sector.

The absence of regular financial services, such bank loans and credit, hinders the growth and formalisation of informal firms. Local governments must facilitate the growth of informal firms, enhance the calibre of their output, and facilitate their transition to formalisation by offering inexpensive and suitable financial services, including microfinance. Lastly, policies that acknowledge and assist the informal sector can be extremely important in fostering an atmosphere that facilitates the sector's beneficial contribution to regional economic growth. These policies include steps to safeguard the rights of informal workers and enhance working conditions. They also include programmes to encourage innovation, entrepreneurship, and skill development among informal businesses. Local governments aid in using the potential of the informal sector and advancing equitable and sustainable economic growth by levelling the playing field for both formal and informal businesses.

Table: 1 Enablers for understanding the Role of the Informal Economy on Local Economic Development



Source: Own Compilation

Recommendations

The following suggestions are made for the Thembisile Hani Local Municipality's consideration while deciding how best to regulate the informal economy, taking into account the findings of the study. Examine policies that impact the informal economy across national, provincial, and local municipalities. Then, look into the spatial and demographic dimensions of the informal economy management to gauge the impact of specific regulations and interventions on different groups and societies. Plot stream and value chains to create a thorough understanding of the connections between formal and informal economic activity. Place active public engagement with informal traders at the centre of all efforts to manage the informal economy in order to promote the efficiency, acceptability, and approval of policies. Create a pleasant and safe environment for informal traders by providing a good trading setup, adequate public lighting, and patrolling. In addition to capacity building, the unregulated economy will expand. Help informal economy players transition from subsistence to viable business ventures. Drives to maintain informally self-employed individuals must be based on a sector-specific approach and be mindful of the value chains in which informal companies operate.

According to the study's findings, the majority of participants had a secondary level of education, which has an impact on informal traders' performance. As a result, informal traders will benefit from business training to improve their basic business understanding. As a result, main measures include commerce and services, with interventions aimed at solidifying the informal sector. Because the formal sector is a significant source of income for most towns, they must maintain a balance of interests with those of the informal economy. Formal economy benefits are primarily represented in towns through connections such as chambers of commerce. Informal economy firms should be eligible for similar possibilities to communicate their merits on platforms. Municipalities can play a key role in facilitating the development of participatory structures and incorporating them into participating procedures. Informal traders should have access to infrastructure such as marketplaces, storage facilities, water, lighting, and restrooms, which will make their lives easier. Incorporate the informal economy with municipal economic development strategies.

Furthermore, integrated development planning methods into the discussion with all participants. A step towards developing inclusive policies that recognise the informal economy's contributions to local economic development activities and understand its weaknesses. Municipalities should develop informal trading standards. For example, by-laws will create a favourable environment for informal traders by outlining the duties and obligations of all players. Given the necessity of government interventions, it is imperative that the government adopt a constructive stance towards the informal economy. by creating supportive rules and regulations that will guarantee the expansion of the unofficial sector. Financial institutions ought to be incentivized to facilitate the informal economy's players' access to financing. by easing their rules and restrictions to allow unregistered traders to participate in their financial lending programmes.

Conclusion

LED is influenced and contributed to by the informal economy, according to the overall conclusions of this study's final deduction and analysis. An important focus was on the informal economy's importance for job generation and economic growth. According to the

survey, women predominate and are typically the household breadwinners. The causes of this kind of circumstance are poverty and unemployment. In the un-organised sector, self-employment is one strategy to combat poverty and create jobs. Still, for countless more whose family subsists on the un-organised sector, this will go a long way towards helping to feed, clothe, and sustain university tuition. Although it is often insufficient, the informal economy does provide some real sources of income. When there is no one working in the household, the informal economy takes on great importance because everyone depends on the daily money from the unofficial business. The study's findings demonstrate that the informal economy is constrained in its growth by a number of factors, such as capital, infrastructure, appropriate skills, onerous rules, and security concerns. However, the study's conclusions showed that in an effort to fight poverty, employment opportunities are being created in the unofficial sector. More inclusive economic growth is required since the government and municipalities have not included the informal economy in their economic planning processes. This is corroborated by the government actions are required, and in order for the informal economy to grow, the government must take a pro-informal attitude towards it by establishing the necessary laws and regulations.

The South African LED complies with the legal framework, economic formalisation, and economic development framework. It comprises the growth of the informal economy through an examination of its characteristics and opportunities, as well as the minimal LED standards associated with the notion of a green economy and the relationships between the informal and official economies. To ensure that the informal sector is successful in giving people in need a place to live, the government must encourage it and give it respect. The study's findings imply that more inclusive economic development is required. since the informal economy has not been included in the economic planning procedures of the government or local governments. The necessity for government interventions, which will necessitate the government taking a favourable stance towards the informal economy by creating laws and policies that encourage its growth, supports this.

According to studies, self-employment is supported as a means of generating employment. This is one distinctive feature of the informal sector and a way to support regional economic growth. Self-employment is described in literature on the informal sector as a common occurrence in urban employment programmes and as being comparable to wage employment in the global South. The majority of non-agrarian work in the global South is now informal, with self-employment being most prevalent in sub-Saharan Africa. In addition, people work for themselves. Employers who work for themselves include owners, own account workers, and family support workers. The government's inability to improve things for everyone necessitates the need to investigate alternate approaches to economic development.

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CENTRALISATION OF LOCAL ADMINISTRATIVE AUTHORITY IN ZIMBABWE

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Abstract: The article engages on purported Zimbabwe centralization of local administrative authority in recent years. The engagement takes place against the background of Zimbabwe having previously made notable inroads in its decentralization reforms earlier on in its history following the end of colonial rule. The article drew from robust document analysis, decentralization theory and the concepts of decentralization and centralization to engage on national government's centralization of local administrative authority in Zimbabwe. The article finds that it is something of a paradox that present-day Zimbabwe appears to be back-peddling after seemingly setting itself voluntarily on a firm path to decentralization of governmental authority and responsibility to the local units of government. In particular, it finds that administrative centralization, fiscal centralization and political centralization are now a common feature of intergovernmental relations in Zimbabwe.

Keywords: Decentralization, centralization, local administrative authority, national government, Zimbabwe

Introduction

The collapse of the Soviet Union which started off with tumultuous events in the 1980s and ended with its dissolution in 1991 was a major geopolitical event that led to significant changes in the global order. Firstly, the dissolution led to the end of the Cold War, and the end of the bipolar geopolitical order. In turn, this led to the emergence of the United States as the sole superpower, and a shift in the balance of power in the world. Secondly, it led to the independence of 15 countries in the former Soviet Union, including Ukraine, Belarus, and the Baltic states. Significant movement away from centralized authority and toward greater autonomy and self-governance occurred with the establishment of sovereign states. The collapse is alleged to have demonstrated the dangers of highly centralized political and economic systems. It is said to have also shown that centralized systems can be brittle, inflexible and often fail to adapt to changing circumstances (Acemoglu 2012). Furthermore, the fall of the Soviet Union is said to have led to a renewed interest in market-based approaches to economic development, which tend to be more decentralized. Additionally, the collapse of the Soviet Union is suggested to have increased public interest in democratic systems, which often feature more decentralized political power, with power being shared between the central government and, regional and local governments. It is said that the shift saw countries around the world begin to move away from centralized, top-down models of governance, and adopting more decentralized political systems and developing a greater sense of local autonomy. Furthermore, it is said that the collapse afforded other countries an opportunity to learn from the alleged blunders of centralization and to develop more effective decentralized systems of governance. Since gaining majority independence from Britain on 18 April 1980, Zimbabwe, a landlocked country in Southern

Africa bordered by Zambia to the northwest, Mozambique to the east, South Africa to the south, and Botswana to the southwest, has pursued decentralization reforms (Marumahoko et al. 2023: 69). However, it seems that the nation has been renegeing on this commitment during the last few decades. The article engages on Zimbabwe's centralization of the local administrative authority, even as it claims to be boosting their standing and status as the system of government that enjoys greater proximity to communities in recent years.

Organization and Methodology

The article is structured and organized as follows: introduction, concepts of centralization and decentralization, centralization and decentralization in brief assessment, post-independence efforts at decentralization in Zimbabwe in short, Zimbabwe's decentralized system's dilemma, administrative centralization, fiscal centralization and political centralization. Following this is brief engagement of the adverse effects of centralization on local administrative authority. The article then presents its concluding remarks. The article applied document analysis to analyses national government centralization of local administrative authority in Zimbabwe for three reasons. First, document analysis allowed the article to examine official government documents, such as laws, decrees, and circulars, to understand the legal framework governing centralization and decentralization. This way, document analysis assisted to identify the extent of central control over local administration, Second, analyzing government reports, statistics, and data was deemed suitable for purposes of providing insights into the implementation and impact of centralization policies on local administrations. Third, reviewing meeting minutes, memos, and correspondence between national and local government officials revealed the dynamics of decision-making processes, conflicts and negotiations related to (de)centralization. This provided a more nuanced understanding of the power dynamics at play. By analyzing these documents, the article hopes to gain a deeper understanding of the centralization of local administrative authority and its implications for governance and decision-making processes.

The Concepts of Centralization and Decentralization

Keating (2001) defines centralization as the "concentration of decision-making powers in a single, central body". He notes that centralization can occur in both authoritarian and democratic systems, and that it can take place at all levels of government, from the national to the local level. Additionally, Keating discusses the role of factors such like geography, culture and history in shaping levels of centralization in different societies. Keating argues that geography, culture and history play an important role in shaping levels of centralization. For example, he points out that countries with a small land area and a dense population, like the Netherlands or Belgium, tend to be more centralized than countries with a large land area and more sparse population, like Canada or Australia. Additionally, countries with a strong tradition of central government, like France or Germany, tend to be more centralized than countries with a tradition of local autonomy, like Switzerland or the United States (Keating, 2001). Hix (2008) defines centralization as the "concentration of decision-making authority in a single entity". He argues that centralization can occur at different levels, from the national to the global level, and that it has important implications for democracy, efficiency, and accountability. According to Hix (2008), centralization can have both positive and negative implications for democracy, efficiency and accountability.

On the positive side, centralization can lead to more efficient decision-making and a more consistent approach to policy. However, it can also lead to a lack of transparency and accountability, as power is concentrated in a single entity that is not easily accessible to the public. Decentralization, according to Rondinelli (1981), an early proponent, is the transfer of authority over planning, management, resource sharing, and allocation from the central government and its agencies to the following groups: (a) field units of ministries and agencies under the central government; (b) subordinate units or levels of government; (c) public authorities or corporations with some degree of autonomy; (d) area-wide, regional, or functional authorities; and (e) non-governmental private or voluntary organizations. In the same vein, Watts (1995) defines decentralization as “the transfer of authority and responsibility from the central government to subordinate levels of government”. He distinguishes between two types of decentralization: administrative decentralization, which involves the transfer of decision-making and administration to lower levels of government, and fiscal decentralization, which involves the transfer of financial resources.

While decentralization and centralization appear to represent opposing approaches to the formation of public organizations, Witesman (2020) notes that the two regularly coexist simultaneously in what is sometimes described as a paradoxical tension or a peaceful coexistence. Additionally, according to Witesman (2020), initiatives to change public institutions emphasize more decentralizing factors like marketisation, devolution of power, deconcentrating, and diversity or more centralizing ones like hierarchy, unification, and governance. It is common to accuse public administrators who advocate for structural change of being swayed by certain public values toward centralisation or decentralization. Values like responsiveness, engagement, and creativity are said to support decentralization, whereas values like accountability, power, and efficiency are considered to favor centralized governance. Thus, value-based norms are often expressed in the way public administration structures and procedures are designed. According to a growing body of research, structural reforms are not always seen as swings between two extreme ideal states—fully decentralized or fully centralized. Rather, it is more likely that both centralized and decentralized structures coexist within the same institutions, frequently resulting in a dynamic tension between values (Witesman, 2020).

Decentralization and Recentralization in Brief Appraisal

According to Erk (2014), decentralization is no cure to all governance ills; cautioning the need for common-sense calls for prudence and sober reflection before one embrace decentralization unconditionally. Koeble and Siddle (2014) are of the view that decentralization has failed citizens in South Africa even though its entrenchment in South Africa’s Constitution made local government the foundation of the so-called developmental state. It is charged with the provision of services such as electricity reticulation, refuse collection and water and sanitation services; all of which it is alleged to have struggled to provide. Even then, Erk (2014) is of the view that, it is hard to “imagine a unitary-centralized system bringing better democracy, policy efficiency, development, and growth to ethnically, economically, and democratically diverse societies”. For its part, the World Bank has spent 7.4 billion dollars between 1990 and 2007 in 20 developing ‘countries, promoting decentralization and has been a vocal critic of recentralization of local government in Africa (Independent Evaluation Group, World Bank, 2008; Treisman, 2007).

In its 2019 report, the World Bank provides a detailed analysis of the recentralization of local government in Africa. It examines the effects of this process on service delivery, accountability, and democracy. The report finds that the recentralization of power has had negative consequences for development on the African continent (World Bank, 2019). The report argues that the recentralization has led to a loss of efficiency and accountability, and has stifled local innovation and initiative. In particular, it finds that recentralization has led to a decline in service delivery, as well as a decrease in citizen engagement, and political participation. It also highlights the negative effects of recentralization on the empowerment of women and youth. The World Bank advocates for a return to a more decentralized model of governance, with increased autonomy and control for local governments. The report recommends a number of reforms to improve the decentralization process, including strengthening local government capacity and increasing citizen participation. The report uses a number of countries as case studies, including Nigeria, Ghana, Tanzania, and Kenya. Nigeria, for example, is presented as a particularly stark example of recentralization, as the country has experienced a dramatic reversal of the decentralization process over the past few decades. Tanzania is presented as a more moderate example, with some recentralization but also some continued decentralization. Ghana and Kenya are presented as examples of countries that maintained a more balanced approach to decentralization.

Mutebi (2014) looks at the case of Uganda where decentralization is said to have led to recentralization. He notes that decentralization reforms in Uganda were implemented in the early 1990s when current President Yoweri Museveni came to power but later unraveled. He finds that recentralization was driven by a number of factors, including political and economic pressures, as well as a lack of support for the reforms from key stakeholders. This, according to Mutebi, has led to a deterioration of service delivery and increased inequality. In the same vein, Lewis (2014) looks at how decentralization reforms have led to recentralization in Uganda. She finds that recentralization has been achieved in Uganda through the proliferation of local administrative units. The creation of these units has allowed the national government to reassert control by creating new units that are dependent on it for funding and other resources. The national government has also 'captured' new and existing units by appointing loyalists to leadership positions and by redistributing resources to areas that support the ruling party. Subnational entities saw the loss of their ability to balance off the center as a result of being unable to handle their additional responsibilities and turning to patronage networks to run their daily operations. This has reportedly led to frustration and disillusionment among local stakeholders and threatens to undermine the overall decentralization process.

Chan (2006), has written about the reversal of decentralization in Zambia. In this regard, Chan looks at the reasons for and consequences of recentralization in Zambia. He argues that recentralization has occurred through a combination of factors, including the economic crisis, the concentration of power in the presidency and the failure of decentralization to deliver on its promises. Fessha and Kirby (2008) underscore the role played by the political, administrative and financial might of the central government in the recentralization of the local units of public administration. These, according to Fessha and Kirby (2008) are shortcuts back to nation-wide politics that have come about as a result of the central government manipulating its political, administrative and financial might to affect how the local units of public administration operate and is usually done to align them with national

government goals and operations. In their article, Dickovic and Eaton (2004) focused on the process of recentralization in Argentina and Brazil, two countries that had previously decentralized their local governments. They argued that the recentralization process was largely driven by the political interests of the national government, rather than by any real need for centralisation. The authors also argued that the recentralization had led to a number of negative consequences, including decreased autonomy for local governments, diminished transparency and declined trust between citizens and their local governments. Dickovic (2011) analyzed the process of decentralization and recentralization in the developing world, with a particular focus on Latin America and Africa. He argued that recentralization is often driven by economic and political factors, such as the desire for greater control over resources and the desire to maintain power. He also examined the role of international organizations such as the World Bank and the International Monetary Fund, in shaping recentralization processes. Overall, he found that the experience of recentralization in the developing world has been mixed, with some countries experiencing positive outcomes and others experiencing negative outcomes. For example, he found that in Brazil, the recentralization process has led to improved service delivery and increased efficiency in some areas, but it has also led to increased inequality and a loss of local autonomy. In contrast, in Mexico, he found that the recentralization process has led to increased political stability and economic growth, but it has also led to a decrease in the quality of services and a loss of local autonomy. Dickovic's findings on Africa are a bit more mixed than his findings on Latin America. In some countries, such as Ghana and Uganda, he found that recentralization has led to improved service delivery and increased economic growth. However, in other African countries, such as Nigeria and South Africa, recentralization is said to have been associated with political instability and corruption. Dickovic (2011) argues that the mixed results in Africa can be attributed to a number of factors, including different histories and political systems of each country. Engagement of literature appears to suggest that recentralization of local units of administration is not a so-called third world country issue but is universal. It is also being experienced in the so-called first world countries. Lowndes (2002), for example, examines the trends and motivations behind the centralisation of local government in the UK. She argues that centralisation is driven by the desire of national government to exert greater control over local government, as well as the belief that a centralized approach is more efficient and effective. Lowndes (2002) argues that the British national government has used a variety of mechanisms to control local government, including: the imposition of national targets and performance indicators on local government, the centralisation of funding and decision-making powers, the appointment of national officials to oversee local government operations and the creation of national agencies to manage specific policy areas, such as education and social services. According to Conlan (2011), economic and political factors have played a major role in the recentralization of power in the United States. For example, he argues that the economic crisis of the 1970s and 1980s led to a loss of faith in the ability of state and local governments to effectively manage their economies. This, in turn, led to a shift towards more centralized control of economic policy at the national level. Additionally, Conlan argues that the political climate of the 1980s and 1990s, with its focus on reducing the size of government, also contributed to recentralization.

Post-Independence Efforts at Decentralization in Zimbabwe in Short

Since attainment of majority independence from Britain on 18 April 1980, Zimbabwe has taken a considerable number of initiatives to advocate, promote and realize decentralization of governance. In 1984, for example, the then Prime Minister of Zimbabwe, Robert Mugabe issued the Prime Minister's Directive on Decentralization, also known as the Chenga Decree (Government of Zimbabwe, 1984). Essentially, the Directive aimed to devolve power from central government to provincial, district and local government levels, in order to improve service delivery, promote development and increase public participation in governance. The decree also established local councils and provided for the election of local government officials (Government of Zimbabwe, 1984). However, the implementation of the decree was not without controversy as critics argued that it was used to centralize power in the ruling party, ZANU PF and suppress dissent. The Directive was also subject to a number of other criticisms, both at the time of implementation and in subsequent years. Some of the common criticisms were that it was characterized by a lack of consultation (Makumbe, 1998). In this regard, critics argued that the decree imposed without adequate consultation with local communities, and that it did not take into account the unique needs and challenges of different regions. It was also criticized on the basis that it allegedly facilitated political interference. Critics argued that the decree was used to centralize power in the ruling party, and that local government officials were appointed based on their political affiliation rather than their qualifications. Another criticism was that it did not address the underlying issues that led to the need for decentralization in the first place such as corruption, patronage, and the lack of accountability of local government officials. Critics also pointed that the decree did not provide adequate financial resources or technical assistance to local governments, which hampered their ability to deliver services and promote development. Furthermore, some critics argued that the decree led to a duplication of administrative functions, as the central government retained control over some key areas, such as security and public finance.

Nevertheless, in 1985, the national government came up with the Provincial Councils and Administration Act of 1985 to operationalize decentralization of governance from central government to subnational entities (Chigwata and Marumahoko, 2017). The Provincial Councils and Administration Act of 1985 was intended to operationalize the Prime Minister's Directive on Decentralization by establishing provincial councils and district councils as considerably autonomous, elected bodies with specific powers and functions. Under the Provincial Councils and Administration Act of 1985, each of Zimbabwe's 10 provinces was governed by a Provincial Council, which was composed of elected members, appointed members, and ex-officio members. The elected members were directly elected by the residents of the province, while the appointed members were chosen by the President of Zimbabwe and were intended to represent specific interests such as youth, women, and traditional chiefs (Makumbe, 1998). The ex-officio members included the provincial governor and the heads of various government departments (Chigwata and Marumahoko, 2017). The Act also established a system of provincial governors, who were appointed by the President and were for the day-to-day administration of the country's provinces. In terms of functions, the Provincial Councils were responsible for formulating development plans, approving local budgets, and providing input on national policy and legislation (Government of Zimbabwe, 1985). The Act also gave local governments some autonomy in decision-making and resource allocation, including the ability to raise and

spend revenue, develop and implement development plans, and make decisions on issues such as health, education, and infrastructure. The Provincial Councils and Administration Act of 1985 was subject to a number of criticisms, including that it lacked autonomy (Makumbe, 1998). Critics argued that the councils lacked the real autonomy, as the provincial governors had the power to veto council decisions. It was also said that the councils were not directly accountable to the people, as they were appointed and not directly elected (Kurebwa, 2015). In addition, it was said that they were susceptible to corruption, as they were not subject to the same oversight and scrutiny as national-level government bodies.

Despite these criticisms of the decentralization efforts, in 1994, the national government took some steps that arguably contributed towards some concrete realization of decentralizing authority from national government to local government. It undertook a Civil Service Reform and Rationalization Program that boosted decentralization. The Civil Service Reform and Rationalization Programs of 1994 were intended to improve the efficiency and effectiveness of Zimbabwe's civil service and to reduce the role of the central government in local affairs (Government of Zimbabwe, 1994). The major advantage of these reforms was the devolution of responsibility, authority, and powers from the national government to local governments. More authority over the distribution of resources and decision-making was granted to local governments. This included the capacity to create and carry out development plans, generate and spend money, and decide on matters pertaining to infrastructure, health care, and education. Local governments were given responsibility for the management and maintenance of primary and secondary schools, the recruitment and management of teachers, and the development of educational policies and plans (Government of Zimbabwe, 1994). They were also given responsibility for the management and maintenance of health facilities, the recruitment and management of health workers, and the delivery of primary health care services. Local governments were also made responsible for the construction and maintenance of local roads, bridges and other public infrastructure (Government of Zimbabwe, 1994). While the Civil Service Reform and Rationalization Programs of 1994 brought some benefits to local government, they also faced a number of shortcomings, including lack of capacity. Many local governments lacked the capacity to deliver the functions that had been transferred to them, particularly in areas such as health and education. In addition, it was said that they encountered funding constraints. They allegedly struggled to raise sufficient revenue to meet their obligations and responsibilities, particularly in the face of declining government grants and the impact of economic sanctions.

In 1996, Zimbabwe adopted the 13 Principles of Decentralization, which set out the national government's policy framework for decentralization (Government of Zimbabwe, 1996). Decentralization was formed as a strategic governance system using these concepts. In adopting the principles, Zimbabwe sought to improve local responsiveness and participation by acknowledging the necessity to disperse authority and decision-making outside the national government. It was hoped that the 13 Principles of Decentralization would give Zimbabwe's government structure greater responsiveness, inclusivity, and effectiveness as well as to provide local governments more autonomy and decision-making capacity (Government of Zimbabwe, 1996). In the same vein, it was hoped that local communities would be able to better handle their own needs and issues as a result of this move away from a centralized governance. It seems to be the case that the implementation

of the 13 Principles of Decentralization in Zimbabwe has been a mixed success, with some areas experiencing positive outcomes and others facing challenges. Successfully implementing them is still a work in progress, requiring ongoing efforts to overcome gaps and strengthen local communities.

In 2013, Zimbabwe adopted a constitution which facilitates constitutional protection of decentralization. The Zimbabwean Constitution of 2013 includes provisions for the devolution of governmental powers and responsibilities to provincial and metropolitan councils and local government authorities (Marumahoko, 2020a). For the first time in the history of the land-locked southern African country, local government divided into rural councils and urban local authorities, was given constitutional elevation and protection. It became a component of the three-tier governmental system recognized in Zimbabwe comprising of national government, provincial and metropolitan councils and local government councils (Marumahoko et al., 2020). This was seen as a significant step towards the decentralization of power in Zimbabwe, and it was intended to address some of the shortcomings of previous decentralization efforts. The Constitution provides for the establishment of provincial and metropolitan councils, which are responsible for the delivery of services and the management of resources at the provincial level. According to the Zimbabwean Constitution of 2013, rural and urban councils play a key role in the devolution of governmental powers and responsibilities (Marumahoko, 2024). Here is a summary of their role: (a) rural councils are responsible for managing and administering local government affairs in the rural areas. This includes the delivery of services such as health, education, and social welfare, as well as the management of local resources such as land, water, and forests and (b) urban councils are responsible for managing and administering local government affairs in urban areas.

Zimbabwe's Decentralized System's Dilemma

In theory, the foregoing developments appear to intensify and facilitate concrete decentralization of governmental powers and responsibilities to subnational government authorities recognized by the Zimbabwean Constitution of 2013. However, the paradox of it is that decentralization has been accompanied by parallel centralisation of powers and responsibilities of local government, appearing to cancel out any perceived progress associated with earlier progressive developments. While the Constitution and legislation have undoubtedly advanced the cause of decentralization in theory, in practice, there is seemingly a sense that the central government has also increased its power over local government, undermining the decentralization effort and unbalancing intergovernmental relations. In this regard, the article engages on three perceived aspects of centralisation that have seemingly become more pronounced at the same time that the country is celebrating the constitutionalizing of local government and adoption of devolution as the system of governmental division of roles and responsibilities seemingly aspired to by the country's vast majority. To achieve this objective, the article confines its engagement to the three issues of (a) administrative centralisation, (b) fiscal centralisation and (c) political centralisation.

Administrative Decentralization

Ostrom (1997) defines administrative centralisation as the “concentration of decision-making authority in a single level or sphere of government, with limited or no delegation

of decision-making authority to lower levels or spheres of government.” Various mechanisms allow national governments to limit local administrative authority, shaping the relationship between different levels of government and influencing decision-making processes at the local level. These include adoption of preemption laws which prohibit local government from enacting laws or regulations on certain topics, mandating certain policies and programs that local governments must implement, and these may come with specific guidelines and requirements, limiting the discretion of local authorities in administering programs according to local needs and priorities, exerting control over local government finances by requiring approval of local budgets or imposing restrictions on spending, maintaining regulatory oversight over local governments, thus ensuring compliance with national laws and regulations and intergovernmental agreements with local governments that dictate the terms of administrative cooperation and through judicial review which may overturn local decisions or policies deemed to be inconsistent with national laws or constitutional principles. Yet another way is through emergency powers. National governments may have the authority to intervene in local governance during emergencies or crises, such as natural disasters or civil unrest. This can involve the suspension of local government functions or the imposition of centralized control to manage the situation, limiting local administrative authority temporarily.

Centralized staff appointment as administrative centralisation in Zimbabwe

Centralized appointment of key local government officials is one of the ways the national government in Zimbabwe can limit the administrative authority of local government. In this regard, the national government has reserved for itself the authority to appoint key local government officials, such as city managers (Marumahoko, 2020b). By controlling these appointments, the national government can influence administrative decisions and limit local autonomy. As a result, the national government has been accused of consolidating power in the hands of the executive branch thereby undermining the autonomy and authority of local governments and other public institutions. Central government’s involvement in the recruitment and dismissal of local government employees is an example of administrative centralisation. When the central government takes control of local human capital management policy decisions, it effectively strips local governments of their autonomy and undermines their ability to make decisions based on local knowledge and circumstances. This can lead to a loss of expertise, a decrease in efficiency, and a lack of responsiveness to the local needs. Moreover, it can create a culture of fear and compliance, where local officials are more concerned with pleasing the central government than with serving the needs of their communities. In Zimbabwe, despite the Constitution protecting the autonomy of local governments and local decisions consistent with the values of decentralization, the national government has maintained significant control over the recruitment and dismissal of local government employees. This has been a source of tension between the central and local governments, as local governments, as local authorities feel that they are not able to make their own personnel decisions and to hold employees accountable for their performance. The central government’s control over local government staffing has been criticized for creating a culture of political patronage and corruption, where appointments are made based on political connections rather than merit (Marumahoko, 2021). This has had negative effects on the effectiveness and efficiency of

local government services, and has been seen as an impediment to local government reform and decentralization efforts.

Fiscal centralisation

Fiscal centralisation of local government responsibilities by the national government may refer to the process where the central or national government retains significant control over financial resources and decision-making authority that would traditionally fall within the purview of local governments. In this setup, the national government plays a dominant role in determining how revenue is collected, allocated, and spent at the local level (Marumahoko and Fessha, 2011). One of the key characteristics of fiscal centralisation in this context may include: (a) the national government collecting the majority of taxes and revenues, leaving local governments with limited authority to raise funds independently. Local governments may rely heavily on transfers from the national government rather than generating revenue locally; (b) the national government determines the allocation of funds to local governments. This may involve formulas or criteria established at the national level to allocate resources among different regions or localities; (c) the national government exercises significant control over local government budgets, often setting strict guidelines or imposing conditions on how funds are to be spent. This can limit the autonomy of local authorities in making spending decisions based on local priorities; (d) the national government may impose specific mandates or responsibilities on local governments without providing adequate funding to cover the associated costs. This can create unfunded mandates, placing financial strain on local authorities and limiting their ability to address local needs effectively; (e) transfers from the national government to local governments play a crucial role in financing local services and infrastructure. However, the terms and conditions attached to these transfers, as well as the amount allocated, are typically determined by the national government. Overall, fiscal centralisation of local government responsibilities by the national government can lead to a concentration of power and resources at the central level, potentially reducing local autonomy, accountability, and responsiveness to local needs (Marumahoko, 2010). It can also contribute to disparities in resource allocation and service delivery across different regions or localities within a country.

Conditional grants as fiscal centralisation in Zimbabwe

In this section, the article focuses on conditional grants to illustrate the point of the national government in Zimbabwe exerting firm control over local governments through fiscal centralisation. Conditional grants are one of the ways that central government uses to achieve fiscal centralisation and assume control over local decision-making and policies (Marumahoko and Fessha, 2011). Conditional grants are funds provided by a higher level of government (e.g. national governments) to a lower level of government (e.g., local governments) for specific purposes, with conditions attached (Marumahoko, 2010). Road maintenance grants, healthcare grants, education grants and water and sanitation grants are four examples of the conditional grants provided to local government in Zimbabwe. These funds which come in the form of financial assistance to local governments are tied to specific purposes or projects. These grants may come with requirements, such as matching funds or compliance with national policies, limiting the discretion of local authorities. In Zimbabwe, the national government limits the discretion of local government through conditional grants in several ways. To begin with, conditional grants are earmarked for

certain projects or programs, leaving local governments with little flexibility to reallocate funds. The grants are also tied to specific performance metrics, requiring local government to meet certain standards or targets. Local governments must submit detailed reports on grant usage and progress, ensuring accountability and compliance. Related to this, the national government exercises oversight over local governments, monitoring grant usage and enforcing compliance with conditions. In this sense, the conditional grants reduce the autonomy of local governments, as they must adhere to national priorities and guidelines (Marumahoko, 2010). Local governments rely heavily on conditional grants, limiting their ability to make independent decisions. Added to this, national regulations and guidelines govern the use of conditional grants, constraining local governments' discretion. Conditional grants for water and sanitation projects for example, require local governments to use specific technologies, adhere to national water standards, and connect a certain number of households to water and sanitation services. These grants ensure that local governments align with national priorities and meet specific conditions, limiting their discretion and autonomy. By imposing these conditions, the national government in Zimbabwe can influence local government decision-making, ensuring alignment with national priorities and limiting local autonomy.

Political centralisation

Political centralisation refers to the concentration of power, authority, and decision-making within a single or limited number of governing bodies or institutions at the national or central level of government (Hobbes, 1651; Fukuyama, 2011). In a politically centralized system, the central government holds significant control over various aspects of governance, including legislation, policy-making, administration, and resource allocation, often at the expense of regional or local autonomy. The key features of political centralisation include, centralized decision-making in which political authority is vested primarily in the central government, which makes decisions on behalf of the entire country or state, national government exerting control over subnational entities, such as provinces, states, or regions through appointing officials, setting budgets, or imposing conditions on local governance to ensure compliance with national priorities, centralized governments controlling the allocation of resources, including financial resources, infrastructure projects, and public services, national governments retaining the authority to make important political decisions that impact local or regional jurisdictions including matters such as approving local laws, appointing key officials, or determining local government structures, financial dependence in which national governments often control the distribution of funds to local governments through grants, subsidies, or revenue-sharing mechanisms and national governments having the authority to declare a state of emergency in local jurisdictions, allowing them to suspend local government functions and imposing centralized control during crises or emergencies thereby effectively sidelining local political authority in favor of national governance. By controlling these resources, national governments can limit the political authority of local governments and influence their priorities and decisions. These mechanisms enable national governments to maintain a degree of control over local political authority, shaping the relationship between different levels of government and ensuring compliance with national policies and objectives.

Reservation of decision-making authority as political centralization in Zimbabwe

By focusing on national government's reservation of the authority to make significant political decisions that affect local jurisdictions, one can get a sense of how political centralisation is potentially exploited to limit the administrative authority of local government in Zimbabwe. The national government reserves for itself the authority to make significant political decisions that affect local administrative authority through various means. Among others, the national constitution grants the central government powers to make legislate and regulate matters of national importance, which may override local autonomy. The Parliament of Zimbabwe may pass laws that delegate or limit the powers of local government, ensuring central control. The national courts can also review and overturn local decisions deemed inconsistent with national laws and policies. The national government of Zimbabwe can also issue executive orders, directives, or circulars that guide local administrations on implementing local policies and programs (Marumahoko, 2023). These actions can erode local autonomy, undermining the principles of decentralisation and potentially leading to conflicts between national and local governments. These mechanisms also enable national government to maintain authority over local administrative processes, seemingly balancing centralised control with decentralised decision-making.

Negative implications of centralizing local administrative authority

Centralizing local government authority under the national government can have several negative implications (Moyo and Ncube, 2014). Among others, centralized decision-making processes tend to prioritize uniformity and consistency across regions, leading to the imposition of rigid policies and regulations that leave little room for adaptation or experimentation at the local level (Marumahoko, 2023). This limited flexibility can stifle innovation by constraining local governments' ability to implement creative solutions that respond dynamically to local conditions and changing circumstances. In the same vein, centralizing local administrative authority tends to inhibit local experimentation. The point here is that local governments are often incubators of innovation, as they are more attuned to the unique challenges and opportunities within their jurisdictions. However, centralization may discourage local experimentation by imposing top-down mandates and bureaucratic hurdles that discourage risk-taking and innovation. Local leaders may be hesitant to deviate from centralized directives for fear of reprisal or non-compliance, inhibiting their ability to explore innovative approaches to addressing local issues. A related observation is that it tends to ignore local knowledge. It is argued that centralization can overlook the valuable insights and expertise of local stakeholders who possess firsthand knowledge of their communities' needs, assets, and capabilities (Saunders, 2019). Decisions made at the national level may rely on generalized assumptions and data that fail to capture the nuances of local contexts. As a result, centralized policies may disregard local knowledge and preferences, leading to solutions that are out of touch with the realities on the ground and less effective in achieving desired outcomes.

Conclusion

The article engaged on the issue of national government's centralization of local administrative authority in Zimbabwe after noting that it is an area of academic significance that is far from being fully scrutinized. It began by providing global context to the issue of enquiry. In this regard, in its introductory remarks, it linked the collapse of the Soviet Union

to the emergence of decentralization efforts globally. Thereafter, it engaged on the concepts decentralization and centralization with the objectives of realizing definitional certainty and situating the discussion in the appropriate parameters. This was followed by debates and discussions on decentralization. In this regard, the article sought to engage on prior research whose basis could be used to generate relevant additional research outputs. It then explored the basis of Zimbabwe's decentralization efforts, noting that earlier on the country seemingly set itself on a robust path to decentralization and now appeared to be back-peddling on that effort. It then engaged on three aspects of centralization, namely, (a) administrative centralization, (b) fiscal centralization and (c) political centralization to illustrate the point of increased centralization of local administrative authority. Following this, it engaged on the negative effects of centralization, after which it presented its concluding remarks. The common observation is that centralization is a phenomenon permeating central-local relations in present-day Zimbabwe and is on the ascendancy. Additional research might be useful in exploring how local government has responded to national government chipping away on local administrative authority.

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THE BARRIERS TO PROMOTION EXPERIENCED BY PERSONS WITH DISABILITIES IN SOUTH AFRICA

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Abstract: This paper aims to identify barriers to promotion experienced by persons with disabilities at the selected Limpopo Provincial Departments in South Africa. Furthermore, the paper investigates how persons with disabilities overcome promotional barriers. The study is exploratory and adopts a qualitative approach. It focuses on two provincial departments of the Limpopo Province of South Africa. The departments are the Department of Social Development (DSD) and the Department of Agriculture and Rural Development (DARD). The total population of the study is 189 and comprises 25 (18 from DSD and 7 from DARD) persons with disabilities and 164 (22 from DSD and 142 from DARD) human resource officials. Eighteen (18) respondents were purposively sampled, nine persons with different disabilities and nine human resource officials. Semi-structured interviews were conducted using an interview guide to allow respondents to disclose their thoughts and feelings about promotional experiences. Some interviews were conducted face-to-face and others virtually due to time and financial constraints. Data was collected using secondary information such as government policies, reports, prescripts and publications. Thematic analysis was used and themes were induced from the interview data. Data was presented in the form of tables and percentages. The study was limited to persons with disabilities and HRM officials. The findings show that the majority of persons with disabilities applied for promotion and got promoted. However, they are still in the same positions they got promoted to in previous years and mentioned several barriers to their promotion. The findings revealed several barriers to promotion such as a lack of promotional posts and opportunities, institutional barriers and a lack of assistive devices. The study recommends that a capacity development programme be introduced to persons with disabilities in provincial departments.

Keywords: promotion experiences, promotional barriers, persons with disabilities, government departments.

Introduction

Persons with disabilities are faced with barriers that prevent them from advancing in their careers in government departments in both developed and developing countries. This is supported by a study conducted in the selected government departments in Zambia by Simatimbe, Moonga, Hambulo, Moonga, and Mbozi (2019) which revealed that persons with disabilities were underrepresented, and promotions were not easy in the workplace. Previous researchers noted that persons with disabilities represent the largest minority group facing discrimination in the labour market globally (Khan, Korac-Kakabadse, Skouloudis, Dimopoulos, 2019; Kwan, 2020; Tabares, 2023; and Mzembe & Filimonau, 2024). Although several international laws have been introduced to make changes to the employment of persons with disabilities, including the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) which recognises the right for persons with disabilities to perform duties, on an equal cause with others; persons with disabilities still

do not experience equal access to employment opportunities compared to persons without disabilities (Wilson & Shishiwa, 2023). The South African government has developed several policies and frameworks to address the barriers that prevent people with disabilities from fully participating in society since 1994 (Tinta and Kolanisi, 2023). These include the new Constitution of the Republic of South Africa (1996), the Skills Development Act No. 97 of 1998, the Employment Equity Act No. 55 of 1998, the Labour Relations Act No. 55 of 1996, the White Paper on an Integrated National Disability Strategy, Code of Good Practice: Key Aspects on the Employment of People with Disabilities (2002), the Technical Assistance Guidelines on the Employment of Persons with Disabilities, 2005 to name a few. These were developed to enable the successful inclusion of people with disabilities into mainstream society and the workplace.

There is a lack of information on the barriers to promotions since most previous researchers focused on barriers to the employability of persons with disabilities in general. Persons with disabilities constitute about 15% of the world population (United Nations 2018). South Africa has a population of 57.73 million of which 2.9 million (7.5%) are recorded as living with a disability and experience difficulties in functioning and participating in economic activities (Stats SA, 2014). The statistics of South Africa show that persons with disabilities are the minority group that have poorer health, lower educational achievements, fewer economic opportunities, and higher rates of poverty than persons without disabilities. Molefe (2022) further argued that the Limpopo Provincial government has been criticised for neglecting its commitment to employ 2% of persons with disabilities in each of the province's departments, and only a few met the target. Thus, persons with disabilities continue to be affected by the failure of government departments in terms of attending to their issues, especially when it comes to the provision of assistive devices and proper facilities in the working environment. The paper aims to identify barriers to promotion experienced by persons with disabilities at the selected government departments in South Africa and how the barriers are overcome. The findings will be useful to the government, officials of the departments including other stakeholders that focus on improving employment opportunities and reviewing their policies concerning persons with disabilities in having confidence in applying for promotions. The human resource management practices will improve regarding the employment, integration and retention of persons with disabilities which can result in increased promotional opportunities.

Literature Review

The literature review focuses on international policies, South African policies, other government prescripts and empirical literature on the promotional barriers of persons with disabilities.

International Policies and Persons with Disabilities

The International Labour Organisation (ILO) Convention 159 defines a person with a disability as an individual whose prospects of securing and retaining suitable employment are substantially reduced as a result of physical or mental impairment (ILO, 2001). The Code of Practice on Disability in the Workplace introduced in 2002 aims to assist governments and employers to play an essential role in creating a supportive legislative and social policy framework and providing incentives to promote employment opportunities for persons with disabilities. The United Nations Convention on the Rights

of Persons with Disabilities (UNCRPD) introduced in 2008 aims to encourage, protect, and support the equal and full satisfaction of all human rights and fundamental freedoms by all persons with disabilities and to encourage respect for their fundamental dignity (United Nations, 2006). A few articles relate to this paper such as Article 5 on equality and non-discrimination, Article 9 on accessibility, and Article 27 on work and employment. They are all significant when it comes to promoting employment opportunities and career advancement for persons with disabilities, including reasonable accommodation. Although there is an Africa Plan of Action for Managing Disability in the Workplace, Africa is lagging and must face her own challenges. Africa has been facing political wars, illiteracy, human rights violations, poverty, corruption and pandemics. However, countries such as Kenya, Malawi, Ghana, and Nigeria have promulgated disability laws including South Africa.

South African Policies and Procedures and Persons with Disabilities

This section below focuses on the South African prescripts promulgated to promote the inclusion, equal treatment and participation of persons with disabilities in the workplace.

The Constitution of the Republic of South Africa of 1996

The Constitution of the Republic of South Africa (1996) Chapter 2(9)(1) to (9)(5) refers to a clause on equality and the right to protection against unfair discrimination on various grounds including disability. Unfortunately, it can be argued that discrimination in South Africa, even after 30 years of the first non-racial democratic election, is still prevalent.

The White Paper on the Rights of Persons with Disabilities, 2015

The White Paper on the Rights of Persons with Disabilities (2015) aims to guide employers in implementing interventions that promote and support the rights of persons with disabilities and removing obstacles that prevent persons with disabilities from advancing in their careers (White Paper, 2015).

The Employment Equity Act, No. 55 of 1998

The Employment Equity Act No. 55 of 1998 (as amended) (EEA) aims to achieve equality in the workplace and the equitable representation of disadvantaged groups in all occupational categories and levels in the workforce (EEA, 1998). Section 6 states the grounds for which people should not be discriminated against including disability. Thus, government departments should take serious steps in order to support persons with disabilities when it comes to removing the barriers to career advancement. The EEA provides for affirmative action, the development of the Employment Equity Plan (EEP), and progress reports on its implementation and monitoring. Thomas and Robertshaw (1999) argue that the progress to achieving employment equity is a holistic one which, together with target setting and related affirmative action strategies, requires leadership, an organisational diagnostic to understand barriers to employment equity, a high degree of employee involvement, targeted interventions, the review of HR policies and practices and ongoing monitoring and evaluation.

The Skills Development Act, No. 97 of 1998

The Skills Development Act, No. 97 of 1998 (as amended) aims to develop and improve the skills of the South African workforce by providing opportunities for learnership, internships and other training programmes. Section 21(1)(e) states that the purpose of the

act is to improve the employment prospects of persons previously disadvantaged by unfair discrimination and to redress those disadvantages through training and education. Continuous learning can improve the knowledge and skills of persons with disabilities to such an extent that they have relevant qualifications in order to be considered for promotions.

The Labour Relations Act No. 66 of 1995

The Labour Relations Act No. 66 of 1995 (LRA) as amended, prohibits direct and indirect unfair discrimination and protects employees against arbitrary dismissals including persons with disabilities, potential employees with disabilities and people who incurred disability whilst in the employ of the employer (LRA, 1995). Therefore, persons with disabilities are protected against any form of dismissal, and the employer must allow the person to state his or her side of the story.

Other Government Prescripts Impacting on Persons with Disabilities

The following documents supplement the prescripts mentioned above in the employment and advancement of persons with disabilities in the workplace.

The Code of Good Practice on Employment of Persons with Disabilities, 2002 (Disability Code)

The Disability Code (2002) was introduced to support the EEA. It is intended to help employers and employees understand their rights and obligations, promote certainty and reduce disputes to ensure that people with disabilities can enjoy and exercise their rights at work. The Disability Code (2002) assist employers on how to practically manage persons with disabilities in the workplace. Furthermore, the disability code ensures that persons with disabilities are gainfully employed. Policymakers are then able to utilise the disability code when developing their policies and procedures.

The Technical Assistance Guidelines on the Employment of Persons with Disabilities, 2005 (TAG)

The TAG was introduced to ensure that persons with disabilities who are willing and able to work are identified and trained in terms of the Skills Development Act (97 of 1998) and other prescripts, to obtain qualifications, gain experience and compete successfully in the open labour market, at professional level at a later stage. The TAG states that if persons with disabilities are underrepresented in all occupational levels and categories in the workplace, the employer could seek guidance from organisations that represent persons with disabilities or relevant experts. The TAG states that persons with disabilities should market themselves as suitable persons for the job. They would develop confidence when they see other persons with disabilities holding prominent positions and regard them as role models (Majola, 2009). Hussein, Manthorpe and Ismail (2014) advocate that employees with disabilities who occupy senior positions with decision-making powers are more likely to advance in their careers compared to disabled people in semi-skilled positions.

The Policy on Reasonable Accommodation and Assistive Devices for Employees with Disabilities in the Public Service

The Policy on Reasonable Accommodation and Assistive Devices for Employees with Disabilities in the Public Service ensures that employees with disabilities in the public service are provided with reasonable accommodation and assistive devices to enable them to perform their duties effectively and efficiently. It is based on the principle of non-

discrimination and equal opportunities for all employees. Thus, this policy is relevant for this paper since it states that there should be proper facilities and tools necessary to accommodate persons with disabilities in the departments because it will enable them to perform their jobs and participate in work-related activities, then, they will end up advancing in their careers.

Empirical Literature on the Promotional Barriers of Persons with Disabilities

Previous researchers proved that indeed persons with disabilities are faced with barriers that prevent them from advancing. In a study conducted by Gupta and Priyadarshi (2020), it was found that persons with disabilities are aware that when affirmative action is not enough and has negative consequences as it leads to positive discrimination and therefore, affects their confidence and growth negatively. They showed that persons with disabilities face career development challenges when they are consistently employed in professional occupations (Gupta and Priyadarshi, 2020). Furthermore, Lindsay and Fuentes (2022) conducted a study aimed at understanding the experiences and impact of disability discrimination (ableism) among faculty and staff members. They found that faculty and staff members with disabilities are meaningfully underrepresented in academia and are affected by discrimination, social exclusion, and marginalisation. They reported that despite the existence of legislation to protect the rights of persons with disabilities, they constantly experience ableism, social exclusion, unfavourable environments, and a lack of opportunities. This shows that persons with disabilities are still faced with barriers that prevent them from progressing in their careers as they remain underrepresented.

Khupe, Ndlovu, Shava, Zulu, and Shonhiwa (2022) conducted on the employability of people with disabilities in the Zimbabwe hotel industry found that there were few persons with disabilities in supervisory and management positions mainly due to discrimination, culture, prejudice, and to a lesser extent lack of appropriate training and education and poor corporate governance. Another study was conducted by Potgieter, Coetzee, and Ximba (2017) on career advancement challenges facing people with disabilities in South Africa found that people with disabilities experience promotion challenges. The study found that HR practices, especially promotion do not favour people with disabilities as they are prolonged or not suitable for their disability. The study also found that most managers or employees are not knowledgeable about disability. The study found that human resources, especially promotion opportunities, discriminate against employees with disabilities. Lastly, Tinta and Kolanisi (2023) conducted a study on overcoming barriers including the inability to understand tools necessary for vocation, lack of artistry skills, activities that are not stimulating, language and communication difficulties and lack of funds and motivation.

Methods

The study is exploratory and adopts a qualitative approach. It focuses on two provincial departments of the Limpopo Province of South Africa. The departments are the Department of Social Development (DSD) and the Department of Agriculture and Rural Development (DARD). The total population of the study is 189 and comprises 25 (18 from DSD and 7 from DARD) persons with disabilities and 164 (22 from DSD and 142 from DARD) human resource officials. Eighteen (18) respondents were purposively sampled, nine persons with different disabilities and nine human resource officials. It is important to understand the demographic profile of persons with disabilities as the study focuses on their promotion

experiences within the provincial department in Limpopo Province, South Africa. Twenty-three per cent of the respondents had certificates, 11% had Grade 12 certificates, twenty-two per cent (22%) had a degree, 22% had an honour degree and 11% had a master's as the highest qualification. The disability status showed that 78% of the persons with disabilities had a physical impairment, 11% had albinism and 11% had a hearing impairment. The persons with disabilities position within the Limpopo Provincial Department were foreman, HR Clerk, Registry Clerk, Senior Personnel, Social Worker, Assistant Director and Deputy Director. When it comes to years of experience, 45% had between 11 and 15 years of experience and 22% had between 16 and 20 years of experience.

Semi-structured interviews were conducted using an interview guide to allow respondents to disclose their thoughts and feelings about promotional experiences. Some interviews were conducted face-to-face and others virtually due to time and financial constraints. Data was collected using secondary information such as government policies, reports, prescripts and publications. Thematic analysis was used, and themes were induced from the interview data. Data was presented in the form of tables and percentages. The gatekeeper's letter was obtained from the provincial department and ethical clearance from the University of Limpopo was granted. The study was limited to persons with disabilities and HRM officials.

Results and Discussion

To examine barriers to promotions experienced by persons with disabilities, three questions were asked. The researcher asked people with disabilities all the questions. However, both persons with disabilities and HRM officials had to share their thoughts on one question.

Promotion Application

The first question asked persons with disabilities whether they have applied for promotion before. This question was directed to people with disabilities only. The themes and responses can be seen in Table 1.

Table 1: Applying for Promotion

Themes	Frequency of Responses
Applied for promotion and promoted	6
Applied for promotion but not promoted	1
Never applied for a promotion because no promotional post	2

As it can be seen from above, 67% (=6) of the respondents indicated that they applied for promotional posts and got promoted to other levels. Respondent 5 stated "Yes.... I applied then they considered me and I got appointed". Respondent 6 said, "I didn't start from where I am...I did apply for promotion". It must be noted that one respondent mentioned that when she got promoted, her disability status did not make any contribution. Eleven percent (n=1) of the respondents indicated that they applied for promotion but were not promoted due to a lack of knowledge. Respondent 3 said, "I didn't succeed because of a lack of knowledge concerning the vacant post". Two respondents (22%) indicated that they never applied for promotions because there were no promotional posts. Respondent 2 mentioned that "there were no posts for promotions for my section...so I never applied". The research findings show that 67% of persons with disabilities applied for promotion and got promoted. The results are in line with the UNCRPD which highlights the right to work and the need for inclusive employment policies to ensure that persons with disabilities are

afforded equal promotional opportunities in the world of work (United Nations, 2006). South Africa has promulgated prescripts such as the Constitution (1996) and the EEA which promotes equality and protects the rights of persons with disabilities. However, successful promotion does not mean that persons with disabilities are occupying positions at junior, middle and senior management levels in the provincial departments. Some respondents who indicated that they had been promoted complained that they were still in the same positions that they got promoted to without moving to other levels. The demographic profile of persons with disabilities above showed that 11% had a Grade 12 certificate 23% had a certificate and most of them had tertiary education from a diploma to a master's degree as their highest qualifications.

Barriers to Advancement

The second question asked the respondents about barriers that prevent them from advancing in their careers. This question was posed to both persons with disabilities and HR officials from both provincial departments. Therefore, there are two separate tables, one indicates the persons with disabilities perspective and another one, is the HR official's perspective.

Barriers to Advancement from Persons with Disability Perspective

It must be noted that some of the respondents mentioned more than one barrier when responding to this question.

Table 2: Barriers to Advancement from Persons with Disability

Themes	Frequency of Responses
Lack of promotional posts or preference	6
Undermined and underestimated	4
Lack of assistive devices	3
No barriers	3

As it can be seen from Table 2 above, 19% of the respondents indicated that they have never faced barriers when it comes to applying for promotion or advancement. Respondent 6 said, "I have experienced no barriers". Respondents 8 and 9 said "None". However, the majority of persons with disabilities are faced with barriers that prevent them from applying for promotion or advancement. Six respondents stated there is a lack of promotional posts or did not receive any first preference as persons with disabilities. Respondent 2 further noted, "Promotional posts are not available or advertised". Respondent 4 said "For my side, I am the one who is more experienced than them, even though they are old. So, I was told that I was working at another place, and I came here with 14 years of experience but here in the Children section, I do not have 14 years of experience. So, there are lots of barriers. So in terms of first preferences, it is not according to the experience according to the way I see it, it is according to who you are".

Twenty-five percent (n=4) of the respondents indicated that persons with disabilities are being undermined and underestimated within their departments due to their conditions leading them not to be promoted. Respondent 1 pointed out "I don't know whether people judge our disability before they can see us or they undermine us because of our conditions". Respondent 7 said "I think when people know your disability they associate it with your working environment, they start to check if there will be any benefit with you being there.

What they check in most cases are the challenges that they are going to encounter if they appoint you in that position due to your disability”. Three respondents (19%) indicated that there is a lack of assistive devices and facilities for persons with disabilities. Respondent 3 commented that “The issue of not having a car to work because when you go to work with your own car is better than asking someone to take you to work in order to attend to home visits. A car is also an assistive device to work”. Respondent 5 further remarked that “My problem is when I want to do something that requires me to use a computer, and we have normal computers of which I can’t use because of my eyes. I take time looking at one thing and you find people already ahead”.

The research findings show that 38% of persons with disabilities pointed out that there is a lack of promotional posts or opportunities. In addition, they are not getting the first preference when posts are advertised and during the recruitment and selection phase. This is in contrast to various prescripts promulgated by the South African government after the first non-racial election in 1994. For example, the White Paper on the Rights of Persons with Disabilities (2015) exists to guide employers in implementing interventions that promote and support the rights of persons with disabilities and removing obstacles that prevent persons with disabilities from advancing in their careers (White Paper, 2015). The EEA and the LRA are failing to protect persons with disabilities against unfair discrimination based on their disability status. When 30 years of freedom in South Africa, persons with disabilities feel that they are undermined and underestimated concerning promotional opportunities, one can deduce that the government does not disability issues seriously except on paper. The findings of this study prove that persons with disabilities are aware that when affirmative action is not monitored and effected continuously, it has a negative consequence as it leads to positive discrimination and therefore, affects their confidence and growth negatively, as stated in Gupta and Priyadarshi (2020) study

Barriers to Advancement from a Human Resource Perspective

From the HRM officials’ side, it must be noted that some of the respondents mentioned more than one barrier when responding to this question.

Table 3: Barriers to Advancement from a Human Resource

Themes	Frequency of Responses
Lack of experience and or qualifications	6
Unambitious	3
Institutional barriers	3
Lack of assistive devices	2
No Barriers (Barriers Free environment)	1

From Table 3 above, it can be seen that five themes emerged from the responses received from respondents. Forty percent of the respondents indicated that a lack of experience and or qualifications prevent persons with disabilities from being promoted. Respondent 6 pointed out that “The issue of not meeting the requirements because as the department, we are obliged to promote persons with disabilities but in the process of promoting them, we should promote those who have relevant qualifications and experience....”. Respondent 7 alluded that “The barrier is about the relevancy of qualifications against the post, it serves as a barrier.... They are considered and given a chance only when they qualify”. Twenty percent (n=3) of the respondents stated that persons with disabilities are unambitious.

Respondent 1 pointed out that “Employees with disabilities themselves don’t develop themselves, as I mentioned earlier when someone has Grade 12, he/she doesn’t want to study further in order to apply for other positions.... The other barrier is that they don’t want to apply for bursaries issued by the department in order to further their studies”. Respondent 2 noted that “They don’t apply for posts when advertised. They don’t develop themselves. They don’t further their studies”. Respondent 3 stated, “They are not furthering their studies and the competition is too high”.

Three respondents (20%) indicated that government departments have institutional issues that prevent persons with disabilities from succeeding when applying for promotional posts. Respondents mentioned barriers such as the work environment, bursaries and financial constraints and budgetary issues. Respondent 3 stated “The other barrier from the side of the government is the issue that there is no financial assistance like a bursary. We don’t have bursaries because we don’t have enough money. We’ve got a serious budget problem. So, the budget that we have for the financial year, we got from HWSETA and we will only give a few, maybe 10. But most people want to study and they don’t have money, so that will be a barrier to them. The other barrier for them to not get appointed or promoted is the issue that we don’t have enough money to fill the vacant post, so budget generally is a challenge”. Thirteen percent of the respondents indicated that persons with disabilities are not provided with assistive devices or the working tools to perform their duties effectively. Respondent 5 said, “not having the working tools that they are supposed to have. And this will make a person not be competent at his/her work”. One of the respondents (7%) pointed out that persons with disabilities do not face barriers. Respondent 4 mentioned that “There are no barriers because they are treated equally. But, I wouldn’t know what would be their challenges but like I said when there are posts.....the posts are open to everyone, however, they are encouraged to apply”.

The research findings show that HR officials were of the view that persons with disabilities lack experience and or do not have qualifications. This is in contrast to the demographic profile of persons with disabilities which indicates that the majority had tertiary education. Furthermore, the demographic profile of persons with disabilities mentioned above showed that 67% had between 11 and 20 years of work experience. The experience is adequate for a person with a disability to be at the senior management level. It is the role of HR to develop and implement policies and procedures that accommodate persons with disabilities. When HR officials state that persons with disabilities are unambitious and there are institutional barriers, it means disability issues are not taken seriously. The Disability Code (2002) encourages employers to recognise, respect and support the rights of persons with disabilities. The literature states that the TAG (2005) practically guides employers, employees and trade unions on how to promote equality, diversity, and fair treatment in employment through the elimination of unfair discrimination. HR officials and senior management have limited information regarding the contents of the Disability Code (2002) and the TAG (2005).

Overcoming Barriers

The last question of the interview guide asked the respondents from Provincial Departments about how they overcame the barriers to advancement regarding promotions to the next level. The responses are tabulated in Table 4 below. It must be noted that this question was posed to persons with disabilities only.

Table 4: Overcoming the Barriers

Themes	Frequency of Responses
Nothing (failed to overcome barriers)	5
Accepting their conditions	3
Assistance from co-workers	1

The majority of the respondents (56%) indicated they did nothing to overcome the barriers because it is beyond their control and needs serious interventions. Respondent 1 said, “Nothing, because those issues need management intervention or the above, perhaps the president must come up with a mechanism on how people living with disabilities can overcome these barriers because, at a lower level, there is nothing we can do... there is absolutely nothing we can do”. One of the respondents said “There is no way you can overcome them because obviously when there are no promotional posts there is nothing you can do” (Respondent 2). Respondent 4 remarked “I did not overcome them because they are still there”. Thirty-three percent of respondents (n=3) mentioned that they accepted their conditions. Respondent 7 stated “Learning to live with it in a sense that you learn to understand that as long as I have this disability I will be stuck in the position where I am”. Eleven percent (n=1) of the respondents indicated that they overcome the barriers by receiving assistance from their co-workers. Respondent 3 pointed out “Sometimes I book a work car and one of the employees accompanies me as a driver for home visits, and it becomes better that way even when we are doing campaigns”. It is clear that the respondent was referring to the performance of duties, which could lead to promotional opportunities when responding to this question. This also refers to the lack of assistive devices or facilities and institutional barriers experienced by persons with disabilities.

The findings of the study show that persons with disabilities are doing nothing to overcome the barriers they are faced with concerning promotional opportunities in the Limpopo Provincial Departments. The results support the study by Molefe (2022) who reported that the Limpopo Provincial government is neglecting its commitment to employ 2% of persons with disabilities in each of the province’s departments, as only a few met the target. When HR officials blame persons with disabilities for being unambitious, it shows that they have failed to understand the importance of the participation of persons with disabilities in the labour market. The SDA states in section 21(1)(e) that the purpose of the act is to improve the employment prospects of persons previously disadvantaged by unfair discrimination and to redress those disadvantages through training and education. However, this act is not fully utilised as persons with disabilities are not receiving priority. They have completely lost hope of being promoted to higher levels. The results are in line with the study by Simatimbe, et al (2019) which revealed that persons with disabilities were underrepresented, and promotions are not easy in the workplace.

Conclusion

The study identified barriers to promotion experienced by persons with disabilities at the Limpopo Provincial Department in South Africa and how the barriers were overcome. The findings show that the majority of persons with disabilities applied for promotion and got promoted. However, some persons with disabilities who got promoted in previous years are still in the same positions. A large percentage of persons with disabilities mentioned that their career advancement is hindered by the lack of promotional posts or opportunities, and they are undermined and underestimated. When posts are advertised persons with

disabilities do not get the first preference. On the other hand, HR officials pointed out that persons with disabilities lack experience and or qualifications and are unambitious. Furthermore, HR officials revealed that there are institutional barriers and both HR and persons with disabilities agreed that there is a lack of assistive device provisions by the provincial departments. Lastly, the study found that persons with disabilities have lost hope in overcoming the promotional barriers and they are doing nothing about it. South Africa may have the best policies that promote equal employment opportunities and career advancement for people from historically disadvantaged backgrounds, practically on the ground, there is no serious implementation. If the situation is to remain this way, persons with disabilities will continue to be the most marginalised group in South Africa.

It is recommended that provincial departments embark on a capacity development programme focusing on persons with disabilities development by partnering with different stakeholders. Commitment from senior management is required to monitor the progress concerning the implementation of employment policies, especially the human resource plan and the employment equity plan. Furthermore, it is recommended that positions be ringfenced for persons with disabilities who meet the minimum requirements of the post. Finally, persons with disabilities should take themselves seriously and represent themselves in all the structures where decisions that affect them are made within the provincial department. As Thomas and Robertshaw (1999) put it, which is relevant even today, the progress to achieving employment equity is a holistic one which, together with target setting and related affirmative action strategies, requires leadership, an organisational diagnostic to understand barriers to employment equity, a high degree of employee involvement, targeted interventions, the review of HR policies and practices and ongoing monitoring and evaluation.

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LEADERSHIP AND GOVERNANCE FACTORS IN PROJECT FAILURES: A FOCUS ON COST AND BUDGET MANAGEMENT

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Abstract: Project failures, especially in cost and budget management, challenge various sectors by straining financial resources, causing delays, and undermining stakeholder confidence. These issues disrupt schedules and damage organisational reputations, highlighting the need to address underlying causes for improved project success and sustainability. This paper is aimed at investigating the primary reasons for project failures, focusing on leadership and governance in managing project cost and budget performance. A qualitative approach in a form of exploratory design was used, and interviews were conducted with Middle and Senior Managers (n = 15) in their respective offices. Manual thematic analysis was used to analyse the data collected. The study found that lack of leadership, lack of stakeholder involvement, poor budget control, poor budget planning, poor communication, stakeholder dissatisfaction and stakeholder's engagement are the primary reason for project failure at Transnet. This paper suggests that Transnet Engineering should establish leadership development programs for project managers, standardised budget control and planning procedures to prevent financial overruns and adopt robust communication and stakeholder engagement framework to improve information flow and stakeholder involvement throughout the project lifecycle. This research is necessary to bridge the knowledge gap and provide policy and practical actionable recommendation to address leadership and governance challenges at Transnet.

Keywords: Project Failure, Leadership, Governance, Quality Control, Transnet Engineering, Project Management

Introduction and background

The incompetency of leadership and poor governance are the causal factors for project failure in the region. Empirical evidence has linked lack of commitment, poor supervision, poor planning, political interferences, delays in payment, bureaucratic obstacles to project failure at Transnet in South Africa (Damoah and Kumi 2018). The literature suggests that Transnet faces challenges in delivering projects within the allocated budget despite various policy prescriptions and provisions (Pillay 2006; Emwanu 2014; Benitez et al., 2010). Issues such as inefficient pricing due to poor funding and financing methods, project overruns ranging from 5 to 58%, and the need for complete transparency and communication in funding mechanisms have been highlighted in the research (Scorza and Giuzio 2017). Furthermore, the involvement of external consultancies like Hatch McDougal and Guba indicates a perception of poor performance by Transnet's capital project division, impacting profitability and project success rates (Ismail et al., 2014).

These challenges highlighted the significance of addressing funding inefficiencies, project management practices, and stakeholder communication to enhance Transnet's project delivery capabilities and ensure adherence to allocated budgets. While previous studies mainly focused on the challenges faced by Transnet during projects delivering within the allocated budget despite various policy prescriptions and provisions, little research has been conducted to investigating the primary reasons for project failures, focusing on leadership and governance in relation to managing project cost and budget performance. Poor leadership and governance have been identified as the key factors that impedes the successful delivery of projects within the allocated cost and budget at Transnet. Therefore, this research is necessary to bridge that knowledge gap and provide policy and practical actionable recommendation to address leadership and governance challenges at Transnet.

Literature review

Challenges in leadership and governance affecting project success

The absence of effective leadership and poor governance significantly hinders the successful delivery of projects, leading to various challenges and failures. In Africa, leadership failures have been attributed to frequent changes in leadership, lack of political will, weak institutions, and corruption, ultimately impeding good governance and regional development (Musawir, 2023; Enaifoghe et al., 2020; Akwei et al., 2020). These issues are a premise for an unstable environment for projects, where inconsistent leadership leads to fragmented vision and strategy, and corrupt practices divert resources away from intended project outcomes.

Similarly, in Nigeria, Multifarious Infrastructure Projects (MIPs) have faced governance issues such as erratic funding sources, unwarranted scope changes, and political interference, resulting in project failures and delays (Ramakrishna et al., 2023). Inconsistent funding disrupts project timelines and planning, while political interference often leads to projects being prioritised for political gain rather than public benefit. Drawing from Hoque et al., (2023) it can be argued that these governance problems not only delay projects but also inflate costs and compromise the quality of the final deliverables. Therefore, without competent project leadership and good governance, project teams fail to understand the technical requirements and risks, leading to poor decision-making and delivery. Umuteme and Adegbite (2022) averred that, executive leadership behaviors, such as a lack of support or unrealistic expectations, undermine project teams' efforts and morale, leading to project failures. These issues require a focus on developing sustainable leadership and governance models tailored to the specific challenges faced by different types of projects and parent organization (Tuazon et al., 2021; ul Musawir et al., 2020; Zaman et al., 2020). This includes fostering stable and visionary leadership, ensuring political and financial support for projects, and building institutional capacity to manage and oversee project implementation effectively.

Primary causes for project failures

Project failures often originate from a combination of leadership and governance issues, particularly in managing cost and budget performance. Research has identified critical factors contributing to these failures, including poor financial capacity, inaccurate costing, corruption, incompetence, poor planning, and a lack of commitment by project leaders

(Hamada and Akzambekkyzy, 2022; Eja and Ramegowda, 2020; Damoah and Kumi, 2018). Furthermore, the relationship between project governance and project success has been examined, showing that effective project governance significantly enhances the likelihood of project success, although this relationship can be negatively impacted by exploitative leadership behaviors (Zaman et al., 2022). A study by Damoah (2015) further argued that, by addressing deficiencies in traditional project management methods and focusing on comprehensive governance strategies encompassing project scope, planning, cost estimation, risk management, and integration management, organizations can mitigate the risks associated with project failures and improve overall performance. The table below (see table 1) presents a summary of primary reasons for project failures, focusing on leadership and governance in managing cost and budget performance.

Table 1: Primary reasons for project failures, focusing on leadership and governance in managing cost and budget performance.

Source	The primary reasons for project failures, focusing on leadership and governance in managing cost and budget performance.
Damoah and Kumi 2018	Leadership failures: lack of commitment, poor supervision, poor planning. Governance issues: political interferences, delays in payment, bureaucratic obstacles.
Kunert and von der Weth 2018	Failure factors: unclear objectives, insufficient communication, lack of top management support, and poor scheduling. Planning crucial: collecting good ideas, context, and genesis considered.
Schoenhardt, Pardais and Marino 2014	Contractual risk misallocation Non-integrated project team Lack of internal capacity
Cleveland 2022	Critical impact factors: risk management practices, performance tracking tools. Leadership competencies: resource management, strategic awareness for organizational strategy.
Flyvbjerg 2013	Root cause of project failures is optimism in risk assessment. Project planners underestimate risks leading to cost overruns and delays.
Zuofa and Ochieng 2014	Corruption and lack of professionalism major causes of project failure. Governance mechanisms needed to enforce standard guidelines for project success.

Source: Author's compilation

Drawing from the table above, it can be argued that project governance structures are essential for ensuring project success. Effective governance leads to better cost and budget management, risk mitigation, and improved stakeholder communication. Good governance frameworks provide clear roles, responsibilities, and processes, facilitating transparency and accountability. This, in turn, helps to prevent cost overruns, ensures timely identification and management of risks, and fosters better engagement and communication with stakeholders, all of which contribute to the overall success of projects (Kerzner 2022).

Methodology and design

Given the philosophy of this study, which is interpretivism, qualitative approach was adopted as the premise to investigate the primary reasons for project failures, focusing on leadership and governance in managing cost and budget performance at Transnet in South Africa. An exploratory research design was then employed, and in-depth interviews were

conducted with middle and senior managers at Transnet to gather their experiences and the meanings associated about the phenomenon under study (Bougie and Sekaran 2019; Saunders et al., 2009).

Sample size and sampling method

Through a non-probability sampling method in a form of purposive sampling technique, a sample size of 20 participants was used to selected from a population of approximately 14 500 staff members. Drawing from Vasileiou et al., (2018) the adequacy of sample size for a qualitative study range between 20 - 30 participants. A sample size within the aforementioned parameters/range is deemed appropriate to guarantee data saturation in a qualitative study (Aldiabat and Le Navenec 2018). A study by Moser and Korstjens (2018) provided a compelling argument that a sample size of 20 – 30 participants is sufficient provided that the selected participants are knowledgeable and experienced about the phenomenon under investigation. The table below provides a summary of the profile of study participants (see table 1 below).

Table 1: The profile of study participants.

	Res p.	Gender Group			Position				Length of Service					Age Group					
		M	F	Other	EX	GM	SM	MM	0 to 5	6 to 10	11 to 15	16 to 20	21+	Up to 29	30 to 39	40 to 49	50 to 59	61+	
African	10	6	4	0	0	0	4	6	4	5	1	0	0	4	5	1	0	0	
Asian	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Coloured	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Indian	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
White	5	4	1	0	0	0	1	4	0	0	1	1	3	0	1	2	1	1	
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL	15	10	5	0	0	0	5	10	4	5	2	1	3	4	6	3	1	1	
Legend Gender Group: M = Male =10 F= Female =5										Position held: EX = Executive manager =0 GM = General Manager =0 SM = Senior Manager =5 MM = Middle Management =10									

Source: Author’s calculations

Data collection

To ensure validity and reliability of the data collection instrument pilot study was conducted with 3 senior managers and 2 middle managers prior the full-scale data collection. The response from the experts (participants) led to the adjustment and refinement of the questionnaire before the full-scale data collection. According to Malmqvist et al., (2019) data validity and reliability in a qualitative study could be achieved through pilot study with experts from the relevant filed. The researchers proceeded to a full-scale data collection; 20 open-ended questionnaires were electronically (email) sent out to 20 managers. The data collection instrument has briefing statement where all

participants were made aware that their participation is voluntary. The participants were instructed to return the completed questionnaire within 2 days - 1 week. The responses provided by each participant resulted in a follow-up question which provided a deeper understanding of the primary reasons for project failures, focusing on leadership and governance in managing cost and budget performance.

Data analysis

In this study, manual thematic analysis was employed as a useful analytical technique to provide unmatched depth, originality, and adaptability in data analysis (Shanmugam et al., 2023; Sheikhattar et al., 2022). According to Shanmugam et al., (2023) researchers often use manual thematic analysis to gain a deep contextual understanding of real-world issues, beliefs, and experiences. While qualitative data analysis done using software provide efficiency and scalability, it is not a substitute for the reflective insights and nuanced understanding gained from manual thematic analysis. Cross-validation and group discussion are vital for ensuring mutual comprehension, analytical accuracy, and research validity (Mills et al., 2007; Strahler et al., 2006). To prevent confirmation bias, the authors independently coded the transcribed data, verified by a qualitative researcher for accuracy and consistency. An external party provided objective analysis, prompting revisions as advised. Initial themes were discussed until agreement was reached, and findings were reviewed jointly by authors and a neutral investigator to avoid bias.

Findings and discussion

As alluded to in the preceding section, the data collected through interviews, was coded then categorised into three main themes and six subthemes emerged from the thematic analysis. The main themes were: 1. Stakeholder's engagement 2. Team issues 3. Cost and budgeting and Subthemes were: 1.1 Lack of stakeholder involvement 1.2 Stakeholder dissatisfaction 2.1 Poor communication, 2.2. Lack of leadership 3.1 Poor budget planning 3.2 Poor budget control.

Stakeholder's engagement

At Transnet Engineering (TE), a branch of Transnet SOC Ltd in South Africa, stakeholder engagement performance is critical to project success and peak performance. Stakeholder engagement in South African Rail Engineering Projects emphasises how crucial effective stakeholder engagement is to improving teamwork and integrated project delivery. Based on the work by Kunert and von der Weth (2018) it can be argued that stakeholder engagement is essential for achieving organizational objectives, mitigating risks, and creating opportunities, with relationships between project actors influencing project performance outcomes significantly.

Lack of stakeholder involvement

All participants acknowledged that there is a lack of stakeholder involvement, which significantly hampers project success. They emphasised that external stakeholders are often not sufficiently engaged during the planning and delivery phases of projects. Participants stated the following as a setback in setting clear expectations and providing regular feedback: "You know, as much as we see a need to involve certain external stakeholders, it is difficult for us as managers to involve them fully, because it is not

permissible as per the policies to involve them adequately, so certain details about the project that may affect the external stakeholders are discussed without the involvement of external stakeholders” Drawing from this response, it can be argued that this lack of involvement has the potential of leading to misalignment between project objectives and stakeholder expectations, resulting in decreased support and cooperation. A study by Trogrlić et al., (2021) opined that without meaningful stakeholder input, critical insights and local knowledge are often overlooked, causing project plans to miss essential contextual factors. Consequently, projects face increased resistance, delays, and higher costs due to unforeseen challenges and lack of stakeholder buy-in.

Stakeholder dissatisfaction

The response by the participants underscores the importance of proactive stakeholder management and careful handling of project requirements to avoid potential pitfalls such as misalignment of expectations, frustration among stakeholders, scope creep, delays, and increased costs. Project communication and a structured approach to managing stakeholder interactions and project scope are crucial for project success and stakeholder satisfaction. The following response by the participants point out some of the participants’ opinions concerning stakeholder management: “If I don't manage stakeholder expectations well, there's a real risk that what they expect from our project won't match what we deliver. This disconnect led to frustration and disappointment among stakeholders on many occasions.” (Middle managers) “When we fail to manage stakeholder requirements effectively, we might see scope creep. This means additional features or changes get introduced without adjusting the project timeline, budget, or resources accordingly. It's a surefire way to cause delays and increase costs.” (Middle managers) Stakeholder dissatisfaction during the delivery of construction projects at Transnet SA is influenced by various factors identified in the research by (Mokwena 2020). The study by Mokwena further indicated that factors affecting quality management practices, such as lack of compliance monitoring and assessment of subcontractors' technical competence led to stakeholder dissatisfaction.

Team issues

Team issues during the delivery of projects at Transnet SA are influenced by several factors identified in research. According to Mokwena (2020) Quality Management Practices at Transnet Capital Projects (TCP) reveal challenges such as insufficient project compliance monitoring and inadequate assessment of subcontractors' technical competence, which impact project quality. Shemelis (2017) further added that leadership styles and behaviors of key project participants, such as clients and contractors, significantly influence Health and Safety (H&S) performance, emphasizing the need for visible leadership and a strong commitment to H&S culture for successful project outcomes at Transnet SA.

Poor communication

Middle Manager and Senior Manager at Transnet highlight significant issues with communication within their project management teams. The managers propose varying solutions, from establishing clear protocols to enhancing regular communication practices and using project management tools. The following are some of the participants’ opinions concerning project communication: “As project managers at Transnet, we often experience significant challenges related to poor communication. The effectiveness of communication

varies greatly, frequently leading to misunderstandings among team members and stakeholders. We struggle with a lack of consistent communication channels, which adversely impacts the coherence and coordination of our projects. This inconsistency often results in crucial information being overlooked or misinterpreted, hindering our ability to stay aligned with project goals.” (Middle Manager)

“There is a general consensus among us that communication needs significant improvement. To ensure project success, it is imperative that we establish clear, reliable, and effective communication protocols throughout the project lifecycle. Despite the common challenges project managers faced with poor communication within their teams, notable differences were identified in their approaches to address these issues.” (Senior Manager)

“We experienced various challenges in communication and thus offered differing strategies for improvement. Some advocated for the implementation of clear communication protocols to ensure consistency and clarity, while others emphasized the importance of regular status meetings and the use of project management tools to enhance information flow and coordination.” (Middle Manager)

A study by Kunert and von der Weth (2018) pointed out, unclear objectives, insufficient communication, lack of top management support, and poor scheduling as key sources of project failure. Therefore, to improve Transnet's project delivery capabilities and ensure adherence to allocated budgets stakeholder communication should be given attention to detail.

Lack of leadership

Based on the response of some middle managers, it can be argued that leadership often fails to address team fatigue, leading to decreased performance and delays in project completion. Based on the opinions expressed by Participant 2, leadership does not provide clear direction and support, resulting in unresolved conflicts within teams. The study participants reported that: “We frequently experience challenges due to leadership's failure to address team fatigue, which leads to poor performance and project delays. The lack of clear direction and support from management often results in unresolved conflicts within our teams. Also, leaders tend to delegate tasks without conducting proper impact analysis, causing resource strain.” (Middle Manager)

“While some of us emphasize the need for leaders to take a more active role during crisis situations, others believe that providing better support during critical project phases is essential. These issues highlight the urgent need for improved leadership practices to enhance project outcomes and team dynamics.” (Middle Manager)

These issues emphasise the pressing need to improve leadership practices to enhance project outcomes and promote better team dynamics. Addressing these issues necessitates the development of sustainable leadership and governance models tailored to the unique challenges of various projects and their parent organizations (Tuazon et al., 2021; ul Musawir et al., 2020; Zaman et al., 2020). This involves nurturing stable and visionary leadership and building institutional capacity to manage and oversee project implementation effectively.

Cost and budgeting

The cost of Transnet's multi-fuel pipeline project surged from ZAR12.6 billion to ZAR24 billion in five years, raising concerns about management and government subsidies (Maroun and Garnett 2014). Challenges in South African construction procurement, including delayed payments and poor funding, cause inefficiencies. Poor cost management leads to contractual disputes, underscoring the need for effective practices. Issues like rework and poor planning impact project performance, as seen in South Africa and Saudi Arabia, highlighting the importance of addressing these factors to improve outcomes (Adebowale et al., 2020).

Poor budget planning

The assertion by the study participants underscored that projects often undergo changes in scope without corresponding adjustments to the budget. This results in financial overruns as the initial budget does not account for the expanded scope. A clear picture was provided by 2 the study participants on the responses below: “We often experience poor budget planning, which manifests in several challenges. Inconsistent communication between project teams and management frequently leads to misunderstandings and misaligned expectations. The roles and responsibilities during the planning phase are often unclear, causing confusion and inefficiencies. (Middle Manager)

We face frequent changes in project scope without corresponding budget adjustments, which results in financial overruns. While some of us highlight the need for clearer roles and responsibilities to ensure accountability, others stress the importance of regular financial audits and robust contingency planning to address unforeseen expenses and maintain budget control. These challenges significantly impact our ability to execute projects effectively”. (Middle Manager)

Cost overruns and delays not only affect the project's bottom line but also impact stakeholders such as investors, clients, and the community. According to Flyvbjerg (2013) there is a notable need to enhance risk management practices and realistic planning in project development. The author further ascertains that through acknowledging and adequately preparing for potential risks, project planners can mitigate the likelihood of cost overruns and delays, thereby enhancing overall project success and stakeholder satisfaction.

Poor budget control

Drawing from the responses of 2 participants, it evident that project managers at Transnet often face difficulties due to inadequate financial forecasting and insufficient risk assessment. These deficiencies result in budget planning that does not account for all potential costs, leading to significant gaps that can hinder project progress. Additionally, these participants believe that using historical data to inform budget estimates is crucial, while others focus on the need for involving all relevant stakeholders and conducting thorough risk assessments. The assertion by the study participants also highlighted the necessity for Transnet to refine its project planning strategies to address these challenges and improve project outcomes. When the study participants were asked by the researcher about the main obstacles faced by project managers at Transnet during the planning phase of projects, they responded by saying: “As project managers at Transnet, we often face significant challenges in the planning process due to the lack of detailed financial forecasting and risk assessment. Budget planning frequently fails to account for all

potential costs, leading to critical gaps that hinder project progress. Moreover, there is often insufficient involvement of stakeholders in the initial stages of budget planning, which exacerbates these issues.” (Middle Manager)

“While some of us believe that utilizing historical data to inform budget estimates is essential, others emphasize the importance of involving all relevant stakeholders and conducting thorough risk assessments to ensure comprehensive and accurate budgeting. These challenges highlight the need for improved practices and processes in project planning at Transnet”. (Middle Manager)

Based on the Responses, there is a critical need for better financial planning and risk assessment practices at Transnet, along with greater stakeholder engagement, to overcome the existing challenges in project management (Kumalo, 2021).

Conclusion and recommendations

This paper sheds light on the primary reasons for project failures, focusing on leadership and governance in managing cost and budget performance at Transnet in South Africa. Through a qualitative approach using case studies and semi-structured interviews with Middle and Senior Managers, it became evident that lack of leadership, lack of stakeholder involvement, poor budget control, poor budget planning, poor communication, stakeholder dissatisfaction, and poor stakeholder engagement are the primary reasons for project failure at Transnet. Moreover, this paper revealed that poor leadership and governance directly correlate with the poor and protracted processes of budget management, thereby adversely affecting the overall project outcomes. The implications of this paper extend beyond academia, offering practical guidance for policymakers and practitioners seeking to confront and mitigate the lack of competent leadership and poor governance in managing cost and budget performance at Transnet in South Africa.

Policy implications

The findings of this study have significant policy implications for enhancing project management at Transnet Engineering. Policymakers should consider instituting comprehensive leadership development programs to ensure that project managers possess the necessary skills and competencies to lead effectively. Implementing standardized procedures for budget control and planning can mitigate the risk of financial overruns and ensure more accurate forecasting. Additionally, implementing robust communication frameworks and stakeholder engagement protocols will facilitate better information flow and involvement throughout the project lifecycle.

Practical contributions

This study provides actionable insights for practitioners to address common pitfalls such as poor communication and inadequate stakeholder involvement. By adopting the recommended strategies, Transnet Engineering can improve project success rates, foster a culture of transparency and accountability, and ultimately achieve better alignment between project objectives and outcomes. These measures will not only enhance the efficiency and effectiveness of project execution but also build trust and satisfaction among stakeholders, contributing to the overall growth and sustainability of the organization.

Limitation of the study

Although qualitative research is crucial for gaining deep insights and understanding complex phenomena, researchers must be aware of its limitations. The specific contexts and experiences documented in this qualitative study may not be broadly applicable, limiting the ability to generalize the findings. Additionally, different researchers might interpret the same data in varied ways, potentially leading to differing conclusions.

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Conflict of interest statement

The authors have no conflict of interest or funding to disclose.

Data availability statement

Data will be made available on a reasonable request from the authors.

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CRITICAL ANALYSIS OF CASCADING FOR PERFORMANCE MANAGEMENT SYSTEM TO SOUTH AFRICAN LOCAL MUNICIPALITY

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*Abstract: The COGTA Municipal Staff Regulations (2021), were published on the 20th of September 2021 with the aim of regulating cascading of performance management and development system (PMDS), the objectives were to promote performance and accountability including identifying development needs of employees. This study critically analyzed the implementation of cascading of performance management system to all KwaDukuza local Municipality employees below section 56&57 with the prime purpose of identifying challenges associated with the implementation of COGTA Municipal Staff Regulations (2021). The study applied qualitative research methodology. In-depth face-to-face interviews were conducted with a sample of 10 participants from KDLM utilizing purposive sampling technique. Based on the analysis of data collected, the study found lack of comprehensive communication strategy to convey performance expectations, objectives, IPMDS policy including absence of an electronic system added to the challenges. This study recommended that the municipality empowers the employees by assisting them with the comprehension of PMS, through various communication channels such as awareness campaigns, workshops, intranet to distribute information and that KDLM should introduce an electronic system which will assist with an effective goal setting by identifying and establishing key performance indicators aligned with defined objectives including KPIs that are measurable, specific, achievable, relevant, and time-bound (SMART).
Keywords: Cascading performance management, COGTA, Integrated Development Plan, IPMDS, KwaDukuza Local Municipality*

Introduction

This study sets the foundation for the analyses aimed at exploring an overview of the implementation process to cascade the Individual Performance Plans (IPPs) as promulgated by former minister Nkosazana Dlamini-Zuma of Co-operative Governance and Traditional Affairs (COGTA), to all KwaDukuza Local Municipality (KDLM) employees below section 56 echelons (i.e., Executive Directors) reporting straight to Municipal Manager. The COGTA Municipal Staff Regulations (2021) were published on the 20th of September 2021 with the aim of regulating the cascading of performance management and development system (PMDS) to all employees below section 56 & 57. The objectives of the COGTA Municipal Staff Regulations are to promote performance, accountability and to identify development needs of the staff, all municipalities in South Africa must adopt a PMDS and a policy which will cater for dispute resolution processes that complies with the provisions of the Municipal staff regulations (2021). The local government underwent significant variation or rather modification from the year 2000 and the process pertaining this transformation which was intended to rectify misalignment

inequalities of the past caused by the apartheid policies. The transformation was motivated by the National Government's realization because the government throughout the world recognized a need to reform or rather modernize all three spheres of the government and an enormous part of it at a Local government in South Africa, which is to ensure that municipalities become more responsive to the needs of the local communities.

The principles of this transformation are all contained in the White paper on Local Government (1998) which indicates, "the variation of the Public Service (1995), Batho Pele White paper (1997) and Municipal Systems Act, 2000 (Act 32 of 2000)." Chapter 6 of the Municipal systems Act, 2000 (Act 32 of 2000) determines that all municipalities must have a Performance Management System (PMS) in order to promote a culture or a norm of performance management amongst all political structures, political office bearers, councillors and administration and that all municipalities controls all the municipal activities effectively, efficiently and officials are held accountable for all their actions and the decisions they make concerning municipal matters. The development of Performance management system in a local government is an extremely deliberately organized approach regulated through different legislations which includes: "The Constitution of the republic of South Africa, 1996 (Act 108 of 1996); Municipal Systems Act, 2000 (Act 32 of 2000); Municipal Finance Management Act, 2003 (Act 56 of 2003); Municipal Planning and Performance Management Regulations (2001); Batho Pele White Paper (1998); White paper on Local Government (1995); Regulations for Municipal Managers and managers directly accountable to MM's 2006; Skills development Act, 1998 (Act 97 of 1998); and Local Government: COGTA Municipal Staff Regulations (2021)." According to new published COGTA Municipal Staff Regulations, the KwaDukuza Local Municipality as since on the 1st of July 2022 embarked on the process of implementing and cascading Individual Performance Plans to all KwaDukuza Municipality employees below Section 56 employees, since previously performance management system was only limited to Section 56 & 57 employees. As the COGTA Municipal Staff regulations (2021) came into effect on the 1st of July 2022, "all municipalities in South Africa are required to develop implementation plans in preparation for the commencement of regulations." Primarily the objective for conducting this study mainly includes analyzing barriers and other aspects preventing the process to progress adequately and to seek intervention methods that will assist in successfully facilitating the implementation and cascading of the COGTA Municipal Staff Regulations (2021) in KDLM.

Literature review

The MSA (2000), requires municipalities to establish a performance management system which commensurate with its resources, that is best suited to its circumstances, in line with the priorities, objectives, indicators and targets contained in its IDP including promoting a culture of performance and administer its affairs in an economic, effective, efficient, and accountable manner (Section 38 (a) of Local Government Municipal Systems Act, 2000 (Act 32 of 2000). The municipality is responsible for delivery of primary necessities including advancement in respective wards within local communities (Matyana & Thusi, 2023). The needs (services) in the IDP, and the apportionment of resources which helps in implementation of plans which PMS contributes enormous responsibility in realization of services. Performance Management System (PMDS) was previously limited to only section 56 & 57 employees; hence the Minister promulgated the COGTA Municipal Staff

Regulations (2021), with the intention of regulating cascading Performance Management System, from senior managers to all employees below to improve performance within municipalities.

Regulatory Framework and Legislations underpinning Performance Management System in Local Government

Development of PMS at local government is an extremely organized process that is determined by a range of different legislations which includes: The Constitution of RSA No. 108 of 1996; Local Government: Municipal Systems Act, 2000 (Act 32 of 2000); Local Government: Municipal Finance Management Act, 2003 (Act 56 of 2003); Local Government: Municipal Planning and Performance Management Regulations (2001); White paper on Local Government (1998); The Regulations for Municipal Managers and managers directly accountable to Municipal Managers (2006); Local Government: Skills Development Act, 1998 (Act 97 of 1998); Local Government: COGTA Municipal Staff Regulations (2021).

The Constitution of South Africa, 1996 (Act 108 of 1996)

Statutory and regulatory framework which supports implementation of PMS in South Africa's local government are connected to an extensive enhancement intention of government provided by the Constitution of South Africa, 1996 (Act 108 of 1996): "Providing democratic and accountable government for local communities; Ensuring the provisions of services to communities in a sustainable manner; Promoting social and economic development; and Encouraging the participation of communicated and community organisations in issues related to local government". PMS is the legitimate necessity which determines quality, budget, proficiencies including the configuration of objectives. The said goal is backed by democratic values and principles of competent, accountable governance, as referred to section 152 and section 19 (2) of the Constitution of South Africa, 1996 (Act 108 of 1996). Munzhedzi (2011); Thusi & Matyana, (2024) asserts that performance management is intended to enhance productivity and to ultimately ensure delivery of services in the public sector. PMS is managed through the application of the following activities: "Examining and assessing performance agreements between participants of the performance management system; Human capacity enhancement, where a commitment of performance is lacking; Promoting responsible behavior towards ones job purpose and the goals of the organisation."

Local Government Municipal Systems Act, 2000 (Act 32 of 2000)

Chapter 6 of the Local Government Municipal Systems Act, 2000 (Act 32 of 2000), mandates municipalities to implement PMS that is in line with the priorities, objectives, indicators and targets contained in the IDP. Subsequently, final end of quarter reports is to be accessible to the public and distributed to stakeholders which are linked to municipalities. Its further requires an annual evaluation of PMS by municipalities (Van Dijk 2007, Matyana & Mthethwa, 2022). Consequently, Municipalities ought to: "Develop a performance management system consistent with its circumstances and priorities; Set measurable performance targets, monitor, and review performance based on key indicators linked to their integrated development plan (IDP); Put in place two phases of auditing: an internal audit on performance and another by the Auditor-General in accordance with

acceptable standards and practices as prescribed by Section 89 of the Public Finance Management Act (Act 1 of 1999); Publish an annual report on performance within one month of auditing for the council, other political structures, staff, the public, and other relevant levels of government; and Ensure community participation in setting indicators, targets, and reviewing municipal performance.” Objectives are quantifiable levels of transformation of an indicator within a specific time frame. A key performance indicator is measurements that tells whether progress is being made in achieving stated goals. The performance indicator permits for substantiation of prospective transformation emanating from development intervention, or the outcomes in relation to the initially projected (Imas & Rist, 2009: 110).

Local Government: Municipal Planning and Performance Management Regulations of (2001)

The regulations ensure alignment, and that PMS of municipalities complies with the Municipal Systems Act, 2000 (Act 32 of 2000). PMS is described as framework that describes and represents how the municipality’s cycle and processes of performance planning, monitoring, measurement, review, reporting and improvement will be conducted, organized and managed (Republic of South Africa, 2001). It specifies the evaluation of performance and advancement measurements which needs to be employed in a consistent way across all departments (Visser, 2005).

The Municipal Finance Management Act, 2003 (Act 56 of 2003)

The primary objective of the MFMA is to improve the principles of sound governance and modernizing municipal budgeting, fiscal, and financial management including accountability, transparency and performance within the municipal organization. In addition, it intends to set out lines of accountability and reporting in accordance with established norms and standards (Republic of South Africa, 2013:17). The MFMA aids as a crucial guide framework for the financial management and policy outcomes of the municipalities in South Africa.

The White Paper on Local Government (1998)

The White Paper on Local Government (1998) arranges cohesive developmental planning, financial management, and performance management as imperious and helpful measures to directly accessing service delivery. Furthermore, the Act comprises of activities, and procedures for legislative and administrative action. The Act controls local governments’ capability and responsiveness to the practical needs of the communities they serve (Uys & Jessa, 2013: 109–110; Republic of South Africa, 1998). The culture of customer central services supported by the ministry of Public Service and Administration (1998) which established the Batho Pele principles. These eight (8) Batho Pele principles (as described in Chapter 3 of the White Paper on Local Government, 1998; White Paper on Transforming Public Service Delivery, 1998) and they are as outlined below: “Consulting citizens about the choice and quality of public services; Setting service standards expected by the citizens; Equal access to services; Courteous and selfless treatment; Information regarding services that is accurate, reliable and useful; Openness and transparency with regard to resources allocated to service delivery plans; Redressing lack of service not given by means of apologies, explanations and a positive response; and Value-for-money: rendering public

services that is of high quality but affordable.” The principles were intended at positioning the citizens of South Africa first and to transform the relationship between public servants and political leadership for the better.

Local Government: COGTA Municipal Staff Regulations (2021)

The COGTA Municipal Staff Regulations (2021), were published on the 20th of September 2021 with the purpose of regulating the cascading of Performance Management and Development System (PMDS), from senior managers and staff below. The aims are to promote performance and accountability and to identify development needs of the staff. Performance Management System (PMS) is the crucial tool in local government as it assists to ensure that employees are delivering as expected and working towards achieving targets, mission, and objectives of their respective organizations. This legislation provides establishment and implementation of Performance Management System for every municipality, enabling compliance in prescripts assisting in improving excellent governance including the delivery of services to the communities.

Conceptual Framework

Performance management has emerged from the context in transformation of the municipalities in South Africa. The foundations of such complete changes were outlined in the Constitution, which requires municipalities to be development orientated. Manyaka & Madzivhandila (2013) are of the view that the notion of a developmental local government was introduced as an important feature for laying the ground of the complete change pertaining to the system of the local government in South Africa.

It is crucial to highlight, that the broad vision of a developmental local government was comprehensively and extensively outlined in the White Paper on Local Government, that was promulgated in 1998, thus giving a momentum of the developmental nature and character in local government. The notion of a developmental local government is explained as local government which is committed towards working together with the citizens and groups within the community to find sustainable ways of meeting social, economic and material needs of community members within the municipality. Sebashe and Mtapuri (2011) are of the view that municipalities in South Africa are a central point of delivery of services, hence PMS in municipalities becomes a critical component in the delivery of services improvement. This assertion is further supported by Thusi et al (2023) that municipalities must strive to improve the lives of local inhabitants located in their jurisdictions.

The notion is that performance management and development system entails summing-up assessments of performance, aligning objectives with key performance areas, discussing what is expected, evaluating the submitted portfolio of evidence and monitoring progress on the set key performance indicators, providing outcome that is based on the submissions made and assisting members of staff to advance and develop them in areas where they are lacking or where intervention is required to assist with the delivery of what is required from the employee (Manyaka & Sebola 2012). Performance management system (PMS) must be designed so as to improve strategic focus and organizational effectiveness through continually seeking to improve the overall performance of the municipality and the individuals within the municipality (Chuta,2010).

Defining Performance Management

Viedge (2011:117) defines performance management as a “system that consists of interlocking elements designed to achieve high performance”. PMS is implemented by setting of objectives, projection, feedback, assessment, monitoring consistently including analysing lack of performance. Mello (2015) is of the view that performance management is a process that is integrated within other institutional systems and strategies for the optimal achievement of organisational goals, objectives including the career-long development of employees through a personal development plan. The concepts “interlocking” and “integrated”, as used in the above definitions, they emphasize on the fact that performance management is neither an isolated set of activities nor an end in itself. Performance management is an end goal, which is the achievement of an organisational goals, objectives and continuous employee development through training, coaching including mentoring.

In local government this necessitates programs and delivery of services activities to be aligned and integrated to the municipal strategic intent as contained in the municipal Integrated Development Plan. Performance management according to the Municipal Systems Act, 2000 (Act 32 of 2000) must accomplish such objectives. Primary phase of PMS entails a development of the organization’s statement of intent which is the declaration or the mission of the organisation, it also entails the formulation of the key areas of performance which are shared method amongst supervisors and each employee they supervise. The key performance indicators are the pointers of the actions that needs to be actioned by the subordinates which are included in the signed Individual Performance Plans between the supervisor and the employee. In managing performance, directors and senior managers of KwaDukuza local municipality are coerce into inculcating a principle which fosters Individual Performance Plans as it is in the process of being cascaded to even lower levels which is the agreed key performance indicators between the supervisor and the subordinate. The human resource unit is the custodian that encompasses the PMS by retaining the processes that are in place which assists and play a major role in realisation of strategic objectives and by ensuring that every employee’s performance targets are aligned with their departmental scorecard that derives from the executive Director of the department. Cascading of PMS to lower levels at KwaDukuza local municipality will improve the delivery of services to an extensive degree.

Impact of Performance Management System on Delivery of Services

Spheres of government are mandated and responsible for developing organized key performance indicators that measure performance for improving of the delivery of services to the communities they serve. The Municipal Planning and Performance Management Regulations (2001), delineate performance management, “as a strategic approach to management, which prepares leaders, managers, workers and stakeholders at different levels with a set of tools and techniques to regularly plan, continuously monitor, periodically measure and to review performance of institutions in terms of indicators and targets for efficiency, effectiveness”. KwaDukuza Local Municipality, Performance Management policy stipulates that “an institution on annual basis to evaluate and assess performance, and for the Performance Audit Committee (PAC), to annually establish the assessment statement, considering all commitments and efforts made by the different departments towards service delivery”. The KDM policy further provides for PAC and the

Audit Committee (AUDCOM) is responsible for requesting performance inquiries areas which minimum standard performance is recognised or where unsubstantiated targets achievements is professed.

Molofa (2014) states that performance management would be beneficial to municipalities if it addresses the following objectives that are to: “Aligning systems to strategy: performance management system is not just a tool to measure performance but to align employee behavior with organizational objectives; Enable municipality to identify Talent; Enhance individual career development through informed decision- making and focused training; Assist employee to discover their own strengths and recognize their weaknesses; Take full account of employee contribution: align Organizational Performance Management System (OPMS) to Individual Performance Management System Linking Cascading Goals to Individual Performance Management Improves employee Engagement; Ensure a common understanding of performance expected; Create a supportive environment that promotes culture of good performance; Establish clear performance standards; Ensure implementation of municipal development strategies; Provide performance feedback to employees; Promote the development of employees through training, counselling, and coaching in order to realise job opportunities; Improve career development by discussing municipal plans for career advancement and promotion; Improve communication and relationships by establishing mutual goals; Establish a framework for linking remuneration to performance; and Improve the quality of service rendered by municipalities”. The above mentioned performance management objectives implies that if they are adequately considered and applied in the implementation including execution of PMS will result in effective delivery of services.

Challenges facing local government on performance management system

Literature review pertaining performance management, indicates PMDS as insufficiently institutionalised. The stumbling block of this is that municipalities are not able to identify all poor performers who needs to be targeted for training and developmental interventions. Nkuna (2013) is of the view that municipalities do not yet have a direct influence on the realisation of the placing performance management systems into a place that can be operationalised and talk to the actual strategic imperatives as reflected in the IDP. Nkuna’s observation reveals one of the significant challenges that is associated with the management of performance when implementing a PMS within municipalities. Nkuna observed a direct connection between performance management and attainment of strategic imperatives of the municipalities as it is reflected in the IDP and the poor comprehension pertaining central role which performance management should play in assisting municipalities in achieving their desired objectives as outlined in the IDP goals.

Manyaka and Madzivhandila (2013) are of the view that, the IDP has an overarching strategic plan, is ineffectively implemented which results in unresponsive, ineffective, and inefficient and lack of delivery of public services. Butler (2009) identified that in South African municipalities the biggest challenge is a lack of alignment between IDPs budgets and performance methods in Performance Management System implementation to the communities. This assertion is also supported by Matyana & Thusi (2023); Thusi et al (2023). Poor management of municipal budgets results to poor service delivery and further infringe the rights of ordinary citizens. Moreover, other central issue which is presenting a significant challenge for most municipalities is that of capacity constraints. Municipalities

need to review their approved HR structure versus actual structure from OPMS and IPMS point of view to make an informed decision constructed on capacity. PMS if correctly implemented, could significantly play an essential role relating to the enhancement of providing of delivery of services towards communities, which could assist municipalities to harness collective energies of all employees towards the realisation of enhancement of goals and the preferences that are specified in municipal Integrated Development Plan.

Research methodology

This section presents the research methodology which was adopted for the study. Kothari (2004) defines research methodology as a way of systematically solving the research problem, as it's understood as a science that studies how scientific research is conducted scientifically. Dawson (2019) is of the view that a research methodology is the principle that will guide your research and that it becomes the general approach in conducting research on your topic and determines what research method you will utilize. He further asserts that, "a research methodology is different from a research method because research methods are tools you use to gather your data. The two basic methods for collecting data are qualitative and quantitative methods. According to Salkind (2009) the prime purpose of qualitative research method is the examination of how humans behave in the social, cultural and political contexts in which they occur including the experiences of individuals through the methods of examination. Qualitative research method relates to qualitative phenomenon, i.e., a phenomenon that associates to or captivating quality or kind. The primary purpose of qualitative research is to discover underlying motives which includes desires, employing depth interviews for the purpose. This type of research methodology requires minimal participants, however sufficient time with each participant to enable them to furnish their perspective on the particular title of the envisage study.

Quantitative research method is a research strategy that focuses on quantifying the collection and analysis of data and it's formed from a deductive approach where emphasis is placed on the testing of theory. It employs method adopted from natural sciences that are designed to ensure objectivity, generalisability and reliability. Quantitative research is closely associated the natural sciences including social survey, experimental designs analysis of the previously collected data and quantitative content analysis. It predominantly seeks explanations and measures what it assumes to be static reality in the hope of developing generalisations. The study applied qualitative research approach through an in-depth face-to-face interview which were constructed and prepared by the researcher to gather data and the research methodology was adopted to gather data from the sampled employees in KDLM.

Discussion of the findings

This section outlines the findings of the study gathered from KwaDukuza Local Municipality.

Employees perspective on the cascading of Individual Performance Management Development System in KwaDukuza Local Municipality

As indicated in the research methodology section, the qualitative method was adopted in this research study it is crucial to tackle and highlight the personal views of the participants who were selected for this particular study. The findings of the study are outlined as

follows: “Cascading of PMS is still new for everybody; the challenges are expected and that employees should not treat PMS as a punitive measure and should be taken as a way to improve service delivery.” Another participant expressed that: “The cascading of PMS is a process and still new, not all employees understand the performance management system and that needs to be rectified by bringing everybody on board.” The participants were further enquired if PMS culture has been inculcated to all KDLM employees. The response was outlined as follows: The leaders and top management are not committed to implementing and sustaining a performance management culture, performance in KDM is just a tick-box exercise where there is no significant impact. The culture is only institutionalized for section 56/57 employees and for other employees, its only being cascaded.

Performance Management culture and its functioning has been covered from management level upwards. It is also needed for junior staff members to be taught in order to understand the linkage in terms of the overall Municipal performance linked to the Municipal vision and service delivery. This is because performance management is a collaborative effort affecting all KDLM employees. The implementation is progressing slowly.

The staff responsible for implementation is not sufficiently capacitated to fully rollout the implementation hence there is lack of information about PMS. Employees are of the view that this system is meant to punish them and another strategy of getting them dismissed from work for poor performance. Workers weren’t effectively notified pertaining PMS policy. Another participant with a different perspective stated that: “We are experiencing challenges with Organisational culture, and it needs to be addressed in a more specific context pertaining Organisational performance management efforts.” The central derivative from the above narratives reflects an absence of comprehension of PMS by employees, including the impacts it has on the organizational productivity which was common a factor that was raised by the executives as their perspective as they were interviewed for this study. The implication is that the employees are in fear that the new Municipal Staff regulations is another strategy of getting them dismissed from work for poor performance and hence they do not want to accept it and hence they are not taking it seriously which creates doubts that this whole implementation exercise will create an impact in their daily duties.

Challenges confronting Implementation of PMS

The participants responded to the question which sought to seek challenges facing PMS in KwaDukuza Municipality. Respondents highlighted that there is a policy however, there is a need for constant awareness of the PMS policy. Another expressed that: “The KDLM did not have an Electronic system, they are still on a traditional system there is a need for an electronic integrated system because the documents can be lost.” This links with the finding of Kalowammfumbi (2013), that the challenges confronting PMS consists of lack of comprehension of the term “Performance Management, the design challenges and ineffective consultation with workers before implementation. Kalowammfumbi (2013) further identified, a lack of linkage between rewards and performance, a lack of leadership and management commitment, a lack of clear legislation on PMS and inadequate financial resources and bottlenecks towards the successful implementation of PMS. The second participant observed that: “There is a lack of cooperation with the Officials that are responsible for the implementation of PMS, there is no consistency.” Another participant

observed that: “Some employees have no Job descriptions which is a major document that assist in populating the Individual Performance Plan (IPP) of the employee, which makes it difficult to even commence with compilation of the IPP.” Another participant expressed that: “The system is not cascaded down to all levels of employment; it is only communicated at senior levels, which makes it complex for employees at lower levels to understand PMS.” The above finding is in alignment with the studies that were conducted by Ndasana and Umejese (2022), and Magqogqo (2016), where they discovered that, “employees were not all well informed or orientated about the importance of PMS of which it was only done for the purposes of compliance purposes.”

Stemming from preceding analysis, there are various barriers, challenges facing PMS at KDLM including an absence of comprehension of PMS, the underlying lack of comprehending the critical importance of PMS and its correlation with the Organisational performance. According to the theory of change, “to success transform an organisation, one must classify the causes of developmental challenges and understand how they influence each other. This assertion is also supported by,” Ringhofer and Kohlweg (2019).

Recommendations

Based from the findings obtained through the study, the following recommendations are some of the founded to address the gaps in the implementation process that were emphasized by the minority of the participants, the include the following: KDLM should develop a comprehensive communication strategy to transmit or rather convey performance expectations and objectives throughout the organization, using various channels of communication such as meetings, emails, workshops, intranet to distribute information. KDLM should ensure that leadership and management are aligned with the performance objectives by engaging them in the process and ensure that they understand their key role in cascading the objectives to their respective teams. The IPMDS needs to be communicated to all levels of employment commencing from the junior staff right up to Executive Directors using various creative methods to enhance the enthusiasm of the employees.

KDLM must introduce an electric system which will assist with an effective goal setting by identifying and establishing key performance indicators that align with the defined objectives including KPIs that are measurable, specific, achievable, relevant, and time-bound (SMART) including strengthening record-keeping minimizing chances of performance information from getting lost. KDLM should establish a system for recognizing and rewarding outstanding performance which can serve as a motivational factor and further encourage employees to consistently strive for excellence. KDLM needs to strengthen the PMS process to develop and motivate employees by tightening the connections between the organization objectives to Individual Performance plans for employees to be able to perceive their performance actions as a larger scale.

KwaDukuza Local Municipality needs to create a culture of open communication and feedback, this will assist in ensuring that employees feel comfortable providing feedback to their managers, and in return this will allow managers to provide constructive feedback to their respective teams. Policy awareness including the content of the policy should be conducted from junior staff to Executive Directors. KDLM needs to develop solid support mechanism that can be utilized by managers as a form of mentoring, coaching, and phasing out barriers preventing outstanding performance of all employee.

Accountability including Consequences should be clearly communicated for poor performance and furthermore, sufficient support and resources should be provided to assist employees to meet the required performance expectations.

Conclusion

The Performance Management System assists by allowing all employees and employers to distinctly identify and establish key performance indicators that are aligned with the objectives of an organisation. Previously performance management system was only limited to section 56 & 57 employees, which made it complex to hold the employees below section 56 & 57 accountable for lack of effective performance and productivity which led to service delivery protests connected to scarce supply of fundamental services.

The COGTA Municipal Staff Regulations (2021), were published with the aim of regulating cascading of “performance management and development system (PMDS),” and the objectives were to promote performance and accountability including identifying development needs of employees to close the accountability gap between senior managers and employees below, hence the Minister promulgated regulations by issuing guidelines setting uniform standards and systems which are consistent with the regulations. KDLM has since the 1st of July 2022, commenced with cascading of performance management system towards all employees below Section 56 & 57.

In conclusion this study has critically analysed cascading of performance management system to all employees below section 56 echelons, in KwaDukuza Local Municipality and explored various measures to ensure that the cascading of Municipal Staff Regulations progresses successfully. The study found that the leaders and top management are not committed in implementing and sustaining a performance management culture; and the fact that PMS in KDLM is a tick-box exercise where there is no significant impact. The accurate implementation of consequence management will assist in ensuring that cascading of PMS in KDLM progresses successfully.

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INVESTIGATING FACTORS AFFECTING LEARNER PERFORMANCE IN MATHEMATICS FOR SOUTH AFRICA

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Abstract: Stakeholders in the within the education sector expect learners, especially Grade 12 learners to perform well in their studies. Indeed, learners do perform well in other learning areas but are not doing so well in Mathematics. Hence, the study intended to establish whether there is a relationship between factors influencing learner performance and Mathematics as a learning area in schools. A quantitative (survey) method was utilised using a questionnaire. A purposive sampling method was used, from the population (N=150). The questionnaire was administered to a sample (n=50). All administered questionnaires were returned without any errors. The results indicated a strong positive and significant correlation between independent variables (educator attitude, learner attitude, parental influence) and a dependent variable (learner performance in Mathematics) of the study. The study produced ($r=.25, n=50, p\text{-value}=.00$); ($r=.22, n=50, p\text{-value}=.00$); and ($r=.23, n=50, p=.00$), respectively. The results indicated a statistically significant relationship between independent and dependent variables. The analysis of variance (ANOVA) model was statistically significant ($F(5.982) = p\text{-value}=.00$). While the Model summary (R-Squared (R²)) produced 68% and the Durbin-Watson statistic 1.92. The results contributed to the body of knowledge within the education field.

Keywords: Learners, educators, parents, performance

Introduction

Siyabuswa Circuits is one of many circuits in Mpumalanga within the jurisdiction of Dr JS Moroka Municipality. Performance of Grade 12 learners in Mathematics has not been satisfactory. However, the root causes of such poor performance in Mathematics have not been deeply and widely researched within the Siyabuswa circuit. Poor performance does not affect the two schools (Somkhahlekwa, Vezilwazi) high schools but all schools within the circuit. The Grade 12 overall results in Mpumalanga were in 2020:70.7; 2021:60.5, and 2022:68.2, respectively. The overall Mathematics results in 2020, 2021 and 2022 were 50.9.; 54; 52.8, respectively. The Mathematics results in the province points to learners that are not doing well in Mathematics. This is also the reflection of all circuits and schools. Hence, this has raised concerns among educators, parents, department of Basic Education including stakeholders operating within the education sector. Various performance enrichment programmes in schools have been implemented but the results are not improving. The department of Basic Education in Mpumalanga has developed and implemented capacity programmes to capacitate educators. These programmes are intended to equip educators with teaching methods that makes Mathematics interesting and to increase levels of learner motivation to learn Mathematics (Prendergast & Hongning, 2016). The department is rolling out this support having recognised that there are skill shortages in the areas of Mathematics.

The department can do as much, however, it is in the hands of educators and parent component in schools, including learners themselves to be motivated about Mathematics

as a learning area. Furthermore, the department has exposed learners to lucrative careers that are available when one decides to specialise in Mathematics post-school.

Research purpose and objectives

The main purpose of this study is to investigate the impact of factors (learner attitude, educator attitude, parental influence) on learner performance in Mathematics within Siyabuswa Circuit, and to recommend methods to be applied to improve Mathematics results. To further establish reasons why learners are performing poorly in Mathematics.

Literature review

Educator attitude

A negative attitude towards anything determines whether one will be successful in that space. Educators play an important role in influencing learners, and to do better in their studies. However, when educators are not motivated or their attitude towards the subject, they offer they do not demonstrate a positive attitude towards it, then learners will follow suit in the footsteps of their parents in loco (Khatoon & Mahmood, 2010). Such attitudes point to an educator who has doubts about his mathematical abilities to teach the subject. This is further alluded to in a study conducted by Makhubele and Luneta (2014) that poor performance in Mathematics is also negatively influenced by the perception in society that Mathematics is complicated and is not easy to pass. Educators in their position have that ability to positively influence the learners (Mabena, Mokgosi & Ramapela, 2021). In general learners that are doing well in their studies are those that have a strong bond with their educators, and this can be easily positively influenced (Borko, 2008). Of importance though as alluded to in Mampane (2018) that educators themselves in most instances require consistent professional development to develop their knowledge and confidence in offering the subjects. However, Karali (2022) highlighted that, educators encounter quite a number of challenges making the environment not conducive for proper learning and teaching. However, some of these challenges are beyond educators themselves. This include provision of teaching and learning aids, which are intended to assist learners to have a better grasp of the mathematical concepts, infrastructure to name a few, (Yucel & Koc, 2011).

Learner attitude

Learners themselves have misconceptions that Mathematics is a difficult subject, and in the process affect their performance in the subject (Asikhia, 2010). This causes a lot of anxiety, and some end up quitting Mathematics classes (Asikhia, 2010). Hlalele (2012) concurs with Asikhia (2010) that “students often develop mathematical anxiety in schools, often as a result of learning from teachers who are themselves anxious about their mathematical abilities in certain areas”. In Ozgeldi and Osmanoglu (2017) a view on learner attitude towards Mathematics is that learners find it difficult to associate Mathematics with their daily activities, and as such making it so abstract. In instances where learners are able to associate themselves with activities in their daily lives, they perform better than their peers who cannot associate Mathematics with the outside world Yenilmez & Kakmac, 2008). Again, peer pressure and learners unfairly judging each other’s abilities to understand Mathematics also has a negative effect on learners’

confidence (Hlalele, 2012). Therefore, it is crucial that schools have career programmes that are intended to conscientise learners about the importance of Mathematics for those who might have an interest in the subject (Ozgeldi & Osmanoglu, 2017).

Parental influence on learner performance

Khatoon and Mahmoud (2010) posit that society plays an important role in influencing learners. Therefore, the negative societal attitudes towards Mathematics have a long-lasting effect as alluded to in (Makhubele & Luneta, 2014). A shared perception in communities and society strengthen the notion that Mathematics is difficult. This does not start in school, but with members of society who themselves might not have done well in Mathematics in their schooling years (Aguilar, 2021). Therefore, it is important that parents and educators work hand in hand to dispel the perceptions that exists in society that Mathematics is difficult (Tambunan, 2018). Boyer and Mailloux (2015) concur with Tambunan (2018) that society should developing programmes that will be driven by academics in the space of Mathematics and science in general.

Research methodology and design

Research approach

This paper follows a quantitative approach wherein a questionnaire was used. This approach allows the researcher to collect data using a questionnaire wherein numerical data is collected and when analysed is generalize across groups in explaining the phenomenon under research (Rubin & Babbie, 2016). Descriptive studies are aimed at finding out "what is" and are designed to provide a bigger picture of a situation as it happens naturally (Rubin & Babbie, 2016).

Research participants

A population is considered to be the total number of elements in a particular setting. Furthermore, the sample is drawn from the population where it is feasible to do so (Rubin & Babbie, 2016). This study was executed in Siyabuswa Circuit wherein two schools (Somkhahlekwa, Vezilwazi) formed part of the study. The population was the combination of Grade 12 learners, educators, and parent component in these two schools. The target population for the study is (N=150) and the sample in this study was (n=50), divided as follows: Learners 30 (15 in each school), educators, 10 (5 in each school) and parents 10 (5 in each school). The questionnaire first piloted before being administered to stablish whether the tool was not ambiguous. The was 100% in respect of the response rate. Table 1 below reflects the demographic:

Table 1: Demographic profile of respondents

Dimension	Valid count	Valid %
Gender		
Female	32	64
Male	18	36
Age		
18-30 years	30	60
31-40 years	8	16
41-50 years	6	12

51-60 years	4	8
61 years and above	2	4
Level of Education		
Below Grade 12	32	64
Grade 12	2	4
Certificate/Higher Certificate	2	4
National Diploma	2	4
Undergraduate	11	22
Postgraduate Degree and above	1	2

The questionnaire was administered to the selected sample of fifty (50) learners, educators and parents divided as follows: Learners 30 (15 in each school), educators, 10 (5 in each school) and parents 10 (5 in each school). However, before the questionnaire was administered, it was first piloted to establish whether the tool was clear and not ambiguous. The pilot results indicated the questionnaire was clear and understandable with no ambiguity.

Research instrument

A Likert was used in the questionnaire. Respondents chose from five-point scale. The scale was divided as follows, 1=Strongly disagree; 2=Disagree; 3=Neutral; 4=Agree; and 5=Strongly agree. The reason for using the five-point Likert scale is that it provides a wide range of responses which allows the researcher to receive fair responses from respondents. Cronbach’s alpha was used to test the validity and reliability of the questionnaire. The Statistical Package for Social Sciences version 22 was used. The constructs met the adequate reliability level of above 0.6 (Fornell & Larcker, 1981). Table 2 below demonstrate the validity and reliability of the instrument used.

Table 2: Cronbach Alpha coefficient

Construct	Cronbach’s Alpha	N of items
Learner attitude	0.8	7
Educator attitude	0.7	8
Parental influence	0.7	8
Learner performance in Mathematics	0.6	5

Table 3: Summary of descriptive statistics

Variable	N	Mean	Std. Dev
	Statistic	Statistic	Statistic
Learner attitude	50	3.45	.412
Educator attitude	50	3.52	.428
Parental influence	50	3.08	.402
Learner performance in Mathematics	50	3.02	.398
Valid N (listwise)	50		

Research procedure and ethical considerations

This was survey research wherein a questionnaire was utilised. The questionnaire was used for the purpose of establishing whether there is a relationship between factors such as learner and educator attitude including parental influence and learner performance in Mathematics. A questionnaire is a simple yet effective research tool and is cost effective. Furthermore, a questionnaire guarantees respondents’ confidentiality (Hennink, Hutter &

Bailey, 2011). The questionnaire was administered to the selected sample of fifty (50) learners, educators and parents divided as follows: Learners 30 (15 in each school), educators, 20 (10 in each school) and parents 10 (5 in each school). However, before the questionnaire was administered, it was first piloted to establish whether it was clearly understood. The pilot pointed to a questionnaire that was clearly written and in simple language.

Respondents were given at least ten working days to complete the questionnaire and respondents were requested to drop them in a box placed in the educators' staff room. The researcher after collecting the questionnaire, data was captured in an MS Excel, and further validated in respect of whether the data was properly captured. Once data was validated it was transferred to the Statistical Package for Social Sciences (SPSS) version 22. The analysis process commenced after data was transferred to SPSS. It should, however, be emphasised that personal information of the respondents was kept confidential and was not shared with any person beside for the purposes of this study. Furthermore, there was no harm intended to respondents by participating in the study and respondents were given an opportunity to withdraw from the study in instances when they felt uncomfortable to continue participating (De Vos, Strydom, Schulze & Patel, 2011).

Statistical analysis

Percentages and frequencies were used to analyse the data for the demographics (gender, age group, level of education), this included mean and standard deviation. The nature of the demographics are such that they are not complicated to analyse, hence MS Excel was used to analyse them. However, for more complicated statistics such as establishing relationships and other complex statistics SPSS version 22 was used. In establishing relationship between variables and the strength of the relationship, a Pearson product-moment correlation was utilised. In addition, the significance value was tested at a 95% confidence level ($p \leq 0.05$). Tables were used to present the data which indicated the strength of the variables independent (learner attitude, educator attitude, parental influence) on dependent variable (learner performance in Mathematics). Furthermore, to test whether there was a significant regression between the independent variables and a dependent variable Analysis of variance (ANOVA) was used. Again, to measure how close the data was to the fitted regression line R-Squared was used (Dhakal, 2018).

Results

The demographic results in Table 1 with regards to gender were female 32 (64%), male 18(36%), The age group of respondents indicated that most respondents were in the age group category of 18-30 years of age, which accounted for 30 (60%) and the least number in this category were respondents in the age group of 61 years of age and above, which accounted for 2 (4%). There is clear indication that the average age of the respondents was in thirties. Furthermore, with regards to levels of education, results indicated that most respondents were below Grade 12, and the least respondents possessed postgraduate degrees. The results above are inclusive of all respondents, learners, educators, and parents. Below Table 4 indicate the results after testing the relationships of the variables in line with the hypotheses.

Table 4: Relationships between factors affecting learner performance and Mathematics

		Learner attitude	Learner performance in Mathematics
Learner attitude	Pearson correlation	1	.255**
	Sig. (2-tailed)		.000
	N	50	50
		Educator attitude	Engagement
Educator Attitude	Pearson correlation	1	.228**
	Sig. (2-tailed)		.001
	N	50	50
		Parental influence	Engagement
Parental influence	Pearson correlation	1	.236**
	Sig. (2-tailed)		.000
	N	50	50

** . Correlation is significant at the 0.01 level (2-tailed).

Table 5: Hypotheses of factors affecting learner performance and Mathematics

No	Hypotheses	Path Coefficients (β/P value)	Supported/not supported
(Ho1)	There is no relationship between learner attitude on learner performance in Mathematics.	(r = .255, P>0.05)	Null hypothesis not supported
(Ho2)	There is relationship between educator attitude on learner performance in Mathematics.	(r = .228, P>0.05)	Null hypothesis not supported
(Ho3)	There is no association between parental influence on learner performance in Mathematics.	(r =-.236, P>0.05)	Null hypothesis not supported

Table 6: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1.448	3	2.148	5.982	.002a
	Residual	22.612	47	.359		
	Total	24.542	50			
a. Predictors: (Constant), learner attitude, educator attitude, parental influence						
b. Dependent variable: Learner performance in Mathematics						

Table 7: Model summary

Model	R	R-Squared	Adjusted R-Squared	Std. Error of the estimate	Durbin-Watson
1	.275a	.068	.044	.34024	1.922

a. Predictors: (Constant), learner attitude, educator attitude, parental influence

Discussion

Outline of results

The study intended to establish whether there was a relationship between independent variables (learner attitude, educator attitude, parental influence) and dependent variable (learner performance in Mathematics) in schools within Siyabuswa Circuit. There were three hypotheses that were tested. Findings with regards to the hypotheses: Table 4 and 5, Ho1: There is no relationship between learner attitude on learner performance in Mathematics. The results produced (r=.25, n=50, p-value-.00), which indicated that there was a strong positive relationship between learner attitude and learner performance in

Mathematics, the results further demonstrate that the relationship was positively significant. Therefore, the null hypothesis was not supported. Findings of the results in Table 4 and 5 Ho2: There is no relationship between educator attitude on learner performance in Mathematics within schools in Siyabuswa Circuit. The results produced ($r=.22$, $n=50$, $p\text{-value}=.00$), which indicated that there is a strong positive linear correlation between the variables, which is statistically significant. Therefore, null hypothesis was not supported. Findings of the results in Table 4 and 5 Ho3: There is no association between parental influence on learner performance in Mathematics within schools in Siyabuswa Circuit. The results produced ($r=.23$, $n=50$, $p=.00$), which indicated that there is a strong positive linear correlation between the variables, which is statistically significant. Therefore, null hypothesis was not supported. Analysis of variance was utilised to establish how well the regression equation fitted the data. The findings were $F(5.982) = p\text{-value}=.00$. This means that the model is statistically significant and as such predicted the outcome variable. Lastly, the R-Squared (R^2) produced .68, which is equal to 68% and the Durbin-Watson statistic was 1.922, which is not less than 1 or greater than 3. This means that the model falls within the acceptable norm.

Practical implications

The study makes contribution to the body of knowledge within the education sector in respect of factors affecting learner performance in Mathematics as a learning area. The knowledge generated by this will assist the department of education in as far as understanding variables that impact learner performance in Mathematics. Again, the study can be used side by side with other studies conducted in this area of learner performance.

Limitations and recommendations

The study focused only on two selected schools within the Siyabuswa Circuit and not any other school in the Circuit. The study did not include Foundation, Intermediate and Senior phase schools within the Circuit. The Siyabuswa Circuit Manager, school principals did not form part of the study. The study focused only on the impact of selected factors that have an influence on learner performance in respect of Mathematics as a learning area in schools.

Conclusion

This study intended to establish whether there is a relationship between independent variables (learner attitude, educator attitude, parental influence) with regards to learner performance in Mathematics within Siyabuswa Circuit. The findings pointed out to a positive relationship between independent variables and a dependent variable, which was statistically significant.

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THE PLACE OF THE REPUBLIC OF MOLDOVA IN REGIONAL FOREIGN DIRECT INVESTMENT FLOWS

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Abstract: This paper analyzes the evolution and impact of Foreign Direct Investment (FDI) in the economies of the Eastern Partnership countries of the European Union, with a special focus on the Republic of Moldova. The study highlights Moldova's lagging FDI inflows compared to its regional counterparts due to a slower transition to a market economy, political instability, and dependence on Russia. While Moldova has made progress in attracting investments from the European Union, particularly after signing the Association Agreement in 2014, Russia remains a significant source of FDI for the period of 1991-2019. Key industries, including energy, automotive, and financial services, benefit from these investments, though Moldova's reliance on a narrow set of countries poses challenges. The paper also examines the role of privatization in shaping Moldova's FDI landscape and discusses how political and economic events such as the 2014 banking scandal and geopolitical tensions in Ukraine influenced FDI patterns. The findings suggest that while Moldova's FDI stock has grown, it remains vulnerable to external shocks and heavily influenced by regional dynamics.

Keywords: foreign direct investment, Eastern Partnership countries, Republic of Moldova, economic transition, privatization

Methodology

The complexity of the proposed theme requires a comprehensive research methodology that integrates various research methods. This study employs both qualitative and quantitative data analysis to provide a thorough examination of foreign direct investment (FDI) trends and their impact on economic development. The statistical data for this analysis has been collected from a range of reliable sources, focusing primarily on online databases with high credibility, such as UNCTAD, World Bank, World Investment Report, and World Economic Forum. Additionally, national sources like the National Bureau of Statistics of the Republic of Moldova, the Ministry of Economy and Infrastructure, and the National Bank of Moldova have been consulted to ensure accuracy and relevance to the local context. The timeframe for the FDI data analyzed in this paper covers the period from 1991 to 2019, while data related to economic performance spans the same period. The research methods used align with the study's purpose and objectives. This includes a combination of content analysis and statistical data interpretation. The qualitative research component involved reviewing books, studies, and articles in the fields of foreign direct investment, economic development, and international competitiveness. The statistical data collected was analyzed and interpreted qualitatively, focusing on identifying key trends and patterns, and drawing insights into the geographical distribution and sectoral preferences of FDI flows.

The results of the study are presented in the form of tables, graphs, and figures, which were created to visually depict the main trends and conclusions regarding the dynamics and

impact of FDI on the economic development of Moldova and other Eastern Partnership countries.

Introduction and general framework review

Foreign Direct Investment (FDI) plays a pivotal role in the economic development of host countries, especially in transitional and emerging economies. Scholars such as Dunning (1988) and Buckley & Casson (1976) have established the fundamental theories that explain the determinants and motivations behind FDI. According to Dunning's Eclectic Paradigm or the OLI Model (Ownership, Location, and Internalization), a firm's decision to engage in FDI is influenced by a combination of ownership advantages, location-specific advantages, and the internalization benefits of controlling foreign operations. In the context of Eastern European countries, these location-specific advantages often include low labor costs, access to natural resources, and proximity to European markets (Dunning, 1988). Buckley and Casson (1976) extended the discussion with their Internalization Theory, which suggests that firms choose FDI to internalize transactions that would otherwise be imperfect or costly through market mechanisms. This theory has been particularly relevant for understanding the presence of multinational companies in Moldova and other Eastern European countries, where the transition to a market economy led to significant transaction costs due to institutional instability (Buckley & Casson, 1976). Building on these foundational theories, Markusen (2002) introduced the Knowledge-Capital Model, which emphasizes the role of human capital and technological capabilities in attracting FDI. This model is especially relevant when discussing the influx of investments in sectors like telecommunications and IT in Moldova, where firms seek to exploit skilled labor and technological assets (Markusen, 2002).

Another important contribution is from Vernon (1966), who proposed the Product Life Cycle Theory, which posits that firms undertake FDI during the maturity phase of a product when seeking new markets and cost efficiencies. In the case of Moldova, this theory can be linked to the presence of mature European firms looking to expand their operations in low-cost economies. Lastly, Hymer (1976) laid the groundwork with his Theory of Market Power, which asserts that firms invest abroad to leverage their competitive advantages and reduce competition in international markets. This theoretical perspective explains why larger economies like Russia and the EU member states dominate the FDI landscape in Eastern Europe, aiming to secure market power and influence (Hymer, 1976).

Over the past 50 years, globalization has accelerated significantly, impacting economies worldwide through increased movement of goods, services, capital, and technology. Economically, globalization has led to an impressive growth in global trade and financial flows. According to the World Bank (2019), global exports of goods and services have increased 64 times since the 1970s, contributing to a substantial rise in global GDP, which reached \$87.7 trillion in 2019. Foreign direct investment (FDI) flows have also shown remarkable growth over the last three decades. Between 1991 and 2007, global FDI flows increased by 95%, reaching over \$3 trillion in 2007. However, the 2007-2009 financial crisis caused a significant decline, with FDI dropping by more than 55% to \$1.5 trillion in 2009. Despite the recovery, global FDI flows have been decreasing since 2016 due to various factors, such as the repatriation of American multinational earnings (UNCTAD, 2019).

Developed countries have faced increasing competition from developing nations in attracting FDI. In 2019, the share of FDI flows to developing countries rose to 54% of the global total, driven by large internal markets, abundant natural resources, and competitive labor costs. While countries in transition and less developed regions, such as Africa, struggle to attract significant FDI due to political instability and economic barriers, developing countries in Asia, such as China and India, continue to be major destinations for global FDI, benefiting from favorable economic conditions and policy reforms.

The United Nations has classified countries around the world based on their level of development. According to the 2020 report, there are 17 countries in transition and 46 least developed countries. Of the countries in transition, five are located in Southeast Europe (Albania, Bosnia and Herzegovina, Montenegro, North Macedonia, and Serbia), while the others include Georgia and the 11 member countries of the Commonwealth of Independent States, which also includes the Republic of Moldova. Six of the 17 countries in transition are part of the European Union's Eastern Partnership group, namely the Republic of Moldova, Armenia, Georgia, Azerbaijan, Belarus, and Ukraine.

FDI inflows to transition economies have continued their downward trend, reaching USD 34 billion in 2019, which is 28% less than in the previous year. Meanwhile, FDI flows to least developed countries continue to represent only 3% of total global investment flows (UNCTAD, 2019). I believe that transition countries are unable to attract more FDI due to political factors that have a significant impact on the investment climate. Generally, most transition countries are characterized by high levels of corruption, government inefficiency, and low economic freedom. Therefore, transition and poor countries should be engaged in a continuous process of implementing new reforms and measures to increase their attractiveness in order to become more competitive and, consequently, attract higher amounts of FDI. This competition for FDI helps countries improve their physical and legal infrastructure and encourages the implementation of stable macroeconomic policies. Additionally, fiscal incentives, such as VAT exemptions or other tax benefits offered by host countries, are an advantage in attracting foreign direct investments.

FDI dynamics in the republic of moldova: a comparative perspective with other eastern partnership countries of the European Union

FDI inflows evolution in the Eastern Partnership countries for the period 1991-2019

The Republic of Moldova declared its independence on August 27, 1991, following the adoption of the Declaration of Independence by the country's Parliament. Less than six months later, in 1992, Moldova gained membership in the United Nations. The years 1991-1992 marked the beginning of the country's transition from a planned economy to a market economy. Throughout the 1990s, Moldova underwent a series of structural transformations, including economic liberalization, the elimination of trade barriers, and the privatization of state-owned enterprises and resources, which provided a significant impetus for economic development.

Figure 1. FDI Inflows into the Economies of the Eastern Partnership Countries of the European Union, 1991-2019 (million USD)



Source: The World Bank, Foreign Direct Investments, net inflows.

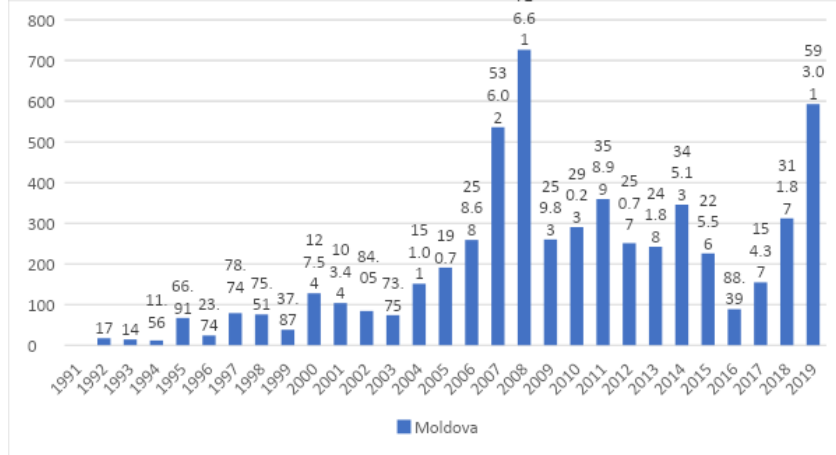
The evolution of foreign direct investment (FDI) inflows into the economy of the Republic of Moldova has been relatively slow from 1991 to the present, with FDI entries not consistently showing a steady increase. Following the dissolution of the Soviet Union, the economies of the six Eastern Partnership countries of the European Union underwent a period of comprehensive restructuring, which hindered the immediate attraction of FDI. Moreover, this was further complicated by Russia's efforts to maintain political and economic influence in the region. One tool of political and economic control was the creation of the Commonwealth of Independent States (CIS) in 1991 by Russia, Ukraine, and Belarus, an economic bloc modeled after the European Union, which was later joined by all former Soviet bloc countries. For the Republic of Moldova, the Transnistrian conflict, initiated by Russia in 1992, was another barrier to attracting FDI.

In the first three years following the dissolution of the USSR, Ukraine was the only country able to attract the highest levels of FDI inflows, amounting to approximately 200 million USD annually. Moldova ranked second, with FDI inflows of 17 million USD in 1992 and 14 million USD in 1993, followed by Belarus in third place, with FDI inflows of 7 million USD in 1992 and 17 million USD in 1993. Ukraine's success in attracting FDI during the early years can be attributed to its large internal market, abundant and diversified natural resources, and sizable, well-qualified, low-cost labor force. Furthermore, like in Moldova and Belarus, the privatization process in Ukraine began swiftly after the dissolution of the USSR. Another comparative advantage shared by Moldova, Belarus, and Ukraine is their geographical proximity to the developed European countries, although most FDI inflows originated from Russia and other former Soviet bloc countries. In contrast, Georgia and Azerbaijan did not record any FDI inflows during the first three years following the dissolution of the USSR, while Armenia recorded FDI inflows of approximately 2 million USD annually, a relatively small amount compared to the Republic of Moldova.

According to the annual Investing Guide Moldova report by MIEPO and the World Bank's annual World Investment Report, the Republic of Moldova has recorded the lowest levels of foreign direct investment (FDI) inflows over the 29 years following the dissolution of the USSR compared to the other five Eastern Partnership countries of the European Union. Throughout this period, Moldova registered an average annual FDI inflow of approximately 200 million USD, a relatively small amount in comparison to its regional

counterparts. Even Armenia, a country with a similar size and population, has registered an average annual FDI inflow of around 300 million USD—100 million USD more than Moldova.

Figure 2. FDI Inflows into the Economy of the Republic of Moldova, 1991-2019 (million USD)



Source: The World Bank, Foreign Direct Investments, net inflows, Moldova.

As shown in Figure 2, until the year 2000, Moldova attracted modest FDI amounts, with a slow annual growth rate. For instance, in 2000, Moldova registered FDI inflows of 127 million USD, which then decreased over the following years until 2003. While Moldova’s economy recorded FDI inflows of 79 million USD and 75 million USD in 1997 and 1998, respectively, other countries in the region were attracting much higher levels. For example, Georgia received FDI inflows of 242 million USD and 265 million USD, Azerbaijan attracted 1,115 million USD and 1,023 million USD, and Belarus registered 351 million USD and 2,013 million USD during the same period. Prior to the 2007-2009 global financial crisis, FDI inflows in Ukraine, Azerbaijan, Georgia, Belarus, and even Armenia increased significantly year by year, whereas Moldova only reached its highest FDI inflows in 2007, amounting to 726 million USD. In contrast, during the same year, Ukraine received 10,700 million USD, Azerbaijan attracted 3,987 million USD, Georgia received 1,602 million USD, Belarus attracted 2,188 million USD, and Armenia registered 943 million USD in FDI inflows.

Moldova struggled to attract significant FDI inflows due to a slower transition process compared to other countries, which was hindered by the slow pace of privatization and ongoing political instability. Although Figure 2 shows steady growth in FDI inflows up to 2007, this growth is insufficient when compared to the levels achieved by neighboring countries. Moldova was significantly influenced by Russia, with the majority of FDI inflows coming from the East—specifically, Russia and other former Soviet countries. Furthermore, the country's political alignment and the persistence of communist leadership prevented the opening of Moldova’s economy to the European Union and other international markets. During this period, Moldova's trade relations were primarily concentrated with Russia and other former Soviet states.

During the global financial crisis, Moldova's FDI inflows decreased drastically, becoming three times lower than pre-crisis levels. While other countries managed to recover quickly and attract substantial FDI inflows in the following years, Moldova continued to lag

behind. For example, Armenia, which ranked second to last in terms of FDI inflows, recorded at least double the FDI levels of Moldova over the past decade.

FDI inflows into Ukraine's economy were significantly impacted during 2014-2015 due to the war with Russia. In 2015, Ukraine recorded zero FDI inflows as a result of Russia's military intervention, which began in February 2014. The Republic of Moldova, sharing a common border with Ukraine and being in close proximity to the conflict zone, also experienced a decline in FDI inflows. FDI decreased to approximately 225 million USD in 2015, down from around 345 million USD in 2014, and further declined to approximately 88 million USD in 2016. This decrease was compounded by the "billion-dollar bank theft" scandal that occurred in Moldova between 2014 and 2015. The armed conflicts in Ukraine, combined with Moldova's political and economic instability, were the main factors leading to the reduction in FDI during this period. However, in subsequent years, FDI inflows began to recover, reaching approximately 593 million USD in 2019, surpassing the levels recorded in 2007. Additionally, in recent years, Moldova has registered higher FDI inflows than Armenia, indicating that Moldova is becoming more competitive compared to the past. When analyzing the average FDI inflows, Ukraine ranks at the top with an average annual FDI of approximately 3,200 million USD, followed by Azerbaijan with around 2,400 million USD, and Belarus with approximately 1,000 million USD. The higher FDI inflows can also be explained by the investment climate provided by each host country and their attractiveness to foreign investors. FDI motivations vary significantly for less developed and transition countries, such as those in the Eastern Partnership of the European Union. These motivations include access to a low-cost and skilled labor force, access to high-quality and inexpensive resources, and access to new markets. These motivations are complemented by the availability of specific infrastructure and the country's strategic positioning relative to other markets.

Ukraine, Belarus, and Azerbaijan have a larger population compared to Moldova, providing a greater supply of low-cost and skilled labor, as well as a substantial domestic market for goods and services. For instance, Belarus has recorded a population of approximately 9.5 million people over the last decade, although this represents a decrease of around half a million people in the past 20 years. Azerbaijan has seen its population grow by nearly 20% in the past 20 years, reaching almost 10 million people, thus offering a larger workforce and domestic market. Ukraine is the most populous country, with approximately 41 million people, despite a significant decline of about 20% over the past 20 years. In contrast, the Republic of Moldova has a population of approximately 3.5 million people, which is nearly three times smaller than that of Azerbaijan and Belarus, and about twelve times smaller than Ukraine's population. Although Armenia's population is smaller than Moldova's, and Georgia's is approximately the same, FDI inflows in Moldova remain lower. One reason is that Moldova has the lowest proportion of active population relative to its total population, with an average of 37% from 1991 to the present, and around 35% in the past ten years.

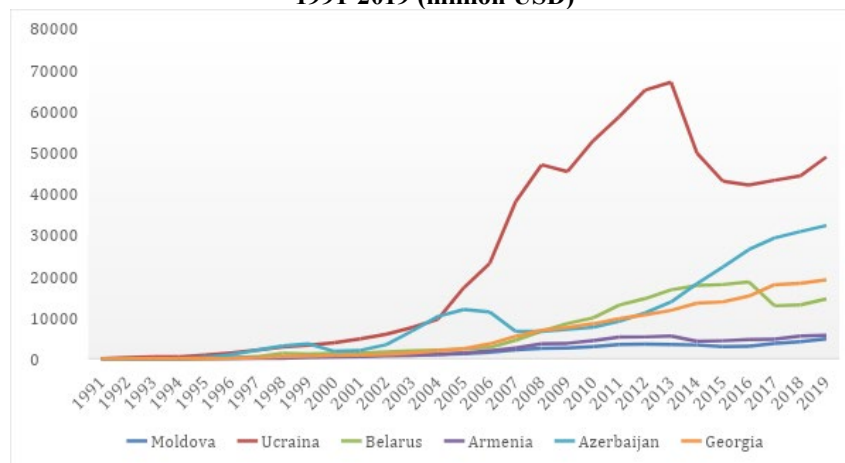
In comparison, Armenia has an average active population rate of 42% from 1991 to the present and 45% in the past ten years. Georgia has the highest active population rate among all Eastern Partnership countries, with an average of 53% from 1991 to the present and 55% in the last ten years. Another critical factor for attracting FDI is access to inexpensive natural resources. Ukraine and Belarus have a comparative advantage in this regard due to their large geographical areas. Ukraine covers approximately 603,000 km², which is 18

times larger than Moldova, while Belarus covers approximately 207,000 km², six times larger than Moldova. This translates to a significantly higher volume of natural resources in both Ukraine and Belarus. Furthermore, Ukraine and Georgia have direct access to the Black Sea, providing an outlet to the Mediterranean Sea, while Azerbaijan has access to the Caspian Sea. Many of these countries also have mountain ranges, which offer valuable natural resources. Nevertheless, the dynamics of FDI inflows in the Eastern Partnership countries are heavily influenced by Russia’s presence in the region, which fosters political instability and hinders economic development in these countries.

FDI stocks evolution in the Eastern Partnership countries for the period 1991-2019

Between 1991 and 2019, all six economies of the EU’s Eastern Partnership experienced growth in FDI stocks. Until 2007, Ukraine saw the highest increase, followed by Azerbaijan and Belarus, while starting in 2016, Georgia surpassed Belarus in FDI stock levels. FDI stocks in Moldova’s economy grew steadily until 2011-2013, reaching approximately 3.5 billion USD. However, in subsequent years, FDI stocks declined due to the political and economic crises of 2014-2015 and the “billion-dollar bank theft.” FDI stocks recovered and rose to around 4.8 billion USD by 2019, supported by government policies to attract and retain FDI through fiscal incentives and Free Economic Zones.

Figura 3. FDI Stocks in the Economies of the Eastern Partnership Countries of the European Union, 1991-2019 (million USD)



Source: United Nations, UNCTAD, Foreign Direct Investments, Stocks

However, Moldova’s FDI stocks remain significantly lower compared to the other Eastern Partnership countries. The only country with a similar FDI stock level to Moldova is Armenia. Furthermore, the other countries started with much higher FDI stocks than Moldova due to a faster privatization process. Although privatization can be costly, leading to restructuring and increased unemployment, it also brings benefits such as improved labor productivity and greater FDI inflows (Horobet & Popovici, 2017). Mass privatization in the Republic of Moldova started relatively late and progressed slowly. Although it began right after independence in 1991, it initially targeted only residential properties. By 1996, the focus shifted to selling major state assets, including large enterprises in the energy and telecommunications sectors. Some of the most notable companies privatized before 1996

included a cement factory, a leather processing firm, several textile companies, wineries, and a hotel in the capital (WTO, 2015).

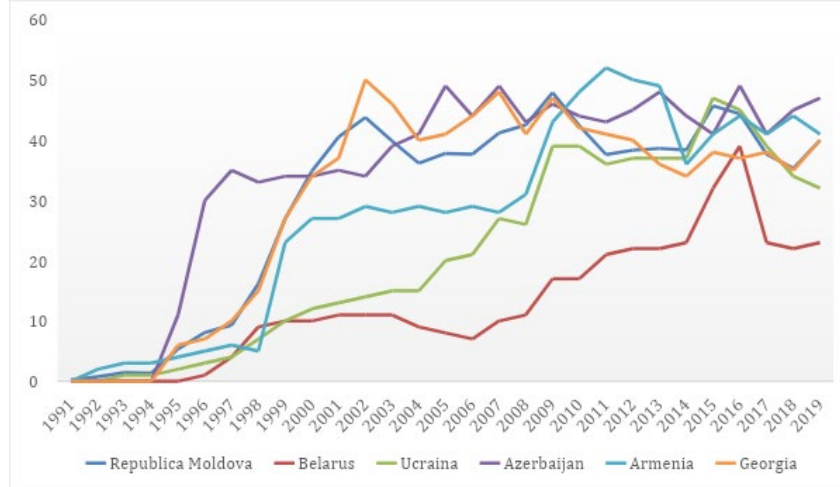
Moreover, the privatization process continued even after 2007, when most other countries had nearly completed their programs. In 2007, the Moldovan Parliament adopted the Law on Public Property Management and Privatization, initiating a new wave of privatizations, with the Public Property Agency becoming responsible for the process. By 2014, only 240 state-owned enterprises remained in Moldova, down from 308 in 2001 (WTO, 2015). The economies of the Eastern Partnership countries remain heavily influenced by Russia, both politically and economically, as Russia is a significant trade partner and FDI source for the region. For Armenia, Georgia, and Azerbaijan, situated in West Asia, Russia is a crucial trading partner given the underdeveloped or closed nature of neighboring countries like Turkmenistan, Kazakhstan, and Iran. Georgia benefits from its access to the Black Sea, facilitating maritime transport. Although Ukraine, Belarus, and Moldova are geographically closer to the EU, they have struggled to attract FDI. Belarus could leverage its proximity to the EU, but political factors have prevented a reorientation. Economic relations between Belarus and Russia are influenced by politics, hindering Belarus's economy from opening up to European and American investors. Ukraine, with its vast market and abundant natural resources, has the highest FDI potential among the Eastern Partnership countries. The growth in FDI stocks until 2013 reflected this, boosted by the EU free trade agreement, which attracted new FDI. However, the 2014-2015 military conflict with Russia significantly reduced FDI stocks, causing a regression to 2008 levels. The conflict created political and economic instability, heightening investor uncertainty. Despite subsequent growth, Ukraine's tense relationship with Russia continues to affect trade, pushing Ukraine closer to the EU.

FDI stocks in the Republic of Moldova grew steadily until 2014 but fell sharply in 2015-2016 due to political and economic factors. Moldova's FDI likely declined as a result of the military conflict in Ukraine, given Moldova's border proximity and closeness to the conflict zone. Additionally, diplomatic tensions between Moldova and Russia in 2013-2014, triggered by Russia's embargo on Moldovan imports (wine, fruits, and vegetables) following Moldova's Association Agreement with the EU, hurt exports and impacted FDI. The "billion-dollar theft" from Moldova's Savings Bank was the primary reason for the reduction in FDI stocks during 2015-2016, which exacerbated political and economic instability, damaging the investment climate and investor confidence.

As shown in Figure 4, the share of FDI stocks in Moldova's GDP increased rapidly from 1991 to 2000, rising from 0.23% of GDP to 34.86%, driven by the privatization process and the opening of the economy to external markets. After 2000, the share of FDI stocks in GDP continued to grow moderately, reaching its highest value of 47.87% in 2009. Subsequently, due to the global financial crisis and internal political turmoil, the share of FDI stocks in GDP started to decline. However, by 2014, the share of FDI stocks in GDP nearly returned to 2009 levels, driven by a change in government and new FDI inflows into the Moldovan economy. Over the past ten years, the average share of FDI stocks in GDP has been around 40%, which is a relatively good indicator, demonstrating that FDI is an effective catalyst for economic growth in Moldova. A similar pattern can be observed in other countries regarding the share of FDI stocks in GDP. For example, in Ukraine, which has proven to be the most attractive country for FDI, the share of FDI stocks in GDP reached 47.2% in 2015. This was the highest value recorded in the past 29 years and is

comparable to Moldova's share in 2009. The share of FDI stocks in GDP in Ukraine has decreased in recent years due to the armed conflict on its territory during 2014-2015. In the case of Armenia, which is one of the least attractive countries for FDI among the Eastern Partnership countries, the situation is similar to that of Moldova. The share of FDI stocks in GDP has been over 40% in recent years and has increased at a similar rate to Ukraine and Moldova.

Figura 4. FDI Stocks as a Share of GDP in the Eastern Partnership Countries of the EU, 1991-2019



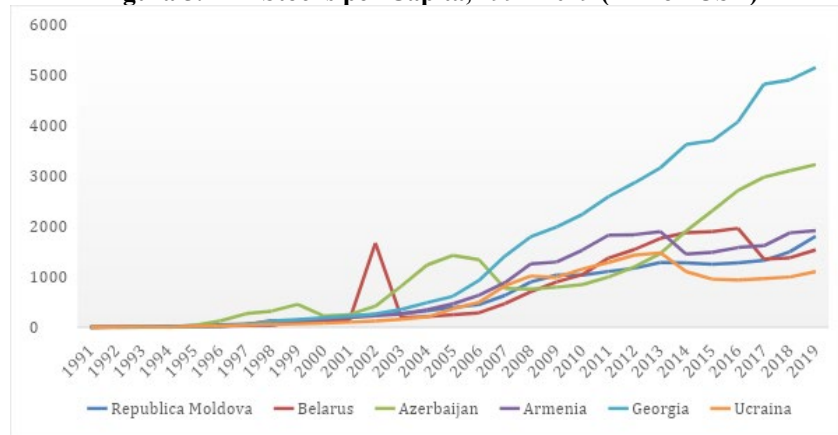
Source: own processing based on data provided by United Nations, UNCTAD, Foreign Direct Investments, Stocks

Although the share of FDI in GDP across the Eastern Partnership countries is relatively similar, ranging between 35% and 50% of GDP, the difference lies in the absolute value of each country's GDP. For instance, in 2019, Moldova's GDP was the smallest among the Eastern Partnership countries, amounting to approximately 11 billion USD, similar to Armenia's GDP of around 13 billion USD, and 35% lower than Georgia's GDP. Additionally, Moldova's GDP was nearly five times smaller than that of Azerbaijan and almost six times smaller than Belarus's GDP. Ukraine recorded the highest GDP in 2019, reaching 153 billion USD, which is almost 14 times greater than Moldova's GDP.

Based on the data above, I believe that foreign direct investments influence the economic growth of Eastern Partnership countries almost equally, considering that the share of FDI in GDP is relatively similar, despite the large differences in GDP size and the volume of FDI attracted.

Based on Figure 5, we observe that Moldova's FDI stocks per capita increased consistently from 1991 to 2019, reaching their highest level in 2019 at 1,803 USD per capita. Although the growth was steady, it was largely due to a decline in Moldova's population in recent years caused by massive emigration.

Figura 5. FDI Stocks per Capita, 1991-2019 (million USD)



Source: own processing based on data provided by United Nations, UNCTAD, Foreign Direct Investments, Stocks

To accurately compare Moldova with the other Eastern Partnership countries, market size should be considered. Thus, it would be appropriate to divide the countries into two comparable clusters based on the number of inhabitants, which varies significantly, from approximately 2.6 million inhabitants in Moldova’s case to over 40 million in Ukraine’s case. The first cluster would include Ukraine, with over 40 million inhabitants, and Belarus and Azerbaijan, with approximately 10 million inhabitants each. The second cluster would include Moldova, Armenia, and Georgia.

For example, Armenia, which ranks second-to-last, recorded FDI stocks per capita of 1,914 USD in 2019, compared to 1,482 USD per capita in 2015, which is higher than Moldova’s result. On the other hand, Georgia’s FDI stocks per capita have a much higher value than those of Moldova and Armenia, reaching a maximum of 5,146 USD per capita in 2019, which is nearly double the amount in 2010, when Georgia’s FDI stocks per capita were 2,238 USD.

Sources of foreign direct investments

The sources of foreign direct investments in the Eastern Partnership countries of the European Union are diverse and have significantly evolved over time. Russia has consistently been one of the most important sources of FDI for these countries, followed by several European Union member states. As shown in Table 1, the largest share of FDI in the Republic of Moldova comes from EU countries, accounting for over 60% of the total FDI stock, peaking at 66.50% in 2019, a 5% increase compared to the 2016 levels. However, almost one-third of Moldova’s FDI stock still originates from Russia. This distribution highlights Moldova’s strategic position as an investment destination for both EU and Russian investors, while emphasizing its continued dependence on Russian capital. During the period 2009-2019, Moldova recorded FDI stocks from all 28 EU member states, reflecting the country’s orientation towards European integration, particularly between 2009 and 2016. The signing of the Association Agreement with the EU in 2014 further boosted FDI inflows from European countries. The primary FDI sources include the Netherlands, Cyprus, Romania, Germany, France, Italy, and the United Kingdom, which together account for over 50% of total FDI stocks. The significant FDI from Romania, in

particular, can be explained by the elimination of trade barriers, the free movement of goods and people, and the strong social, educational, and economic ties between the two countries. Additional EU sources of FDI include Bulgaria, Hungary, and Austria, contributing mainly to sectors such as manufacturing, finance, and energy.

Table 1. Share of Foreign Direct Investments by Country of Origin, Republic of Moldova, 2009-2019

Year	Country of origin						
	Russia	EU	USA	Ukraine	Switzerland	Turkey	Others
2009	23,20%	60,00%	3,80%	0,90%	1,40%	0,90%	9,80%
2010	22,40%	62,50%	3,00%	1,00%	1,50%	1,20%	8,40%
2011	22,00%	63,50%	2,60%	1,20%	1,70%	1,00%	8,00%
2012	23,00%	62,50%	2,60%	1,20%	1,50%	0,80%	8,40%
2013	24,00%	63,50%	1,80%	0,60%	1,70%	1,00%	7,40%
2014	26,00%	63,00%	1,80%	1,00%	1,40%	0,90%	5,90%
2015	28,50%	61,50%	1,60%	1,50%	0,90%	1,00%	5,00%
2016	27,50%	63,00%	1,60%	1,50%	1,80%	1,00%	3,60%
2017	24,00%	66,00%	2,00%	1,00%	1,70%	1,30%	4,00%
2018	22,60%	66,50%	1,90%	1,20%	1,70%	1,30%	4,80%
2019	20,50%	70,50%	2,20%	1,20%	1,30%	1,40%	2,80%

Source: own processing based on data provided by National Bank of Moldova, 2009-2019

The United States, with an average share of 3% of total FDI stocks from 2009 to 2019, is another important source, though its potential remains underutilized. This is largely due to Moldova’s geopolitical orientation towards Russia in recent years, which has hindered the development of a stronger partnership with the US. American investments include Lear Corporation in the automotive industry and Microsoft in the IT sector. Turkey has also emerged as a key FDI source, almost doubling its investments from 2009 to 2019, particularly after the signing of the Free Trade Agreement in 2014. Switzerland plays a significant role, especially in financial services, with a steady presence since 1992. Israel and Liechtenstein are other notable FDI contributors, with investments entering Moldova over the past decade.

In the broader context of the Eastern Partnership countries, Russia remains the dominant FDI source due to historical ties and geographical proximity. For Belarus, Russian FDI accounts for approximately 50% of total FDI over the past decade, focusing on the machinery and industrial equipment sectors. For Armenia, Russia contributes around 45% of FDI stocks, while EU countries account for over 30%, with Germany, the United Kingdom, and France being the primary sources. Ukraine’s largest FDI stocks originate from Cyprus, the Netherlands, and Germany, together accounting for over 75%. Investments from Cyprus alone exceed 60%, largely due to its status as a tax haven for Russian investors using Special Purpose Entities (SPEs) to reduce tax obligations. In contrast, the share of direct FDI from Russia has been below 3% in recent years due to the ongoing conflict between the two countries. Other notable European sources include the United Kingdom, Austria, France, Switzerland, and Italy, although their combined share does not exceed 10% of total FDI in Ukraine’s economy.

Germany’s FDI in Ukraine is mainly from ArcelorMittal, which, through its German subsidiaries, has invested in a steel plant in Ukraine. Similarly, the Netherlands is used as a “capital conduit,” with companies like Kyivstar, Ukraine’s largest telecommunications firm, being owned by a Dutch company through Russian investments.

Georgia is unique among Eastern Partnership countries as its main FDI source is Azerbaijan, which accounts for over 30% of total FDI. This is followed by Russia, Armenia, and other CIS countries. The low share of Russian FDI can be attributed to strained relations over Abkhazia and South Ossetia. EU countries rank third in terms of FDI share, with European investments growing significantly over the past three years due to the EU's openness to Georgia and the special visa regime granted to Georgian citizens. Another significant partner is China, whose investments have been increasing in recent years, supported by Georgia's favorable investment climate.

Azerbaijan has managed to attract substantial FDI stocks from the United Arab Emirates, Russia, and the United States due to its rich oil resources. In non-oil sectors, Turkey is the leading FDI source, followed by the United Kingdom and the Netherlands. Russia ranks fourth in terms of FDI stocks in other sectors, as most Russian investments in Azerbaijan are concentrated in the oil industry. This pattern reflects the diverse geopolitical and economic factors shaping FDI dynamics in the Eastern Partnership region. In summary, Moldova's FDI sources are diverse, with a strong European presence complemented by investments from the US, Turkey, and Switzerland. Political stability, economic reforms, and geopolitical orientations will continue to play a critical role in shaping FDI trends across Moldova and the broader Eastern Partnership region.

Table 2. Foreign Direct Investment Stocks by Country of Origin, Republic of Moldova, 2009-2019 (mil. USD)

Year	Country of origin						
	Russia	EU	USA	Ukraine	Switzerland	Turkey	Others
2009	602,64	1552,94	97,99	22,40	36,16	21,65	250,15
2010	656,24	1830,28	88,76	27,64	43,87	34,08	245,8
2011	738,03	2167,38	88,85	38,85	56,80	34,16	282,23
2012	785,79	2143,80	89,97	40,60	50,65	25,06	287,62
2013	795,99	2103,17	60,02	19,48	54,69	32,16	247,82
2014	790,81	1905,29	53,06	30,67	42,45	25,96	190,79
2015	746,52	1623,01	42,21	38,70	22,30	28,12	132,44
2016	716,49	1640,65	41,31	39,26	47,14	26,53	99,93
2017	791,11	2197,56	67,82	33,93	55,74	41,84	145,2
2018	838,51	2463,50	70,34	42,35	63,29	48,39	182,58
2019	869,40	3015,43	91,61	48,01	56,33	57,82	130,15

Source: own processing based on data provided by National Bank of Moldova, 2009-2019

Russia remains the largest source of FDI in Moldova, primarily through Lukoil, which has operated in the country since the 1990s and has expanded investments to include natural gas, electricity, and water supply. The European Union collectively represents the main source of FDI stocks in Moldova, with the Netherlands, Romania, Germany, and Cyprus accounting for over 50% of EU-origin FDI. Between 2009 and 2019, FDI stocks from EU countries increased from \$1,552 million to \$3,015 million, reflecting a 50% growth. Dutch investments are concentrated in communications, transport, and financial services, with Rompetrol operating 85 petrol stations nationwide. Romania has become a significant investor in Moldova, focusing on the financial and energy sectors. BCR and Procredit Bank lead the financial sector, while OMV Petrom, with 81 petrol stations and 78 stores, is a major player in the oil industry.

Germany is another key origin country, with the most significant FDI stocks in the automotive, construction, agriculture, and retail sectors. Draxlmaier's \$70 million investment positions it as a leader in the automotive industry, supplying companies like Audi and BMW. Knauf, a prominent player in the construction sector, has been operating in Moldova since 2002 and is the largest producer of drywall sheets in the country. Metro and Südzucker also contribute significantly to Moldova's economy, alongside other European companies such as LaFarge, Orange, Group Societe Generale, Gebauer and Griller, Telia Sonera, Ericsson, Gruppo Veneto Banca, and Endava.

The United States, although not a major source of FDI, reached \$91.61 million in 2019, with notable investors such as Lear Corporation in the automotive industry and Microsoft in the IT sector. FDI stocks from Ukraine, although relatively small, doubled to \$48 million by 2019, mainly in construction and retail. Swiss investments peaked at \$63 million in 2018, focusing on financial services, but decreased to \$56 million in 2019. Turkish FDI stocks grew steadily over the decade, from \$21 million in 2009 to \$57 million in 2019, led by the brewery company Efes. Other key investors include major European firms such as Südzucker, Metro, and Endava.

Conclusions

The analysis of foreign direct investment (FDI) stocks in the Republic of Moldova and other countries within the EU Eastern Partnership reveals both opportunities and challenges for the region's economic development. Despite a steady increase in FDI stocks, Moldova lags behind its counterparts due to a slower privatization process, ongoing political instability, and limited economic openness. Moreover, the country's heavy reliance on investments from Russia and a small group of EU countries indicates a need for greater diversification of investment sources to mitigate potential geopolitical and economic risks. Compared to other Eastern Partnership countries, Moldova's FDI per capita is relatively low, while the share of FDI in GDP is closer to that of its peers. This suggests that although FDI contributes significantly to the country's economic growth, the absolute value remains limited due to Moldova's smaller market size and declining population. Countries like Georgia and Azerbaijan, benefiting from more substantial resource endowments and a more favorable investment climate, have attracted higher FDI levels, which have spurred their economic development more robustly. To remain competitive and foster sustainable growth, Moldova needs to strengthen its investment climate by implementing consistent policies that attract new investors and encourage the expansion of existing ones. This could be achieved by addressing political instability, enhancing legal and institutional frameworks, and promoting sectors with high investment potential, such as IT and manufacturing. Enhanced cooperation with EU countries and more proactive policies toward non-traditional partners, such as the United States and Turkey, could further contribute to achieving a balanced and resilient economic growth trajectory through diversified FDI sources.

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THE USE OF FOURTH INDUSTRIAL REVOLUTION DRIVERS TO ENHANCE EMPLOYEE'S PERFORMANCE IN SOUTH AFRICAN MUNICIPALITIES

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Abstract: The crucial drivers of change in most industries are the causes of change in the nature of jobs and they bring different effects to both the public and private sector. These drivers of change have created various models of change that have positive and negative consequences for skills needed by the government and labour markets. This study aims to assess the use of Fourth Industrial Revolution drivers to improve employee performance. The study used a qualitative research approach; data was collected from nine participants through semi-structured interviews. Participants were approached through a purposive sampling technique. The collected data was analysed using thematic approach. The results revealed that robotics, automation, and AI applications in the workplace may increase employee and employer safety. 4IR, when implemented as an assistant to the employees, not as a replacement, can significantly improve workers' living standards and raise income levels, especially for those who are technology experts. Clients have reaped the greatest benefits of 4IR thus far, not workers, as they now have unrestricted access to the digital world. Drivers of 4IR increase productivity across entire department of municipality, allowing workers to be more effective in their work by deploying robots, AI, IoT, and automation as assistants and tools. The study recommends that 4IR drivers must be implemented only if adopted as assistance to the employees, not as replacements, thereby reassuring the audience about the future of work.

Keywords: Employees, Performance, 4IR.

Introduction

As Ferrang and Toor (2017) point out, we are living in a world of perpetual motion, where goods, labour, and capital move at unprecedented speeds, driven by the innovation brought by technology. This technological innovation is not only changing all industries but also reshaping the way human beings manage their lives, making it a crucial area of study (Mketanae, 2017). Technology can be seen as an economic influence, which, with its power to disrupt, Dunaway (2019) indicates that these effects go together, and both are essential to leaders as no one knows how the 4IR drivers will develop. One thing that is totally clear is the need for critical reaction, which has to be comprehensive and integrated and must involve all stakeholders of society globally, from both public and private sectors, including academic and civil society (Sony & Jonny, 2019). The consequences for countries and businesses that did not consider embracing and adapting to the development brought by the 4IR are concerning since such countries will lose many investors because many businesses are heavily investing in technology (Karmazin, 2017). These are a few nations, such as Japan and Canada, or a multinational corporation, such as MacDonalds, which have positively responded to the 4IR and yielded positive results, which suggests that all other

nations and businesses need to follow suit to be at this level or standard (Blackburn & Davis, 2020).

From the perspective of the African continent, Roijjo and Sailander (2018) highlight the challenges that are faced by the African continent concerning 4IR, such as lack of infrastructure, for instance, access to broadband, including electricity, and poor education, which implies that the African continent always plays catch up when it comes to technological modification (innovation). To counteract this, the arrangement was for substantial mobilisation of funds to come up with new modern technology led by businesses and supported globally by other nations. These funds are to assist Africa in closing technological gaps as it is always following the rest of the world, and this will be advantageous in solving pre-existing inequality problems in Africa (Zouh, 2022).

Sony and Rauch (2016) indicate that the South African Minister of Trade and Industry, Stella Ndabeni Abrahams, stated that the best way is for South Africa to invest in mining, in which 4IR will offer many opportunities that will fast-track sustainable growth, through maximising the production of the mining industry made possible by 4IR. Furthermore, the 4IR is not only affecting the manufacturing arena; it also extends its effect to services sectors, not excluding legal professions, accounting, public institutions and commerce, therefore, South Africa needs to start working on its response (Prasad, 2018). South Africa is affected by 4IR – this is a reality that cannot be ignored, which creates many challenges for South Africa, such as inequality, poverty, and unemployment. The gap between the poor and the rich is already a challenge (Panda, 2021). Regarding the future of jobs, the World Economic Forum (WEF) (2016) predicted a loss of five million jobs in Africa alone by the year 2023 because of technological changes.

The 4IR is more complex than the Third Industrial Revolution and expands digital changes from the Third Industrial Revolution (Zhou, 2019). This entails heterogeneous evolving technologies, which change from a large-scale digital platform including smart sensors to 3D printing, advanced robotics, nanotechnology and synthetic biology (Rocky & Tark, 2018). Digital platforms are found anywhere and are essentially changing the clients' outlook (Ilyukhina, 2017). The youth are now growing up in a world that is full of computers, the internet, and digital communication, now living in workplaces, which brings new approaches, habits, and ideas. This is a sign of the rise in new technology that is disrupting workplaces, developing new industries, and requiring different approaches, as the existing ones are no longer relevant (Rashid & Perastirea, 2019).

Regardless of the importance of drivers of 4IR, there are limited studies conducted on the use of 4IR drivers on the performance of employees in public institutions. Nevertheless, the impact of these Fourth Industrial Revolution (4IR) drivers has been observed in both the private and public sectors. While numerous studies have focused on the effects of 4IR drivers on the private sector, there remains a gap in assessing their influence on employee performance within the public sector. Consequently, there is a pressing need for scholarly research into the utilisation of 4IR drivers and their implications on employee performance in public institutions. Most studies on drivers of 4IR in public sectors focus on the challenges of these drivers and ignore the potential effect of the drivers of employee's performance. In this particular context, this study was specifically designed to investigate the effect of utilization of 4IR drivers in improving employee performance. The study also provides the best practice the municipality can adopt to use 4IR drivers to enhance the performance of employees.

Basic drivers of change

The crucial drivers of change in most industries are the causes of change in the nature of jobs and they bring different effects to both the public and private sector. These drivers of change have created various models of change that have different negative consequences for skills that are needed by the government and labour markets (Reaves, 2018). The new transformation of technology makes certain jobs obsolete, and tasks are divided in new ways, which results in job fragmentation in various industries. The government needs to come up with an emerging technology that will be of a high standard in order to remove developments that could reposition the businesses and government and lead to retrenchment of the employees (Scepanovic, 2019).

World Economic Forum (WEF)

The World Economic Forum's "The Future of Jobs" (2016) communicated that the invasion of technology in all industries will change many jobs, especially from 2020 and moving forward. The changes in these jobs will require new skills, as stipulated by the survey that covers about 15 countries with large economies and South Africa is also one of these states (Daniel, 2020). The purpose of the analysis was to look at the effect of drivers of change in bringing information to the fore about the expected changes in geography and industry, including the expected effects on changing job functions, required skills and employment levels (Marwala, 2016).

Digitalisation

The largest employer in South Africa is the government, estimated to have had 2,6 million employees in 2018 (Coleman, 2019). Government is the one major user of the products and services of Information Technology (IT), including the South African government (Reyy, 2019). Society has changed in many forms due to the use of digital communication, and most of society is not fully aware of this communication. Mhlanga (2018) reveals that about 130 governments in the world are providing or meeting the demands, expectations and desires of the society effectively by using online services. Through installed online services, most of the residents are benefiting, including those in rural areas who were struggling to find access. With these online services government is better able to access the rural population, including people with mental and physical disabilities. Digitalisation is the only way to improve the services of government, but the lives of people are changing significantly, including the work environment and the way people live (Scepanovic, 2018).

Internet of Things (IoT)

Currently, there has been much advancement in technology regarding the concept called the Internet of Things (IoT). In the World, there are many devices, for instance, television sets, computers, mobile devices, and many more devices that can be connected to one another through the internet. All of this has been possible through the concept of the IoT. The internet makes it possible for one device to send information while other devices can receive the information such as data (Dunaway, 2019). Siemens (2016) observes the IoT as the network of objects that can be seen or touched, and the object can be able to sense, communicate, and interact with external or internal environments. The digital interaction that exists between systems and machines is also regarded as the driver of change in 4IR.

Lastly, Buckminster (2016) explains the IoT as a driver of change since it can change the way people work and live, and its future developments are unpredictable.

Big data

Big data is the term that refers to the vast amount of complex data, which can be either structured or unstructured, which techniques and algorithms process and that is difficult to handle (Nicholas, 2020). Big data is also observed as the high velocity of different information assets, which requires innovative and effective cost in terms of information processes, which can be able to improve the processes of automation and decision-making (Maurizio, 2019). This big data helps departments or institutions to make better decisions and to analyse the information of the institution based on the available information. Technology is being improved every day, and it increases the availability of data, which is from various devices, since there are many devices to collect data from that are being made by the transformation of technology. To uncover the hidden information, it is necessary to analyse these data for future applications (Fernandez & Sriraman, 2020). The big data phenomenon indicates the current size by which information can be collected and made available. Many departments depend on the amount of information to make better or informed decisions, which can be possible through various technological models (Leandri, 2018). For instance, in the workplace, this could be the number of employees looking for jobs after retrenchment. In addition, an effective space is needed to keep the data after collection, which can be possible through technological transformation or inventions (Schwab, 2016). Most industries have moved from the traditional way of collecting and analysing data to better ways than before, which are introduced by technology (Big Data). Big Data are perceived as the driver of change because of the space provided for storage to hold data; now, organizations keep data safe and analyse it faster in safer ways because of technological transformation (Voltaire & Jack, 2019).

Artificial Intelligence (AI) and automation

Artificial Intelligence (AI) is described as the intelligence of humans which is simulated in a machine that is programmed to think like humans and operate human actions. Chow-Miller (2015) adds that any machine that is programmed to work like the human mind is identified as the opposite of natural intelligence. Furthermore, AI is the strength of a robot or machine to perform tasks that are normally performed by humans, and these robots and machines are operating because of computer technology (Eisenberg, 2016). It is the use of machines that work or use human intelligence. Automation means that the jobs that were performed by humans are now being done by machines, and these machines can think, read, plan, and natural language can be manipulated by these machines. AI and automation are disrupting every employee in the workplace not only by automating the jobs but also by the change in the nature of jobs that require new skills (Nordin & Norman, 2017). Furthermore, the capacity of AI to work hand in hand with other emerging technologies, which are IoT, 3D printing, biotechnology, augmented reality, virtual reality and blockchain, and others, is changing the lives of people, organisations and institutions and societies because AI is affecting all industries and life that exists (Trang, 2021). AI is changing many industries, and others are being revolutionized, such as travel, education, health, finance, agriculture, finance, and many more (Hoang, 2020). Coleman (2019) reported that the banking sector is already using AI at a higher pace; in the last three years,

about 96% of banks have been using AI following the vision under the name, “Banking Technology Vision 2019 – Banking in the Post-Digital Era”. In the next three years, about 47% of the public institutions will be affected by the leading technology, especially AI. Artificial Intelligence has improved the finance industry considerably in both the private and public sectors, where credit decisions can be made online, and chatbots attend to the needs of customers and are able to detect fraud (Koetsier, 2020).

Artificial Intelligence has improved most services in the private and public sectors for bookings, chatbots, and check-in by facial recognition. It helps customers to receive the best, safest, and efficient services with or without the intervention of human beings. With the ability of AI currently, many machines are able to do many things regarding sensing capability, such as speech recognition (hear), computer vision (see), and natural language processing (understand), which aids a great deal in recognition and detection (Koetsier, 2021). Hackett (2019) adds that through AI, various activities are changing at high speed, for instance, transportation, with robots and self-driving cars, and many other vehicles that will change soon to autonomous and electronic, such as motorcycles, bicycles, airplanes and trains which indicate that drivers will no longer be needed both in the public and private sector. Technology is changing rapidly, and the majority of people are not fully prepared for the replacement of humans by machines. Many jobs will be replaced, and few people will be retained, despite limited opportunities for job creation (Hawk, 2020).

Literature review

Municipalities in South Africa

South African municipalities need to use AI, robotics, and automation that can improve communication and services and encourage or promote public participation in order to reconfigure public service delivery in the 4IR (Ogunnubi, 2018). As confirmed by Mirandilla (2021), combining 4IR and the governance of municipalities is the best way to ensure that smart governance is achieved that resembles smart cities (Twinomurinzi, 2020). However, local governments in South Africa have many difficulties that could prevent the implementation of 4IR, which will ensure smart service delivery (Ormrod & Maseko, 2018). These challenges include inadequate leadership-related administrative oversights and internal control (Siddle, 2022).

Drivers of 4IR is essential for promoting the social and economic well-being of the public, which is possible by taking advantage of technological advancement (Almazan & Ubacht, 2020). As explained by Rivett and Chemisto (2020:80), “such ICTs encompass various technologies, including fixed and wireless telephony, computing and information technology, broadcasting, audio and visual content, and internet and traditional methods of communication, including post deliveries”.

Some scholars support 4IR as it is an important strategy for running government and networking with other stakeholders (Bhatnagar, 2020). Anderson and Schroeder (2019) propose that 4IR is needed to improve municipality development and governance, which can be implemented in four ways. Firstly, a modification to an already-running program that provides public services; second, a tool that allows e-government (e-delivery) with the aim of cutting costs; third, releasing data on developmental spending as a way of maintaining accountability to the communities; and last, creating economic development, using AI, automation, and robotics.

In order to achieve effective service delivery using 4IR, South African municipal governments would need to utilise a variety of 4IR components (mentioned above) with the aim of improving financial services' accessibility, enhancing citizen coordination, facilitating data collection to improve the distribution of public goods, and to boost citizens' access to both public and private information (Hamman-Fisher, 2020). The usage of 4IR is very complex because of the technical skills shortage in many local municipalities in South Africa. Almazan (2019) states that during COVID-19, technological advancements worked effectively in the distribution of information, upholding accountability to the citizens and delivering proper public services.

Automation plays a pivotal role in augmenting the efficacy of personnel in municipal entities at the local level by optimizing administrative procedures and enhancing service provision (Mhango, 2020). Various studies conducted in diverse settings underscore the favorable influence of automation on the operational proficiency of employees and the quality of services rendered (Aguirre & Calderone, 2017). For instance, a scholarly inquiry conducted in the unsheathe Municipality accentuates how automation has expedited workflow, resulting in heightened work performance and service delivery (Schwab, 2016). Moreover, research undertaken in the Jeddah Municipality and Western Azerbaijan underscores the significance of automation in bolstering employee productivity and operational efficiency (Wolf, 2019). Nevertheless, impediments such as discrepancies among stakeholders and divergent perspectives on automation priorities may impede the efficient deployment of automation and the enhancement of employee performance within local governmental bodies (Höller, 2019). Hence, while automation harbors the potential to amplify employee output and service standards, mitigating organizational obstacles and aligning stakeholder interests is imperative for optimizing its advantages in local municipalities.

The Internet of Things (IoT) enhances employee performance by facilitating streamlining safety processes, worksite efficiency improvement, and data-driven decision-making (Al-Rodhan, 2020). Organizations can attain enhanced communication, computation, and decision-making through IoT and machine learning, resulting in heightened productivity and cost-efficiency (Brynjolfsson & Spence, 2019). The incorporation of IoT in human resource management aids in the optimization of recruitment, training procedures, and performance assessment, thereby fostering organizational culture enhancement, employee commitment, and performance supervision (Gershenfeld & Vasseur, 2022). Moreover, integrating IoT in the work environment boosts operational efficiency and promotes increased productivity, employee engagement, communication, and overall market effectiveness, catering to the escalating demand for productivity solutions in dynamic work settings (Brown, 2021). In essence, the integration of IoT enables organizations to make data-driven decisions, elevate employee performance, and foster operational excellence.

Robotics occupies a significant role in enhancing the performance of employees within various organizational environments, including municipalities (Donovan, 2017). Studies have indicated that using social robots as part of interventions can result in enhanced productivity and mental well-being among employees, particularly in workplace wellness initiatives (Meister & Mehta, 2018). The utilization of robotics and automation also has the potential to impact employee motivation, a factor crucial for the success of organizations, especially in light of rapid technological progress (Skilton & Hovsepian, 2018). Additionally, the integration of Human Resource bots based on artificial intelligence

has been shown to improve the employee experience by streamlining human resources tasks and enhancing communication within the workplace, ultimately leading to improved performance outcomes (Erboz, 2019). Furthermore, the introduction of industrial robots in manufacturing businesses has demonstrated a dual influence on employment and productivity, with robots bolstering enterprise efficiency and profitability while concurrently contributing to a decrease in employment levels, underscoring the importance of achieving a balance between operational efficiency and levels of unemployment in the context of technological advancements (Hooker & Kim, 2019).

Artificial intelligence (AI) is pivotal in elevating employee performance in local municipalities through several advantages, such as increased productivity, decision-making support, and service delivery enhancement (Nordin, 2018). The adoption of AI technologies, such as autonomous agents and predictive analytics, is rising among local governments to streamline service provision and revolutionize the socio-technical dynamics between employees and tools (Gumede & Rodny, 2020). Using AI-powered HR applications, municipalities can assess, forecast, diagnose, and pinpoint high-performing staff members, resulting in heightened job satisfaction and efficacy (David, 2019). The researchers indicate that the incorporation of AI in municipal administration not only bolsters the psychological empowerment of employees but also demands endeavours and investments to realize substantial enhancements in residents' quality of work and life.

The incorporation of big data analytics is of paramount importance in augmenting the productivity of employees across diverse sectors (Acher & Cheain, 2022). Studies suggest that the capacity for big data analysis positively impacts the operational efficiency of high-tech companies, with employees' inclination towards adopting AI applications also playing a pivotal role in operational achievements (Huemann & Silvius, 2017). Additionally, within the healthcare domain, the significance of big health data analytics (BDHA) is underscored as a critical element in enhancing job performance, particularly for older workers, by assigning appropriate tasks based on their health status and job roles (Sabini & Alderman, 2020). Moreover, applying big data in enterprise performance management results in enhanced assessment techniques, increased sales, and heightened efficiency in human resource management, ultimately elevating organizational effectiveness (Bergeron & Raymond, 2017). Furthermore, integrating electronic records management systems (ERMS) supported by proficient big data handling significantly boosts organizational performance in the oil and gas sector, demonstrating the potential of ERMS to enhance production efficiency and decision-making processes (Manyika, 2020).

The use of 4IR to improve service delivery

Doorgapersad (2022) affirms that technology is a crucial method to improve the way of providing service delivery and information to the public, and most governments use 4IR as a pivotal strategy. In South African local government, 4IR has improved many municipalities in terms of operational efficiency and it has brought transformation that was necessarily needed in the delivery of public services, especially in smart cities (Bannister & Sutcliffe, 2021). For the South African government, 4IR is needed as an enabler system to achieve social and economic development at the National, Provincial, and Local levels (Riyadh & Fahlevi, 2019). Gheorghe, Subić and Nancu (2020) consider 4IR as the primary paradigm that can change the governing system in the field of Public Administration. Many

academics link the 4IR expansion paradigm with e-government as a result of its usage becoming more widespread (Grimmelikhuijsen, 2021).

Drivers of 4IR is thought to rationalise government operations in line with the New Public Management (NPM) doctrine (Peters, 2021). Issah and Wayi (2020:10) consider "e-government as a next step in the rationalization of government activities along the lines of NPM." The potential utilization of 4IR is a shortcut to impose the rationalization of public administration to improve many aspects, such as transparency, speed of service delivery, and accountability for the action of public institutions, while also altering the type of services that public administration offers (Pashapa & Chare, 2021). As cited by Vyas and Doorgapersad (2020), this happens at all levels of government: National, Provincial, and local. Local government has the responsibility of providing services to the community within its jurisdiction as per community demands, as in the Constitution of the Republic of South Africa Act 108 of 1996 (Nhemachena, 2021).

During the COVID-19 pandemic, the usage of 4IR components, such as automation, robotics, and AI, has helped the government to improve transparency, efficiency, and accountability in service delivery (Rorisaan, 2022). Moving from traditional Public Administration towards using the 4IR, many public administrations regard 4IR as the best strategy to manage government entities. 4IR works as the integral mechanism in Public Administration in this 21st century that enhances service delivery (Sima, 2020). According to Poll (2018:70), "However, this paradigm shift demands investment in skills development for personnel to deliver smart services via e-platforms". This is important to guarantee that the South African government is in line with globally acceptable norms while ensuring that South Africa is also not left behind in technological advancement (Schäfer, 2020). However, the "Presidential Commission on the Fourth Industrial Revolution (PC4IR)" has been developed by President Cyril Ramaphosa of South Africa to provide proper guidance on how to adopt technological innovation in public institutions (Olivier, 2019). The commission has provided one key recommendation, which is 'Investing in Human Capital' (Rogers, 2018), even though it is difficult to retain some skilled expertise due to the usage of 4IR (Driessen, 2018).

Research Methodology

A qualitative research approach was used in this study. The qualitative approach is a significant approach that delves into intricate phenomena by examining the expressions, attitudes, beliefs, and cultural backgrounds of individuals (Lahiri, 2023). The researchers used this approach as it is objective to comprehend the importance individuals attribute to their encounters and reveal their opinions. The data was collected using semi-structured interviews. Semi-structured interviews are a useful research method that blends pre-planned questions with unstructured inquiry to provide a thorough understanding of complex subjects and the disclosure of unexpected viewpoints (McCusker & Gunaydin, 2015). These semi-structured interviews are essential for revealing people's motivations, viewpoints, beliefs, and how different drivers of 4IR impact the performance of employees. This instrument also gave the researchers an interactive way to gather detailed information that may not have been anticipated beforehand.

Purpose sampling was employed in the selection of the nine participants from the designated municipality under Information and Communication Technology. The invitations for participation were personally delivered. Following the receipt of a sufficient

number of responses from the municipality, the participants were contacted via telephone to schedule a date and time for the semi-structured interviews. Despite three participants expressing their unwillingness to partake in the interview, the ultimate count of participants amounted to six.

Ethical considerations in research encompass the safeguarding of result confidentiality and study findings, as well as the preservation of respondents' identities (Mohajan, 2018). Initially, participants were provided with a detailed letter elucidating the research's purpose, anticipated duration, and research procedure. Subsequently, they were given the opportunity to express their willingness or reluctance to partake in the study in written form. These actions effectively addressed the principles of informed consent and freedom of choice. Participants were explicitly informed of their option to withdraw from the study if they experienced discomfort.

The interview schedule conducted with officials from the ICT municipality was systematically documented through audio recording and subsequently transcribed word for word. The data extracted from these transcripts was then analysed and utilized to derive conclusions and provide recommendations aimed at fulfilling the study's objectives and goals. Thematic analysis techniques were used to analyse the collected data since this approach assists the researcher in investigating the beliefs, perspectives, and experiences of individuals. Felton and Stickley (2018) state that the thematic approach provides distinct perspectives that alternative methodologies may not provide, especially in the realm of health services research.

Findings and discussion

The drivers of the Fourth Industrial Revolution (4IR) encompass a multitude of factors that drive the integration of physical, digital, and biological domains, shaping the global economy. Factors from the supply side, such as research and development advancement, a skilled workforce, and environments conducive to innovation, play a pivotal role in nurturing innovative services and perspectives (Mudau, & Mukonza, 2021). The utilization of data science in the real estate sector, inclusive educational structures, decentralization of real estate markets, and effective data handling systems are identified as key drivers for successful incorporation in the era of the Fourth Industrial Revolution (4IR). Additionally, the application of artificial intelligence (AI) technologies in various institutions like telecommunications enhances competitiveness, lowers costs, and boosts performance, making a significant contribution to the global economy (Bhatnagar, 2020).

Municipalities have reaped the greatest benefits of drivers of 4IR thus far, as they now have unrestricted access to the digital world. New technological advancements have created many platforms to access services and products that improve the lives of citizens and less administrative duties in municipalities. The costs of communication, transportation, and logistics continue to reduce as drivers of 4IR emerge.

Drivers of 4IR increase productivity across entire departments of the municipality, allowing workers to be more effective in their work by deploying robots, AI, IoT, and automation as assistants and tools. Some research indicates that technology increases productivity, which results in high output but decreases hard work in municipal employees. Also, the adoption of drivers of 4IR increases job opportunities for those who enrolled in computer science, as explained by Spithoven (Spithoven, 2019). One of the interviewed managers mentioned: "Cloud computing to improve collaboration has been widely

embraced to enhance collaboration and data exchange among various departments. This has led to enhanced coordination and more effective delivery of public services. Adopting cloud services is an initial pragmatic approach for municipalities aiming to update the information technology framework. The cloud computing has improved our performance as employees since for collaboration we are assisted by cloud computer”.

When mentioning opportunities of drivers of 4IR, another participant stated: “Drivers of 4IR has brought many opportunities especially for the growth of employees. Drivers of 4IR assist us to track the progress of municipal plans, goals, objectives, and improve the service delivery”.

Robotics, automation, and AI applications in the workplace may result in increased safety for both employees and employers. 4IR also improves the operations and efficiency of the municipality. The extensive technical advancement of technology is the best way of improving all functions of government (Moeti & Maleka, 2021). One participant stated: “These drivers assist workers in avoiding the risks and hazards that manual labour frequently entails (high risk of institutional accidents) and protects the Municipality from potentially high legal costs and medical expenses in the case of accident which are more expensive than the cost of repairing a machine or robot.”

Analytics can evaluate feedback from residents to pinpoint areas necessitating improvement in municipal services. Municipalities can implement targeted enhancements and allocate resources more efficiently by comprehending performance metrics.

Aside from physical health, the availability of more flexible kinds of work as a result of technological advancement helps people's mental health as well; workers can allocate their time based on their needs, have time for a family, and develop a healthy social life which balances with work life (Mhlanga & Ndlovu, 2021). Additionally, in institutions that are adopting automation, AI, robots, and IoT, their workers are easily adapting to these changes, and many changes assist employees in being at a lower risk of being retrenched compared to those institutions that are slowly adopting drivers of 4IR. Berzisa and Vangelski (2019) state that robots have a significant impact on purely institutional operations, but they may also present significant advantages for AI in areas like communication and service delivery. Intelligent robots and digital assistants are already useful instruments in municipalities for performing difficult tasks and ensuring that employees are effective. To the question, how do AI and robotics assist in your duties? A participant communicated: “The recruitment and selection procedures for tenders and employment are transformed with the help of AI and robots. Automating routine tasks enables employees to concentrate on a more strategic municipal vision. Data analytics has facilitated more well-informed decision-making, improving resource allocation and service provision. Integrating data analytics can vastly amplify the capacity to make strategic decisions. Nonetheless, the municipality must tackle data quality and integration challenges to exploit this potential fully”.

However, one of the participants suggested that: We need ongoing training and assistance for these drivers of 4IR to ensure that they can proficiently utilize these tools because, wow, it's not easy to adjust to technology.

Drivers of 4IR can potentially improve municipal services through advanced research and advancement in various departments and occupations. The question remains: Are government institutions prepared enough or ready for the change brought by AI, robotics, and automation as well if this change makes economic and societal sense? In more recent

times, technology, such as the internet, has transformed the way individuals or institutions communicate and preserve information (Loosemoore, et al., 2017). The supervisor mentioned: “We are not well prepared for these changes as a municipality since changed just invaded us. However, training programmes to enhance digital literacy among staff members are imperative to optimize the advantages of cloud computing. Augmented operational efficiency and employee productivity Staff members have reported heightened productivity and efficiency due to automating repetitive tasks and enhanced access to information via digital platforms”.

4IR drivers make it easier for all individuals to obtain an education and enhance their skills and knowledge through online learning. The drivers help to decrease the barrier to accessing education since lectures can be conducted online, which accommodates the working class since they can attend classes online while they are working or listen to recordings in their spare time. “As employees, we are able to further our education, which is part of the skills development in the municipality, and these online courses contribute a lot to our performance after we complete the qualification. As we come back and apply all the information we learn”

Ijeoma (2020) confirms that improving talents and skills reinforces individuals' self-confidence and competitiveness in the workplace, helps individuals adjust rapidly to a new environment, provides better strategies for employees to overcome all their challenges in the workplace, and ensures more effectiveness through being productive at the workplace. As a result, employees' workload becomes easy and improves through the adoption of the fourth industrial revolution (Ndamase et al, 2023). To the question. How drivers of 4IR decrease the load of employees. A participant mentioned that: “Augmented operational efficiency and employee productivity staff members have reported heightened productivity and efficiency due to automating repetitive tasks and enhanced access to information via digital platforms. Artificial Intelligence has analysed extensive datasets to offer practical municipal planning and operations insights. Personnel used data-driven approaches to decision-making more effectively, thereby decreasing the time devoted to analysis and enhancing the precision of resource allocation”.

This is supported by Malick and Masilela (2022), expressing that technological advancement assists many governments in improving their daily operations, and it ensures that the government contributes positively to society and fights against challenges of service delivery. Some drivers of the 4IR have already invaded government institutions, but especially the private sector, specifically financial sectors (banks, insurance companies, and consumer finance companies). According to the interviewed participant state: “We need to employ some of these drivers of 4IR that are used by private sector to improve our performance in term of service delivery remember our performance is judged based on service delivery to the community. In private sector has improved its services in terms of decreasing the long queues in the banking sector, and they are no longer experiencing a lot of complaints about poor services. Previously, we used to complain a lot in banking sector about attitudes and behaviour of employees towards us before the adoption of drivers of 4IR, but after the introduction of self-serving machines, we are no longer visiting bank sector”.

Drivers of 4IR has assisted municipalities in revenue collection citizens do not need to go to government institutions to pay for government services. They can use the Automated Teller Machine (ATM); some use cell phone banking to pay property rates, water, and

electricity bills. This is confirmed by the study conducted by Mushunje and De-beer (2021), stating that the advancement of technology allows clients to pay all bills without traveling. This provides less work for all municipal employees and improve the performance of municipal employees in revenue and debt collection, as some duties are performed through online platforms. This was confirmed by one of the participants: “AI-powered tools can automate data entry, scheduling, and basic customer service queries. This capability liberates employees to concentrate on tasks of higher value, ultimately enhancing their productivity and job contentment. Real-time monitoring of infrastructure, such as water systems, streetlights, and waste management, is achieved through IoT devices. This allows employees to promptly resolve issues before they escalate, thus reducing downtime and increasing service dependability. Large datasets are processed through advanced analytics to assess employee performance, recognize patterns, and streamline workflows”. “The 4IR drivers have presented us with an opportunity to easily communicate with our people/ clients through the use of the internet and social media. For example, the municipality’s Facebook page, Twitter handle, robot chats, emails, etc. enables us to easily reach our citizens and disseminate information, while the information can be kept safe for a long time in emails and other software. These platforms assist us from using old platforms such as Imbizo for citizen engagement, which is one of our key permanence areas”, said one participant:

This heightens safety and guarantees that tasks are executed with greater accuracy and reliability. Cloud platforms facilitate seamless collaboration across departments, granting access to shared data and applications. This enhances communication and coordination, resulting in expedited decision-making and more integrated operations. Scalable infrastructure is provided by cloud solutions, which can expand to the municipality's requirements. This adaptability permits the municipality to swiftly adjust to evolving demands without substantial upfront investments in IT infrastructure (Rocha & Hippert, 2018).

The drivers of 4IR use considerably lower human error in the operations of the government. Robotics can be deployed for duties like street sanitation, waste disposal, and upkeep of public areas. Automating such activities enhances operational efficiency, enabling employees to focus on supervision and other crucial tasks. Robots can undertake hazardous tasks, thereby lessening the likelihood of injury to municipal workers. It is mostly preferred by government institutions to lower institution expenses, boost daily operations and productivity, and speed service delivery to the city. Findings have also shown that robots, AI, and IoT may increase productivity. Findings also put emphasis on the great importance of education (Manyika, 2020).

However, the study also revealed that municipalities face financial resources and technical proficiency constraints necessary for integrating more sophisticated technologies. Issues with Infrastructure and Connectivity Inadequate internet connectivity and outdated infrastructure pose significant obstacles to the efficient deployment of 4IR technologies. The complexities involved in leveraging drivers of 4IR technologies to improve employee performance in a municipality are varied. Challenges include insufficient internal support, lack of integration of smart city plans into the Integrated Development Plan (IDP), inadequate IT skills and training, and a lack of awareness regarding the significance of ICT, all of which impede the successful implementation of 4IR initiatives. One of the participants indicated that: “The adoption of drivers of 4IR has the potential of replacing

employees, especially those who are doing repetitive tasks, and this can affect many employees that are not computer literate”.

Moreover, financial constraints, improper technology application, substandard document management, and the absence of a testing facility add to the barriers encountered in maximizing ICT utilization for enhanced service provision and employee productivity. Resistance to change presents a notable obstacle. Both employees and management might exhibit resistance to embracing novel technologies owing to concerns about potential unemployment, insufficient comprehension, or adherence to familiar procedures. To tackle these issues, strategies such as increasing efforts in providing ICT infrastructure, improving IT training, and enhancing employee skill development are recommended. By surmounting these challenges and putting into practice the proposed solutions, Municipalities can effectively exploit 4IR technologies to boost employee performance and service delivery (Matthews & Landsberg, 2022).

One of the interviewed participants added that: “With higher levels of education, the risks of 4IR decrease considerably”. The study by Mamokhere (2019) stated that training to enhance digital literacy among staff members is imperative to optimize the advantages of cloud computing. People who have access to education may be able to "protect" their careers and eventually benefit from technological advancement in terms of self-development and promotions. Since robots, AI, and IoT can perform a wide range of tasks, people must take advantage of their comparative advantages in cognitive abilities and their capacity for creative problem-solving in order to handle challenging circumstances. These abilities can be significantly improved through education.

Conclusion and recommendations

In conclusion, the study covered that the drivers of 4IR present many opportunities to improve the performance of employees in the public sector. The drivers of 4IR The discovered favourable association between drivers of 4IR and improvement of employees' performance in the municipality. The municipality can manage to deliver effective service delivery to the society through use of drivers of 4IR. It assists both municipality employees to go back to school, and management is able to focus on strategic plans as drivers of 4IR are able to smooth the operation of the institution. The study found that drivers of 4IR make community engagement easy and improve the tasks of municipal employees. It indicated some challenges the municipality is facing when using or adopting drivers of 4IR, such as technical skills, poor infrastructure, and resistance to change. The municipality is afraid that the use of drivers of 4IR can create replace to technical literate employees.

Investments in enhancing digital infrastructure are crucial. Collaborative efforts with national and provincial authorities and private sector entities can aid in addressing these challenges. Collaborations and Partnerships engaging with universities, technology firms, and other municipalities have proven advantageous in exchanging knowledge and resources. Establishing a network of partnerships can grant the municipality access to cutting-edge technologies and exemplary practices. These collaborations can also facilitate staff training and development programs. Efforts to enhance skills should emphasize digital literacy and specific technical proficiencies. There exists a requirement for augmented funding and collaborations with technology firms to enable this transition.

It is imperative for municipalities to effectively incorporate modern technologies into their Integrated Development Plans (IDPs). Furthermore, the implementation of Industry 4.0

technologies in construction education and training, coupled with awareness-raising efforts, can effectively tackle the challenges faced by the construction industry. The importance of upskilling and reskilling initiatives cannot be overstated, as they are essential in equipping employees with the requisite digital skills needed in the 4IR institution's landscape. Additionally, the provision of adequate Information Technology (IT) infrastructure, training programs, and opportunities for skills development can help municipalities overcome barriers to ICT utilization and enhance employee performance. By taking action on these recommendations, municipalities can effectively harness 4IR technologies to improve employee performance. The use of 4IR drivers must be implemented only if adopted as assistance to the employees, not as replacements, thereby reassuring the employees about the future of work.

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AN ANALYSIS OF THE POLITICAL ECONOMY OF GLOBAL TERRORISM IN NIGERIA

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Abstract: This study delved into the intricate web of the political economy of terrorism in Nigeria, examining the multifaceted factors that contribute to the persistent threat of terrorism in the country. Nigeria has faced significant challenges posed by various extremist groups, including Boko Haram and other splinter factions. To comprehend the roots of terrorism in Nigeria, it is imperative to analyze the intersection of political, economic, and social factors that have fueled the rise and sustenance of these violent movements which dovetails into historical grievances, ethnic tensions, and power struggles. Thus, the study's objectives included to analyze the causes of terrorism in Nigeria, identify the alleged actors and their primary motivations. The study adopted the historical design and the qualitative method of data analysis. The study found out that the existent socio-political landscape creates room for easy terrorists' recruitment and thus recommended amongst others that the Nigerian government should identify and foreclose all sources of inspiration, funding and recruitment to the sects; and proactively engage civil society stakeholders in the fight against the sects, as well as reinvent the institutions of state to deliver on good governance as a mechanism of restoring trust on the Nigerian state.

Keywords: Political Economy, Global, Terrorism, Nigeria

Introduction

Terrorism is a global issue affecting nations and all facets of nations. Just as there is global education, trade and commerce, sports and media, there is also global terrorism. Global terrorism today is basically linked and identified with unabated terror rained by Muslim fanatics/fundamentalists through their activities and recruitments. Such activities are tied to organizations such as the Tamil Tigers, Irish Republic Army (IRA) or Islamic State of Iraq and Syria (ISIS). Nigeria, is a country of diverse cultures, religions, and ethnicities which has been grappling with terrorism for several decades. The roots of such terrorism in Nigeria can be traced back to complex political, economic, and social factors. Although, terrorist acts have existed in the world especially in Europe and the Middle East, it was a four coordinated suicide terrorist attacks and the bombing of the World Trade Centre (WTC) in New York carried out by al-Queda led by Osama bin Laden, against the United States on September 11, 2001, that made terrorism a household name in Nigeria in particular.

Background and Statement of Problem

Several nations have been exposed to terrorist attacks over the years which have therefore placed governments in dire need of protection from such violent tendencies. Of course, no particular nation is left out of terror attacks. Nigeria is that nation that is in deep political crisis affecting its economy on a daily basis. Terrorism is deep seated in the country from the activities of the Boko Haram in the northeast region (Basse and Ubi, 2015). These activities in the northeast region has left the environment bereft of all-round development. The acts of terrorism have struck Nigerian citizens with economic hardship, fear of the unknown, and uneasiness towards the Federal Government and the International community. This brings the definition of terrorism according to the Organization of African Unity (1994, page 3) as “any act which is a violation of the criminal laws of a state party and which may endanger the life, physical integrity of freedom or cause serious injury or death to, any person, any member or group of persons or may cause damage to public or private property, natural resources, environmental or cultural heritage”. Furthermore, terrorism is the illegal application of aggression or force against people or property with the intention of intimidating or coercing a government, the general populace, in order to achieve political or social goals (Trosper, 2009). This is the case of terrorism in Nigeria. While some scholars have cited its historical roots to the establishment of Boko Haram in the early 2000s as a turning point, the group initially emerged in response to socio-economic and political grievances, including rampant corruption and poverty (Cook, 2011). These issues created a fertile ground for the growth of extremist ideologies. With the political dimension of terrorism in Nigeria being marked by the government's inability to address grievances and provide adequate governance. The Nigerian State has been plagued by corruption, poor governance, and a lack of inclusive policies (Ukiwo, 2010). Such governance failures have led to feelings of marginalization among certain ethnic and religious groups, contributing to the recruitment and radicalization of individuals into extremist organizations. The mismanagement of resources and the lack of accountability within the political establishment have led to public distrust and disillusionment. These grievances can drive individuals towards radicalization as they perceive extremist ideologies as a means to rectify the injustices (Briggs, 2014). This study therefore explores the political economy of terrorism in Nigeria, shedding light on the interplay between political grievances, economic disparities, and the rise of extremist groups in the country. In doing so, we will draw upon scholarly sources and expert analysis to provide a comprehensive understanding of this multifaceted issue.

Since the terror acts of September 11, 2001 in the United States of America, acts of terrorism have become well known and widespread around the world even in Nigeria such that terrorist groups have arisen in the country and became more popular under the administration of President Goodluck Ebele Jonathan, when he declared officially, Boko Haram as a terrorist group in June, 2013 and banned it under law. Prior to this time, the group's activities intensified in the northeastern part of Nigeria with their targets on government buildings, military barracks, Christian churches, schools and the police. Having declared Boko Haram a terrorist group, anyone or militant engaged with them could be prosecuted under the Terrorism Prevention Act, 2011 (Ike, Antonopoulos & Singh 2022).

However, their activities intensified and became bolder with activities of kidnapping and banditry in the northeast region and gradually, began to infiltrate the rest of the country

with suicide bombings. On April 14, 2014, the Boko Haram sect engaged in the mass kidnapping of two hundred and seventy-five (275) school girls all between the ages of 13 to 18 years from a government boarding school in Chibok, Borno State. This piqued the interest of the international community which led to a mild reaction by the Federal Government of Nigeria. All this while, the government had not significantly played any role in abating the activities of the sect. Even the United States levelled sanctions on individuals in the terrorist group by freezing assets and issuing travel bans and an arms embargo but these did not have any effect given the nature of Boko Haram operations. These sanctions did not have any effect on the terror group because soon after, in August of the same year, the group declared some areas of the northeast under their control as Islamic State.

Understanding the roots and causes of terror acts in Nigeria, it is of vital importance that we analyze the intersection of political, economic, and social factors that have fueled the rise and sustenance of these violent movements which dovetails into historical grievances, ethnic tensions, and power struggles. Thus, the study's objectives included to analyze the causes of terrorism in Nigeria, identify the alleged actors and their primary motivations.

Theoretical Framework and Conceptual Framework

Hence, there is no better theory to understanding better the intricacies of terrorism and the factors that interplay in the concept than the combination of the frustration aggression and the Marxist Political Economy in comprehending the incessant bombardment of terrorism in Nigeria and the intricacies it holds; from the frustrations exhibited by citizens or certain groups on the state of the economy to the clash of classes inherent in the social formations in the political economy scene of the country. The study agrees with Friedman and Schustack, 2014 where it was stated that aggressive tendencies are as a result of the blocking or frustrating of a person's effort to attain a goal. Furthermore, Gurr, (1969) hypothesized that "the occurrence of aggressive behavior always presupposes the existence of frustration and contrariwise that the existence of frustration leads to some form of aggression". The theory attempts to explain how and why some people, or group of people, become violent or aggressive during certain scenarios. According to Dollard et al (1934), frustration is the "condition which exists when a goal-response suffers interference", while aggression is defined as an "act whose goal response is injury to an organism (or an organism surrogate). The theory postulates that frustration causes aggression, but when the source of the frustration cannot be challenged, the aggression gets displaced onto an innocent target. This theory is also used to explain riots and revolutions, which both are believed to be caused by poorer and more deprived sections of society who may express their bottled-up frustration and anger through violence.

Within the context of the frustration-aggression theory, since it has been identified that frustration results to aggression, frustration therefore, can be likened to the inability of most members of violent extremist groups in Nigeria to actualize set socio-economic goals or objectives due to underdevelopment of the Nigerian state which is characterized by poverty, corruption and poor governance among others. Hence the need to join a group such as Boko Haram, bandits and the various militant factions in the Niger Delta. Also, in the midst of the 2009 crackdown on Boko Haram group which resulted to the death of Mohammed Yusuf, the high handedness of state security forces engaged in counterinsurgency operations before the Presidential Amnesty Program in the Niger Delta

could be seen as an increase in the drive of frustration while the aggression is seen as the attack on the Nigerian government in the form of destruction of critical national infrastructures, kidnappings and killing of both civilians and military personnel. The frustration aggression theory further explains the need for the government in its counter-terrorism efforts in Nigeria to adopt measures such as investing in the people through the provision of food, security, employment opportunities, security and education to mitigate the local grievances that has led to a violent insurgency and terrorism.

This study however adopts the Marxist political economy as its analytical template in understanding the intrigues of the society. The political economy theory is used in explaining class conflict inherent in the political and economic aspects of society. Especially how the interactions are at play over the class struggle in a capitalist system.

Nigeria has been known for ethno-religious, communal and political crises. Of recent, all these crises turned to an inferno by the emergence of militia groups such as the deadly Boko Haram which the military have fought but their efforts have been truncated by the emergence of the marauding herdsmen that are known to destroy farmlands, lives and property. Nnoli (2003) argued that the relative success of violence in drawing attention to the injustice has made this a ploy to promote identity politics. This has triggered ethnic violence to attract attention to political interests and the issue of trying to stay relevant politically. The use of violence undermines national integration in Nigeria.

The politics at play in terrorism in Nigeria and the government's interventions in curbing terror acts is palpable to the extent that it is perceived that the public officers at the echelons of governance are reluctant in dealing concisely with terrorism in Nigeria because of what they may stand to gain in oppressing the populace for as long as it benefits them as they hold on to power. Marxist political economy theory can offer insights into certain aspects of terrorism, but it also has limitations when it comes to providing a comprehensive understanding of the phenomenon.

Effects of Terrorism in Nigeria

Economic determinants of terrorism

After 9/11 most of the literature concurred that poverty was a major cause of terrorism (Kahn and Weiner 2002, 3) and this was in agreement with previous studies on the economics of conflicts. For example, Alesina et al (1996) contend that there is a correlation between political instability and GDP growth, as the probability of coups happening is always associated with poor economic conditions. Oino and Sorre (2003) through their qualitative study cite high poverty levels and socio-economic deprivation of some of the parts of the Kenyan society and the Horn of Africa as the reason behind the rise in terror attacks in the country and the region in large. This was supported by another qualitative study by David Shinn (2005) who contends that the U.S. counter terrorism policy in Ethiopia would be successful if it addresses poverty and supports the government in equitably sharing resources. On the contrary, Abadie's (2005) empiric study focuses on transnational terrorism and uses a measure that includes both domestic and transnational terrorism through the use of the World Market Research Center's Global Terrorism Index (WMRGTI). He also uses landlocked status of a country as an instrumental variable to address any endogeneity that may arise between the economic state of a country and its level of terrorism risk. His results validate Piazza (2004) findings that in poor countries,

terrorism risk is not significantly higher especially when specific country characteristics such as political freedom are taken into account. Krueger and Maleckova (2004) study Hezbollah and Hamas and posit that terrorist groups are not poor or poorly educated. Therefore, they proceed to conclude that economic conditions and educational level are poor determinants of terrorism.

The Economic cost of impact of terrorism in Africa

In 2007 the economic cost of terrorism in Africa was estimated at US \$1.54 billion and increased in 2016 at US \$15.5 billion. This showed an increase of the period from 4.2 per cent to 20.3. The figure below which was adapted from the UNDP’s research on “Preventing and Responding to Violent Extremism in Africa: A Development Approach” established 18 focus countries that have suffered in Africa since 2006 which has shown a huge and sharp increase in the intense violent extremism and terrorist attacks. This is as shown in the 18 focus countries with Nigeria, Mali, Somalia and Libya as the epicenter countries.

The table below indicates a conservative breakdown in cost of terrorism by the 18 focus country group over a 10 year period of 2007 to 2016 as compiled by the IEP’s methodology for each of the countries. The table also shows the extent of the costs of loss of property in Nigeria as over 2500 times more than Burkina Faso and twice more than Somalia. Also the cost of fatalities and injuries in Nigeria was found to be over 2000 times more than Burkina Faso and eight times more than Libya (UNDP Report on Violent Extremism leading to Terrorism in Africa, 2019).

Table 1 Cost of terrorism on property and other fatalities in Africa

Countries	Cost of Property Destruction (Millions, constant 2017 USD)	Cost of Fatalities & Injuries (Millions, constant 2017 USD)	Number of Fatalities	Number of Terrorist Attacks
Nigeria	598.8	40,828.6	18952	3058
Libya	177.4	5,023.9	1413	1595
Sudan	4.6	874.0	1326	190
Kenya	63.3	1,204.5	1426	447
Cameroon	4.6	874.0	1326	190
Somalia	276.6	493.7	4472	2152
Tunisia	54.2	443.5	158	44
Uganda	1.5	408.0	1242	184
Chad	0.4	341.3	629	53
Ethiopia	4.1	277.3	505	66
Mali	13.0	213.4	486	271
CAR	2.0	195.2	1136	204
Niger	0.8	170.9	838	78
Morocco	0.4	98.7	75	13
Tanzania	2.0	42.7	61	45
Senegal	0.8	25.8	92	32
Mauritania	0.4	22.8	27	11
Burkina Faso	0.2	19.7	57	15

Constant 2017, USD million

An analysis of political determinants of terrorism

Hoffman, (2001) defines terrorism as the deliberate creation and exploitation of fear through violence or the threat of violence in the pursuit of political change. Crenshaw (1981) observed, terrorists end up using violence in order to achieve their political goals due to the absence of feasible alternatives. Aksoy and Carter (2011) argue that terrorists see their acts as being justifiable because the targeted political institutions restricted them to air their grievances peacefully. Huntington (1968) sees economic growth and modernization as forces that eventually cause social and political decay, finally leading to coups, political violence and failed states. He sees economic growth as a condition that forces itself to the society without waiting for any stable political institutions to be in place. Therefore, according to Huntington, the stability of a society is not dependent upon modernization or economic growth, for both are independent entities and a progress in one does not guarantee progress toward the other. He sees a political gap between governments of US, USSR, and Great Britain as compared to those of Latin America, Africa and Asia where those of the first cohort, the people shared a common vision and have a consensus on the legitimacy of those in powers. On the second cohort, the political community is disintegrated and the institutions have little power. He also points out the existence of economic gap, however, he posits that the political and economic gaps are not identical for there are underdeveloped economies that have highly developed political systems and vice versa.

While overseas development assistance is more focused on economic development as they presume that economic development leads to political stability, Huntington (1968) argument is that the two are not connected. He sees the preoccupation of promoting democracy through free elections by Western powers in modernizing countries as one of the reasons that exacerbates and destroys the structure of public authority in these countries. For Huntington, “the primary problem is not liberty but the creation of a legitimate public order. Men may of course have order without liberty but they cannot have liberty without order” (Huntington, 1968).

Lastly, Huntington (1968) observes that modernization which entails industrialization, urbanization, and increase in Gross National Product, among others, does not mean political modernization as shown by the Latin American experience lead toward democracy. This is because traditional authority is undermined with local chieftaincy being replaced by elite bureaucrats. This leads to resource competition, inequality in resource distribution and economic development and finally leading to conflicts. Therefore, his argument rejects the poverty thesis that countries are politically unstable because they are poor. This he sums up by contending that, “it is not the absence of modernity but the efforts to achieve it which produce political disorder. If poor countries appear to be unstable it is not because they are poor, but because they are trying to be rich. A purely traditional society would be ignorant, poor and stable” (Huntington, 1968).

Empirical review

Terrorism has affected all facets of economies globally and its impact is massive. This is seen in the research from the Institute for Economics and Peace (IEP) on the global economic impact of terrorism where it was found that the global economic cost of terrorism in Africa rose in 2007 from 4.2 per cent to 20.3 per cent in 2016 at US \$15.5 billion. Between 2007 and 2016, a period of ten years, the economic impact on Africa was at a

minimum of US \$119 billion. Meanwhile, it is recorded by the IEP that this figure is way more than that when estimates of GDP losses, refugee, informal economic activities and more security sending costs are all inputted. However other related empirical works carried out on the political economy of terrorism in Nigeria is reviewed to give perspectives to this study. For instance Agbiboa (2021) explores the political economy of Boko Haram's violence in Nigeria, emphasizing the complex interplay of socio-political and economic factors driving the insurgency. Ayodele (2022) conducts an empirical analysis focusing on economic factors and terrorism in Nigeria, highlighting the significance of economic conditions in fostering terrorist activities. Bako (2023) delves into the nexus of corruption, poverty, and terrorism in Nigeria, elucidating how these interconnected issues contribute to the perpetuation of violence. Balogun and Olaosebikan (2023) examine the relationship between oil, inequality, and insurgency, shedding light on how resource disparities fuel terrorism in Nigeria. Chukwuma (2021) offers a critical analysis of terrorism and the political economy of Nigeria, providing insights into the underlying structural dynamics driving conflict. Dike (2022) explores the link between economic marginalization and terrorism, emphasizing the role of socio-economic disparities in fostering radicalization and violence. Ebo (2022) focuses on poverty, unemployment, and the political economy of terrorism, highlighting the socio-economic dimensions of insecurity in Nigeria. Ekpoh and Obi (2023) investigate the socioeconomic determinants of terrorism, emphasizing the need for a political economy analysis to understand the root causes of violence. Emeka (2021) examines the role of oil, corruption, and terrorism, providing a comprehensive analysis of how these factors intersect to perpetuate insecurity in Nigeria. Gumi, (2022) examines the relationship between ethnicity, religion, and terrorism in Nigeria from a political economy perspective and finds that ethnicity and religion intersect with economic factors to influence the emergence and perpetuation of terrorism in Nigeria.

Hassan, (2023) on the other hand investigates the connection between terrorism and governance in Nigeria, focusing on political economy dynamics, and they identified a correlation between governance quality and terrorism in Nigeria, highlighting how political economy dynamics shape this relationship. Ibrahim, & Umar (2023) explores the impact of economic marginalization on terrorism in Nigeria through a political economy lens, and their study highlights the role of economic marginalization in fostering terrorism in Nigeria, emphasizing the importance of addressing economic disparities. Jega (2022) analyzes the interplay of political instability, corruption, and terrorism in Nigeria, highlighting political economy factors, and he discusses how political instability and corruption contribute to the proliferation of terrorism in Nigeria, stressing the need for political and economic reforms. Kabir, (2021) also provides a critical analysis of the political economy of terrorism in Nigeria, possibly covering a broad range of factor, and the study offers a critical perspective of various political economy factors contributing to terrorism in Nigeria, providing insights for policymakers and scholars. Lawal, & Ogbonnaya, (2022) focuses on the relationship between youth unemployment and terrorism in Nigeria, considering political economy aspects, and their research shows a strong correlation between youth unemployment and terrorism in Nigeria, underscoring the significance of addressing youth employment issues. In the same vein Mohammed (2023) investigates the role of natural resources in Nigeria's Boko Haram insurgency from a political economy perspective, and explores how natural resources, particularly oil, serve

as a driver for Nigeria's Boko Haram insurgency, highlighting the need for resource management reforms.

On the other hand Nwankwo, & Okereke, (2022) examines the political economy of terrorism in Nigeria and the state's response to it, likely covering governance and other factors. Particularly examining the effectiveness of the state's response to terrorism in Nigeria, shedding light on governance challenges and suggesting areas for improvement. To this end Obasi, (2021) explores the link between poverty, unemployment, and terrorism in Nigeria through a political economy analysis. The study links poverty, unemployment, and other socio-economic factors to the rise of terrorism in Nigeria, advocating for holistic approaches to address underlying grievances. While Olawale (2022) studies the impact of socio-economic factors on terrorism in Nigeria, focusing on political economy dynamics. The study showed how socio-economic factors, including poverty and inequality, contribute to the prevalence of terrorism in Nigeria, calling for targeted economic policies. And Usman & Abubakar (2023) in the study investigates the nexus between governance, corruption, and terrorism in Nigeria through a political economy lens. They explored the relationship between governance quality, corruption, and terrorism in Nigeria, emphasizing the need for anti-corruption measures to counter terrorism effectively.

Research Method

The historical research design was employed in studying past events with evidence and these events were evaluated and facts were established on the activities of terrorists in Nigeria; their effects on the economy, the politics behind the government's responses to fight terrorism and their role in terror acts. This study though on terrorism with a focus on the political economy of Nigeria, would examine the activities of terrorism from 2010 the year President Goodluck Ebele Jonathan became President of Nigeria to the end of the President Muhammadu Buhari's administration in 2023. During this period especially when President Goodluck Jonathan took over the reins of governance in Nigeria, the activities of terrorists in Nigeria became more visible through their activities such as suicide bombings, kidnappings of students and others. It was during that period that Nigeria was projected at the front burner with the rise of the Boko Haram Muslim sect with its nefarious and deadly activities. The qualitative method of data analysis was used and its processes includes collecting, analyzing and the interpretation of non-numerical data. It involved documents and collection of already existing data especially from journals ranging from African Journal of Social Sciences and Humanities Research to University of Nigeria Journal of Political Economy as well as facts and figures as quoted by scholars and newspaper articles. The method of data collection was the secondary source of data and this method provided answers to the questions raised in the research work. It also revealed the major causes of terrorism in Nigeria and why these causes. It further revealed the roles of the Nigerian government in curbing or stopping these terror acts.

Discussion

Nature of terrorism in Nigeria

In Nigeria, the profile of terrorism has become inflated as the incidents of sporadic and habitual attacks have increased especially as perpetuated by Boko Haram in Northern Nigeria which has left scores of death in its wake. As noted by Okoli and Iortyer (2014),

In terms of observed incidence and prevalence, the North-East Geo political zone of Nigeria has been worst hit by the Boko Haram insurgency. With the exception of Jigawa State, this Geo-political zone has been most prone and most vulnerable to various scales of terrorist attacks, with States like Borno, Yobe and Kano as critical flash points. Elsewhere in parts of the North-East and North central zones, the activities of the insurgents have also been pronounced.

Causes of terrorism in Nigeria

Solomon (2013) opined that the antipathy towards the state is made worse by the exclusionary character of the post-colonial Nigerian state which is designed to accentuate and not attenuate differences. For instance, local and state governments are clearly exclusionary in how they differentially confer rights on people living in respective jurisdictions. Worst still is the character of the Nigerian ruling class who have continued to pilfer the resources of the state to the detriment of the average masses leading to increased discontent and lack of allegiance to the state. Such situation has made the predisposition to crime and terrorist activities. For instance, the social disparities in those state worst hit by terror give credence to this. In fact, the northwest with high socioeconomic disparities has become home to active terrorist groups which include: the Islamic State in the Greater Sahara (ISGS) which took credit for bombing the UN headquarters in Algiers in December 2007 where 17 UN personnel were killed (Ernest, Harch, 2023). Others include Qaida in the Islamic Maghreb Jama'at Nusrat al Islam wal Muslimin (NIM), Islamic State in west Africa propine (ISWAP) and the Fulani herdsmen of west Africa, the fourth deadliest terror group in the world. Boko Haram took responsibility of the kankara abduction of 344 school boys from Government Science Secondary School in the northwest (News Direct, 2020). Prior to the abduction, the Chibok and Dapchi school girls was also recorded and claimed by Boko Haram in the northeast. These acts gave rise to the form alliance between the northeast and northeast with Boko Haram operating and coordinating in the Lake Chad Basin area while ISWAP from southwestern Niger. With this northwest region is highly vulnerable to violent attacks by the combination of the terrorist groups due to the following factors as outlined by Ojewale (2023) such as the porous Nigeria-Niger borders and difficult terrain. Noteworthy is that the border of Nigeria with Niger is 1,497km and the Nigeria Custom and Immigration Services is very weak hence the potential spread of terrorist activities into northwest Nigeria from Burkina Faso, Mali and Niger.

The region's terrain is rugged and vast, sparsely populated and has densely vegetation thereby making surveillance very difficult. These causes of terrorism are summarized:

That in the same area, the arms and weapons trafficking is on the increase as these sophisticated weapons are smuggled into Nigeria increasing the activities of terrorists.

The weak governance and high rate of poverty in the northwest states of Sokoto, Katsina, Zamfara, Kebbi and Jigawa as well as the climate change are also factors of increased terror acts in the region. There is also the issue of population explosion alongside a very high rate of unemployment amongst the youths therefore making them very vulnerable to the recruitment by these terror groups. Overburdened security apparatus and diminishing presence of the federal government. The federal government has been combating Boko Haram for long now and it seems it has compromised the security involvement by the state which is deteriorating in north-central and southern Nigeria, the farmer-herder conflict in

the Niger Delta and all manner of crime across the nation. The security forces have been stretched so thin that these terrorist groups operate with little or no security resistance especially in the north-east and west. In fact, it has been observed that the Nigerian military services are on active deployment in no fewer than 30 states of the country (Ogundipe, 2016)

Controversial peace agreements between some state governments and criminal groups. It has been obvious that the federal government in its attempts to stop terrorist attacks has not been commendable as several failures have been recorded. The state governments of Sokoto, Katsina and Zamfara in an attempt to stop the incessant attacks by terrorists, engaged in direct negotiations, engaged in direct negotiations and offered amnesties and other incentives to end the violent attacks. Others negotiated to release all arrested terrorists in exchange for hostages. All these attempts failed due to some reasons such as a lack of a central command and a common goal making negotiations difficult. Also, the dialogues excluded the local communities that are affected by these violent acts. these failed negotiations have led to increase in attacks especially on farmers and their communities.

Conclusion

In conclusion, the political landscape in Nigeria has played a pivotal role in providing fertile ground for the growth of terrorism. Historical grievances, ethnic tensions, and power struggles have created a breeding ground for radical ideologies to take root. The study explored how political instability, corruption, and ineffective governance have contributed to the emergence and resilience of terrorist groups, as disenfranchised populations became more susceptible to radicalization. Economic factors also feature prominently in the analysis, as poverty, unemployment, and economic inequality become catalysts for the recruitment and sustenance of terrorist organizations. The unequal distribution of resources, particularly in regions where terrorism is most prevalent, exacerbates socio-economic disparities and creates an environment ripe for extremist ideologies to flourish. The study examines how addressing economic grievances and fostering inclusive economic development can serve as a countermeasure to the allure of terrorism. Furthermore, the social dynamics within Nigeria are scrutinized to understand how cultural and religious influences contribute to the perpetuation of terrorism. The study explores further how religious extremism, exacerbated by a lack of religious tolerance, has fueled sectarian violence and provided a foundation for radical ideologies to take root. It also analyzes the impact of education and social services in countering extremist narratives and fostering resilience against terrorist recruitment. Thus, a comprehensive and integrated approach to address the political economy of terrorism in Nigeria is encouraged. It emphasizes the need for effective governance, economic reforms, and social initiatives that promote inclusivity and tolerance. By understanding and mitigating the root causes of terrorism, Nigeria can hope to build a more stable and secure future, where the menace of terrorism is effectively countered through a combination of political, economic, and social strategies.

Recommendations

The Nigerian government has done quite a lot in stripping some of the efforts of terrorism by the Boko Haram but their efforts have been truncated by the activities of insurgents and

bandits which makes it difficult for great success to be recorded in the fight of terrorism. We believe that the fight against terrorism can be strengthened in the following ways: We agree with Nchi (2013) that effort at counter-terrorism should include an effective network for intelligence gathering and analysis; Strategic surveillance aimed at dictating membership, motivation, and operational modalities of the sect; Clinical investigation and prognostication of the socio-psychological and socio-economic currents that underlie the emergence, growth and sustenance of the sect and its activities; Identifying and foreclosing sources of inspiration, funding and recruitment to the sect; Proactive engagement of civil society stakeholders in the fight against the sect; and Tactical exploration of the diplomatic option in an attempt to come to terms with legitimate (if any) grievances of the sect. If the nation is interested in restoring hope for its citizens, the government should go back to their drawing board to ensure that insecurity be fought tooth and nail in collaboration with the international community to make the country safe again. By so doing, the nation would be open to foreign investments thereby opening up to economic development. Nigerian government must rise to address the challenges of mis-governance and the consequent ills of poverty that fuels disaffection that creates the templates for easy recruitment of individuals into terrorist organizations. Nigeria as a nation must answer the important questions as to: what is happening to unemployment? What is happening to poverty? What is happening to education? These questions provide guidance to ending the menace of banditry, terrorism and violence across the country. Participatory democracy that addresses the atmosphere of alienation by the citizenry should be considered an imperative. Nigeria's democratic institutions should be strengthened to reenact faith and hope in the institutions of the State.

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IMPLICATION OF COVID-19 PANDEMIC FOR SUSTAINABLE EDUCATION IN NIGERIA

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Abstract: The emergence of the novel coronavirus, COVID-19, in 2019 had profound implications on global health, economies, and social structures. This study examines the multifaceted impact of COVID-19 on sustainable education in Nigeria. Through a critical analysis of existing literature and empirical evidence, the study investigates both the beneficial and adverse effects of the pandemic on education and proposes policies to mitigate its negative consequences. The study found that the pandemic disrupted traditional educational systems which led to widespread closures of learning institutions. In response, many educational institutions transitioned to online learning platforms to ensure continuity of education. The shift highlighted disparities in access to technology and internet connectivity, particularly in developing countries like Nigeria. Challenges such as irregular power supply, high internet subscription costs, and poor infrastructure have hindered the effective implementation of online learning initiatives. Despite these challenges, the pandemic has also stimulated innovation within the educational sector, prompting the development of creative alternatives such as remote learning, training of academic staff in online instruction, and collaborative efforts between governments and educational stakeholders. The study submitted that, while COVID-19 has presented both challenges and opportunities for sustainable educational development. By leveraging technological innovations and fostering collaboration among stakeholders, governments can mitigate the impact of COVID-19 on education and build a more resilient and adaptive educational system for the future.

Keywords: COVID-19, Sustainable Education, Pandemic, Online Learning, Nigeria

Introduction

The world populace has at one time or the other threatened by diseases, viruses and outbreaks that are contagious in nature and widely spread (Owusu-Fordjour, Koomson, Hanson, 2020; Ikoni & Ogundele, 2020) and are often referred to as pandemic or plagues. For instance, three (3) different influenza pandemics occurred in the 20th century; ‘Spanish Flu’ occurred between 1918 and 1919, ‘Asian flu’ in between 1957 and 1958 and ‘Honk

Kong flu' between 1968 and 1969 each of which posed serious threat to human living and economic progress. The worse of these pandemic recorded in history is the Spanish Flu influenza of 1918-1919 accounting for up to at least 20 million deaths out of the world population (WHO, 2011b). In recent years, the world have also suffered up to or above six big outbreaks consisting of hantavirus pulmonary syndrome, severe acute respiratory syndrome, H5N1 influenza, H1N1 influenza, Middle East respiratory syndrome and Ebola virus disease (Gostin, et al., 2016) with the first one in the 21st being the H1N1 influenza which occurred in 2009 affecting the people all over the world and causing more than eighteen thousand (18, 000) deaths (Rewar, Mirdha & Rewar, 2015). The death toll of Ebola virus was also above eleven thousand (11,000) people while the cost implication of fighting the virus across the world was more than \$2billion based on World Bank estimates (Maurice, 2016). Another outbreak; Zika virus which occurred in 2016 suffered people across 34 countries (Troncoso, 2016).

In 29th December 2019, a new unprecedented virus christened 2019 novel coronavirus (2019-nCoV) by the World Health Organisation (WHO) was diagnosed from the lower respiratory tract of people that was infected with pneumonia in Wuhan, China for the first time (Li, et al., 2020; Chen et al., 2020). It is a new strains that has not been previously identified in humans (World Health Organization, 2019). The novel coronavirus or Covid-19 as frequently used interchangeably for the new virus is an illness caused by virus that can spread from person-to-person (Centers for Disease Control and Prevention (CDC), 2019). These illness ranges from 'the common cold to more severe diseases such as Middle East Respiratory Syndrome and Severe Acute Respiratory Syndrome' (World Health Organization, 2019). It spreads is majorly through a contact with the respiratory droplets from mouth or nose of a carrier during speaking, coughing or sneezing (Taylor, 2019; Tieleman, Tieleman-Gu, Shi, 2020). The contact can be with the person directly or indirectly with the surfaces contaminated with the droplet from the infected person or other less authentic channels such as faeces (Buck, Arnold, Chazan & Cookson, 2020).

After the virus was detected in December 29 in 2019, later on it spread rapidly to other cities in China and to countries worldwide (Chen et al., 2020). From China, the virus spread quickly to other parts of the world with the first countries to report cases of the virus being Japan, South Korea and Thailand (Chen, Zhou, Dong, Qu, Gong, Han, Qiu, Wang, Liu, Wei, et al. 2020). Meanwhile, most of these initial cases resulted from international travel rather than local transmission (WHO, 2019). Due to its fast spread across the world after it was detected, in March 11th, 2020 the WHO declared the virus as a pandemic (Sohrabi, Alsafi, O'Neill, Khan, Kerwan & Al-Jabir, 2020). Generally, pandemic is a disease outbreak that spread from countries to countries or continents to continents affecting large numbers of people with many deaths (Ikoni & Ogundele, 2020). Pandemic such as coronavirus and other outbreaks generally pose serious challenge for health practitioners, policy makers and the general public as to the effective measures that will not only curb its spread but also provide a lasting remedy to cure those who are already the carrier for the survival of human kind (Hussain, 2020). The novelty and phenomenal shock that came with the outbreak of coronavirus and its ravaging impact in terms of the speed of its spread, effects on economies, number of deaths recorded and its devastating effect on education all over the world distinguish the virus from other pandemics or plagues experience in human history (El-Mousawi & Kanso, 2020; Hussain, 2020).

The unavailability of precise cure or treatment for the virus which led to the adoption of several precautionary measures such as travel restrictions, lockdown and social distancing with the goal of containing its spread posed serious challenge on the survival of households, firms and the government (Miftahu & Oruonye, 2020). It impacted different facets of human life including economic, health, social and political life (Li, 2020). The dramatic death toll and high rates of morbidity of victims of the virus across many nations affected people physically and mentally (Lewin, 2020). In many countries, hospitals and other health facilities were overloaded with people already absconding medical care for fear of getting infected in the hospital environment (Filho, Brandli, Salvia, Rayman-Bacchus & Platje, 2020). As a result of the virus, the global financial markets collapsed in the first of quarter of 2020 due to-or accelerated by the global economic shutdown, fear and future uncertainty (Li, 2020). In addition, it has also led to an unprecedented boom in the level of unemployment and the need for government support forcing governments of many nations to accumulate uncomfortably high level of debts as many sectors in the economy require support (Filho, Brandli, Salvia, Rayman-Bacchus & Platje, 2020). It has also cause high level of uncertainty and rendered the vulnerabilities and fragilities of the current economic system visible (UN News, 2020). Although the pandemic affected every sectors of the global economy and the lifestyles of people, the most hit sectors are the aviation industry, entertainment industry, sports, education among others (Olagbaju, Awosusi & Shaib, 2020). With the significant growth in travel restriction due to total or partial border closure in many countries in addition to the grounding of airlines flights, international trade and tourism reduced and there is the possibility that many airlines may face bankruptcy (Leigh, 2020). According to United Nations (2020) coronavirus pandemic has pushed the world into the worst recession in human history with lasting effects on economies and public finances. The economic implication of the pandemic on the global market in 2020 was estimated around 1trillion US Dollar by the United Nation Trade and Development Agency (UNCTAD)

The educational sector which serves as a catalyst for development of nation has also suffered unprecedented changes and disruptions due to the temporary total or partial closure of all educational institutions across countries in an attempt to stop the spread of the virus (Adeoye, Adanikin & Adanikin, 2020). The social effects of lockdowns in addition to its economic effects in terms of loss of production and business confidence have serious implication on the educational system all over the world (Lewin, 2020). The closures of school have resulted in complete disruptions to all areas of educational administration process and procedures. In most countries, examinations have been postponed; in a few examinations have been cancelled; and in others, they have been substituted with continuous assessments or alternative modalities, such as online testing for final examinations (United Nations, 2020). The pandemic created highly challenging economic circumstances that threaten the sustainability of education (Universities UK, 2020). It led to the largest disruption of education in history, having already had a near total impact on students and trainers all over the world, from pre-primary to secondary schools, technical and vocational education and training institutions, universities, adult learning, and skills development institutions (United Nations, 2020). It has not only affect students, teachers, and families, but have far-reaching economic and societal consequences (Lindzon, 2020). It have prompted various social and economic issues, including student debt (Jamerson, Josh, & Joshua, 2020), digital learning (Karp & McGowan, 2020), food insecurity (Cecco,

2020) and homelessness (Ngumbi, 2020) as well as access to childcare (Belinda, 2020), health care (Feuer, 2020), housing (Barrett, 2020), internet (Jordan, 2020) and disability services (Alex, 2020).

Statement of the problem

The closures of schools and other learning spaces have impacted 94 per cent of the world's student population, up to 99 per cent in low and lower-middle income countries. In addition to the learning loss due to the closure of schools, the economic impact on households is likely to widen the inequities in education achievement. With the pandemic, children from households in the poorest quintiles are significantly less likely to complete primary and lower secondary education than those in the richest quintile; this divide can be greater than 50 percentage points in many sub-Saharan countries (United Nations, 2020). In Africa, the first case of coronavirus was recorded in Egypt on February 14, 2020 while the first detected case in Sub-Sahara Africa occurred in Nigeria on the 10th March 2020 through an Italian expatriate (BBC News, 2020; Daily Punch, 2020) with most of the index cases imported from Europe and America rather than China where the virus originated (Maclean, 2020). The spread of the virus in Africa is worsening the situation of education in Sub-Sahara Africa, a region that already have 47 per cent out-of-school children out of the population of 258 million children in the world even before the emergence of the virus (UIS, 2019). Since the emergence of the virus in Nigeria almost all sectors in the country; social and economic life have been affected with varying degrees of intensity ranging from heavy to very heavy (Oladipo, Oyedele & Fawale, 2020). The effect of covid19 is evident in the Nigeria educational system by the halt in academic session by the federal ministry of education to bring-down the spread of the virus.

Globally, to reduce the effect of the pandemic, educational sectors are shifting towards the adoption of electronic learning (e-learning) including, Zoom, Microsoft teams, google hangout (meet), skype, Bamboo learning, google classroom, Docebo, WIZIQ, Adobe captivate, Elucidat, Blackboard learn amongst others to ensure that their academic calendar is not totally distorted (Adeoye, Adanikin and Adanikin, 2020). Developing countries like Nigeria faced several challenges in shifting from the traditional teaching method to the e-learning during the pandemic which result from varying degree of preparedness of the educational institutions, lack of infrastructures, paucity of funds and policies issues in the Nigeria educational sector (Adeoye, Adanikin & Adanikin, 2020). In addition, the irregular power supply, high internet subscription costs, poor internet access amongst other factors rendered the application of e-learning difficult (Adeoye, Adanikin and Adanikin, 2020). Consistently for a 10year period budgetary allocation to the educational sector has been well below the minimum recommended by UNESCO. The inadequate funding of the educational system provide no room for educational institutions to have access to information technology facilities, electricity, teacher-tutor training amongst others needed to allow e-learning grow in Nigeria (Adeoye, Adanikin & Adanikin, 2020). Majority of the existing studies focused attention on the immediate and direct effect of coronavirus but there is scarce evidence on the implication of coronavirus on sustainable education in particular. The limited study on this area has either focused on the overall sustainable development goal or one or more of the goal excluding education. It is against this background that this study was motivated to investigate the implication of coronavirus on sustainable education.

Objective significance and Organisation of the study

In order to understand the unfolding economic and social effects of coronavirus and its impact on sustainable educational development and the method to cushion the potential adverse effect of the virus, this study follows a critical, evidence-based assessment of the effect of coronavirus on sustainable educational development in Nigeria. The specific objectives are to:

explore the beneficial impact of coronavirus on sustainable educational development

explore the adverse impact of coronavirus on sustainable educational development

suggest policies that can help to cushion the adverse impact of coronavirus on sustainable educational development

To achieve the stated objective, the study first introduce the subject matter by tracing its evolution vis-à-vis other pandemic, plagues and other outbreaks, its severity and implication on the sectors of the global economy in addition to the stamen of the problem, objective of the study, organisation of the study, theory and concepts. The second part of the study, presents arguments against and in favour of adverse effect of coronavirus on sustainable educational development. In addition, it captures the present reality of coronavirus. The third part of the study is on the conclusion and recommendations.

Concept and theory

Education is a both a fundamental human right and an enabling right which have direct impact on the achievement of all other human related right. Given this realisation, all the seventeen (17) sustainable development goals is dependent on quality education to achieve a just, equal, inclusive peaceful society (United Nations, 2020). In a nation where the educational system is grounded, there will be the absence of peace, progress and growth in productivity (United Nations, 2020). Thus the sustainability of the educational system is paramount to growth and development of all nations (Owusu-Fordjour, Koomson, Hanson, 2020). The word sustainability from literary meaning implies the ability to matain some entity, outcome or process over time period (Basiago, 1999). It is an efficient and equitable strategy or framework of distributing resources intra-generationally and inter-generationally through the aid of socio-economic activities within the confines of a finite ecosystem (Stoddart, 2011). According to Ben-Eli (2005), sustainability is a dynamic equilibrium process of interaction between the population and the carrying capacity of its environment in a way that the population develops to express its full potential without producing irreversible negative effects on the carrying capacity of the environment upon which it depends. Sustainability bring into fore-front human activities and their capacity to satisfy their needs and wants without exhausting the available productive resources (Thomas, 2015)

On the other end, coronavirus also referred to as the novel coronavirus or Covid-19 as frequently used interchangeably in the literature is an illness caused by virus that can spread from person-to-person (Centers for Disease Control and Prevention (CDC), 2019). These illness ranges from the common cold to more severe diseases such as Middle East Respiratory Syndrome and Severe Acute Respiratory Syndrome (World Health Organization, 2019) and can spread from one person to another primarily through droplets of saliva or discharge from the nose when an infected person coughs or sneezes (Centers for Disease Control and Prevention, 2019). The term was coined from the Latin word 'corona' which mean crown or halo implying the appearance of virions (the infectious form

of the virus) based on its appearance in an electron microscope which resemble a large, onion-like margin and is reminiscent of a picture of a royal crown or solar crown (Lebni, Abbas, Moradi, Salahshoor, Chaboksavar, Irandoost, Nezhaddadgar & Ziapour, 2020). Thus, coronavirus refers to ‘crowned virus’ (Shuja et al., 2020). The members of the coronavirus (CoV) family refer to infectious disease, which refer to CoV flu, CoV pneumonia, or a respiratory syndrome (Lebni, Abbas, Moradi, Salahshoor, Chaboksavar, Irandoost, Nezhaddadgar & Ziapour, 2020)The outbreak of the virus was declared by World Health Organization as pandemic referring to disease outbreak that spreads across countries or continents affecting a lot of people and causing deaths (Ikoni & Ogundele, 2020)

Theories abound explaining how a country can achieve development status irrespective of the challenges or problems being experienced or the stage the economy is in development ladder. These theories include the modernisation, dependency, world system theory and social sustainability theory. The modernization theory posits that the primitive societies are entwined by norms, beliefs and values, which are hampering their development. Therefore, in order to progress, these societies must copy the culture of developed societies characterised by accumulation of capital and industrialization (Tipps, 1976). The dependency theory, based on Marxist ideology posits that the industrialization of the advanced nations subjected the poor nations to underdevelopment as a result of the exploitation of the economic surplus of the poor countries by the developed countries (Bodenheimer, 1970; Webster, 1984). The world systems theory posits that international trade specialization and transfer of resources from the less developed nations (periphery) to developed countries (the core) suppress development in the less developed nations by making them rely on advanced nations (Petras, 1981). The theory submitted that the unequal relation in the exchange between the Third World and First World countries is the source of First World surplus. In this regard, the theory of social sustainability’ posits that the alleviation of poverty should neither entail unwarranted environmental destruction nor economic instability. It should aim to alleviate poverty within the existing environmental and economic resource base of the society (Kumar, Raizada, & Biswas, 2014; Scopelliti et al., 2018).

COVID-19 effect on sustainable educational development

The emergence of coronavirus has been argued in the literature to affect the global economy both positively and negatively. While several studies provide evidence and support for the positive effect of the pandemic on the global economy, also several studies offered several in the opposite direction. This section overview the arguments in favour and against the adverse effects of coronavirus of sustainable education

Argument against adverse effects

After the outbreak of coronavirus pandemic and subsequent partial or total closure of schools at all levels of education in most of the countries in the world to curb the spread of the virus (Adeoye, Adanikin & Adanikin, 2020; Muftahu, 2020), many educational institutions across countries of the world have devised online education mediums in order to maintain their programmes (Filho, Brandli, Salvia, Rayman-Bacchus & Platje, 2020; Adeoye, Adanikin & Adanikin, 2020).The online platform that have been adopted include Zoom, Microsoft teams, google hangout (meet), skype, Bamboo learning, google

classroom, Docebo, WIZIQ, Adobe Captivate, Elucidat, Blackboard Learn amongst other (Adeoye, Adanikin & Adanikin, 2020). Consequently, the closure of schools has shed light on various social and economic issues including digital learning (Karp & McGowan, 2020) internet (Jordan, 2020). As a result of the virus, national and local governments in many countries with Nigeria inclusive encourage colleges and universities, together with the rest of the society, to participate in joint implementation of online education. The policy makers in the educational sector also demands that new online courses should be transformed to meet up the quality as previously delivered face-to-face courses. It demands that teacher workload in delivering online courses should be recognized as equivalent to teacher workload in delivering face-to-face courses; it also encourages students towards online self-directed learning (Pius-Uwhubetiyi, 2020).

The pandemic has shaped a new normal in the higher educational sectors all over the world as it has stimulated the transformation of the traditional classroom teaching delivery system to an online learning platform and has aided the restructuring of the application processes and stimulating crisis management strategies (Adeoye, Adanikin & Adanikin, 2020). Also, the pandemic has reminded the world of the essential role of teachers and the responsibility of government and key partners in ensuring adequate care for the life and well-being of the teachers (United Nations, 2020). It has also pointed-out that the future outlook of learning and the accelerated changes in the mode of delivering quality education must ensure that no one is left behind especially for children and youth that lack resources and enabling environment to access learning including the teaching profession that needs better training in new methods of education delivery as well as support as well as the educational community at large including the local communities upon which the continuation of the education depends during the crisis and who are key to building back better (United Nations, 2020)

In favour of positive implication of Covid-19 on sustainable education, the United Nations (2020) posits that coronavirus pandemic has stimulated innovation within the educational system. It has brought about innovative approaches to support education and the training community; from radio and television to take-home package. In addition, distance learning solutions were developed through the effort of the governments and the Global Education Coalition organised by UNESCO (United Nations, 2020). The conventional classroom instructional system has shifted in favour of e-learning platforms such as Google and virtual classroom, radio and television classroom instruction (Olagbaju, Awosusi & Shaib, 2020). Despite, the applicable opportunities associated with the embracing e-learning includes lecturers/learners convenience, exposure and cost benefits, the adoption of the online learning platform has revealed the lapses and shortages in the educational system and facilities in many educational institutions across the world especially in the developing countries of Africa with Nigeria in particular.

In the Nigeria educational system, the adoption of e-learning during the COVID-19 pandemic has exposed a lot of lapses and gaps to be filled in the Nigerian educational system. This is most obvious amongst the public universities. The challenges of e-learning in Nigeria ranges from irregular power supply, high internet subscription costs, poor internet access amongst other factors (Adeoye, Adanikin & Adanikin, 2020). The presence of this lapses and infrastructural gap that needs to be address to sustain the educational system was made very obvious as a result of the outbreak of the virus. Furthermore, the outbreak of the virus revealed very clearly the dismal state of the public health system in

Africa and West Africa in particular. The region health system has been in a state of disrepair and total neglect for many years as most African leaders and politicians prefer medical tourism to hospitals in developed countries. But with the lockdown and travel restriction, the inadequacy of the local health system became obvious (Olagbaju, Awosusi & Shaib, 2020)

Several studies have attempted to justify the positive contribution of the emergence of coronavirus to the global economy and sustainable education. For instance, Muftahu (2020) on the implications of the Covid-19 pandemic to higher education with specific attention to developing universities in African context based on secondary source of information through the review of systematic literature, policy documents, as well as related models between Covid-19 and Higher Education. The study submitted that the pandemic has helped universities in different nations to develop appropriate and creative alternatives such as transitioning to remote learning, training of academic staff in the use of online instruction materials and tools which have encourage students to complete their education requirements through online learning in response to the Covid-19 pandemic. In the same vein, Cam-Tu, Anh-Duc, Van-Quan, Manh-Tuan, Viet-Hung, Quynh-Anh, Thu-Trang and Hiep-Hung (2020) on the teachers' perspectives and perceived support during the COVID-19 pandemic based on evidence from Vietnamese teachers using an e-survey to more than 2,500 randomly selected teachers from two major teacher communities on Facebook supplemented with primary source of professional response. The dataset indicated the teachers received support from their schools, government bodies and other stakeholders such as teacher unions and parents associations among others.

In another study, Molise and Dube (2020) on the need for relational leadership in a rural school context in emergency online teaching in economics and management science based on focused group discussion carried through Whatsapp group. It was found that EOT and learning is desirable and doable, even though various challenges need to be overcome, especially in rural schools. Similarly, Corbera, Anguelovski, Honey-Rosés & Ruiz-Mallén (2020) on how the COVID-19 crisis is affecting the teaching profession and how it may change it in the future. The study argued that academia must foster a culture of care, help to refocus on what is most important, and redefine excellence in teaching and research. Such re-orientation can make academic practice more respectful and sustainable, now during confinement but also once the pandemic has passed. In the same vein, Aristovnik, Keržič, Ravšelj, Tomažević and Umek (2020) on how students perceive the impacts of the COVID-19 crisis on various aspects of their lives on a global level using a sample of 30,383 students from 62 countries, the study reveals that amid the worldwide lockdown and transition to online learning students were most satisfied with the support provided by teaching staff and their universities' public relations. The study also found that the pandemic has led to the adoption of particular hygienic behaviours (e.g. wearing masks, washing hands) and discouraged certain daily practices (e.g. leaving home, shaking hands). Students were also more satisfied with the role played by hospitals and universities during the epidemic compared to the government and banks.

Argument in favour of adverse effects

To justify the devastating effect of Covid-19 on sustainable education, Cam-Tu, Anh-Duc, Van-Quan, Manh-Tuan, Viet-Hung, Quynh-Anh, Thu-Trang and Hiep-Hung, (2020) stated that the pandemic has led to intangible destruction of the educational institutions with both

the teachers and students suffering the adverse consequences. The teachers in particular who happen to be the most critical intellectual resources in the educational system have faced various types of financial, physical and mental struggles due to the pandemic. With the combined effect of the pandemic's worldwide economic impact and the school closures, the learning crisis could turn into a generational catastrophe (United Nations, 2020). The outbreak has intensified the already existing disparities in the educational system by reducing the opportunities for many of the most vulnerable children, youth, and adults, in addition to those living in poor or rural areas, girls, refugees, persons with disabilities and forcibly displaced persons to continue learning. The loss in learning also threaten to extend beyond this generation and erase decades of progress already achieve in supporting girls and young women's educational access and retention (United Nations, 2020).

The pandemic has also influenced the tertiary institution at both the undergraduate and post graduate level (Alsafi, Abbas, Hassan and Ali, 2020). The most significant impact is on the postgraduate research community with research into many non-coronavirus grounded (DHSC, 2020). In addition, there is concerns regarding the number of conferences that have been cancelled or postponed. These conferences are the key to scientific research in many disciplines, allowing dissemination of research as well as providing networking opportunities for collaboration and job-seeking. Many conferences have moved online, however these 'virtual conferences' are often not as amenable to networking and informal means of scientific communication (Nicola, Alsafi, Sohrabi, Kerwand, Al-Jabird, Iosifidis, Agha and Agha, 2020). Similarly, the education disruption has had, and will continue to have, substantial effects beyond education. Closures of educational institutions hamper the provision of essential services to children and communities, including access to nutritious food, affect the ability of many parents to work, and increase risks of violence against women and girls (United Nations, 2020).

As fiscal pressures increase, and development assistance comes under strain, the financing of education could also face major challenges, exacerbating massive pre-COVID-19 education funding gaps. For low income countries and lower-middle-income countries, for instance, that gap had reached a staggering \$148 billion annually and it could now increase by up to one-third (United Nations, 2020). One of the SDG4 ambitions is that LICs and LMICs will allocate around 6% of GDP to education (from a current average of around 4%) and that the proportion of the public budget that governments spend will increase to 20% (from an average of about 15%). These changes will almost certainly happen in many countries in 2021. But it will not mean more money spent on education. This is because GDP in many LICs and LMICs will fall and at the same time educational spending will prove sticky on the downturn (Lewin, 2020).

Due to severity of the virus, the world is now off-track in the achievement of sustainable development goal number 4 which deals majorly with equal access to education (United Nations, 2015). The pandemic pose serious threat to the achievement of the goal including the fact that student already lock-out of school by the temporary closures may not return to school asfter lifting the lockdown, especially if they are already at risk of drop out; demand for technical and vocational education will fall as labour markets contract; equitable opportunities to learn are threatened by instabilities in school income, staffing, and safety; universal literacy may have less utility as modern sector development slows; global citizenship is challenged by closing borders and restrictions on movement of workers and

students (Lewin, 2020). Many educational institutions are attempting to maintain programs through online education. However, equity is a major constraint on access to distance learning. In developing countries, many students do not have access to the internet, or do not possess personal computers or tablets, or a safe and supportive learning environment appropriate for e-learning. The pandemic will therefore harm education in all spheres (SDG 4-Quality education), driving up the need for childcare, and causing higher economic costs, increased pressure on schools and a rise of dropout rates (Filho, Brandli, Salvia, Rayman-Bacchus and Platje, 2020).

Several studies also abound arguing for the negative effect of the emergence of coronavirus to the global economy and sustainable education. For instance, Owusu-Fordjour, Koomson, Hanson (2020) on the impact of Covid-19 on learning using questionnaires administered to 214 respondents from the second cycle and tertiary institutions of Ghana. The study brings to light that the pandemic really had a negative impact on their learning as many of them are not used to effectively learn by themselves. The e-learning platforms also pose a challenge to majority of the students because of the limited access to internet and lack of the technical knowhow of these technological devices by most Ghanaian students. In the same vein, Stanley, Nkporbu and Stanley (2020) assessed the socio-economic implications of the coronavirus pandemic on the general population, with focus in Nigeria. The study found a high level of fear and apprehension associated with the COVID-19 Pandemic among the general public occasioned by huge National, State as well as individual socio-economic loss and difficulties due to the lockdown and restrictions including markets, shops and other private and public businesses. As a result, many especially those on small and middle cadre employments have lost their jobs, there increased dependency, hunger, sufferings and has posed a lot of restiveness and social insecurity.

In the same vein, Filho, Brandli, Salvia, Rayman-Bacchus and Platje, (2020) discussed how the coronavirus pandemic may influence the SDGs and could affect their implementation based on the analysis of the literature, observations and an assessment of current world trends. The result shows that strong concerns in dealing with COVID-19 are disrupting other disease prevention programmes. There are signs that the impacts of COVID-19 on the global economy will be more intense and long-lasting. These impacts pose a serious threat to the development prospects of less industrialized nations, and to the realization of the UN SDGs by 2030. Equally, Sumner, Hoy and Ortiz-Juarez (2020) on the potential short-term economic impact of COVID-19 on global monetary poverty. The study shows that COVID-19 poses a real challenge to the UN Sustainable Development Goal of ending poverty by 2030 because global poverty could increase for the first time since 1990 and, depending on the poverty line, such increase could represent a reversal of approximately a decade in the world's progress in reducing poverty. In some regions the adverse impacts could result in poverty levels similar to those recorded 30 years ago. Under the most extreme scenario of a 20 per cent income or consumption contraction, the number of people living in poverty could increase by 420–580 million, relative to the latest official recorded figures for 2018. In another study, Miftahu and Oruonye (2020) on the social and economic impact of covid-19 in Nigeria based on analytical approach. The study shows that virtually all essential macroeconomic indicators are grossly affected with tax, remittances and employment exhibiting severe consequences. Also, uncertainty, panics and lockdown measures are key to motivating higher decrease in world demand. The supply disruptions and huge death toll generates a heightened uncertainty and panic for household and

business. This uncertainty and panic leads to drop in consumption and investment thereby causing a decrease in corporate cash flows and triggered firm's bankruptcy. Also, lay-off and exiting firms produce higher unemployment while labour income decreased significantly. Similarly,

Conclusion

The two contrasting argument presented above have shown that the coronavirus pandemic is both a curse and a blessing for sustainable education and the global economy at large. Although, the emergence of the pandemic has been blessing for educational sustainability in terms of the ability of a number of educational institution to sustain learning even during the pandemic through various online platform, the adoption of these various online platform also come with a lot of challenges such as the possibility of online learning facilities providers to steal data and make public data transmitted by users. In addition, for the technology backward countries their ability to afford these facilities and the necessary training and education to use the facilities efficiently a lacking which is a possibility that the emergence of coronavirus that led to the adoption of online learning will further widen the gap in the level of education between the rich and the poor countries.

In the same vein, that the emergence of the pandemic is completely evil for sustainable education and the global economy at large is not true in its entirety because the outbreak of the virus has spur a number of innovations and new discoveries in medicines, technology and educational sector with potential to ease the process of getting things done, improving the health of the people and enhancing comfortable living. In the educational sector, the emergence of coronavirus has led to the discovery and adoption of various online learning tools and technologies and brings about improvement in teachers expertise of the use of technologies in learning thereby easing their work load and facilitating the learning process.

In summary, it is evident that that the coronavirus pandemic is both a curse and a blessing for sustainable education and the global economy at large. Hence, the educationists and policy makers in the educational sector are only expected to mitigate the threats associated with the outbreak of the virus in achieving the goal of educational sustainability and build upon the blessing side of the emergence of the virus. This will no doubt facility the advance of the educational system and fast-track the achievement of the goal of educational sustainability. The study recommends thatnational and local governments should encourage colleges and universities, together with the rest of the society, to participate in joint implementation of online education. The Ministry urges universities to conduct multi-dimensional learning evaluation, and to appropriately credit student online achievements.

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BORN FREE IN CHAINS: AN AFRICAN POLITICAL EPIC

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Abstract: This contribution is directed at the generic problems of an African nation-state and the profound discomfitures of the country's citizenry. The disconcertments of these citizens essentially emanate from some seemingly unending national miseries. The specific area of study is the West African Nigerian state where the average inhabitants are hypothesized to be born free in chains. The article is considered significant in the context of globalization since in the prevailing understanding there is ostensibly an immensely interrelated humanity. Still within the context of common humanity, the study area is the most populated nation in Africa and the seventh-most populated state on earth. The auguries of an enduring generic anguish in this location accordingly demands scholarly attention. It is envisaged that the attendant research disclosures would lead to further theoretical and empirical interests in the affairs of this unarguably besmirched polity. The article is intended as an intervention into why in the 21st century; citizens of some segments of the global order are still validly depicted as being born free in chains.

Keywords: Citizenship Question, Social Contract Theory, Nigerian State, African Affairs

Introduction

This paper draws impetus from Jean Jacques Rousseau's popular axiom that "man was born free but is everywhere in chains" (Panjabi, 2008, O'Neill, 2010, p.810; Fajonyomi, 2012, p.8). Rousseau was one of the trio-theorists of the social contract shade, with Thomas Hobbes and John Locke. In the late seventeenth and early eighteenth centuries, the social contract theory was used extensively by political theorists to propagate the philosophy that governments owed their legitimacies to the consents of the people. The social contract theorists believed that the people aboriginally created governments established their limits and allowed them to exist. Governments did not therefore owe their existence to God and kings in the estimation of the social contract philosophers. Governments were instituted by the people. Hobbes, Locke and Rousseau tried to illuminate how political contracts were instituted by men under the pre-political state. They had to describe this pre-political era and prove how it led to a social contract. In order to do this, they conceived the "state of nature", in description of the existence of man precedent to social or civil laws. The state of nature therefore depicted man as he supposedly existed on earth prior to society's

formation. Consequently, the real nature of man devoid of external content might only be obtained in the state of nature (Donaldson, 1978; Fajonyomi, 2012; Laskar, 2013; Rapaczynski, 2019; Brooke, 2020, Vallier, 2020; Friend, 2021).

The social contract theorists not only attempted to explain the state of nature and the formation of government by man but invariably canvassed governmental reform. In other words, since the social contract was used to transit from the objectionable state of nature into civic designs it is possible to be further used in moving man from an undesirable government position to an ideal state. What factors have inhibited this transition in the case study country? Why would citizens supposedly born free remain anywhere in chains? The theoretical framework of the paper is consequently the social contract theory. Hence, besides the classical pedigrees of Hobbes, Locke and Rousseau invoked in the contribution the “justice as fairness” thesis of John Rawls (a recent social contract theorist) is also raised (Rawls, 1997; Sen, 2006; Friend, 2021).

The article is subdivided into nine sections. The introductory segment provides a background to the research motivation and work-structure. The next section supplies an overall African framework for the presentation, as the specific area of study is the most populous state in Africa. The third part of the paper presents a pre-colonial account of the current Nigerian territory in the contexts of previous freedoms and new chains. The fourth division gives a condensed political history of modern Nigeria in tracking the route of the chains that eventually emerged. The part that follows offers a review of related literature to bring the contribution in sequence with extant influential research on political leadership and citizenship challenges in the study area. The sixth trajectory of the work interrogated the preliminary factors of promising nationhood and national economic success in Nigeria. The next division of the study considered the current conditions of perplexity and disorder in the study area nation. The eighth demarcation treats contemporary incapacitations and seeming national bleakness, in final demonstration of the article’s thesis. The ninth section offers a summation.

Contextualizing the African dimension

Africa is a continent with uncertain characteristics. The rest of the state-members of the international community indeed possess their fair shares of the troubles and auguries which portray human reality. However, Africa as a continental bloc of the planet appears to have become incapable of producing different successful states that can validly join the ranks of the world powers. African citizenship thus appears to be unceasingly marginalized at the domestic level. Under such scenarios, how would the African states then ascend to the portal of the world league? Leadership is everything in these contexts. Political leadership is central to the governance desideratum (Okeke & Onwuasoigwe, 2023). Nevertheless, the African leader appears fixated at the level of oratorical shenanigans presented as progressive performance. From Nigeria to Namibia, Mali to Malawi, Benin to Burundi, the African states hardly indicate incontrovertibly that human lives matter in their polities. Each year, the global human development report of the United Nations Development Programme (UNDP) features African countries at the back burner of the Human Development Index (HDI). This is “a composite index measuring average achievement in three basic dimensions of human development - a long and healthy life, knowledge and a decent standard of living” (United Nations Development Programme, 2020, p.355).

All the states in Africa are still globally categorized as belonging to the developing regions of the world. UNDP's human development index is further categorized for all nations into, very high human development, high human development, medium human development and low human development specifications. In the 2020 report out of the 54 countries in Africa only Mauritius entered the very high human development division at the 66th position which is the least position in the group. The high human development segment which follows in the ranking order has seven African countries in the bracketed spots: Algeria (91), Tunisia (95), Botswana (100), Libya (105), South Africa (114), Egypt (116) and Gabon (119) (and the least position in the subdivision). Out of the 33 countries in the low human development compartment, only three (Afghanistan, Haiti and Yemen) are not African countries (United Nations Development Programme, 2020). Development is inconsequential when devoid of human development which is in deficiency in Africa. Development may have its technical indicators. However, a highly irrefutable but commonplace indicator of development or underdevelopment is a country's poverty level. Then the World Bank (2019) deposes that "despite significant accomplishments in the fight against poverty in recent decades, many African countries have the highest poverty rates in the world". The global poverty opponent further discloses that "the poverty rate in Africa has gone down, but the number of African people living in poverty has increased and global poverty will increasingly become African" (The World Bank, 2019). The United Nations Economic Commission for Africa (2021) highlights that "514 million Africans risk falling below extreme poverty line in 2021 due to COVID-19". The UN Commission further underscores:

While extreme poverty had almost vanished in North Africa, more than 50% of the population in Central Africa lived below the extreme poverty line. About nine out of ten extremely poor people in the world currently live in Africa... COVID19 will push an additional 5 to 29 million below the extreme poverty line. If the impact of the pandemic is not limited by 2021, an additional 59 million people could suffer the same fate, which would bring the total number of extremely poor Africans to 514 million people. Such numbers of Homo sapiens are invariably wriggling under the chains of poverty. They are nationals of various African polities, freely born by their progenitors but currently under the manacles of poverty. Cilliers & Kwasi (2021, p.38) remark that: Using the International Futures forecasting platform of the University of Denver, we find it is reasonable to expect around 4 percent annual average economic growth for Africa post-COVID to 2030. In this future, extreme poverty is likely to decline by only about five percentage points and, by 2030, a third of the continent's 1.7 billion people is still likely to survive on less than \$1.90 per day. Slow growth and high inequality means that sub-Saharan Africa is only likely to achieve the elimination of extreme poverty by mid-century.

The current study underscores the contention of Cilliers & Kwasi (2021) of sub-Saharan Africa being "only likely to achieve the elimination of extreme poverty by mid-century". Differently stated, about 566 million people in Africa are likely to remain under the chains of poverty by mid-twenty first century. Then an additionally troubling affair borders on the attitude of political leadership on the continent towards the human development and poverty challenges in their region. The continental political leaders appear more enamored by saber rattling than getting altruistically involved in the execution of sustainable development projects. Destructive internal conflicts thus abound in Africa.

Table 1 Illustration of African Position in the Current and Continuing Conflict Spots in the World

Conflict	Death Toll	Years	Country	Region of the World
Yemeni Civil War	233,000+	2014–present	Yemen	Western Asia
Iraqi Civil War	195,000–200,000+	2014–2017	Iraq	Western Asia
Rojava-Islamist conflict	50,000+	2013–present	Syria	Western Asia
Syrian Civil War	387,000–593,000+	2011–present	Syria	Western Asia
Boko Haram insurgency	51,567+	2009–present	Nigeria	West Africa
Mexican Drug War	150,000–250,000	2006–present	Mexico	North America
War in North-West Pakistan	45,900–79,000	2004–2017	Pakistan	South Asia
Kivu Conflict	100,000+	2004–present	Congo	Central Africa.
War in Darfur	300,000+	2003–present	Sudan	Northeast Africa
Iraq War	405,000–654,965	2003–2011	Iraq	Western Asia
War in Afghanistan	47,000–62,000	2001–present	Afghanistan	Central/South Asia
War on Terror	272,000–1,260,000	2001–present	Worldwide	Interregional
Ituri conflict	60,000+	1999–2003	Congo	Central Africa.
Second Congo War	2,500,000–5,400,000	1998–2003	Congo	Central Africa
First Congo War	250,000–800,000	1996–1997	Congo	Central Africa
Rwandan genocide	800,000	April–July 1994	Rwanda	Central/Eastern Africa

Source: Thompson (2021): <https://revisesociology.com/2021/03/03/ongoing-wars-and-conflicts-in-the-world-today/>

Table 2 Summary of Continental Stands on Table I Indicating African Position

Continental Demarcation	Number of conflict Spots	Percentage
Africa	7	43.75
Asia	7	43.75
North America	1	6.25
Interregional Impact	1	6.25
Cumulative	16	100

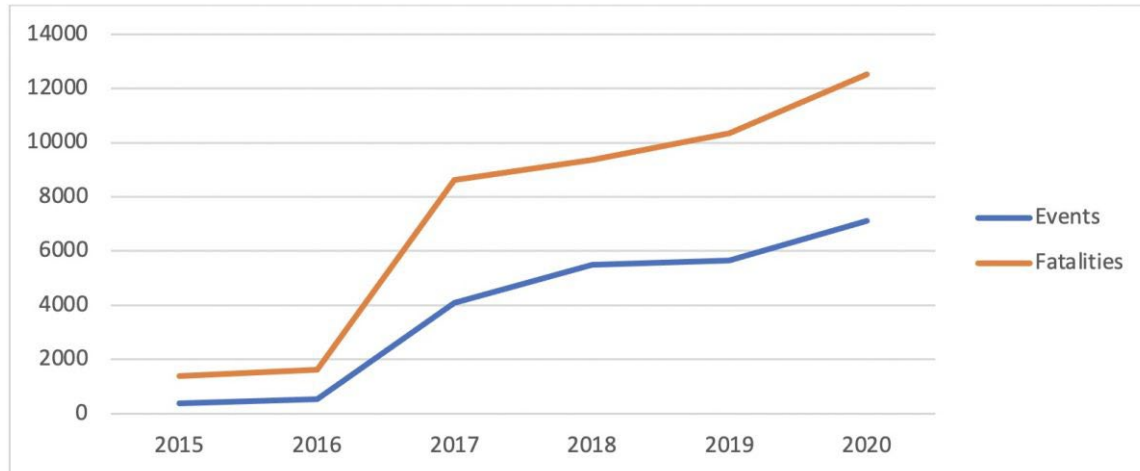
Source: Authors’ abstract of Table I

At the continental level therefore, 43.75% of the current or continuing conflicts on earth either occurred or are ongoing in Africa while the same percentage represents the Asian situation (43.75%). The African continent is accordingly seemingly in competition with Asia for troubled spots in the world. But where Hauge (2019) asks in economic performance contexts, “should the African lion learn from the Asian tigers?” this contribution also ponders: shouldn’t the African lion also learn from the Asian tigers how to perform economic wonders? The ostensible Afro-Asia race must not be limited to conflict spots’ possession. The North American continent possesses only one spot (6.25%) in the illustration on current and continuing conflicts location in the world and the same percentage (6.25%) reflects the interregional struggles against terrorism of which Africa yet has substantial coverage and occurrences. Ejiogu & Mosley (2017, p.1) invariably perceive a linkage between “local neocolonialism and terrorism in Africa”, suggesting that “the consequences of the interaction of dominant economic and political structures in the society considerably incite the transformation and activation of latent ideologies of socioeconomic liberation accommodated under various typologies of terrorism”.

Mroszczyk & Abrahms (2021, p.1) then disclose that “terrorism on the continent of Africa has been rising sharply over the decade, as non-state (terrorist groups, militias, rebel

groups, etc.) have increasingly targeted civilians in their campaigns of violence. From Somalia to Mali and Nigeria to Mozambique therefore, the continent has repeatedly witnessed grisly acts of violence targeting its civilian populations”. Mroszczyk & Abrahms (2021, p.1) further highlight: In 2015 there were 381 attacks targeting civilians in Africa resulting in 1,394 fatalities. This number rose sharply throughout the years and by 2020 there were 7,108 attacks targeting civilians resulting in 12,519 fatalities. The threat of terrorism has grown so much on the continent that by 2020 seven of the top 10 countries in the world in terms of terrorism risk were in Africa (See Figure 1).

Figure 1: Demonstration of Rising Trend of Terrorism in Africa



Source: Mroszczyk & Abrahms (2021), <https://www.e-ir.info/2021/04/09/terrorism-in-africa->

Terrorism’s chains have accordingly been added to the extant scenarios. However, from the wider African contexts the work returns to the specificities of a case-study country focused on the most populated state in Africa.

A pre-colonial account of the current Nigerian territory

According to the U.S. Library of Congress (n.d) “the history of the Nigerian people extends backward in time for some three millennia and archaeological evidence, oral traditions, and written documentation establish the existence of dynamic societies and well-developed political systems whose history had an important influence on colonial rule and has continued to shape independent Nigeria”. The U.S. Library of Congress (n.d) still narrates that “Nigerian history is fragmented in the sense that it evolved from a variety of traditions, but many of the most outstanding features of modern society reflect the strong influence of the three regionally dominant ethnic groups--the Hausa in the north, the Yoruba in the west, and the Igbo in the east”.

After the Napoleonic wars (1803-1815), Britain increased commercial links with the Nigerian hinterland. The consequent British assertions to a West African area of control obtained international acceptance in 1885. The following year, the Royal Niger Company (RNC) under the leadership of Sir George Taubman Goldie was chartered by the British authorities but the charter was revoked on the 31st of December 1899 by the British Government (and the sum of £865,000 paid to the corporation as recompense). The previous areas of the RNC formally came under the control of the British authorities. The

Southern and Northern Nigeria Protectorates were created by the British government on 1 January 1900. In 1914, the territory became amalgamated as the Colony and Protectorate of Nigeria. The administration of the location however, continued to be undertaken under the Southern and Northern Provinces and the Colony of Lagos.

Western educational influence and modern economic development increasingly proceeded in the southern demarcations than in the north. The consequences of these early scenarios have continued to be felt in Nigeria's political affairs. As aftermath of World War II, and accelerated Nigerian nationalism, agitations for independence persisted in the country. Subsequent constitutional arrangements were legislated by the British Government. Nigeria moved towards self-government on increasingly federal and representative bases. The British colony became an autonomous federation on 1 October 1954. By this time a great wave of independence agitation was spreading across Africa and on 27 October 1958 the colonial authorities eventually consented to Nigeria becoming an independent territory on 1 October 1960 (Geary, 1927; Mann, 2007; Falola & Heaton, 2008).

A condensed political history of modern Nigeria

The country accordingly obtained independence from Britain in 1960. Following her British antecedents and heritages, the system of government at independence was explicitly parliamentary. However, the traditional ethnic inclinations of the ostensible nationalists who now emerged as de facto national leaders in government made this system quite incongruous and awkward. Parliamentary debates were needlessly combative. In government and outside the realms of state affairs, identity issues were conceived along sectional and ethnic orientations. The three major political parties were only popular along ethnic divides and never succeeded in transforming into effective national movements. The Northern People's Congress (NPC) was dominant in Northern Nigeria and was led by Sir Ahmadu Bello (Sarduna of Sokoto). The National Council of Nigerian Citizens (NCNC) dominated political affairs in Eastern Nigeria and was led by Dr Nnamdi Azikiwe. Action Group (AG) which was led by Chief Obafemi Awolowo was in control of Western Nigeria. The Nigerian tripod-federalism at this time rested on this East, West, and North trajectories. The three major ethnic groups in the country, the Hausa-Fulani, Yoruba and Igbo were also aboriginally found in the North, West and East of Nigeria, respectively.

The parliamentary system of government initially had Dr Azikiwe as Governor-General and subsequently the ceremonial President. Sir Ahmadu Bello chose to remain in Northern Nigeria as Premier and seconded Sir Abubakar Tafawa Balewa (his Second in Command in the northern political bloc) to the central political sphere as Prime Minister of Nigeria. Chief Obafemi Awolowo was the Leader of Opposition in the coalition government formed by Azikiwe's NCNC and Balewa's NPC. Where nationalism prevailed as the mantra for independence-struggles among the emergent political elite, the new post-independence chants were framed on ethnic identities. The new leadership members of the nation have also transformed into different versions of colonial masters. They were manifestly immodest in their public office lifestyles and palpably insatiable in attempting to take over the perquisites of office bequeathed to them by their colonial predecessors. But in the process of positioning to efface each other, a highly covetous and comparatively malicious class played into the hands of some impatient and obsessive band of youthful military officers. The clique of soldiers toppled the post-independence government on 15 January

1966 (Diamond, 1988; Olumide & Ekanade, 2011; Vaaseh & Ehinmore, 2011; Basiru, 2014).

The military takeover was tragic and inopportune in diverse proportions. It was from one dimension, a bloody rebellion in which the Prime Minister of the country was killed and also murdered was the influential Premier of Northern Nigeria, Sir Ahmadu Bello and many other senior politicians and military officers. A non-aligned reading of the coup accounts would suggest that the insurrection was jointly led by Majors Emmanuel Ifeajuna, controlling the Western Nigerian and Lagos operations (Lagos was then the capital of Nigeria) and Chukwuma Kaduna Nzeogwu, in charge of Northern Nigerian operations. Both Ifeajuna and Nzeogwu were Igbos from the present Anambra and Delta States of the country respectively. But Ifeajuna also had immense western Nigerian influences in his university days and post-graduation teaching careers prior to enlisting in the army. Nzeogwu was not conversant with his Igbo roots and spent his formative years and adulthood in Northern Nigeria (Ademoyega, 1981; Obasanjo, 1987; Siollun, 2009; Onyema, 2013; Oliver, 2014). Siollun (2016) describes the coup events of 15 January 1966 and their knock-on effects as follows:

On 15 January 1966, a group of young, idealistic, UK-trained army majors overthrew Nigeria's democratic government in a violent military coup. The coup leaders described it as a brief and temporary revolution to end corruption and ethnic rivalry. Instead, it made them worse. The coup exposed the vulnerability of the Nigerian state, and how simple it was to use soldiers to attack the government, rather than protect it. No notable Igbo Nigerian leader was murdered by the coup plotters, except Lt. Col. Arthur Unegbe who was Quartermaster-General at the Army Headquarters. But the ill-fated revolution was invariably foiled by another Igbo, Major-General Aguiyi Ironsi who was the General-Officer Commanding the Nigerian Army (GOC). He also subsequently became the Head of State of Nigeria after the military assembled the remainder of the deposed government's key actors and advised them to surrender power to the army. The assumed head of the decapitated government at this time was yet another Igbo man. He was the Senate President, Dr Nwafor Orizu, who executed the formality of conceding power to the military through the Igbo-born Major-General Aguiyi Ironsi (Madiabo, 1980, Teniola, 2015, Siollun, 2016). It was accordingly not hard for Nigerian northerners to arrive at the supposition that the coup plot was sponsored by the Igbos. What followed was the 29 July 1966 counter coup staged by Northern Nigerian army officers targeted at Igbos and in which General Ironsi was killed. Also murdered alongside Ironsi was the Military Governor of Western Nigeria, Lt Colonel Adekunle Fajuyi who was hosting the visiting Head of State in his region on the night of the coup d'état. Lt. Colonel Yakubu Gowon was selected as Head of State by the July coup plotters.

Table 3 A Record of Military Coup D'états in Nigeria's History

Date	Usual Description	Coup Interpretation / National Impact
15 January 1966	The January 1966 Coup	The first civilian government was toppled.
29 July 1966	The July Counter Coup	Revenge mission against the alleged ethnic masterminds of the January 1966 coup.
29 July 1975	The 1975 Coup	Toppling of the General Yakubu Gowon Regime and the installation of General Murtala Muhammed as Head of State.

13 February 1976	The Dimka Coup	Murtala Muhammed assassinated and his Second in Command Olusegun Obasanjo becomes Head of State after the attempted Change of government was foiled.
31 December 1983	December 1983 Coup	General Muhammadu Buhari and others overthrew the civilian regime that was inaugurated by the Obasanjo administration.
27 August 1985	The Babangida Coup	The Chief of Army Staff in the Buhari regime, General Ibrahim Babangida led his co-plotters to overthrow Muhammadu Buhari.
17 December 1985 (Announcement of a botched plot)	The Mamman Vatsa attempted Coup	More than 100 officers from the Nigerian Army, Air Force and the Navy were arrested on 17 December 1985 in connection with the contentious coup attempt. On 6 March 1986, eight of the officers, inclusive of the alleged leader of the plotters General Mamman Vatsa were executed.
22 April 1990	The Gideon Orkar Coup attempt	42 of the coup planners including Major Gideon Orkar identified as the leader were executed on 27 July 1990.
17 November 1993	The Sani Abacha Coup	Nigeria's Defence Minister, General Sani Abacha, compelled the country's Interim Head of State Chief Ernest Shonekan to hand over to him and he became President.

Source: Authors' Compilation (2021)

The nation then entered into an orgy of military coups and counter coups (and phantom coup narratives) that chained the fortunes of the country to the consequences of violent takeover in a problematic political system (Nyangoro, 1993). The allegation of Igbos' sponsorship of the January 1966 coup plot and the counter coup of July 1966 were followed by nationwide anti-Igbo killings, particularly in Northern Nigeria that have severally been categorized as pogrom or genocide (Korieh, 2013; Desgrandchamps, 2014; Heerten & Moses, 2014; Anthony, 2017; Moses & Heerten, 2017; Lodge, 2018; Onuoha, 2018; Anyaduba & Maiangwa, 2020; Omaka et al, 2021). The peripatetic Igbo people forcefully migrated back to their native locations in Eastern Nigeria. But Lt. Col Chukwuemeka Odumegwu-Ojukwu as Military Governor of Eastern region of the country persuaded the Eastern Nigerian refugees to return to their various business locations in the nation, especially in Northern Nigeria, in the quest for Nigerian oneness. However, the killings continued more ferociously to the regret of Ojukwu. It was under these circumstances that Ojukwu led the Eastern region (largely consisting of Igbos) to pull out of the emergent Federal Republic of Nigeria under the brand name of the Republic of Biafra. Under Lt. Col Yakubu Gowon as Head of State, the Nigerian side insisted that the country must exist indivisibly. Then the Nigeria-Biafra war (1967-1970) ensued (Madiebo, 1980; Korieh, 2013; Desgrandchamps, 2014; Omaka, 2016; Onuoha, 2016; Julius-Adeoye, 2017).

The newly independent state of Nigeria thus became entrapped in a civil war, chained by the vagaries of domestic warfare and heightened interethnic animosities occasioned by war. At the end of the civil war in 1970 the soldiers remained in power, handed over to civilian politicians in 1979, subsequently sacked the "bloody civilians" in 1983 and returned to power. There were other feeble claims of planning to permit the civilians back to power but the ostensive attempts never came to fruition until 1999 (Agbese, 2018; Diamond et al, 1997). Since then it appears as if the army's interest in overt partisan political participation in Nigeria has died away. However, it remains uncertain if the assumed democratically elected Nigerian leaders are more patriotic than the previous soldiers (Elaigwu, 1988; Lewis & Adetula, 2006, Ibiamu & Banigo, 2019). It is extremely contentious to classify

either of the parties as sleazier than the other. In reality, the nation's politicians are usually brought into public office through unquestionable circumstances (Awopeju, 2011; Okeke, 2014; Agbu, 2016; Adigun, 2019). The military also usually came to power through illegitimate means.

The phenomenon of godfatherism at this time (1999 onwards) became a primary part of party politics and elections in Nigeria. Public office holders were merely selected and anointed by godfathers for the endorsement of voters in spurious elections (Albert, 2005; Olarinmoye, 2008; Adeoye, 2009; Hoffmann, 2010; Chukwuemeka et al, 2013; Ndubuisi, 2018). Chukwuemeka et al (2013, p. 193) elucidates that "in a political setting, the godfather concept is an ideology that is championed on the belief that certain individuals possess considerable means to unilaterally determine who gets a party's ticket to run for an election and who wins in the electoral contest". It seems fiction-patterned but "while the fictional godfather is characterized as a shadowy, dare-devil recluse, who combines immense underworld financial muscle with near mythical powers of enormous proportions, the Nigerian type added the characterization of conceit, ego, loquacity, pettiness, envy, strife, crudity, and confusion" to his preoccupation (Albert, 2005, p.79). The consequences of the godfathers' tendencies are the keeping of the nation's citizens in chains thrown across their harmless jugulars by irresponsible leaders.

Review of related literature

Enormous research efforts have indeed been expended in attempting to identify the central points of Nigeria's challenging character. Consequently, Achebe (1982) concluded that the trouble with Nigeria was simply and directly attributable to leadership malfunction. In this seminal submission Achebe succinctly demonstrated that the nation's elite group was functionally myopic and operationally imprudent. Joseph (1987) subsequently accused these ostensible leaders of prebendalism, referring to a distasteful system whereby state officials convert national resources into prebends (allowance paid by a cathedral or collegiate church to a member of its clergy, or the property or tithe that is the source of this allowance). Prebendalism amply illustrates the *weltanschauung* of political leadership in Nigeria. Osaghae (1998) derisively depicted the country as a crippled giant. Osaghae's research leads him to the thesis that Nigeria's complexities and hindrances are not recently constructed but are traceable to structural impairments from the times of colonialism in the country. But in the 21st century, colonialism which ended in the Nigerian location in October 1960 may not validly continue to be held liable for the enduring deficiencies of the state.

Akinola (2006, p.26) conclusively traced "the persistent socio-economic and political crises pervading Nigerian society to the problem of 'disconnect' between Nigerian leaders and the rest of the Nigerian society". Akinola (2006, p.2) earlier argued that "the misfortune of the post-independence development paradigm in Africa is that it is 'monocratically' centralized, separating African leaders from the rest of African people". Still from the results of Akinola's research it is further highlighted as follows: The 'disconnect' from the roots is manifested in several sectors of Nigerian landscape – constitutional, administrative, educational, political, economic, social, judiciary and security. Consequently, several reforms adopted by successful governments (military and civilian) in Nigeria had failed woefully to increase the standard of living of the majority of the Nigerian people as the

level of poverty is still as high as 57.8% in the country in spite of the excess revenues of N641.23 billion from crude oil in the country's Fourth Republic

Onuoha (2008) thus adds that in Nigeria, all forms of economic ideologies have been supposedly implemented to move the economy forward without success. Fajonyomi (2012, p.35) infers that in Nigeria, "the state has gone to sleep". Sequel to the crippled giant depiction of the country by Osaghae (1998), Fajonyomi (2012) calls the nation a sleeping giant. Kukah (2012) in Idike (2014, p.161) "describes the Nigerian nation as being on autopilot". The country is accordingly likened to "a ship, aircraft, or spacecraft with a control in the steering system set to keep it on a steady course, whereby the leaders exhibit preset or instinctive behavior, a condition in which they are not fully aware of what they are doing, as they act in habitual and unthinking ways, and operate without guidance or control".

The country's auto-conductor designation has since endured. The "Nigeria Working Group on Peacebuilding and Governance (NWGPG), "a group of Nigerian civic and thought leaders", subsequently "came out with a categorical statement that Nigeria was not being governed and as a result on autopilot" (NWGPG, 2020). The group further highlights that "confidence towards the Nigerian State was very low heightening the divides in the Federation and creating widespread demands for dialogue and consensus building on restructuring which the Government had been stone deaf to". Eghagha (2021) additionally demonstrates: Nigeria is on autopilot. The state is drifting. We can see this with half an eye. We can feel this even if we are numb to bad news. We do not get a feeling that anyone is in charge of things, of governance, of policy formulation and implementation. There is something sinister going on, whether by design or default, we are not sure. The psychology of the leader's presence is not felt by the people.

Despite its bigoted undertones it is incontestable that the former United States President, Donald Trump included Nigeria among the nations he disdained as shithole countries (Daily Beast, 2018; Umez, 2018). What merited the Nigerian state such classifications? It may not be sufficient to merely plead bigotry under such circumstances. Lewis (2006) had earlier scorned the country as a dysfunctional state. Lewis (2006, pp.83-84) posits:

There is no question, however, that Nigeria has failed profoundly as a state, a nation, and an economy. Central authorities cannot provide stable governance, in the sense of effective legitimate rule and essential public. The country's boundaries may provisionally be settled, but the basis of political community—the idea of Nigeria—is fiercely contested. Economically, Nigeria has experienced a steady decline since the oil windfall peaked more than twenty years ago. Slow growth and a rapidly rising population have yielded dramatic increases in poverty.

Threatened by these issues, Lewis (2006, pp.83-84) further narrates, "Nigerians have repeatedly attempted to overhaul the nation's politics, resulting in cycles of civilian and military government and perennial efforts at institutional change. But according to Lewis (2006, pp.83-84): The country's restiveness and economic deterioration are especially poignant when considered in light of its opportunities and assets. The restoration of civilian rule suggests new opportunities for addressing problems of governance and the economy. Democratic reforms, however, are hesitant, uneven, and factious, beleaguered by economic stagnation and rising social conflict. Recent trends attest more powerfully to the intractability of the problems than to the prospects for renewal.

The Nigerian problematic is indeed seemingly intractable and possessing onrushing trajectories. According to Campbell (2013) the Nigerian nation dances on the brink and it has become in the process among the most religious nations on earth and also one of the most violent countries on the planet. Nigerian administrations have severally been described as kleptocracies – referring to regime types characterized by corruption in which government or public officials seek personal gain at the expense of those being governed (Nnamuchi, 2008; Page, 2016; Campbell, 2017; Campbell, & Grane, 2017; Das, 2018). Page (2016, p.1) asserts that “in Nigeria, billions of dollars each year flow illegally from public coffers into private hands”. Campbell & Grane (2017, p.1) underscore: Kleptocracy has historically dominated the political economy of Nigeria...Nigerian kleptocracy has deep, pre-colonial roots, and successive regimes and administrations have used it as an instrument of political control. After the 1967–70 civil war those in government—both military and civilian—appropriated for their personal use oil revenue that under law belonged to the Nigerian people. The leaders of Nigeria prioritized the oil industry over other industries and centralized control of oil revenue, allowing senior officials to steal billions. This rooted a tradition of state theft that has lasted to this day.

The current essay is a comparatively pivotal contribution bordering on a country and her citizens born free in chains. Prior to the country’s colonial experience the peoples of the current Nigerian territory were largely bona fide citizens of independent states (King, 2001; Onyeozili & Ebbe, 2012; Mayowa, 2014; Archibong, 2019). Following colonization, the people and their territories came under colossal subjugation. But decolonization and independence ostensibly restored the lost liberties of citizenship to the people and they were assumed to have become freely born again. In the Nigerian case however, a fundamental assumption of this freedom-status is the existence of a country. In contradiction to this supposition, Achebe (2012) indignantly declared that the country had even ceased to exist in Nigeria – concluding that in Nigeria, there was a country. Along these same lines, the literature review begins to indicate in the Nigerian case the actuality of a territory of initial promising nationhood and national economic success inhabited by supposedly free citizens. Currently however, both the territory and its peoples are seemingly under the chains of cultural lethargy - a widespread *weltanschauung* imagining that deep-seated and positive societal changes ultimately result from incremental random actions and even inactions.

Preliminary factors of promising statehood and national economic success in Nigeria

At independence in 1960 Nigeria was the biggest free black nation on earth. It was “perhaps also the most important single nation in Africa, particularly Africa south of the Sahara. The struggle for the country’s independence which properly began in 1900 ended in 1960” (Weaver, 1961, pp.146-148). Invariably, people whose independence struggle lasted six decades would know what to do with the needed freedom when obtained. Hence, Nigeria’s address on formal arrival at the international scene (as the 99th member of the United Nations) indicated surefootedness on the side of the country and suggested preparedness for purposeful political leadership on the part of the ruling elite. The country’s “Maiden General Assembly Statement at the United Nations” was eloquently delivered by the new nation’s Prime Minister, Balewa on 7th October, 1960. It was redolent of a country where leaders and citizens were aware they had a lacuna to fill in international affairs (Permanent Mission of Nigeria to the United Nations, 2015).

In 1958 (shortly before independence in 1960) crude oil was discovered in commercial quantity in Nigeria (Usang & Ikpeme, 2015). Despite all the vicissitudes of the global oil industry, Nigeria is still the leading oil producer in Africa, producing “around 2 million barrels per day between 2015 and 2019” (Carpenter, 2020). Additionally, the country is currently endowed with 203.16tcf of proven gas reserve (Department of Petroleum Resources, 2020). Egege (2021) further demonstrates that “Nigeria has abundant solid mineral deposits” which include, bentonite and baryte, bitumen, coal, gypsum, talc, iron ore, lead/zinc, gold, rock salt and granite. According to Egege (2021) “there are gemstones mines in various parts of the country and the typologies of the precious stones extend to sapphire, aquamarine, ruby, tourmaline, emerald, topaz. Others are; garnet, amethyst; zircon, and fluor spar, and these stones are among the best in the world”. But the paper is reverting to where these auspicious indications of solid statehood and national economic prosperity have taken the country

Current conditions of perplexity and disorder in the nation

A list of the most phenomenal Nigerian personalities of all time (any list of such description) is highly likely to contain the name of an American-trained (Nigerian-born) journalist called Dele Giwa. He personally brought fresh style (reintroduced style), stamina, audacity and authority into the profession of journalism specifically, and reinstated razzmatazz into citizens’ engagement with government in the country (military government for that matter). Giwa was murdered via a letter bomb while with a guest in his study at his home in the Ikeja area of Lagos, Nigeria on 19 October 1986 at the age 39. He remains the only Nigerian ever, to have been killed through a letter bomb. Before his death, Giwa in one of his timeless journalistic pieces dismissed Nigeria as God’s experiment in the impossible (Obi, 2002; Adinlofu, 2008; Osinaike, 2018; Gadu, 2019). Detractors of Giwa may accuse the cerebral columnist of impropriety, preposterousness or even blasphemy. This paper’s interests are only in the appositeness of such depictions and their possible immutability.

Perplexingly, Nigeria metamorphosed into one of the most corrupt countries on earth. Uche (2021) hence reports as follows: The Corruption Perception Index (CPI) 2020 report published by Transparency International indicates that Nigeria occupies the 149th position out of the 180 countries surveyed, as well scored 25 out of 100 points. With the current ranking, Nigeria is now the second most corrupt country in West Africa with Guinea-Bissau the only country more corrupt than Nigeria in the sub-region. It can be recalled that in the 2019 report, Nigeria was ranked 146th out of the 180 countries surveyed, scoring 26 points out of 100 points.

According to Chen (2020) “corruption is dishonest behavior by those in positions of power, such as managers or government officials and includes giving or accepting bribes or inappropriate gifts, double-dealing, under-the-table transactions, manipulating elections, diverting funds, laundering money, and defrauding investors”. These are the deforming tendencies that characterized everyday existence in the public and private sectors of independent Nigeria (Rotimi et al., 2013; Akanle & Adesina, 2015; Hope, 2017; 2018; Aluko, 2020). The postcolonial stature of the country thus became chained to these propensities. The nation turned out to be ostensibly reborn at independence but with enduring sleazy deformities.

All of a sudden, Nigeria became internationally well-known for terrorism and violent disorder. Consequently, in the mid-2010s Nigerian-born terrorist organization, Boko Haram overtook ISIS, “the Islamic State of Iraq and Syria” as the worldwide deadliest extremist group. Since the birth of the insurgent sect (Boko Haram) in 2009, it has dislodged 2.3 million citizens from their native lands and killed tens of thousands of others (Pisa & Hume, 2015). Citing United Nations (UN) sources, Sanni (2021) asserts that “an estimated 1,366 incidents of explosive hazards were recorded in the past five years (from January 2016 to April 2021) in Nigeria’s Northeastern states of Borno, Yobe and Adamawa, as the three conflict-torn states have seen devastating attacks by Boko Haram terrorists over the years”. The country’s “Borno State has been most impacted with reports of victim-activated devices detonated in 76 per cent of the Local Government Areas (LGAs). Adamawa and Yobe states were also affected as victim-activated devices have been detonated in 52 per cent of the LGA” (Sanni, 2021).

In 2020 alone “there were 422 total civilian and non-civilian fatalities and casualties’ from the Boko haram-induced occurrences in the country. Following the Nigeria-Biafra war also, “bomb of various calibers were buried and some exposed in different parts of the country, particularly in the Southeastern States, where the Nigeria civil war was intense. Some of these bombs were detonating accidentally with attendant injury and death to victims. The police department in these regards, recently “recovered and demolished 21 mortar bombs, 39 Howitzer bombs and 248 artillery shells at Oruk Anam LGA Akwa Ibom” of the country (Sanni, 2021). Besides the “armed conflict against the Boko Haram terrorist group in the northeast of the country, there is insecurity and violence in the northwest; the conflict in the central area known as the Middle Belt and parts of the northwest and south, between nomadic Fulani herdsman and indigenous farming communities. There is the prevalence of organized gangs or cults in Nigeria’s south; general repression of minority and indigenous groups; killings during evictions in slum areas; and widespread police brutality” in the same Nigerian state (Callamard, 2019).

Contemporary incapacitations and seeming bleakness

Despite all the formal optimisms, the embedded shenanigans and official figures therefore, the Nigerian economy is currently incapacitated. It is ranked the 27th-largest economy in the world by nominal Gross Domestic Product (GDP) and the 24th-largest by Purchasing Power Parity (PPP). It is the largest economy in Africa (Duntoye, 2020). But the citizens of this same ostensive economic giant suffer from profound economic discomfitures. Egwuatu (2021) reports that the country’s currency (the Naira) recently “weakened to a four-year low in the parallel market despite the efforts by the Central Bank of Nigeria (CBN) to bridge the widening gap between the official and street rates”. Quoting “a Bloomberg’s report”, Egwuatu (2021) disclosed that “parallel market dealers were offering the naira at N502 per dollar, up from N500 the previous week, the weakest since February 2017. The rate widens the spread between the official and the parallel market rate to 22 per cent, and Nigeria has devalued its currency thrice since March 2020 as lower oil income, which accounts for about 90 per cent of the country’s dollar earnings put pressure on external reserves”.

Unemployment level in the country is among the worst in the world and those mainly affected are under 35 years old. According to Akinwotu (2021) “Nigeria’s vast, rapidly growing population of 200 million people has a median age of just 18. Many of its young

people have seen their prospects quickly diminish in recent years”. Furthermore, “since 2015, Nigeria has endured one of its worst economic slumps in a generation. Two recessions since 2016 – driven by a combination of the government’s economic policies, a collapse in oil prices, and the Covid-19 pandemic – have inflicted prolonged misery” (Akinwotu. 2021). Citing the Nigerian Bureau of Statistics (NBS), Akinwotu (2021) underscores:

The unemployment rate has quadrupled since 2015 to become one of the worst globally. At the end of 2020, 23 million people or 33% of working age people looking for work, were recorded as unemployed and younger people were worst affected. Almost half of working-age Nigerians under 35 are either unemployed or underemployed. A shadow has been cast over the young, reinforcing the sense that greener pastures lie elsewhere.

Nigeria’s official inflation rate as released by the Nigerian Bureau of Statistics (NBS) is even contested by the chained citizens (Oyekanmi, 2021). NBS in Oyekanmi (2021) posits that “the consumer price index, (CPI) which measures the inflation rate increased by 17.93% (year-on-year) in May 2021 and this is 0.19% points lower than the rate recorded in April 2021 (18.12%)”.

Figure 2



Source: National Bureau of Statistics (2021)

Oyekanmi (2021) still deposes that the faithfully monitored “food index dropped from 22.72% recorded in April 2021 to 22.28% in May 2021, indicating the second consecutive decline”. Several commentators however dismissed the reports as hogwash, opining that the reality on the ground suggest spiraling inflationary pressures of worse proportions in the country (Oyekanmi, 2021). Figures are claimed not to tell lies but not in Nigeria. According to Kazeem (2019) “the state of Nigeria’s lack of accurate data is such that even the president does not know the country’s population size. In the absence of reliable data

from the government, global institutions including the World Bank and International Monetary Fund have been the most consistent suppliers of estimates and forecasts”. In the viewpoints of the Economist Intelligence Unit (2021) (an arm of the influential The Economist Group) therefore, “Nigeria’s near-term economic outlook is clouded by high inflation, mass unemployment and rampant instability, policy choices by the central bank will continue to create macro-imbalances and the government will be unable to get a handle on multiple security crises bubbling-away across Nigeria and this creates a growth profile that falls well behind potential”.

Kazeem (2018) had earlier highlighted that “a new report by The World Poverty Clock showed Nigeria had overtaken India as the country with the most extreme poor people in the world. India had a population seven times larger than Nigeria’s. Nigeria then had the largest extreme poverty population of 86.9 million. India had 71.5 million” (Kazeem, 2018). But from the updates of Ezezi (2020):

The latest report by World Poverty Clock has shown that more Nigerians have been plunged into extreme poverty since November 2019. The latest figure shows that over 105 million Nigerians now live in extreme poverty – from 98 million in October 2019. The figures represent 51% of the population. Nigeria, according to the World Poverty Clock, has a total population of 205,323,520 people with 105,097,856 in extreme poverty representing 51 per cent of the population.

Nigeria’s generic state performance is accordingly currently seemingly bleak. The internally generated statistics are fundamentally fabricated, so the true position in all its trepidations is even largely unknown to the ersatz state managers. Paradoxically, statistics of immense credibility about the Nigerian state only emanate from abroad. Then under the social media orthodoxy the focus of the world is increasingly on the chained-freedom contradictions of everyday existence in the African state. Contemporary political leadership in the country therefore elected to decree the social media out of existence in Nigeria. Predominantly to this effect, a bill titled “bill for an Act to make provisions for the protection from Internet Falsehood and Manipulations and for related matters 2019” has since passed second reading in the Senate of the Federal Republic of Nigeria (Elumoye, 2019). Action on the immensely contentious proposal has since remained stalled but the political elite remain undeterred.

Akinpelu (2021) underscores that as government “continues its move to be able to determine what Nigerian media organisations publish and broadcast and the medium they use for such, it has now included ‘all online media’ among the media organisations it seeks to be able to censor”. Essentially, the type of issues that freely beget mass media attention in Nigeria (up to the coverage of the president’s vehement official and personal positive dispositions to such effects) is that statutorily demarcated routes must be maintained for the movement of cows from the Northern to the Southern states (Aborisade et al. 2021; Adani, 2021; Jimoh et al.2021). Hence, the Nigerian authorities have “earmarked about N1.13 billion for cattle grazing projects even as it insists on the recovery of grazing routes for the entitled mammals across the country”. The beasts are born free too in this African political classic.

Conclusion

This paper has demonstrated that citizenship is still enmeshed in immense social contract-related bankruptcies in some locations on earth, supposedly operating in freedom. Current

conditions in such areas thus invoke the memories of the state of nature. The essay is additionally an elucidation on the foibles of the postcolonial state, particularly in Africa South of the Sahara. The work is not precisely an indictment on specific administrations in the case study country but a holistic censure of national and continental tendencies and maladies, demanding justice as fairness in the politics. Finally, the thesis of the paper rotates around the answer to the inquiry on why in the twenty-first century a nation and her citizens are still classifiable as born free in chains. Findings of the study then suggest that the principal reason for this continuing possible classification borders on cultural lethargy in the location - a pervasive worldview supposing that fundamental societal changes eventually follow incremental random actions or even inactions. Under this scenario where government is the primary offender, citizens and followership constitute the other culprits. To break the barriers of this prevalent weariness in such locations requires a resort to the precepts of the ancient and enduring social contract theory.

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ARTIFICIAL INTELLIGENCE IN THE PUBLIC SECTOR- CHALLENGES, OPPORTUNITIES AND BEST PRACTICES

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Abstract: Artificial Intelligence (AI) is increasingly influencing the functioning of public institutions, offering innovative solutions to enhance governance, public service delivery, and operational efficiency. This article aims to explore best practices in the use of AI for public service delivery and identify the main advantages of using artificial intelligence in the public sector. Additionally, it examines how Romania is aligning itself in the process of integrating AI technologies through the adoption of the National Strategy on Artificial Intelligence 2024-2027. Therefore, the purpose of this research is twofold: on one hand, analyzing key examples of best practices in AI integration within the public sector, and on the other hand, exploring how Romania is making considerable efforts to reform public services through the use of new AI technologies.

Keywords: artificial intelligence, public sector, innovation, chatbot, optimization

Introduction

At its core, AI refers to the ability of machines to simulate human intelligence, enabling them to perform tasks that traditionally require human cognition, such as learning, reasoning, and problem-solving. Through advanced algorithms and data analytics, AI has the capacity to analyze vast amounts of data, identify patterns, and make predictions with unprecedented accuracy and efficiency. Based on European Parliament Report "Artificial Intelligence in smart cities and urban mobility", AI applications can be categorised in the following seven dimensions:

AI for governance e.g.: urban planning, tailored subsidy provision, disaster prevention and management.

AI for living and liveability, safety, security and healthcare e.g.: smart policing, personalised healthcare, noise and nuisance management and improved cyber security.

AI for education and citizen participation e.g.: locally accurate, validated and actionable knowledge supporting decision-making.

AI for economy e.g.: resource (cost and time) efficiency and improved competitiveness through, sharing services, efficient supply chains and customer tailored solutions.

AI for mobility and logistics e.g.: autonomous and sustainable mobility, smart routing and parking assistance, supply chain resiliency and traffic management.

AI for infrastructure e.g.: optimised infrastructure deployment, use and maintenance, including waste and water management, transportation, energy grids, and urban lighting.

AI for the environment e.g.: biodiversity preservation, urban farming and air quality management. (European Parliament, 2021)

According to authors Yan, Z., Jiang, L., Huang, X. et al., AI can be expected to contribute to the development of digital twin in various areas such as: urban planning and management, predictive maintenance and infrastructure management, energy optimization,

disaster simulation and response, traffic and transportation systems, public safety and security, environmental monitoring and sustainability, economic modeling, healthcare services, governance and regulation, integration with IoT and smart devices and education and training. (Zhenjun, et al., 2023)

AI Watch Report, “European Landscape on the Use of Artificial Intelligence by the Public Sector”, offers a few recommendations for the policymakers and public managers dealing with AI implementation. It suggests that AI should be considered not only as a research and innovation tool but also as a practical technology to enhance public administration. Public organizations are encouraged to build in-house expertise to manage AI projects, guide external suppliers, and improve procurement processes. Additionally, as AI will impact employees' daily tasks, it is important to promote a basic understanding of how algorithms work. Lastly, the report highlights that implementing AI goes beyond technical coding, requiring organizational adjustments, including new roles and task reallocations (European Commission, 2022).

In the OECD working paper titled “Hello, World: Artificial intelligence and its use in the public sector”, the organization highlights how governments across the globe are adopting AI technologies to enhance public services and policy-making. AI is being applied to improve the efficiency of administrative processes, optimize decision-making, and strengthen relationships with both citizens and businesses. Furthermore, it is being used to address key challenges aligned with the United Nations Sustainable Development Goals, focusing on sectors like health, transportation, and security. These initiatives are part of a broader effort to modernize governance and deliver innovative solutions to complex public sector issues.(OECD, 2019)

On the other hand, within the same report developed by the OECD, attention is drawn to the potential challenges in implementing AI digital solutions in the public sector, among which are: the creation of legal and ethical frameworks for the use of AI, the development of strategies to ensure the proper management of data while protecting privacy and security, as well as the allocation of internal and external funds and capacities to provide specialized human capital capable of utilizing AI technologies. (OECD, 2019)

Thus, the use of AI in the public sector as a driver for innovative solutions, which on one hand supports the development of public administration infrastructure to provide services more efficiently, and on the other hand increases citizens' satisfaction with public services, is an extremely important solution for the public sector, as we will see from examples of best practices. However, at the same time, it also presents a challenge in addressing the main issues related to AI implementation. The OECD Recommendation on Artificial Intelligence (OECD, 2019) offers five key recommendations for policymakers concerning national policies and international cooperation for trustworthy AI: investing in AI research and development, fostering a digital ecosystem for AI, shaping an enabling policy environment for AI, building human capacity and preparing for labour market transformation and establishing international co-operation.

Theoretical framework

Artificial intelligence- defining the concept

The technology underlying artificial intelligence was created by John Von Neumann and Alan Turing in the early 1950s. Alan Turing, through his article "Computing Machinery

and Intelligence," raises a particularly important question: "Can machine think?" thereby highlighting the notion that machines can think intelligently like humans (Haenlein & Kaplan, 2019).

Nowdays, artificial intelligence has become essential due to the fact that can analyze and extract information from large blocks of data, automatizes repetitive and time-consuming actions at the organizational level, creates personalized experiences for consumers, can provide costumer support and plays an important role in financial industry for fraud detection and risk assessment. The author Christian Schachtner in the article "Smart government in local adoption – Authorities in strategic change through AI" highlights the fact that AI can help in the design of processing processes of information, such as the collection of data from unstructured documents, the processing of business processes, and the automated preparation of reports and meeting documents (Schachtner, 2021).

There are many variations in the definitions and perspectives on artificial intelligence largely due to the difficulty in defining the concept of "intelligence". English mathematician Alan Turing developed a test, that was designed to determine whether a machine (computer) could be considered intelligent. The test involved three participants: a human evaluator would ask questions, and a human and a machine would type answers. The test defines an intelligent machine as a machine that produces answers which the evaluator cannot distinguish from those of the human respondent (OECD, 2019).

Artificial Intelligence (AI), a term coined by emeritus Stanford Professor John McCarthy in 1955, was defined by him as "the science and engineering of making intelligent machines (Manning, 2022). Nils J. Nilsson defines artificial intelligence as "that activity devoted to making machines intelligent, and intelligence is that quality that enables an entity to function appropriately and with foresight in its environment" (Nilsson, 2013).

European Comission's Communication on Artificial intelligence defines AI as "systems that exhibit intelligent behaviors by analyzing their surrounding environment and taking actions - with a certain degree of autonomy - to achieve specific objectives" (European Commission, 2018). OECD provides a definition of AI Systems applicable across all sectors : "a machine-based system that can, for a given set of human-defined objectives, make predictions, recommendations or decisions influencing real or virtual environments. AI systems are designed to operate with varying levels of autonomy" (OECD, 2019).

AI technologies used in public institutions

AI technologies are used in different domains, from healthcare to enhancing public transport and safety. In a report by World Bank Group, "Artificial Intelligence in the Public Sector", it is highlighted that AI can be used as a tool that can deliver a personalized service delivery experience, improve efficiency of back-end processes, strengthen policy compliance and aid in the identification of fraud. (World Bank Group, 2020). The typology of AI technologies used in the public sector includes: chatbots that answer citizen queries and AI technology for sentiment analysis, AI technology for compliance and risk management, AI technology for fraud detection, prevention, and investigation, robotic process automation (RPA), AI technology for analytics and decision-making.

Italian Social Security and Welfare Administration (INPS)

One of the main channels that citizens use to communicate with INPS is via Certified Emails (CEs). Through them, citizens can contact the Institute to seek information or

transmit relevant paperwork to apply for welfare services or entitlements (e.g., civil invalidity benefits, unemployment benefits). During and after the pandemic the number of incoming CEs increased significantly, from 3 million in 2019 to over 6 million in 2023 leading to a significant surge in the workload for INPS employees. The Institute began evaluating various machine learning models and ultimately selected BERT, an open-source model developed by Google that can be exploited by software engineers to create ad-hoc codes to process natural language (OECD- Joinup, 2024).

Transkit, an AI-based tool that transcribes trials

The Basque Government Informatic Society (EJIE) is the technological management body of the Basque Government, that facilitates the digitisation of public services, and guarantees the quality, security and continuity of the information and communication technologies (ICT services) that support them. The solution provided by the Basque Government Informatic Society (EJIE) is an AI tool which uses neural networks to convert voice data into searchable and structured text, using an automated transcription service. The text is indeed extracted in text strings in a subtitle format and a web application is used to link the text with the exact minute of the video or audio recording. These transcriptions, in Spanish and/or Basque, can then be easily used for the judicial review purposes. (European Commission-Joinup, 2024)

Japan`s crisis management system

In Japan, cities have partnered with AI and chatbot developers to deal with crisis management in disaster-prone regions. By using AI, machine learning, and chatbot technology, the Japanese government can effectively inform citizens and visitors about disaster situations and aftermath support in various language (Japan International Cooperation Agency, 2024).

SURTRAC (Scalable Urban Traffic Control)

In the US, the City of Pittsburgh collaborated with Rapid Flow Technologies to develop SURTRAC (Scalable Urban Traffic Control), an automated traffic optimization and control software. City traffic control departments use SURTRAC to manage traffic flows through several intersections and use AI to optimize the traffic systems leading to reduced travel times, reduced number of traffic stops, and reduced wait times (Stephen , et al., 2013).

Virtual assistant Jamie

The Infocomm Development Authority of Singapore (IDA), along with Microsoft have developed a virtual assistant called “Ask Jamie”, with an aim to make online public service websites more accessible and engaging for all citizens. The chatbot can be implemented on the websites of other governmental agencies to answer questions in specific domains. When users visit the agency website, a chat window automatically opens up, and Jamie can respond to user inquiries by way of natural language generation leading to a seamless interaction experience (The Government Technology Agency of Singapore, 2024).

Bürokratt – a single chatbot for Estonia

The idea of Bürokratt is to allow citizens to have access to any public service needed (and potentially to relevant private services of interest) through one single communication channel and from any device thanks to one virtual assistant. Bürokratt is meant to be an interoperable network of public sector agencies attached to national information communication systems, as well as those provided by the private sector, that will be made accessible via one single chatbot(European Commission-Joinup, 2024).

The case of Romania

In Romania, the use of artificial intelligence in public institutions for providing information and services to citizens is still in its early stages. Several municipalities have accessed chatbot-based technology to facilitate the provision of information to citizens, for example:

The City Hall of Sector 3, Bucharest (<https://www.primarie3.ro/>)

Since 2023, Sector 3 City Hall has implemented an AI-powered chat system on its official website becoming the first administration to adopt such technology to enhance and streamline direct communication with sector residents.

Galicea Commune, Valcea County (<https://primariagalicea-valcea.ro/>)

Another example of a chatbot used at the level of municipalities in Romania is AI Galicea – an advanced chatbot available to the citizens of Galicea.

The City Hall of Cluj-Napoca (<https://primariaclujnapoca.ro/>)

Within the City Hall of Cluj-Napoca, the first “virtual public servant” in Romania named Antonia has been implemented.

To align with the new strategies at the European level, Romania has adopted the National Strategy in the Field of Artificial Intelligence 2024-2027.

The National Strategy in the Field of Artificial Intelligence 2024-2027 focuses on 6 general objectives:

Supporting education for AI and the development of specific AI-related competencies;

The development and efficient utilization of infrastructure and datasets;

The development of the national Research-Development-Innovation system in the field of AI;

Ensuring technological transfer through partnerships;

Facilitating the adoption of AI across society;

The development of a governance and regulatory system for AI. (The Ministry of Research, 2024)

Based on these objectives, the expected outcomes following the implementation of the strategy in Romania are:

“Development of the research, development, and innovation sector in the ICT field - human resources, expertise, national and international recognition

Strengthening the capacity for training and education of specialists in AI within the educational system

Generalization of basic knowledge and skills in AI among the population and businesses

Development of specific AI infrastructures (investments, regulation, datasets).

Development of the institutional ecosystem with AI expertise (research centers, companies, testing and experimentation spaces for solutions)

Adoption of AI solutions in the public sector for digital public services and in the private sector for economic competitiveness

Strengthening governance and regulation of AI”(The Ministry of Research, 2024).

While the Romanian Strategy on Artificial Intelligence 2024-2027 holds great promise for driving innovation and societal development, several challenges may arise during its implementation as: lack of funding, data privacy and security concerns, ethical considerations and digital divide.

To address these challenges, the government of Romania has to provide financial resources and adequate funding for AI initiatives, to develop a skilled workforce proficient in AI, to ensure compliance with data protection regulations and safeguarding sensitive information, to take into account ethical concerns, accountability, and transparency and last but not least to bridge the digital divide and ensure equitable access to AI education.

In the report of the European Commission “AI Watch European Landscape on the Use of Artificial Intelligence by the Public Sector”, it is highlighted that, although AI plays a crucial role in the development of all sectors,”the use of AI within government requires careful ethical considerations due to its unique role, legal status and expectations when compared with the private sector, and thus greater care and consideration should be given to upholding ethical concerns”.(European Commission, 2022)

The National Strategy in the Field of Artificial Intelligence 2024-2027 estimates that the use of AI-based technologies will bring non-discriminatory economic, social, environmental, and public health benefits to various segments of society, as follows: improved healthcare, safer and more environmentally friendly transportation (mobility) and enhanced public services and better working conditions. On the other hand, the public sector can benefit from multiple advantages, such as: improving the services offered and increasing public satisfaction, developing employees digital skills, implementing solutions for public and business access to open databases from various fields.

Conclusions

While the use of AI in the public sector offers numerous benefits, there are several challenges that organizations may encounter.

First of all, data quality and accessibility because AI-based technologies rely on large blocks of data, and ensuring data accessibility and quality is essential. Another challenge is dealing with privacy and security concerns of citizens and increasing their trust in the use of AI technologies.

On the other hand, there are some ethical and legal considerations such as accountability, transparency, and the potential for unintended consequences require thoughtful consideration to uphold public trust and ensure responsible AI governance.

Also, we have to take into consideration the lack of skilled workforce because developing and implementing AI solutions in the public sector requires a skilled workforce with expertise in data science, machine learning, and AI ethics.

Another possible problem is in implementing AI technologies in public sector is consider to be interoperability and integration due to the fact that public sector organizations often operate multiple systems and platforms that may not be interoperable or compatible with AI technologies.

Addressing these challenges requires a collaborative approach involving government agencies, industry partners, academia, and civil society to develop policies, standards, and best practices that promote responsible AI deployment in the public sector. By addressing these challenges, AI has the potential to transform public service delivery, improve decision-making, and enhance citizen satisfaction.

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DIGITALIZING HIGHER EDUCATION THROUGH LMSs: WHICH AND WHAT TO CHOOSE

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Abstract: About five years ago, prior the onset of Covid 19, higher education institutions used to carry out online learning activities somewhat as an alternative to the face-to-face classes. Now, more than ever, it's become widely accepted and highly imperative that any modern school needs a digital approach (and strategy) if it is to achieve its mainstream objectives; and universities are no exception. The opportunity arises from the perspective of using LMSs. With that in mind, there is a tough race out there on the market of LMSs that led to the optimization and refinement of many of them, and in a more rapid pace than before. From the users's point of view, choosing a viable and convenient solution has become more complex than ever, especially since each of the LMSs application offers some similarity regarding how it works and what it delivers. However, certain features such as price, learning curve, technical support, learning outcomes, etc. could stand out as key factors in choosing the implementation of one software platform over another. To identify the 'most complete' LMS, we utilized a rigorous methodology that involved evaluating a variety of LMS against a weighted set of features. Each LMS was assigned a score for each feature, and these scores were then used to calculate a product's total score, with a possible maximum score of five stars.

Keywords: LMS, LXP, learning curve

JEL Classification: I21, L86

Introduction

Organizations are constantly looking for ways to improve the skills of their workforce, while employees prefer companies that offer career growth opportunities (Vats, 2024). On the other hand, educational institutions constantly aim to improve teaching and assessment methods. So it can be said about the pandemic period that it had the role of accelerating what would have happened anyway: the increasing use of information technologies in the didactic activity. Thus, the increasing importance of e-learning platforms for academic

institutions in the post-pandemic era has reinforced digitization as a necessity, not just an option. In these circumstances, learning management systems (LMS) - currently less known as CMS (Course Management Systems) (Simonson, 2007, p.7) - being software platforms used for administration, tracking, reporting, automation and delivery of educational resources, training programs or learning and development programs. These are very useful in the classic educational system (schools, high schools, universities), in the corporate environment, non-profit organizations, professional associations, educators and independent tutors (Koblyakov, 2024), also in other areas, aiming to facilitate the process of learning and training, to provide online and personalized training to pupils, students, employees and so on. Even if Moodle it is perhaps one of the most popular LMS on the market (Sánchez, et al., 2023), especially in direct competition with other open-source platforms (Haan, 2024), the fact that there are plenty of such platforms on rise assumes that we are not talking about a monopoly.

If we step outside the box of LMSs, the importance of continuing the digitization of higher education could be based on the following aspects,:

provides access to educational resources from any place, at any time, therefore in a flexible manner, so that students no longer have to physically attend classes (Mondéjar-Jiménez, Mondéjar-Jiménez, Vargas-Vargas, & Meseguer-Santamaría, 2008, p.23);

promotes more fluid interaction between students and teachers, even at a distance, thus improving collaboration and team-working;

allow the adaptation of the courses according to the individual needs of the students, thus a personalization of the educational process.

The most popular LMS platforms are:

Moodle: flexible open-source system used by many institutions to customize courses.

Canvas: Known for its intuitive interface and easy integration with other tools.

Blackboard: Robust platform, popular for large-scale support and integrated assessment tools.

Google Classroom: Focused on collaboration and resource sharing, suitable for institutions using the Google tools.

Even if the most popular LMSs would seem enough to hold our attention, we have proposed to extend the area of research towards other similar solutions which are full LMSs or plays in a niche area. For example, initially, we had found that certain particularities of Microsoft Teams, Webex or Zoom could place them in the vicinity of the concept of LMS, but would be insufficient to put them together with the main actors on the market. At the same time, some analyzed platforms are not fully LMSs, but include quite a few specific or LMS-like features.

Defining aspects and essential functionalities of Learning Management Systems (LMS)

LMS is the core of eLearning solutions and is very important for the universities (Itmazi, Gea Megías, Paderewski, & Gutiérrez Vela, 2005, p.9). LMS platforms vary according to the specific size, complexity and features available, there are commercial solutions, by software manufacturers, but also open-source projects, each having advantages and disadvantages according to the needs of the organization or institution (Unal & Unal, 2011, p.20).

Characteristics of LMS platforms

Although we can talk about a multitude of particularities, given the large number of platforms that can be used in this way, we will point out some common features and functionalities:

1. Course administration can be considered the starting point of such online collaborative concept, by being able to upload and organize course materials (documents, presentations, videos and exercises, etc.);
2. Communication and collaboration using forums, internal messaging, and real-time chats that facilitate interaction between learners and teachers/instructors;
3. Assessment and tracking by creating and administering online tests and assessments so that learner progress can be tracked and reports generated for teachers/instructors;
4. Customization and Adaptation: Some LMSs allow the learning experience to be customized for each learner based on their knowledge level or interests.
5. Content suggestions based on past user behavior and performance;
6. User management, with administrators able to create and manage user accounts, enroll learners in courses and monitor their progress;
7. Security and privacy of sensitive data and course content, compliance with relevant regulations and standards through user authentication functions, content access control and data encryption.

Common Functions of LMSs

They derive from the previously mentioned characteristics and assume:

- Create and deliver online courses using a variety of formats such as text modules, videos, presentations and quizzes.
- Track student progress in courses, including test grades, assignments completed, and time spent in each module.
- Communication and collaboration between students and teachers through discussion forums, instant messaging and file sharing tools.
- Reporting and analysis on student progress and course performance, which can be used to improve instruction.

Considering these aspects, strategic guidelines can be identified for the optimal selection of a LMS, such as:

- analysis of the institution's needs: Type and number of courses, student profile, and available resources.
- testing several platforms: before making a final decision, it is useful to test several LMSs by implementing a pilot.
- involvement of the entire academic community: The decision must be made together with teachers, students, administrative staff to ensure that everyone's needs are covered.

The benefits of using a LMS

Certainly, the most obvious benefits is by intuition, if we think about the fact that we are talking about global and continuous access to educational resources, the automation of evaluation processes or the improvement of online interaction and communication.

- Improve learning efficiency: LMSs can help students learn more effectively by providing personalized and self-paced instruction, access to a variety of learning resources, and opportunities for practice and prompt feedback.

- Cost reduction: LMSs can help organizations reduce training costs by automating administrative tasks such as student enrollment, test scoring, and report generation.
 - Increase engagement: LMSs can help increase student engagement by providing a more interactive and personalized learning experience.
 - Improve performance: LMSs can help improve the performance of organizations by providing training that is aligned with their business goals and employee needs.
- These benefits must also be moderated under the light of certain impediments such as high costs for some platforms, the need to train staff and students for proper use, or security risks and privacy issues.

essential criteria in the selection of a learning management system (lms)

Choosing the suitable LMS for a higher education institution must be based on a detailed analysis of several factors, taking into account aspects such as (1) the specific needs of the organization that proposes to use such an application, (2) the size organization, (3) budget, (4) level of technical expertise available, (5) customization options. These can be integrated into comparison criteria that allow the evaluation of different platforms, such as:

a) Scalability - the ability of the LMS to adapt as the institution grows in size, with more users or courses. Platforms must support increases in the number of students, courses and teachers without affecting performance. For example Moodle and Canvas are recognized for their flexibility and scalability, while simpler solutions such as Google Classroom may be more suitable for smaller institutions.

b) Integration with other platforms - the ability of the LMS to connect and integrate with other applications and software systems already used by the institution (eg: videoconferencing platforms, student data management systems, or financial systems). It is important to see if the respective LMS allows easy integration with solutions such as Zoom, Google Meet, Microsoft Teams, or administrative systems such as educational ERPs. To that end, Blackboard and Canvas offer robust integration with many third-party systems, while simpler platforms may be limited to their own ecosystems (eg Google Classroom).

c) Costs, assuming the budget required to implement and use the LMS, including licenses, customization, maintenance and staff training. For example Moodle is a free open-source solution but requires costs for customization and hosting, while Canvas and Blackboard come with higher licensing costs but offer dedicated technical support. Therefore, it is important to correlate the total cost with the benefits and available resources of the institution.

d) Technical support and training, i.e. the availability and quality of technical support provided by the LMS provider and the need for staff training to use the platform effectively. It can be identified if the respective LMS offers 24/7 support, accessibility to training resources (tutorials, webinars), and local language support. Here, we can mention Blackboard as known for its solid technical support, while Moodle may need in-house technical administrators for effective management.

e) Data security, the ability of the LMS to protect the personal and academic information of students and teachers, regarding the level of encryption, compliance with security standards (eg: GDPR for Europe), and data backup and restoration options. In this context, Canvas and Blackboard have rigorous security measures, but for open-source platforms such as Moodle, security may depend on how the platform is configured and administered.

f) User Experience (UX) - the interface and ease of use of the LMS for teachers and students, being able to analyze how intuitive the platform is, how quickly common activities can be performed (eg uploading materials, checking grades), and how easy the onboarding process is for new users. Canvas and Google Classroom have friendly and intuitive interfaces, while Moodle may require customization to optimize the UX.

g) Assessment and Feedback functionalities - the ability of the LMS to support student assessment through tests, quizzes and grade management. It can be tracked if the LMS offers automated test marking features, personalized reports, and immediate student feedback. Blackboard and Canvas have advanced grading systems, while Google Classroom offers a simpler approach without advanced reporting features.

h) Mobility and Accessibility refers to the compatibility of the LMS with mobile devices and access for users with special needs (eg support for screen readers). Canvas and Google Classroom have well-developed mobile apps, while Moodle requires additional configuration for optimal mobile experience.

Comparison of some LMS platforms

Analysing a LMS that meets our expectations must take into account several criteria, each of which has a significant impact on functionality, cost, and user experience. Therefore, we reproduce the criteria to which we will refer the comparison:

1. Open-source: Whether the platform is free and open-source, which means it can be freely customized and modified.
2. Course management: The ability to create and manage online courses (content creation, course materials, module organization, etc.).
3. Collaboration: Provides collaboration tools (forums, wikis, chat, etc.).
4. Accessibility: Meets accessibility standards for disabled users.
5. Assessments: Includes testing and assessment systems such as quizzes, exams, assignments.
6. Gamification: Using gamification techniques to increase engagement (badges, leaderboards, prizes).
7. Customization: The ability to modify the platform according to the specific needs of the user or institution.
8. Mobility: Support for mobile devices and mobile applications.
9. Technical Support: Provides technical support for users, either through a community or official support.

Table 1. Core and collaborative features

	Open-source	Course Mgmt.	Collaboration	Accesibility	Evaluation	Gamification
ATutor	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Blackboard Learn	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Canvas	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Chamilo	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Degreeed	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Docebo	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
EdCast	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Edmodo	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Forma LMS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Gibbon	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Google Classroom	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ILIAS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Moodle	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
RosarioSIS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sakai	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schoology	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
TCEXAM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Table 2. Advanced features and technical support

	Customization	Mobility	Tech Support
ATutor	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Blackboard Learn	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Canvas	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Chamilo	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Degreeed	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Docebo	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
EdCast	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Edmodo	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Forma LMS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Gibbon	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Google Classroom	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ILIAS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Moodle	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
RosarioSIS	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Sakai	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Schoology	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
TCEXAM	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

We mention that, in some LMSs, a certain feature either exists as full functionality, or can be assimilated as having that behavior. On some platforms, demo versions may not fully reproduce how certain features work.

The synergy between LMS and LXP

If it can be said that LXP (Learning Experience Program) begins where a LMS (Learning Management System) ends, in the sense of integrating other third party sources (playlists, videos, articles, etc.), but especially for that balances synchronized learning with asynchronous learning (Eduweb.ro, 2021), we can state that the relationship between a LMS and a LXP can be complementary and synergistic within an extended learning ecosystem. Thus, they can be integrated and used together to provide a more complete and personalized learning experience. LMSs are generally focused on the administration and structured delivery of courses, and are often used to manage formal education such as courses and degree programs. In contrast, LXPs focus on the personalized learning experience, encouraging self-directed learning and content exploration in a more flexible and adaptable way.

Although in the Table 3 we reproduce the characteristics of the two concepts in parallel, we mention again that they are not competing, but complementary. Thus, they can be used together to create a comprehensive learning and development strategy. For example, some organizations use LMS as their primary platform for delivering mandatory courses, and LXP to provide employees with additional learning and development options.

Table 3. LMS vs. LXP

	LMS	LXP
Complete Name	Learning Management System	Learning Experience Platform
Definition	A software application that allows you to create, deliver, manage, and track online learning content.	A software application that allows you to collect, curate, personalize, and recommend online learning content.
Main Purpose	Administer training Furnizarea și gestionarea conținutului de curs	Discover and deliver content Oferirea unei experiențe de învățare personalizată
Livrare	Cursuri liniare, secvențiale	Căi de învățare personalizate, bazate pe interese și nevoi
Key Features	Course creation Course delivery and assignment. Catalog management Content storage Progress and performance tracking. Scheduling Certification and accreditation	Content aggregation and curation. Content personalization and recommendation. Learner engagement and collaboration Learning analytics and insights. Consumer-grade user experience Internet access Recommendations Social media
Content Types	Training materials Compliance and onboarding Courses Instructional videos More rigid and longer form	Short "micro-learning" Interactive Skills-based 3rd party and user-generated Personalized formats depending on the learner
Strengths	Administration Assessment Certification Control	Content creation Flexibility Personalization Variety
Weaknesses	Flexibility Variety	Assessment Control
Drivers	Management/L&D Team	Learner/User
Collaboration	Limited features for social learning	Users post their own content leading to greater collaboration opportunities
Skills	In-depth structured courses to instill new skills	Personalized upskilling/reskilling programs
Analytics	Basic metrics	More in-depth use of data to track learner engagement and training effectiveness
Use Cases	Corporate training, education, non-profit.	Employee development, customer education, community learning.
Mode	Instructor-led.	Learner-led.
Socializare	Uneori limitată la forumuri de discuții	Accent pe colaborare, socializare și partajarea cunoștințelor
Examples	Moodle, Canvas LMS, Thinkific, etc.	Degreed, Absorb, 360Learning, EdApp, EdCast by Cornerstone etc.

Buget	Mai rentabile	Mai scumpe
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Source: adaptation based on Feffer (2023), Kuzmina (2024), Bhatia (2024).

The future of the LMS-LXP relationship seems to be bright, complementing each other. While LMSs provide the necessary structure for compliance, monitoring and evaluation, LXPs will help create more flexible and personalized, user-centric learning experiences.

Conclusions

The digitization of education through LMSs can transform the educational experience of students and the effectiveness of teachers. Choosing a LMS is a complex process that depends on many variables. Each higher education institution must consider its specific needs and available resources. Thus, we can talk about robust solutions for higher education, such as Moodle, Canvas and Blackboard Learn, offering a balance between basic and advanced functionalities, but also open-source solutions (Sakai, ILIAS, Chamilo, etc.) for institutions with limited resources, which offer flexibility and low cost, but require technical knowledge for customization. At the same time, commercial platforms like Docebo or Degreed are recommended for universities that want to implement fast, guaranteed technical support and advanced functionality, but at a higher cost. Also, combining LMS with LXP can expand the scope of eLearning.

As a conclusion, each LMS has unique strengths and weaknesses. Choosing one platform over another depends on the specific needs of the institution or user, as well as the available budget. It is important to consider the specific needs and the specifics of the organization when it comes to choose a LMS platform, as well as the availability of resources for administration and technical support.

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COMPREHENSIVE PROCESS AND FRAMEWORK FOR SUSTAINABLE SYSTEM-WIDE CHANGE IN EDUCATION: A LITERATURE REVIEW

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Abstract: Owing to the inherent nature of change within the educational landscape across all tiers, from grassroots school communities to district, state, and national levels, this paper outlines a robust conceptual framework and process for facilitating sustainable system-wide reform in education. The paper highlighted that while change can occur either on a piecemeal or system-wide basis, the most impactful change tends to be system-wide. System-wide reforms impact not only the learning experiences but also the organisational and governmental protocols governing the entirety of the educational structure, encompassing the learning environment, infrastructure, community involvement, and the jurisdictions of local/districts, state/province, and federal/national authorities. Sustainable system-wide transformation offers a model for inclusive change, relying on grass-roots-initiated efforts within its framework. Stakeholders guide system-wide reform efforts through continuous partnership and shared ownership. The theories, workshops, conferences, empirical research, and real-world experiences obtained through the assistance of system-wide change proponent experts are construed and analysed in this paper. This paper provides the process and conceptual framework for the introduction and implementation of a functional and sustainable system-wide change for education reform facilitation and researchers who want to explore a sustainable system-wide change process. Along with providing information on how to start and maintain a system-wide change process, the paper also explains to all stakeholders in education the types of undertakings and support essential for a system-wide change to be successful and sustainable.

Keywords: Sustainability; System-wide change; Reform process; Learning organisation; Educational change; Educational stakeholders

Introduction

Change is an unavoidable facet of all human endeavours. The dynamic nature of the human sphere, which encompasses the environment, societal needs, governance, and policies, keeps changing. Therefore, the realm of education cannot remain stagnant. In educational contexts, the quest for significant reform has persistently remained unchanged, and it will remain so in the future (Dueppen & Hughes, 2018). As human endeavours progress, it becomes imperative for the educational system to also evolve in order to maintain relevance and functionality. A static educational system will not only become irrelevant to the end-user, but it will also be a tool for blindfolding, setbacks, misdirection, poison, damage, low productivity, substandardness, and inequalities for an individual and the nation at large (Boyce, 2019). It has been vehemently argued that the educational standard determines the development of a nation. Oladotun (2022) asserts that no country can grow beyond the standard of its educational system. Considering the significance of educational reform in meeting the needs of the ever-changing world, there is a need to critically explore

the process and conceptual framework for introducing and implementing a sustainable system-wide reform in education.

Change in educational settings needs to adhere to the principle of sustainable system-wide change in order to be effective. This paper draws its insight from literature reviews based on educational reform, empirical research, and experiential reports. In order to make an informed conclusion about the topic under examination, researchers can familiarize themselves with past and current theories and studies in their field of study by doing a literature review (Ridley, 2012). Furthermore, a literature review facilitates the contextualization of a study and allows a researcher to interact with and incorporate the relevant literature.

The main concepts that have come out of the proponents, eminent academics, pioneers, and seasoned facilitators of sustainable educational system-wide reform and from previous system-wide transformation case studies and models of educational transformation are summarized in this paper. The conceptualisation of system-wide change, its different manifestations, and the importance and forms of system-wide change in educational contexts are all covered in the paper. The discussion culminated in an exploration of the conceptual framework underpinning the principles of sustainable educational system-wide change. These insights were derived from a synthesis of theories, seminars, workshops, conferences, and hands-on experiences facilitated by experts advocating for system-wide change.

Concepts of System-wide Change

The act of reforming a thing, someone, or a system's shapes or functions is known as change (Sengeh & Winthrop, 2022). Change might be made piecemeal or systemically. Piecemeal change consists of modifying the existing standard, while system-wide reform comprises changing the current paradigm entirely (Reigeluth & Duffy, 2019). A system-wide intervention targets the entire system rather than just a small portion of it. From the standpoint of systems thinking, system-wide refers to a reform that originates from the framework of the system and influences the system's overall performance rather than just one of its organs (Sullivan et al., 2015). A reform that affects most or all of a system's components while taking into account their interdependencies and relationships with one another is referred to as a system-wide change. As a result, it influences the overall behaviour of the system, making adjustments to the other components necessary at the same time (Connolly, 2017). Put another way, system-wide change is defined by Stouten et al. (2018) as a purposeful effort aimed at disrupting the existing state of affairs by adjusting the framework or function of a particular system, aiming to instigate enduring change by altering fundamental elements like resources, routines, policies, power dynamics, values, and relationships that enable the system to operate in a specific manner. Because of the system's inherent interconnection, system-wide change offers a structure for a comprehensive paradigm shift that entails focusing on each component of the system (Sullivan et al., 2015).

According to Lawton and Pratt (2022) system-wide reform is a school of thought that focuses on creating a whole new system as opposed to attempting to fix one that has never been intended to handle the realities, difficulties, or procedures it presently encounters. System-wide transformation in education is defined by Menchaca et al. (2003) as an all-encompassing strategy for altering the core values, attitudes, and beliefs about education

and educational institutions in the framework of a dynamic, interrelated, and complex society. Fullan (2009) asserts that changes in educational settings that affect the system as a whole, comprising the learning environment, structures, communities, district/local, provincial/state/regional, national/federal government levels, and the administrative and governmental procedures that direct the system as a whole, are referred to as system-wide changes. Sengeh and Winthrop (2022) posit that system-wide transformation in education refers to various community members cooperating to enhance and support children's learning. This suggests that to enhance a sustainable reform process in education, the views and contributions of all stakeholders—including employers, instructors, students, parents, and the community—must be taken into account (Jenlink et al., 1998; Oloba, 2023).

A fundamental shift that impacts every facet of a school system is known as system-wide change (Gouëdard et al., 2020). This implies that any attempt to implement change that does not take into account every aspect of the system will fail. System-wide change could therefore be defined as a basic restructuring of the educational system that impacts all tiers of the system, including local/districts, state/province, and individual schools. Specifically, the goal of educational reform is targeted at impacting all students and staff members within the school or system in order to accomplish shared educational goals. It is critical that system-wide change in education be adopted. The following highlights the importance of system-wide reform in education.

Significance of System-Wide Change in Education

When system-wide reform is implemented, it provides direction to states, districts, schools, and countries on how to create an improved educational paradigm (Gouëdard, 2020) by assisting in the resolution of issues facing the educational system (Ndaruhutse et al., 2019; Sullivan et al., 2015). System-wide change provides helpful direction for creating a shared vision for all parties involved in education. This helps to value and incorporate the opinions of all parties, leading to programs and products that are more likely to satisfy everyone's needs (Miller et al., 2006). Education reform at the system-wide level is intended from the outset to address present and future circumstances and issues, enabling students to become ready, able to adjust, and meet the demands of contemporary society (Gouëdard, 2020). Ndaruhutse et al. (2019) and Thompson et al. (2006) state that system-wide transformation capacitates any educational stakeholders, such as members of society, school leaders, students, the government, or educational institutions, to take ownership of a reform.

In order to break through long-standing barriers—both visible and invisible—and establish new connections and structures that have an impact on teacher learning and development, system-wide transformation can assist in resolving frequent misunderstandings that usually occur between school authority and the teachers. Changes at the system-wide level enable educational stakeholders to fully comprehend the relationships and causes that influence our work (Miller et al., 2006). System-wide transformation provides a framework for practitioners to look beyond the symptoms of a problem and assess or study the entire situation (Miller et al., 2006). It promotes cooperation and open communication in educational settings, which helps to prevent the negative effects of miscommunication or misunderstanding (Ndaruhutse et al., 2019; Miller et al., 2006).

Professional practitioners can aid in ensuring that changes in education are implemented successfully by facilitating debates and offering options when system-wide change is implemented (Meyer-Looze et al., 2019). Thus, it facilitates the efficient and painless

change of education (Connolly, 2017). Ndaruhutse et al. (2019) highlight that system-wide transformation addresses the requirements of specific societies, students, schools, families, groups, and the nation at large while also assisting in understanding the relationships between the different systems and stakeholders that comprise the system of education. Dueppen and Hughes (2018) remarked that the system-wide approach's effectiveness has made it the most widely accepted theory of educational reform. For any system-wide change to be successful, certain procedures have to be followed. The process will be presented in the next section.

Process of System-Wide Change in Education

The discrete occurrences that serve as pivotal moments in the development of educational reform can be used to characterize the process of system-wide reform (Jenlink et al., 1998). Educational change at the system-wide level is an ongoing effort. Duffy et al. (2006) and Reigeluth (1995) describe system-wide reform as a cyclical process that takes into account the effects of educational reform on all components of the entire system and their links to one another. Reigeluth and Karnopp (2020) assert that the system-wide process is highly variable and intricate, depending on the circumstances. Connolly (2017) contends that because it is simpler for people to concentrate on the individual components of a system than on the systems that link them, system-wide change is typically difficult to envision and rarely encouraged. Systems that are open have more variables at play, which raises the degree of complexity even further (Reigeluth & Karnopp, 2020). Reigeluth and Duffy (2019) confirm that piecemeal reform is not nearly as challenging as paradigm change, while Miller (2020) assert that system-wide change is large-scale and has a vast scope. Thus, Reigeluth and Karnopp (2020) also argue that system-wide, compared to piecemeal change implementation efforts, transformation is significantly more difficult to implement. System-wide transformation processes have been described as challenging endeavours in light of the previous. Despite the challenges, system-wide change is achievable. Advocates for systemic change through reform facilitation, research, periodicals, newspapers, workshops, seminars, and presentations connected to conferences—Adelman and Taylor (2007), Reigeluth and Duffy (2019), and Reigeluth and Karnopp (2020)—recommended four levels of facilitating a system-wide change reform. This paper is based on statewide system-wide change, among the four categories of system-wide reform processes, which are: district-wide, school-wide, ecological, and statewide.

To make the process visible at a glance, a summary of the entire system-wide reform process in diagram form is presented below.

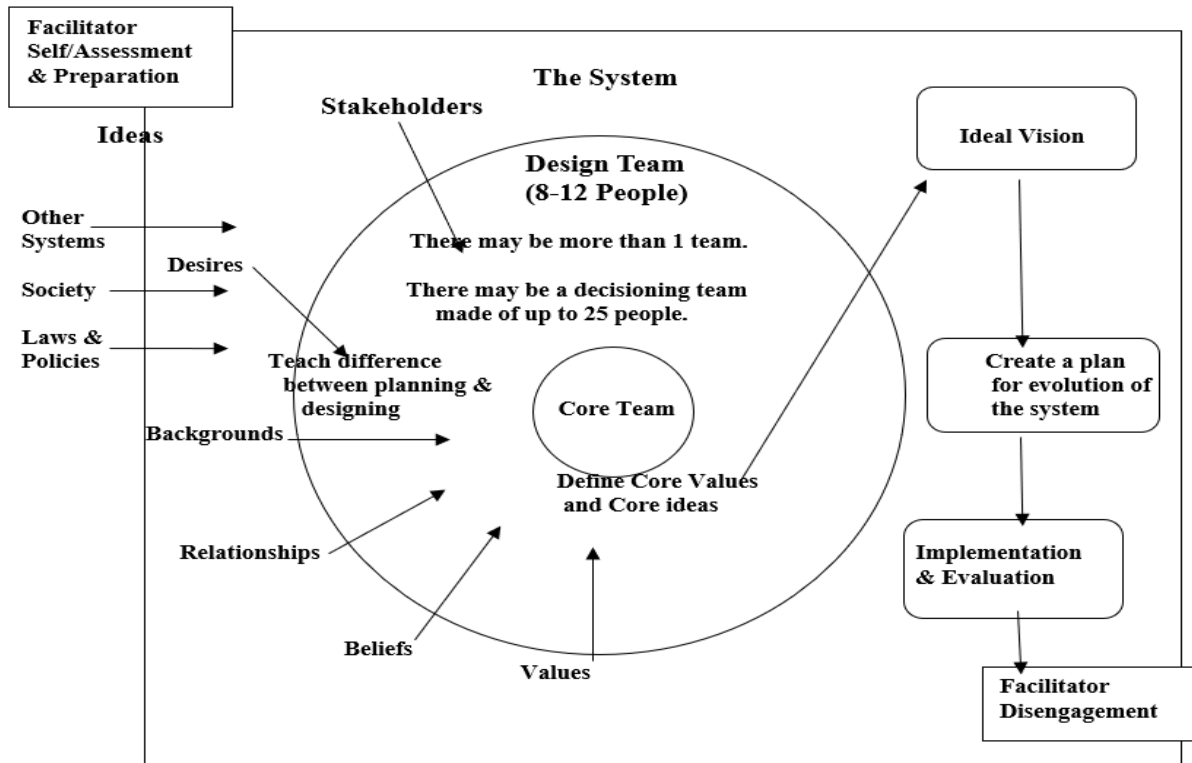


Figure 1: An overview of the whole process of system-wide change (Hawley, 1997. p 58).

The entire system-wide change process is depicted in Figure 1. We will go into more depth about each of the parts (phases) below.

Phase One: Assessing Facilitator and State's Readiness

The starting point of a sustainable system-wide reform process is to assess the readiness of the reform facilitator and the province/state/region. To determine the beginning point and capability for system-wide reform, the facilitator of system-wide change must make contact with and hold meetings with a variety of state stakeholder groups throughout this phase. Naicker and Mestry (2016) and Reigeluth (1995) confirm that system-wide leaders of the state's stakeholders and the system-wide change facilitator must first prepare the ground for change. A change facilitator is a person who assists an organisation in recognizing areas for improvement and cultivating group tactics to maximize the effectiveness of change initiatives, helps in identifying reform options, communicates clearly, resolves conflicts, helps in adapting to new reform, and provides the benefits and steps required to transition or transform (Reigeluth & Duffy, 2019). At this stage, it is critical that the facilitator and the state reach a specific level of preparedness in order for the system-wide reform to succeed. Meyer-Looze et al. (2019) and Reigeluth (2011) state that the readiness of the facilitators of the system-wide reform must be evaluated before they begin the facilitation process. The evaluation should be based on their capabilities in system-wide reform knowledge, experiences, skills, personal development, group processes, and their capacity to create a professional development activity that is relevant

to the area where the reform is to be implemented. To assess the state's preparedness and to foster confidence among all parties involved in the reform process, the system-wide change facilitator must recognize and comprehend the education system that is currently practiced in the area (Jenlink et al., 2010; Reigeluth & Duffy, 2019). Duffy et al. (2006) and Reigeluth (2011) advise that to decide whether to move forward with the reform plan, it is important for the facilitators to build rapport alongside the state's leadership stakeholders. At this stage of the reform, a memorandum of understanding could be used to help the facilitator and state come to an agreement on the terms and conditions and the roles and responsibilities of both parties (Adelman & Taylor, 2007). A written contract among the state and the reform facilitators ought to be signed, according to Cheng (2020) and Hawley (1997), to safeguard the facilitator's finances and guarantee the state's sincere commitment to the reform initiative. The facilitators of system-wide reform need to evaluate the state's preparedness by examining relevant documents and conducting interviews with educational stakeholders. It is necessary to assist the public in comprehending the nature and necessity of the proposed reform that will be implemented (Reigeluth, 2011). Cheng (2020) and Reigeluth (2011) remark that system-wide educational reform may not be sustained if the facilitators and state are not dedicated to collaborating with one another.

Phase Two: Prepare the Initial Core (Starter) Team for the Change

In the second phase of the system-wide change, the facilitator must assist the stakeholders in assembling a "starter team" in order to kick off the reform process. Immediately after that, the reform facilitators have signed a change agreement with the state (Sullivan et al., 2015). It is the role of the facilitators to collaborate with state officials to establish standards for choosing members of the core team who should be suitable for the transformation (Duffy et al., 2006). At this point of the reform process, it is advisable that a small group of stakeholders, ideally including the most influential members from each of the main stakeholder groups such as the school leaders, leaders of the teaching and non-teaching associations, as well as the representative of the parents in charge of putting school improvements into action, make up the starter team (Reigeluth, 2011; Jones, 2015). At this stage of the reform process, the facilitator is expected to assist the group in developing a suitable culture for system-wide reform. Developing the core team's abilities in system design and group processes, as well as their capacity to assess and analyse the current state of the country's educational affairs in relation to the intended change, are necessary for them to fulfill their duties with effectiveness (Watson et al., 2008). Sullivan et al. (2015) assert that the starter team is the main motivator and source of assistance for the system-wide change initiative. The starter team's main responsibility is to foster a climate of collaborative management, empower stakeholders, and establish consensus, confidence, and cooperation during the reform process (Sullivan et al., 2015; Thompson et al., 2006). The starter team members are also required to comprehend a paradigm shift in society, a system-wide transformation process in education, and system-wide thinking. They are also expected to get together on a regular basis (every two weeks) to go over reform theoretical frameworks and create a plan for the system-wide transformation (Darling-Hammond et al., 2020). In addition, the starter team is also expected to gain the ability to manage and catalyse change, with the goal of ensuring that the "big picture" is carried out in a way that is consistent with the local culture and true to the vision (Adelman & Taylor, 2007). Errida

and Lotfi (2021) further argue that the starter team members are responsible for creating connections between resources, assisting in the redesign of regular structural mechanisms, and solving problems. They don't just react to issues as they come up; they also take a proactive approach by creating plans to overcome known obstacles to change, such as unfavourable dynamics and reactions, common issues obstructing collaboration, and flaws in the system. Their aim is to accomplish all of this in a way that promotes communication with all relevant stakeholder groups, general preparedness and dedication to novel approaches, empowerment, and a sense of community.

The core team is tasked with building the knowledge and skills intended for the new educational system while taking into account diverse models of system design, system-wide theory, and practice (Darling-Hammond et al., 2020). It is imperative that the core team approach system design from a user-design perspective. During the design process, if the end-users are involved in every stage, it will lead to a user-design approach, which is an iterative design process that concentrates on meeting the demands of the users (Darling-Hammond et al., 2020). White (2015) remarked that all stakeholders must be informed about the importance and meaning of system design as set out by the core team. In order to create a system design in a school, it is vital to discard outmoded educational practices with the intention of replacing them with an idyllic one. This entails surpassing and letting go of the educational system that is present, visualizing the new educational system that needs to be built, designing the system so that when it is put into practice, it transforms the current state into the intended future state, putting the model or models of the expected system on display, and planning the new educational system that will be implemented (Jones, 2015).

In the second phase of system-wide change, it is the responsibility of facilitators to assist the core team in identifying the nation's current and possibly conflicting change initiatives as well as the current locations of the nation's change-related resources (Hobbs & Midgley, 2020). It is anticipated that facilitators and core team members will speak with individuals who hold divergent opinions about the reform in order to persuade and make them aware of the necessity of putting such opinions on hold and supporting the new system-wide change process effort (Darling-Hammond et al., 2020). Combining system-wide reform initiatives alongside other ongoing changes in the educational system is crucial to fostering effectiveness and sustainability after targets are established and reform design gets underway (Sullivan et al., 2015). Lastly, during this phase, it is the duty of the facilitators to support the core team in assessing the degree of the broader stakeholders' preparedness for change, the reasons behind their openness or closedness to it, the factors they believe led to the accomplishment or ineffectiveness of previous reform initiatives, and their present beliefs and mindset regarding educational change (Hobbs & Midgley, 2020).

Phase Three: Prepare the Expanded Team

This stage involves getting the expanded reform team ready for the reform after preparing the original core (starting) team. Once the core team is established, Duffy et al. (2006) and Reigeluth (2011) suggest that the facilitator should help them grow into several change teams with representatives from each stakeholder group (roughly 20–25 members) as well as a small stakeholder design support team (roughly 7–10 people) that will help the larger team. At this point, Thompson et al. (2006) state that the new teams are expected to rely on the core team for support and vital vision and to share the knowledge, expertise, and

change-oriented culture of the core team. According to Jenlink et al. (1998), the two to five decision-making team members must be part of the design support team. The five individuals serve as the core of a larger design support team comprising about ten members, who are assigned an ad hoc and supportive role in the system-wide reform effort. The group that makes decisions creates a team-building activity that is akin to what it just experienced. In the end, the design support team creates its own operating system, which must be approved by the decision-making group (Musaigwa, 2023). As a foot soldier, the design support team is responsible to act as a source of inspiration as well as the motivation that are required for the duration of the change process. The design support team also offer a powerful voice in the change initiative and act as a liaison between the community and the enlarged team. Along with stakeholder feedback regarding the changes and the change process, the leadership team is tasked with making choices and providing the necessary support for the reform effort (Musaigwa, 2023). Reigeluth (2011) states that the support team needs to be trained in systems practice, models, theory, and design in order for them to be able to use different approaches to the reform effort, such as “user-design” against “expert designer”, “interactive” as opposed to “non-interactive”, “designing” as opposed to “planning”, and “outside-in” versus “inside-out” tactics to reform.

Phase Four: Design a new System

A couple of common ideas of an ideal system of education are established during this crucial system design phase, which helps the participants go past their preconceived notions about schools and educational reform (Sengeh & Winthrop, 2022). Duffy et al. (2006) highlight that facilitators are shadowed with the responsibility of helping the design team members recognize and metaphorically leap out of their own ideas about education. At this point, cultivating knowledge of various educational techniques and the societal developments that orchestrated the need for system-wide reform falls under the purview of the design team, the decision-making team, and the facilitators (Meyer-Looze et al., 2019). Jones (2015) asserts that a change in perspective for those involved in the educational system is therefore necessary, as the process of systemic transformation may be impeded by people's attitudes toward education. Joseph and Reigeluth (2010) state that our society is entrenched in an educational system that is presently outdated. Therefore, altering an educational system necessitates altering the perspectives of those involved in education (Jones, 2015). Helping all educational stakeholders shift their perspectives and mental models is a significant stage of a system-wide reform procedure (Joseph & Reigeluth, 2010). Although it may seem impossible to influence someone else's perspective, Sengeh, and Winthrop (2022) contend that it is a necessary step in the system-wide reform process. Jones (2015) remark that the members of the design support team are expected to engage with members of the larger stakeholder group to assess and contribute to the development of new presumptions and attitudes about the outdated educational system. Stakeholders are expected to participate in the problem definition process, which entails collecting and analysing data from various sources, including student records, policy records, observations made in the classroom, surveys, and interaction with stakeholders, in order to identify the specific discrepancies being targeted and to define the objectives for system-wide change (Sullivan et al., 2015). Hobbs and Midgley (2020) concur that all stakeholders must debate, examine, and take into account the data that has been collected. While Sengeh and Winthrop (2022) believe that stakeholders should work toward an ideal system as

opposed to trying to rework the system they are currently a part of, Indeed (2023) contend that based on the requirements and ideals of society, stakeholders should formulate and agree upon the new educational system's objective.

To create an ideal vision when there are different visions amongst the stakeholders, the details must be worked out for each of the visions in order to determine which of the visions meet with stakeholder approval. Jenlink et al. (1998) assert that an ideal vision needs to be backed by leadership support and the imagined and planned governing systems. Menchaca et al. (2003) indicate that managerial and administrative assistance are crucial components of the system-wide reform effort. Darling-Hammond et al. (2020) state that a newly formulated system needs leadership support that could offer procedures for authority transfer, financial modalities, and effective policies that could increase the success of the new system. The system of administration is expected to be designed in a way that will best support the new system. Hobbs and Midgley (2020) note that infrastructure and an action plan for implementing educational reform should be set out as part of the administrative system. The administration has to realize that providing financial, technological, and other resources for system-wide reform is an ongoing effort (Ender et al., 2007; Indeed, 2023). Through consensus-building, the facilitator creates a vision of the ideal system of education with the help of the design support team as well as every member of the design team. Menchaca et al. (2003) and Reigeluth (2010) opine that stakeholders are required to assume responsibility for and create a shared vision of the new educational system, and all and sundry should become passionate about and committed to this new vision. Darling-Hammond et al. (2020) suggest that the design team's basic ideals and concepts must serve as the foundation for the ideal vision.

Once the ideal vision has been developed, all stakeholders should work together to develop an assessment system for the reform process (Sullivan et al., 2015). It is anticipated that this system will incorporate mechanisms for positive feedback, self-renewal, introspection, and an awareness of the importance of critical analysis. To make its vision of a new educational system a reality, the statewide design support team must collaborate with the members of the design team to identify and create a set of functions as well as the parts needed to carry out the various tasks of the subsystems (Adelman & Taylor, 2007). Reigeluth (1995) contends that to achieve the objective of the new educational system, a cohesive system of interrelated functions needs to be created and arranged so that they complement one another and work in unison. According to Adelman and Taylor (2007), negotiating an agreement with the stakeholders who are responsible for making decisions and implementing them, as well as securing a significant policy commitment from all involved stakeholders, are essential components of the system-wide change process. To evaluate whether the vision truly reflects the requirements of society and to identify the utmost necessary skills to reach the reform's vision, reflection by all stakeholders should occur at various moments during the discrete events of an educational reform process (Darling-Hammond et al., 2020).

Phase Five: Implement and Evolve the New System

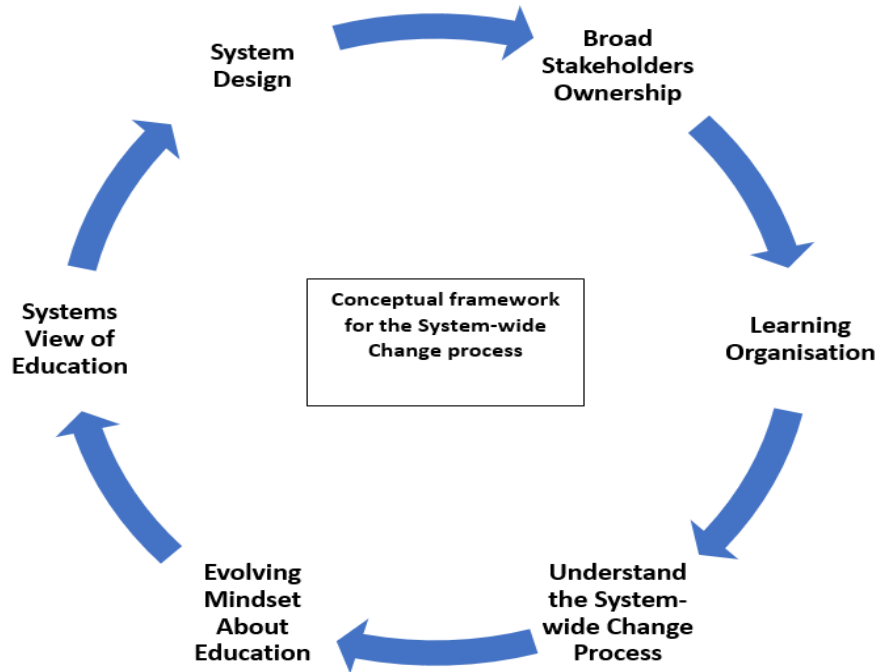
The stakeholders must build an implementation procedure to gradually improve the current system to bring it closer to the ideal as soon as they approve the ideal designs that have been generated during the designing phase. Indeed, (2023) and Miller (2020) assert that it is necessary to adhere to the implementation protocol as it was established during the

design phase. Harrison et al. (2021) emphasize that having a brilliant idea or solution alone is insufficient; the most crucial effort is understanding how to put these ideas into practice. Short-term provisions for ideal revision should be permitted, since the ideal may evolve as the reform process approaches it. As a result, Dlamini and Reddy (2018) contend that planning is necessary in order to move the current system closer to the ideal and incorporate evaluation into the reform procedures. Many of the aspects of the perfect system are not likely to be achieved right away. According to Miller (2020), the design team as well as the design support team have an obligation to understand how to gradually move closer to the ideal while minimizing the discrepancies between the system's planned and existing components. All parties involved should develop and embrace this. Reigeluth (1995) says that when selecting an approach, a relevant stakeholders' approach design ought to be used instead of a "buy it off the shelf" method.

Duffy et al. (2006) state that upon the approval and execution of a new design, formative assessment must be conducted to be able to constantly improve the newly developed education design. Hawley (1997) suggest that the new system must go through several formative assessments during the initial years of its implementation. After five years, the stakeholders may subject the system to a summative assessment. A periodic evaluation utilizing the evaluation system created during system development is necessary as the new system develops and provides revision support mechanisms (Adelman & Taylor, 2007). Formative evaluations are stage-by-stage assessments carried out during the reform process, while summative evaluations are assessments carried out at the end of the reform process that are aimed at determining how successful a reform is. This can be applied to assess the transformation process's outcomes. As it establishes the framework for the system-wide reform process, Harrison et al. (2021) agree that reflection and feedback are necessary at every level of the process. According to Ender et al. (2007), regular assessments of the new system will assist in determining its advantages and disadvantages or challenges so that any required modifications or fixes can be made.

Conceptual framework for a sustainable system-wide change process

In this paper, the system-wide reform process proposed by Joseph and Reigeluth (2010) serves as the foundation for the conceptual framework that could guide educational reform efforts. Literature on systems theory, in particular soft systems theory and critical systems theory, serves as the foundation for the conceptual framework for systemic transformation. This system-wide change process framework gives stakeholders the groundwork they need to attain efficient and sustained educational reform. This paradigm can be used as a lens through which to examine initiatives for educational reform. The figure below illustrates the key components, which include broad stakeholder ownership, the creation of a learning organisation, comprehension of the process of system-wide change, changing educational mindsets, a systems view of education, and systems design.



Joseph and Reigeluth (2010) provided the conceptual framework for the system-wide change process in Figure 2.

The process's sequence is indicated by the arrows. Building wide stakeholder ownership is the first step (Joseph & Reigeluth, 2010).

Broad Stakeholder Ownership

The conceptual framework that guides the system-wide reform process relies heavily on broad stakeholder ownership, which is the cornerstone around which all other elements are constructed. Without it, the framework's meaning and intent would be lost (Joseph & Reigeluth, 2010). A state community's stakeholders include educators, parents, clergy, government employees, and local leaders. Since education is crucial for the growth of the entire community, broad stakeholder ownership also includes all members of the community, including business executives, local government representatives, and regular citizens (Joseph & Reigeluth, 2010; Stouten et al., 2018). To better the area and society at large, every member of the community should make an effort to guarantee that the local learners obtain the greatest education possible (Errida & Lotfi, 2021). According to Ender et al. (2007), everyone participating in educational reform must be prepared to commit to the change process and stay with it over time. Moreover, Banathy (1996, p.161) notes, as quoted in Joseph and Reigeluth (2010, p.101):

When it comes to the design of social and societal systems of all kinds, it is the users, the people in the system, who are the experts. Nobody has the right to design societal systems for someone else. It is unethical to design social systems for someone else. Design cannot be legislated; it should not be bought from an expert, and it should not be copied from the designs of others. If the privilege of and responsibility for design is 'given away', others will take charge of designing our lives and our systems. They will shape our future.

Errida and Lotfi (2021) caution against selling educational reform to people in an attempt to hasten agreement and execution of the reform. Selling educational reform to people is not a successful model that is sustainable.

Joseph and Reigeluth (2010) contend that for system-wide change to take place, stakeholders from various backgrounds must work together. This will support the process of change by fostering a broad continuum of varied life experiences and viewpoints (Stouten et al., 2018). All stakeholders will be more engaged and take ownership of the change process if they are allowed to have "equal voice" in the process (especially the voices of those who have historically been marginalized) and participate in decision-making (Joseph & Reigeluth, 2010). For the change process to be effective, active participation from all stakeholders at all levels is essential (Ender et al., 2007). All educational stakeholders should be involved from the beginning of the system-wide change process and given a sense of shared ownership. This will cause them to undergo a shift in mindset to see the change as a collective rather than merely individual effort (Stouten et al., 2018).

Creation of a Learning Organisation

Another important idea that aids any organisation in implementing change successfully is the concept of a learning organisation. Bratianu (2015) and Joseph and Reigeluth (2010) describe a learning organisation as a metaphor for the perfect organisation or as a concept at the system level with specific attributes. According to Bratianu (2015), a learning organisation is one that continuously increases its capacity to shape its future. An organisation that employs organisational learning to accomplish its objectives aspires to become a learning community or organisation, since organisational learning is centered on fostering mutual respect, integrity, and trust via communication, sharing, and handling the inevitably arisen conflict (Bratianu, 2015; Joseph & Reigeluth, 2010). Joseph and Reigeluth (2010) report that research conducted by Darling-Hammond (1996), DuFour and Eaker (1998), Fullan (1993, 2001), and Senge (1990) shows that becoming a learning organisation is imperative to understanding the systems change process. Senge (1990) enumerates seven attitudes that can prevent an organisation from developing into a community or learning organisation:

I am in my position: when individuals in an organisation solely think about themselves, they lack accountability for the outcomes that arise from the interactions of all positions.

The adversary exists: When something goes wrong, we all have a tendency to point the finger at someone or something external to ourselves.

The false impression of being in control: reactivity masquerading as proactiveness occurs much too frequently. Regardless of the term, we are responding in education if we are combating the "enemy out there" with aggression. Real proactivity arises from realizing our own role in our own issues. It is a byproduct of our mentality rather than our feelings.

The obsession with events: If people's thinking is centered around fleeting events, generative learning cannot be maintained in an organisation. The best we can ever do, if we concentrate on events, is anticipate an event before it occurs so that we may respond as best we can.

The cooked frog tale teaches us that in order to perceive slow, incremental processes, we must slow down our fast-paced lifestyle and pay attention to both the dramatic and subtle details.

The illusion that experience may teach us something is the fundamental learning conundrum that faces organisations: although we can learn the most from experience, many of the most significant decisions we make never directly affect us.

The myth of the management team: Too often, businesses and teams spend their time squabbling over territory, avoiding situations that could reflect poorly on them individually, and acting as though everyone is in agreement with the group's overall plan in order to preserve the impression of a cohesive unit.

One of the most important components of an educational reform process is the creation of a learning organisation, which also serves as the front of the framework that unites all the other components (Bratianu, 2015; Joseph & Reigeluth, 2010).

Understanding the Process of System-wide Change

All stakeholders participating in system-wide change must comprehend the nature of the process and its requirements before any changes can be made to the system as a whole (Lawton & Pratt, 2022). Joseph and Reigeluth (2010) assert that dialogue and communication are essential fragments of the systemic change process because they serve as forums for bringing various stakeholders together to help them understand and appreciate their diverse opinions, values, and beliefs. Miller (2020) asserts that there are four key components to comprehending the process of system-wide change: any system-wide change process should aim to create an educational system where all teachers are successful in assisting students in succeeding; altering an educational system necessitates altering the perspectives of others; small process teams (five to six stakeholders) must be used to carry out the steps of system-wide process change; and effective dialogue and communication are crucial. It is imperative that stakeholders possess a comprehensive comprehension of the change process and base their judgments on dependable data and learning organisations. Establishing mechanisms where all stakeholders are successful in promoting student success is the aim of the change process (Joseph & Reigeluth, 2010; Meyer-Looze et al., 2019). Following the adoption of these decisions regarding the system-wide change process, the stakeholders are expected to accept and share ideas with those engaged in the change process (White, 2015).

Evolving Mindsets About Education

For the system-wide change process to be successful, the stakeholders' perspectives must be changed (Joseph & Reigeluth, 2010). Mindset change could be described as the "mental model" people adopt in solving problems or addressing issues (confronting challenges) (Gouédard et al., 2020). At some point in our lives, everyone has gone to school. As a result, people develop "ingrained ideas" about what schools are like and how best to support education (Joseph & Reigeluth, 2010). Senge (2000) describes embedded ideas as presumptions, generalisations, or even visuals or pictures that shape our perception of the world and our behaviour. The stakeholders' mindset might impede the process of education system-wide change; therefore, the necessary paradigm shift in education cannot occur until the stakeholders' mindset on education is transformed (Senge, 2000). Duffy (2007) states that the stakeholders need to challenge long-held notions, reject long-held convictions, and modify long-held attitudes in order to design a new educational system. When influencing an individual's way of thinking appears unachievable, it is crucial in the process of system-wide transformation (Joseph & Reigeluth, 2010). Gouédard et al. (2020)

contend that in order to effect system-wide change, it is crucial to assist the stakeholders in evolving their perspectives and attitudes regarding education. Fullan (2007) agrees that stakeholders involved in education, whether they are local, state, or federal, should avoid viewing schools as "my" or "personal" and instead consider them as "our" or "belonging to all."

A Systems View of Education

Educational stakeholders must create a system-wide perspective on educational systems and a comprehension of system activity or dynamics to conduct meaningful system-wide initiatives for educational reform (Joseph & Reigeluth, 2010; Mchunu, 2015). According to Banathy (1992), the systems view aids in our comprehension of the true nature of education, which is that it is a complex, open, and dynamic human activity system that functions in a variety of constantly changing environments and interacts with various societal systems. Studying many systems and their inner workings and internalizing the system's common notions so they may be applied to everyday situations are necessary to develop a systems approach to education reform (Darling-Hammond et al., 2020).

To make it easier to understand and analyse a variety of systems, including educational systems, models have been developed (Mchunu, 2015). The systems-environment model assists in identifying the connections the school has with the community, both past and present; the process model studies how a system behaves throughout time, while the functions/structure model looks at the educational system as it exists at any time (Banathy, 1992; Mchunu, 2015). Metaphors can help others think more creatively, so using them is another technique to help stakeholders understand education systems (Joseph & Reigeluth, 2010). Systems models and organisational metaphors can assist educational stakeholders in developing a systemic perspective of education, thereby aiding the process of implementing educational changes (Whang, 2021). It is best to think of the dynamics of the educational system as a dynamic framework. A single structure cannot function on its own. Therefore, stakeholders should acknowledge the interdependencies within the educational system upon system-wide reform (Joseph & Reigeluth, 2010). When educational stakeholders are unaware of the relationships that exist within educational systems, the lack of a systems view might have unanticipated implications. It is possible that adopting a systems perspective will assist individuals in changing the way they think about education (Whang, 2021).

Systems Design

System design must serve as the foundation for any system-wide change approach (White, 2015). Sengeh and Winthrop (2022) affirm that designing systems for any human system is a process of constructing the future. Individuals participate because they have an idea of what their system ought to be. They are the type of people who "think future, act now." Disregarding outmoded systems of education and replacing them with the ideal design is a process of creating a system design (Watson et al., 2008). This process comprises putting the current system aside, looking beyond it, imagining the future system, designing the system that will be able to transform the current state of education into the desired state once it is implemented, presenting the designed system's prototype or prototypes, and organizing its implementation (Joseph & Reigeluth, 2010). However, Banathy (1992) advise stakeholders to start the process of "Getting Ready for Design" before actually

starting a systems design process. This involves understanding systems design, developing capability and competence in design, building organisational capacity for design, generating community support for the design effort, and creating a plan for the design inquiry.

Banathy (1992) advocates for stakeholder involvement in system design, noting that when users, not outside specialists, are in charge of the design process, it is more likely to be effective, feasible, and productive, and implementation promises are more legally binding. Watson et al. (2008) argue that when selecting an approach, a relevant stakeholders' approach design should be used instead of an expert method that can be purchased off the shelf. Stakeholders are given the chance to advance from the current, antiquated educational system to a better educational system via the systems design process (Joseph & Reigeluth, 2010). For any system-wide reform process to be successful, it should strive to envision and create an ideal educational system using a systems design approach (Sengeh & Winthrop, 2022). The conceptual framework known as systems design enables stakeholders to develop new methods for planning, carrying it out, and evaluating it (White, 2015).

Conclusion

This paper emphasises that sustainable system-wide change demonstrates how stakeholders must take charge of the design and execution of the educational system, offering a solution to the issues it faces and assisting in elevating and valuing the opinions of all stakeholders. Sustainable educational system-wide change is intended from its conception to address educational circumstances and difficulties that are both present and future, assisting all stakeholders in becoming ready, able to adapt, and meeting the educational demands of contemporary society. Collaboration is encouraged, and it facilitates comprehension of the connections between the several systems and stakeholders that comprise the educational system as well as the relationship between internal and external factors that influence educational change.

Furthermore, the paper elucidates that successful change within an educational context requires adherence to an ideal process, encompassing several key steps: evaluating the readiness of all involved parties, negotiating agreements, assembling an initial core team, expanding this team, crafting a new system, and executing and refining it over time. It emphasizes that the effectiveness of educational change hinges on a conceptual framework serving as a guide and checklist for educational system-wide transformation. This framework encompasses principles such as widespread stakeholder engagement, fostering learning organisations, comprehending the system-wide change process, shifting mindsets about education, adopting a systemic perspective on education, and designing systems accordingly. The conceptual framework outlined herein provides a roadmap for the introduction and implementation of systemic changes, equipping stakeholders with the knowledge necessary to navigate the complexities of an effective and efficient educational reform. Furthermore, this paper contributes to a holistic understanding among educational stakeholders regarding the creation and sustainability of system-wide change processes. It sheds light on the critical factors that contribute to the success of such transformations and elucidates the essential support structures and activities required for their effective implementation.

If the aforementioned process and conceptual framework are rigorously adhered to during educational reform by all the respective education reform players, it will result in an educational outcome that is not only effective and efficient but also relevant and sustainable. In conclusion, by synthesizing these key elements, this paper presents a comprehensive framework tailored for researchers delving into the dynamics of sustainable system-wide change processes. It also has the potential to empower educational stakeholders with knowledge and tools that could serve as a valuable guide for navigating the complexities of initiating and implementing impactful and sustainable system-wide transformations within the education sector.

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POST MODERN EDUCATION FOR SUSTAINABILITY

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Abstract: This work represents an analytical investigation into the opportunities to achieve postmodern education by cultivating sustainability as a decisive factor in animating this process. Postmodern education is a new, digitized, interactive, student-focused education, targeted at merging the teaching process of digital teaching methods, techniques, and digital technologies that make the cooperation between students and teaching staff more efficient. Since we are in a post-modern society, education must shed its coat of modernism and firmly step on the path of postmodernism, which will help develop a responsible and educated society that cares for the future of society. The research methodology uses the following methods: analysis, synthesis, induction, deduction, and abduction.

Keywords: sustainability, postmodern education, university, sustainable university, innovative changes

JEL: Q01, Q56, I23

Introduction

Universities are genuine vectors of change that harness human potential and thus bring a significant contribution to enhancing competitiveness in academic institutions. Universities create human values and cultivate existing and new competencies by encouraging and harnessing the full potential of their students, developing innovative teaching methods, and implementing novel technologies. The theory and practice of education are traditionally built on the principles of modernism in terms of hypotheses and ideals of this category of thought. For instance, education contains the toolkit which passes on the models of critical thinking, individual freedom, and progress which are all part of modernism (Lash, 1990). Similarly, the concept of a student as a self-motivated, self-conducted and rational individual equally comes from a modern perspective. Nevertheless, many of these factors are criticized by the postmodernism view. Postmodernism highlights the making of an individual under the impact of exterior factors (language, concepts etc.), different from the truth sources and the role of unconscious desires. Further, postmodernism openly challenges concepts, approaches, existing processes, structures and hierarchies of knowledge.

Content

From a modern perspective, the education role is to help students reach their potential as self-directed and motivated agents and thus become fully capable and autonomous individuals (Lash, 1990). This approach involves modeling from the subjective perspective of the students. From the postmodern view, the role of education is rather questionable. Therefore, postmodernism influences the discussions and decisions on curriculum, pedagogy, structural organization and the role of the teaching staff, yet this is done in a way that is often imperceptible or subtle. Consequently, the postmodernism ideas are integrated within debates in the education field.

Postmodern Education is influenced by a multitude of external factors as follows:

1. *Innovative Changes in the education process* – postmodern education is an adjustable system to a wide range of factors such as: long distance learning, online schooling, interdisciplinary research, focus on global issues of the society, need for efficient and prompt solutions to overcome challenges. Postmodern education tries to come up with concrete solutions for overcoming the main challenges faced by the contemporary society. Accordingly, securing a balanced relationship between the economic, social and environmental aspects becomes one of the chief preoccupations of postmodern education and thus triggers changes within the modern education systems.
2. *Information Technologies* – they have brought a significant contribution to the education system due to implementing different technologies such as e-learning, e-tutoring, interdisciplinary and intercultural education, the so-called elements of the postmodern education that broke stereotypes and demanded an urgent remodelling.
3. *Motivation of the education actors* – if decades ago education actors were driven by the urge to study, discover new domains, get involved in research activities, nowadays, due to the fast paced development of society, the education actors are no longer easily motivated since new horizons are open to explore.
4. *Country Context* – each country, depending on the level of macroeconomic development and education policies tries to adjust to the new contexts and generate novel models of postmodern education which drift far from the principles of modern education.

Another factor with a decisive impact on the education system was the pandemic. The face paced implementation of postmodern education has led to a mixed type of national and European models of education, which highlighted the need for new reforms, deepened the gap between the values of modern education and postmodern one, triggered professional crises of the teaching staff and also crises of the professional development of the future specialists.

In this regard, it is vital to find ways of preserving the best optimizing technologies and important scenarios for modernizing and/ or updating the education process in the open hyperspace of higher education institutions in the country and Europe as well. The postmodern realities of education have openly admitted the priority of the education process over its results, the importance of delivering professional educational services, and at their core it is a certain learning actor with their particular social needs and their personal resources which are visible in the education activities. During the pandemic, postmodern

education has led to the consolidation of long distance learning as an open teaching tool using modern information technologies which provided interaction for all participants to the education process.

The systemic introduction of the information technologies in online education, including social media, was done in due course, and it soon proved to turn into one of the main integrating components of the postmodern education model. Another essential elements were ebooks, online conferences and workshops, online interactive communication between students and teachers on platforms such as MOODLE, ZOOM, GOOGLE MEET, CISCO WEBEX, SKYPE or by email, possibility of computerized testing of the education actors cognitive skills, long distance education, and constant update of various methodological technologies for implementing distance learning.

The postmodern education system cannot be exactly called independent since it combines the best traditions of the classic and modern models and additionally brings innovative teaching technologies, thus mirroring the old and new teaching methodologies in an interconnect and complex network. At the same time, the complex theoretical constructions regarding the education objectives and function of the education system have lost some of their value. Yet, education clients have got plenty of opportunities to study during their lifetime due to the facilities provided by long distance learning, and a wide range of possibilities to train in more than one professional domain by combining work and study and thus saving time and resources.

Postmodern education, regarded as a factor of innovative learning, intends to tutor/ teach not just the person who knows but also the person who acts to determine the ratio between reproductive and productive, active and creative.

The issue of innovative education development is quite relevant since it gets a wide social and scientific audience, and increases the efficiency of education process. The innovative technologies employed by teachers in the higher education system are considered modelling technologies (differentiated learning, problem-based learning, context-based learning, information technology, personality-based learning) (Bondarchuk, 2020). The educator takes into account the content, forms, and methods of the education process in accordance with the objectives and benefits of the innovation.

The innovative process of learning in economic education shows that the issue of education reform is closely linked to finding new and efficient ways for implementing and organizing innovation in education. The quality of training will increase significantly if such technologies are introduced, especially in the case of distance learning and other modern learning models such as e-learning, m-learning (mobile learning), blended-learning, flipped-learning (Gurevich et al., 2015). In the context of cultivating the postmodern education, sustainability becomes a competence, a resource and also a driving force that requires attention and development at all levels. Universities tend to align with postmodern education since they are more likely to make room for changes in their activities, adjust to a dynamic environment, show flexibility, be competitive and prove sustainable as well.

One of the changes that should be introduced by universities on their quest for sustainability is the innovation which is a safe bet in terms of achieving the sustainability of academia. The innovative changes are much-needed in a society based on intelligence and competitiveness in the broader context of implementing the management of academic sustainability.

It is our opinion that *innovative changes are those changes involving the implementation of new methods, technologies, innovations in higher education to increase competitiveness and sustainability of universities by involving all members of the academia in the framework of an innovative culture. The innovative changes in universities represent a must in the 21st century that is defined by intelligence, dynamism, technologies, and innovation, and reshapes the activities of the higher education institutions by compelling them to research, innovate, develop new platforms and thus increase their competitiveness. The need for implementing innovative changes in the education process has been prompted by the pandemic crisis, when universities had to swiftly identify viable solutions to overcome the challenges posed by the pandemic.*

In the Republic of Moldova, over the past 12 years, universities have shown a decrease in their dynamics. More precisely, in 2011 there were 33 higher education institutions in the Republic of Moldova, while in 2022 their number fell significantly to 22 institutions. The state universities decreased from 19 units in 2010 to 16 in 2022, while the private ones dropped from 14 institutions in 2010 to 9 in 2022, or, in percentages, with 35%. The data specified in the table shows that dynamics of the students enrolled in the Moldavian institutions is also decreasing, following a negative trend for the period of 2011-2022, more precisely from 107,813 students registered in the academic year 2010-2011 dropping to a number of 89,529 students in 2014-2015, a decrease of 17%. In the academic year 2021-2022 the number of students dropped dramatically to 59,647 or registered a decrease of 34% compared to 2015 and of 45% by comparison to 2010-2011. This fact is explained by the low natality rate, youth immigration, and enrollment in education institutions abroad, and last but not least, youth immigration for family reunification.

Table 1. Dynamics of the higher education institutions in Moldova between 2010-2022

Indicators	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20	21/22
total number of institutions	33	34	34	32	31	31	30	29	29	24	24
Number of state institutions	19	19	19	19	19	19	19	19	19	16	16
Number of non-state institutions	14	15	15	13	12	12	11	10	10	8	8
Total number of students	107813	103956	102458	97285	89529	81669	74726	65543	60608	59033	59647
Female students	61202	58576	57371	55067	51496	47217	42828	38054	35091	34443	35049
Male students	46611	45380	45087	42218	38033	34452	31898	27489	25517	24590	24598

Students in the state institutions	88791	84946	83008	78919	72474	66938	62108	55341	50620	50200	57228
Students in the private institutions	19022	19010	19450	18366	17055	14731	12618	10202	9988	8833	2419

Source: The National Office of Statistics, 2022

The analysis on the dynamics of the students enrolled in the state universities between 2011-2022, in the Republic of Moldova, shows a negative trend for the entire period under analysis. Accordingly, if 88,791 students were enrolled in the state universities in the academic year 2014-2015, their number dropped by 18,4%, more precisely to 72,474 students, and in the university year 2021-2022 the number of students registered was 57,228, a significant drop by 35% compared to the year of 2014-2015 and by 36% compared to the year of 2010-2011.

At the same time, the analysis of the students enrolled in the private higher education institutions, in the same country, also shows a negative trend: from 19,022 students in the academic year 2010-2011 dropping to 17,055 students in 2014-2015, while in the university year 2021-2022 only 2,419 students were enrolled in the same types of institutions, registering a dramatic drop by 86% less by comparison to the academic year 2014-2015, and by 87,3% compared to 2010-2011.

Table 2 shows the distribution of graduates according to the category of university (state or non-state universities). Between 2010 and 2021, the dynamics of the college graduates in the Republic of Moldova shows a negative trend, more specifically from 28,408 graduates in 2010 dropping to 24,274 graduates in 2015, and 14,084 graduates in 2021. These figures prove that the number of college graduates fell by approximately 40% in 2021 compared to 2015 and by 50% compared to 2010. Graduates from both state and non-state universities record the same negative trend. Accordingly, the state institution graduates showed a decrease tendency in the period between 2010 and 2020, their number dropping constantly from 22,370 in 2010, to 18,867 in 2015, and finally to the dramatic number of 12,108 graduates in 2020, a decrease by 36 compared to 2015 and by 46% in comparison to 2010.

Table 2. Distribution of college graduates according to the category of institution (state or non-state) between 2010 and 2021

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Total	28408	27788	26730	24848	24274	23630	21886	19943	18142	16266	14650	14084
State	22370	22111	21548	20105	19649	18867	17632	16228	14945	13267	12108	11653
Non-state	6038	5677	5182	4743	4625	4763	4254	3715	3197	2999	2542	2431

Source: The National Office of Statistics, 2022

On the other hand, the same negative trend is observed in the case of the non-state institution graduates. More precisely, in 2010, there were 6,038 graduates, in 2015 their number fell to 4,763, and finally in 2021 their number reached 2,431 persons. Accordingly, in 2021, the number of graduates dropped by 47% compared to 2015 and by 58% compared to 2010.

Table 3 shows the dynamics of the total number of students and of those enrolled according to the financing form of the studies (state-funded / tuition-free or non-budgeted/ tuition).

Table 3. Dynamics of the total number of students according to the financing form of the studies between 2011 and 2022

	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22
Total number of students	88791	84946	83008	78919	72474	66938	62108	55341	50620	47745	49549	50197
Budgeted	30907	29175	28340	28098	27470	26669	25872	23260	21883	20754	21735	21760
Non Budgeted	57884	55771	54668	50821	45004	40269	36236	32081	28737	26991	27814	28437
Total number of enrolled students	23128	23018	23086	22417	20501	20939	18990	16459	15858	16599	18143	17444
Budgeted	9527	9381	10241	10263	9807	9348	9029	7300	7595	7662	7728	7608
Non Budgeted	13601	13637	12845	12154	10694	11591	9961	9159	8263	8937	10415	9836

Source: The National Office of Statistics, 2022

Based on the data shown in table 3, we can see that during 2011-2021 the total number of students dropped from 88,791 persons as registered in 2011 to 72,474 in 2015, and finally to merely 49,549 students in 2021. In the same year of 2021 it was recorded a drop of the number of students by 32% compared to 2015 and by 45% compared to 2011. Therefore, in the past 2 years, due to the pandemic, the total number of students has slightly increased, from 47,745 students registered in the academic year 2019-2020 to 49,549 in the university year 2020-2021.

Pandemic has altered stereotypes, changed values, highlighted the need for adjustment of the higher education institutions in a new context. The implementation of the online education and learning turned into a lifesaver of the universities across the country. Although basically unprepared to assume the new challenges posed by online teaching, in terms of both technologies and methodologies, the academic community implemented the new methods of interactive teaching, by using platforms such as Google Meet, Teams, Cisco Webex, etc. At the same time, both students and teachers faced huge difficulties that required immediate, fast, and efficient actions to provide quality while running education activities. The results of a study carried out by the Moldovan Academy of Economic Studies in October 2021 shows that, in the case of 221 students specializing in Business and Administration, they are largely satisfied by online learning (42% respondents). At the same time, 81% stated that they easily adjusted to the new requirements enforced by the pandemic and to the new changes occurring in the higher education system (Solcan, 2021). On the other side, 26% of the students stated that their motivation, in the context of online learning, increased, while for 39% of them it did not change, and for 27% of them it decreased. The main challenges faced by students during online education were as follows: lack of communication with fellows/ teachers (53,4% respondents), a high volume of work

linked to individual activity (49,3% respondents), lack of concentration during online classes (44,3%) , etc.

Moreover, students also mentioned the presence of technical difficulties met during online classes, difficulties that impacted negatively on understanding the material. To mention a few of them, interruption in the process of material presentation (49,3%), sound problems (40,7%), slow internet speed (38,0%), etc. On the other hand, the respondents of the study also highlighted the main benefits brought by online education such as possibility to mix work and studies (80,5%), saving time and money for not going to university (76%), learning in a comfortable and familiar environment (59,7%), digitalization of the education process (59,3%), etc.

Conclusions and recommendations

To assess the situation of the development of higher education system in the past 12 years, it was necessary to research the dynamics of the higher education institutions in the country, in terms of property form and number of students. Thus, the analyses performed allow us to highlight that in the past 12 years there has been registered a negative dynamics of the number of higher education institutions, more precisely their number fell from 33 as registered in 2011 to 24 in 2022. This fact is not necessarily negative, it also has a positive aspect since it amplifies the need of universities to adjust their activities, policies, and strategies to reach sustainability.

In the same circumstances, it was analyzed the dynamics of students enrolled in the higher education institutions in the Republic of Moldova. Accordingly, during the period under analysis (2010-2022) it was registered a negative trend among students from such institutions. In this respect, the negative dynamics has a dramatic impact on the activities run in the higher education institutions, compelling them to reorganize the academic management in terms of energetic efficiency, waste collection, resource saving on one hand, and also implementation of necessary measures for reaching sustainability. To reach the objectives of postmodern education, universities need to take the following steps:

1. *Reassess their organizational culture* by focusing more on the innovative changes that impact the academia and require a swift adjustment of such institutions.
2. *Redefine their strategic objectives*, in terms of showing a greater attention to digitalization and development of innovative strategies, which can and will help universities overcome the many challenges they are currently facing. Developing e-learning, e-tutoring, distance learning tools and using platforms such as MOODLE are just a few of the factors contributing to paving the way for higher education institutions to reach the objectives of postmodern education.
3. *Develop innovative and competitive advantages*, a requirement for every university focused on identifying the innovative advantages that will eventually take them on the right path for reaching the objectives of postmodern education.
4. *Develop their own models for reaching sustainability*, that is another requirement for every university set on creating their own models of sustainability, by focusing on domains of teaching, research, cooperation, operating major changes in each of these domains. Reassessing education plans and introducing courses of/ about sustainability, boosting research on the sustainability issue, dedicating a section on the university website to the sustainability-related activities, are a few of the measure that could help university reach sustainability.

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IN PURSUIT OF CREDITOR PROTECTION EFFECTIVENESS IN ROMANIAN BANKRUPTCY – EMPIRICAL AND LEGAL CONSIDERATIONS

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Abstract: The Romanian legal forums have generated much debate over the not so recent reform of the Insolvency Law (2014), generally focused on the legislative changes which were put in place in order to ensure the efficiency of the procedure. As there is little insight into the workings of the actual insolvency procedure, the present analysis aims to tackle a new perspective on the Romanian insolvency paradigm in the European and even global context. Thus, we have conducted a file-based study of the bankruptcy procedures of 100 Romanian companies, under the “new” bankruptcy regime by which we consider the application of the Romanian Insolvency provisions and their effectiveness in the national context. Our study offers an insightful look at an insolvency system in which the state, through its agencies, is the main creditor, therefore the possibility of a fresh start is (almost) inexistent and the main purpose of the liquidator’s actions is related to capital maximization without consideration to the continuation of the activity of the company. We conclude our study with a series of suggestions for the improvement of the efficiency of the insolvency procedure, based on our empirical findings.

Keywords: effectiveness, recovery rate, creditor protection empirical study, reorganization, liquidation

Introduction

An efficient insolvency procedure represents the aim that brings together both debtors and creditors, although “efficiency” has different meanings for the two categories of participants. Effectiveness (Borgi, 2014) is the concept that covers the ability to create a mechanism able to produce the desired result. This paper follows a creditor centric approach so that one could have a broader picture of the insolvency procedure effectiveness. Thus, we have conducted a file-based study of the bankruptcy procedures of 100 Romanian companies, between 2015 and 2018 by which we consider the application of the Romanian Insolvency provisions and their effectiveness in the national context.

The creditor’s saga

This part of our study focuses on the identity of and issues faced by creditors in the bankruptcy procedure. There is a common perception in the insolvency-related academic literature whereabouts, in a conventional scenario, in any insolvency undertaking, the following types of creditors are visible: the employees, the State, the secured (usually the banks or other entities analogous to credit institutions) and the unsecured creditors.

If the first three categories suffer little variation, the unsecured creditors are a melting pot for various types of parties which have interacted in one way or another with the company. Both the Law no. 85/2006 and the new Insolvency Law no. 85/2014 validated this approach, through the definitions of the types of debts a company can incur (secured, unsecured, employee-related etc. - art. 3, no. 9, 10, 11, 13 of Law no. 85/2006; art. 5, no. 14, 15, 21, 22 of Law no. 85/2014), by defining the types of creditors that vote for the approval of a reorganization plan (art. 100, para. 3 of Law no. 85/2006; art. 138, no. 3 of

the Law no. 85/2014) or the order in which the different types of debt are to be recovered in case of liquidation (art. 123 of Law no. 85/2006, art. 161 of Law no. 85/2014). The relevant legislation paints an image of the active shareholders trying to recover their costs following the downfall of the debtor as well as trying to salvage the company through collective collaboration with the other creditors and the debtor itself. Based on these perceptions, the insolvency procedures offer both safeguards and control measures at the disposal of the creditors through the Creditors' Meeting (or the Creditors' Committee, if applicable).

A peculiar structure of the debtors' liabilities: the prevalence of unsecured creditors

Whereas the image described above is validated in the case of debtors with significant equity and with a relevant market share, it is important to investigate what is the reality of the smaller companies who, considering recent Coface analysis (Study, 2015), are the most common debtors in bankruptcy procedures.

The study showed that in almost 80% of cases no secured creditors were part of the bankruptcy procedures. In those cases where they present, they were not the majority creditor in the procedure. This position was held, in almost all cases, by the State through its subsidiaries, the largest of which was the National Authority for the Administration of Finance (ANAF). This is an interesting position considering that secured creditors are usually the banks (although not always) and one would assume that private loans (which are often secured debts) are a significant part of any company's financing strategy.

If that is the case, why has the secured creditor disappeared from the insolvency paradigm? Possible explanations for this phenomenon can be brought forth if we consider the banks' positions to their clients - companies. One possibility we can consider is that the debtors chose a different pattern of financing, avoiding the possibility of applying for a private loan. Since Romania became part of the European Union in 2007, companies in particular have had access, in theory, to various European-founded opportunities, like structural or development funds.

However, statistics issued by the National Bank of Romania (NBR database, 2015-2018) has shown that the number of non-governmental loans has maintained an albeit small level and Romania is still seen as a country which is at least partly dependent on private loans. If we thus infer from this that the debtors did apply for private loans, two options emerge: either the loans issued by the banks were not secured or the Bank already recovered its loan-related costs prior to the commencement of the bankruptcy procedure and/or chose not to be part of the procedure at all.

In the first case scenario, the credit institutions might still be part of the procedure but simply registered as unsecured creditors. However, in less than 20% of the cases we have studied were banks registered in the bankruptcy procedure as unsecured creditors. This can be corroborated with the fact that banks in Romania seem to offer unsecured loans in similar conditions: a high credit score (no past delays in payment of other credits, no issues reported in regard to the use of credit instruments or demand guarantees), a strong financial situation; and the loans themselves are short-termed (between 1 and 5 years) and of small to medium value. It is thus possible that, either the debtors did not qualify for the loans, or, by the point of bankruptcy, the Bank may have recovered the short-termed loans through other means. The results are based on the analysis of the relevant offers of the three largest banks in Romania: Banca Comercială Română (BCR), Banca Română de Dezvoltare (BRD) and Banca Transilvania (BT),

This leads us to the second scenario, where the bank may have issued secured or unsecured loans and recovered these sums prior to the commencement of the bankruptcy procedure. This would be in line with a bank's cost recovery policy. Considering that, although in 2016 84% of total sums recovered in insolvency procedures were distributed to secured creditors, a bank actually recovers only about 30% of its debts through a bankruptcy procedure, sometimes even less. Thusly banks are discouraged from any cost recovery attempts via liquidation procedure and opt for other non-bankruptcy related measures. In this regard, a bank will only start a client's bankruptcy procedure: if a credit workout procedure cannot be put in place, if the bank's guarantees are not enforceable or are undervalued or if there is no other viable option by which the bank can recover its costs. If the bankruptcy procedure is approved, a bank will evaluate its position carefully, taking into consideration the sums it needs to recover, the costs it can incur from this undertaking as well as other available means of recovery of the initial sums (demand guarantees, personal guarantees, legal provisions etc.). If the disadvantages are too great or the unrecovered sums small enough, the bank will opt to not participate in the procedure. This might explain why the secured creditor is so little involved with the procedure and why almost no banks have voluntarily started a bankruptcy procedure against a client in the cases we have analyzed.

This phenomenon is unfortunate considering that the lack of secured creditors is felt strongly in the development of the procedure. The secured creditor and the State hold the majority of the debts which need to be recovered via insolvency. Therefore, these types of creditors are the voice of the whole creditor mass since all decisions in the Creditors' Meeting are taken through a majority and they ensure a control system between the two which can temperate any abusive attempt by one of the majority groups. Moreover, in the academic literature, a ride along principle has been underlined where the decisions of the secured creditor promotes the recovery of the company while favouring a private interest, thus protecting the unsecured creditors as well (Rizou, 2011; Schmidt, 2008). As it stands, the State holds a monopoly over the decisions of the Creditors' Meeting and is interested with the recovery of its own public costs, as it should be. Our results show that unsecured creditors recover less than 10% of their debts, in some cases just under 1%.

The State as majority creditor

In most insolvency cases of micro and small companies, the State has a position of majority creditor, especially through its tax and social insurance agencies. This especially brought a major concern in regard to its behavior related to the voting procedure for the reorganization plan. Our research has shown that none of the bankruptcy cases have generated a reorganization procedure and, in the few cases where such a procedure was suggested (less than 10%), the State has rejected such an attempt. Even in cases (other than those studied) where the reorganization plan of the debtor was approved, the State as creditor voted against. The reasoning behind this is based on an economical and a legal concern: (i) the State wishes to take advantage of its preferential position in the sums distribution procedure via liquidation and (ii) legally, any approval of a reorganization procedure would imply a restructuring of the state's debt, which is seen as state aid. Such state aid can only be given under very strict legal conditions. Law no.85/2014 has tried to tackle this issue by introducing the private creditor test. Applying the European Frukona Kosice case (C-73/11P), the legislator introduced a new evaluation of the debts a state

could recover via reorganization (compared to a diligent private creditor) as opposed to the recovery rate in liquidation (Tandareanu, 2014).

If the former is higher, the State's decision to support the reorganization will not be considered state aid. These provisions came into force in 2014 and it is yet unsure what their impact will be in improving the disappointing reorganization rate which has been plaguing Romania. The reasons for this doubt are based on the lack of enforceability of the positive test: the law does not oblige the state to vote for the restructuring plan even in the case the private creditor test shows it would recover more of its claim if the plan would be approved. The courts have no clear legal ground to enforce the effects of a positive test, which therefore remains just an incentive for the State to consider the reorganization of debtors.

The apathy of creditors

A major concern brought forth by the results of our analysis was the significant passivity of the creditor groups. The State, in its position of majority creditor (with over 50% of the total debts), has the legal power to decide on issues which fall within the prerogatives of the Creditors' Meeting without the necessity to convene such a meeting. In none of the cases we have studied has such a creditor protection measure been utilized. The unsecured debtors show similar absenteeism. There is little creditor participation in the Creditors' Meeting; in 70% of cases the meetings members were not present but simply sent their written votes, thus diminishing any type of dialogue with the insolvency practitioner in regard to the development of the procedures. In none of the cases was there a legal action brought by the Creditors' Meeting against the directors of the company for mismanagement for the company, the judicial administrator for mismanagement of the procedure or was there a reorganization procedure suggested by one of the creditors. The actual activity of the creditors revolved around pecuniary matters: the registration of their debt and the opposition to the alleged incorrect registration of their debt (in 67% of cases, at least one opposition was filled). These results paint a bleak picture: the state-owned creditors are dedicated to the swift recovery of their debts while the unsecured creditors, discouraged by their precarious position in the procedure, offer a weak and almost non-existent voice.

The diminishing returns of the recovery rates

Arguably one of the most important concerns of the bankruptcy procedure, cost recovery issues continue to affect and determine the perception of this particular undertaking. While statistics (Doing Business report for the sample period) place the Romanian recovery rate between 20% and 30% (2008-2012), in regard to our smaller companies, the recovery rate is much lower. State-owned creditors have recovered 100% of their debt in a very small number of cases but the average is around 20% of their registered costs. Unsecured creditors recover less than 10% of their debts, in some cases just under 0.5%. The results might help explain why unsecured creditors have little incentive to incur further cost by engaging in the procedures and why secured creditors have opted to recover their debts via means that completely avoid the bankruptcy procedure, as stated above. Considering that, according to official statistics, the recovery rates in recent years have stagnated while procedure costs have increased by 1% (ONRC database), perhaps it is time to reevaluate the efficiency of the bankruptcy procedure, take into account the pitfalls mentioned above.

A factor that affects the recovery rates is the duration and complexity of the bankruptcy procedure. According to the World Bank (Doing Business Report), it takes an average of 3.5 years to resolve insolvency in Romania, compared to 1.7 years in the European Union. This means that the value of the debtor's assets deteriorates over time, as they are subject to depreciation, obsolescence, or vandalism. Furthermore, the bankruptcy procedure involves multiple stages, appeals, and parties, which increase the legal costs and uncertainty for the creditors. The creditors often have to deal with conflicting or inconsistent decisions from different courts, as well as delays and procedural errors that prolong the resolution of the case.

A second factor that influences the recovery rates is the weak enforcement of the bankruptcy law and the protection of the creditor's rights. The bankruptcy law in Romania is often disregarded or circumvented by the debtors, who use various tactics to avoid or delay the initiation of the insolvency procedure, such as transferring their assets to third parties, filing fraudulent claims, or challenging the competence of the court. The creditors, on the other hand, face difficulties in asserting their claims and interests, as they have limited access to information, participation, and representation in the bankruptcy procedure. The creditors also face resistance from the debtors, the judicial administrators, or the courts, when they try to enforce their security rights, challenge the validity of the reorganization plan, or request the removal of the judicial administrator.

Conclusions

The aim of this study was to analyze the insolvency procedure in Romania, using a case study of a construction company that went bankrupt in 2012. We examined the causes and consequences of insolvency for the debtor and the creditors, the efficiency and effectiveness of the insolvency procedure in terms of time, costs and recovery rates, and the main challenges and opportunities for improving the insolvency system in Romania. To do so, we collected and analyzed data from various sources, such as the court documents, the financial statements, the official gazette, the interviews with the main actors involved in the procedure, and the relevant literature on insolvency. We applied a mixed-methods approach that combined quantitative and qualitative techniques to measure and interpret the results. From the creditors' vantage point, the results outlined a procedure where the secured creditors are all but lacking, the majority state-owned creditor is focused solely on swift cost recovery (with no interest towards the reorganization of the debtor) while the unsecured creditor is passive towards any type of measure taken by the other participants. All of these creditor-related patterns are further exacerbated by the small, almost insignificant recovery rates determined. The main creditors of the debtor were the National Agency for Fiscal Administration (NAFA), the banks, the suppliers, the subcontractors, the employees and the social security institutions.

Our study also identified the main challenges and opportunities for improving the insolvency system in Romania. The main challenges are the lack of incentives for debtors and creditors to avoid insolvency and to reorganize the business, the lack of coordination and cooperation among the actors involved, and the lack of adequate legal triggers for insolvency. The main opportunities are the implementation of the new insolvency law adopted in 2014, which introduces more flexible and simplified procedures, the promotion of preventive and alternative solutions, such as mediation and debt restructuring, the

development of a secondary market for distressed assets, and the enhancement of the judicial and administrative capacity and professionalism.

Based on these findings, we propose some recommendations for policy makers, practitioners and researchers, such as: creating a culture of prevention and early intervention for insolvent companies, by providing them with information, advice and support, and by encouraging them to negotiate with their creditors and seek professional help; fostering a culture of reorganization and rehabilitation for insolvent companies, by offering them more options and incentives to continue their activity, and by facilitating their access to finance and markets; protecting the rights and interests of all creditors, especially the unsecured and small ones, by ensuring their equal treatment and participation in the procedure, and by improving their recovery prospects; improving the efficiency and effectiveness of the insolvency procedure, by reducing its duration and costs, and by increasing its transparency and predictability; enhancing the coordination and cooperation among the various actors involved in the insolvency procedure, such as creditors, debtors, courts, administrators, regulators and other stakeholders, by establishing clear rules and responsibilities, and by promoting dialogue and communication; revising and updating the legal and institutional frameworks for insolvency, by aligning them with the best international practices and standards, and by ensuring their consistency and coherence.

We suggest some policy implications for policy makers, practitioners and researchers based on these results, such as: promoting a culture of prevention and early intervention for insolvent companies, by persuading them to talk with their creditors and seek expert help (in part spearheaded by the changes to the Law no. 85 of 2014, in regards to restructuring agreements); encouraging a culture of reorganization and rehabilitation for insolvent companies, by providing them more choices and incentives to keep their activity, and by easing their access to finance and markets; safeguarding the rights and interests of all creditors, especially the unsecured and small ones, by guaranteeing their fair treatment and involvement in the procedure, and by enhancing their recovery chances; increasing the efficiency and effectiveness of the insolvency procedure, by lowering its duration and costs, and by improving its transparency and predictability; strengthening the coordination and cooperation among the various actors involved in the insolvency procedure, such as creditors, debtors, courts, administrators, regulators and other stakeholders, by setting clear rules and responsibilities, and by incentivizing dialogue and communication.

We believe that our study will contribute to a better understanding and improvement of the insolvency system in Romania, and that it will stimulate further research and debate on this topic.

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POLITICAL STABILITY AND SUSTAINABLE DEVELOPMENT IN NIGERIA

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Abstract: After the return of democracy in Nigeria, the country continued to experience changes in political regimes amidst the country's quest of developmental sustainability. This study investigated the symmetric (linear) and asymmetric (non-linear) effect of political stability on sustainable development in Nigeria between 1999 and 2021. The study employed both Autoregressive Distributed Lag (ARDL) and Non-Autoregressive Distributed Lag (NARDL) techniques for estimation purpose. The symmetric result showed that sustainable development positively responds to political stability in Nigeria both in the long run and short run. The asymmetric estimates indicated that sustainable development significantly increased due to positive shock in political stability in the long run in contrast to the short run. While negative changes in political stability has negative effect on sustainable development both in the long run and short run. It was concluded that political stability triggers sustainable development in Nigeria during the study period. The study suggested that government policies related to economic, social, and environmental issues should be consistent and predictable since frequent policy changes can disrupt sustainable development.

Keywords: Political stability, Sustainable development, Happy Planet index, Symmetric and Asymmetric relationship.

Introduction

Sustainable development is a fundamental goal for nations worldwide, encompassing economic growth, social well-being, and environmental sustainability. Sustainable development is a guiding principle that advocates for achieving economic, social, and environmental progress while ensuring the well-being of present and future generations (Mensah, 2019). It is expected that the development of a nation will not come at the expense of depleting natural resources, exacerbating inequality, or compromising the ability of future generations to meet their needs. Instead, it seeks to strike a harmonious balance between human development and environmental preservation. Sustainable development promotes robust and inclusive economic growth that benefits all members of society (Ayamba et al. 2020). This involves responsible resource management, investment in innovation, and the creation of jobs that improve living standards. According to Radu (2015) and Damdam et al. (2023), political stability is a critical factor that can influence a nation's ability to achieve sustainable development. By increasing investors' confidence concerning the security of property rights, political stability affects the level of economic

growth by increasing the value of real GDP per capita and building a coherent and continuous path for sustainable development.

Nigeria, as one of Africa's largest and most populous nations, faces numerous challenges such as corruption, poor communication channels, illiteracy, inadequate infrastructure, a poor implementation framework, and political instability in achieving sustainable development. Political instability manifests itself at local, regional, and national levels, primarily stemming from the discord between the government and various political elites (Tinta et al., 2018). These unbridled dynamics often culminate in alterations to the subsistence patterns of pastoralist communities, the disruption of traditional territorial governance systems, and a diminished capacity to adapt to sustainable rangeland management practices. The undercurrent of political upheaval in Nigeria traces its origins back to the period of colonization, casting a long shadow over the country's post-independence history.

Before the restoration of democratic rule in 1999, Nigeria witnessed a series of changing political leadership, administrative systems, and governance structures, including the parliamentary system, regional governance, and military/autocratic rule, spanning from the year of political independence in 1960 to the return to civilian rule in 1999. This period was marked by more than a dozen distinct administrations between 1960 and 1999, amidst widespread national tensions, a civil war, religious, ethno-cultural, and tribal conflicts, and political unrest. However, Nigeria's reversion to democratic governance in 1999 brought about a relatively consistent federal administration, which endured until 2014, when another political party assumed dominance. Nevertheless, this continuity was not mirrored in all the states within the federation, as various political parties held sway in different states in accordance with their regional political influence. Consequently, a distinct political dynamic emerged between the federal government and the state or regional governments. Furthermore, there persisted a troubling pattern of ongoing violence in certain parts of the country, largely driven by perceptions of the marginalization of specific ethnic groups.

The long-lasting situation has been made worse by the early political parties' and their leadership's polarizing and sectarian political practices. Shehzadi, Siddique, and Majeed (2019) point out that Nigeria's politically unstable environment precedes the period of military control. Consequently, the average Nigerian has endured a prolonged quest for peace and predictability within the realm of politics. Presently, the prevalence of political instability has reached alarming proportions, giving rise to spillover effects that have transformed Nigeria into a source of refugees. The nation has witnessed a series of sporadic outbreaks of violence and counterattacks across various regions, driven by suspicion and mistrust within Nigeria's geopolitical context. These deep-rooted causes of violence often lead to disconcerting and unpredictable experiences, including bombings, the senseless loss of innocent lives, and the destabilization of already vulnerable regions, plunging them into political uncertainty. The issue of political instability is a common phenomenon that continues to dominate the political terrain in Nigeria, which brings about changes in reforms and policies that affect sectoral performance, such as agricultural.

A study by Shehzadi, Siddique, and Majeed (2019) found that a lack of political stability has contributed significantly to economic stagnation on the black continent. Aisen and VeigHow (2010) held that political instability is associated with lower growth rates of GDP per capita, while stable policy could be more economy-driven. It is argued that political

instability adversely affects growth by lowering the rates of productivity growth. Conversely, in the view of Northon (2017) as well as Nadia and Mouna (2017), political stability or regime change has no side effect on economic activities. Most leaders want to follow nation-building initiatives while legitimizing their hold of power, and these are not always complementary. Thus, changes in political regimes could strengthen or weaken the overall economic performance based on policy reviews. The unstable political environment may affect sustainable development through irrational political and economic decision-making, which could reduce private investment, public sector programs, patterns of public spending, and economic growth (Jong & Pin, 2009). Adebayo et al. (2022), on the other hand, argued that political stability must not guarantee development that is sustainable. This link suggests that while the effects of increasing political stability may not be replicated when political stability declines, the impact of political stability on sustainable development is not constant and can vary depending on the degree of political stability or instability. A nation's capacity for sustainable development may benefit disproportionately from improvements in political stability. This is due to the fact that stronger political stability can result in improved governance, heightened investor confidence, and more successful policy implementation, all of which can support social progress, economic expansion, and environmental preservation. However, a decline in political stability may have a disproportionately detrimental effect on sustainable development. Economic downturns, social unrest, and environmental deterioration can result from political instability and can be challenging to repair quickly. Although political stability is frequently seen as a precondition for growth, there may be complications in this relationship. One could envision the nature of the policy and reform changes that have accompanied Nigeria's political regime changes since democracy returned in 1999 and how they have affected the country's economy. However, there is a dearth of empirical data regarding how sustainable development reacts to these political shifts. Based on the aforementioned, this study examined the symmetric and asymmetric effects of political stability on Nigeria's sustainable development. The policy relevance of this study is that it provides insight into whether a linear or non-linear effect of political stability can be sustained in the Nigerian economy. While political stability is often considered a prerequisite for development, the relationship may not be straightforward; hence, there is a need for such a study for developmental policies. The rest of the paper is segmented into a literature framework, methodology, presentation and discussion of empirical findings, conclusion, and recommendation.

Review of literature

Conceptual Review

There is no agreement among researchers regarding the concept of political stability, as it varies from one country to another and changes over time within the same society. Political stability, as defined by Masry (2015), pertains to the sustainability and resilience of a political system. A politically stable country is one in which the government is secure, and there is a low likelihood of political turmoil or significant changes in the system. This stability is often characterized by an effective government, robust institutions, and a general atmosphere of order and predictability in the political environment. Al Arif and Harahap (2020) view political stability as the sustainability and continuity of a government

and its institutions without frequent changes or disruptions. In their study, the authors employed the Political Stability Index as an indicator to assess political stability. This index measures perceptions of the likelihood of political instability and/or politically motivated violence, and it is adopted in the current study.

There is no unanimously agreed upon concept of sustainability. The first globally discussed concept can be found in *The Limits to Growth*, a report for the Club of Rome in 1972, which clearly described how an exponential economic growth in a world with a finite supply of resources can lead to a variety of negative global scenarios. A political reaction to this academic debate was the United Nations report published in 1987 by Brundtland Commission. This report established itself as the cornerstone of sustainability and is still regularly cited, referenced, and mentioned over 30 years after its. The report defines sustainable development as follows: “Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” (World Commission on Environment and Development, [1987](#)). With this definition, the responsibility of one generation for the consequences of its actions on all subsequent generations, is stated explicitly. The report also makes it clear that the ecological challenges should be considered alongside economic growth and social justice, as these aspects can have significant impact on ecological aspects of sustainability.

According Feil and Schreiber (2017) point out, sustainable development can be defined as a long-term strategy for improving the quality of life (well-being) of society. This strategy should integrate environmental, social and economic aspects. According to these authors, sustainable development has its main properties: It aims at economic growth without human environmental aggression; Long-term vision for future generations; It covers the environmental, the economic and the social in mutual equilibrium; Proposes change in the behaviour of humanity; Materialized through strategies and involves processes and practices.

Ever since the concept of sustainability started to emerge, several attempts have been made to quantify and measure sustainability, but the intention to fairly account for all the three dimensions of sustainable development (environmental, social, economic) still remains challenging. While indices related to the natural environment (such as CO₂ emissions, water quality and biodiversity) can be calculated and modeled, the socio-economic factors represent the main obstacles for creating sustainability metrics due to their very subjective nature. In order to be able to cover all the three sustainability aspects, it is important to treat them all equally without highlighting, for instance, the economic performance. Moreover, the completely different natures of social and natural sciences adds complexity to the modeling task. According to [Kissinger and Rees \(2010\)](#), [Sustainable Development Indicators](#) are defined as an attempt to create a holistic approach to measure sustainability through assigning a value or a number to describe the relation between environmental, social and economic dimensions of sustainability. The authors identified Happy Index among others as a set of indicators for sustainable development. As introduced by the New Economics Foundation (NEF), the Happy Planet Index is a measure of sustainable development that takes into account the well-being of citizens and the environmental impact of human activities (New Economics Foundation, 2012). This study adopts the definition by Kissinger and Rees (2010) and uses the Happy Planet Index, which serves as a valuable tool for measuring sustainable development by integrating well-being and ecological considerations. The Planet Index combines subjective well-being indicators

with ecological footprint data to provide a comprehensive view of how efficiently countries are using environmental resources to achieve a good life for their citizens (Aksoy & Arlı, 2019).

Theoretical Framework

Theoretically, this study is anchored on Modernization theory and Regime theory. The theory of modernization associated with Samuel Huntington in 1970S suggests that as societies progress in terms of economic and social development, they tend to achieve greater political stability (Goorha, 2010). This theory attributes political stability to various factors, including economic growth, urbanization, enhanced education, and technological advancements. According to modernization theory, economic growth plays a pivotal role in reducing social unrest and political instability by generating employment opportunities and raising living standards. As people's material well-being improves, they are less inclined to engage in political violence or advocate for radical political transformations. Education holds a central position within the modernization framework, as educated populations typically exhibit greater political awareness and engagement. An educated citizenry can participate more effectively in the political process and contribute to political stability by demanding transparency and accountability in governance. Urbanization, often intertwined with modernization, can contribute to increased political stability by fostering social cohesion and communication among diverse societal groups. Nevertheless, it can also pose challenges related to urban management and service provision, necessitating attention to maintain stability.

According to Black, (1996), the relationship between development and political stability is not linear and that various cultural, historical, and political factors can complicate this connection. Development can lead to both stability and instability, depending on how it is managed and distributed. Modernization theory emphasizes economic and social development as a pathway to modernity. In the context of sustainable development, modernization theory can be seen as one perspective among many, and it has limitations in addressing the environmental and social dimensions of sustainability. Sustainable development entails the responsible management of resources, which often necessitates that modernized economies adopt more sustainable practices, reduce resource consumption, and address environmental degradation. An integral aspect of sustainable development is its emphasis on social equity, ensuring that the benefits of progress are equitably distributed across all segments of society. Unlike modernization theory, which primarily concentrates on development without inherently prioritizing equity, addressing this dimension may require the implementation of supplementary policies and efforts. Modernization theory, with its focus on economic growth, sometimes fails to fully consider the environmental consequences that unchecked development may bring about. Sustainable development, on the other hand, calls for a delicate balance between economic growth, environmental preservation, and social inclusivity.

While modernization theory proposes that economic and social development can lead to both political stability and progress toward sustainable development, it is important to acknowledge that this theory offers just one perspective. The intricate relationships among development, stability, and sustainability are influenced by a multitude of factors. Achieving sustainable development demands a more comprehensive approach, one that takes into account environmental conservation, social equity, and political stability, in

addition to economic growth. Critics contend that modernization theory oversimplifies the connection between development and stability, as it does not adequately consider the cultural, historical, or political factors that can significantly influence a nation's stability. On the other hand, the Regime theory put forward by Stephen Krasner in 1983 directs its attention toward the specific political system in operation, be it democratic or authoritarian, and assesses its influence on political stability (Hynek, 2016). This theory posits that particular regime types may exhibit greater stability than others. It delves into the ways in which the features and conduct of political regimes impact the overall stability of a nation's political framework. Regime theory classifies political systems into different categories based on their attributes, particularly in terms of decision-making processes, governance structures, and the distribution of power. Nonetheless, it's worth noting that regime theory can sometimes be overly deterministic and may not adequately consider the wide range of outcomes that can occur within a given regime type.

Empirical Review

Adebayo, et al. (2022) investigated the impact of political risk on environmental sustainability within the top 10 most politically stable economies, which include Australia, Canada, Germany, Finland, Denmark, Norway, Netherlands, New Zealand, Sweden, and Switzerland, spanning the period from 1991 to 2019. They employed both quantile-on-quantile regression and quantile causality methodologies to investigate the relationship between political risk and environmental sustainability. The results of the quantile-on-quantile regression analysis unveiled that, for a significant portion of the quantiles, political risk had a positive effect on environmental quality in the cases of Norway, Sweden, Canada, and Switzerland. Conversely, in the instances of Australia, Germany, and Denmark, political risk was found to have a detrimental impact on environmental quality. For the remaining countries, the outcomes exhibited a mix of effects. Consequently, ensuring continued political stability is likely to entice more foreign investment, thereby exerting pressure on the governments of these nations to address climate concerns with greater urgency.

In another study, Akinlo et al. (2022) conducted an analysis spanning from 1984 to 2020 and examined the impact of political instability on economic growth in Nigeria. They employed the Autoregressive Distributed Lag (ARDL) technique to explore both short and long-term relationships. Their findings indicated a negative effect of political instability on economic growth in both the short and long run. Government expenditure was shown to contribute positively to economic growth in both time frames, while gross capital formation and financial development had detrimental effects. These findings underscore the need for addressing political instability to achieve sustained economic growth.

The influence of political stability on foreign direct investment in Nigeria was studied by Okeke and Kalu (2020) using annual time series data from 1970 to 2015. Employing the Auto Regressive Distributed Lag (ARDL) model, they reported a significant impact of political stability, alongside other variables, on foreign direct investment in Nigeria. In a panel study, Mohammad (2020) looked at the impact of exports and political stability on economic growth, using data from 2004 to 2018 across D-8 Organization for Economic Cooperation countries. The panel regression results showed that the volume of exports did not significantly contribute to economic growth, while political stability exhibited a positive influence. Altun (2017) also explored the effect of political stability and

governance on economic development using a panel dataset spanning 157 countries, encompassing both developed and developing nations over a ten-year period from 2002 to 2011. Their results affirmed the significant impact of political stability on economic development in both the short and long run. Governance factors, including control of corruption, government efficiency, and regulatory quality, were also significant and robust, while the rule of law and voice and accountability yielded insignificant results. The study highlighted the negative impact of untimely and unexpected executive changes on growth rates and found that elections had no significant effect regardless of the political system and level of development.

In Nigeria, Nomor and Iorember (2017) empirically investigated the relationship between political stability and economic growth in Nigeria for the period 1999 to 2014 using the ARDL model approach. Their findings revealed a positive and significant relationship between political stability and economic growth in both the short and long run, emphasizing the critical role of a stable political environment for economic growth. Employing a different analytical techniques, Radu (2015) analyzed the influence of political stability on economic growth in Romania using data spanning from 1990 to 2011. Employing statistical and econometric approaches, the study concluded that political stability played a crucial role in a country's economic growth, facilitating a coherent and sustained path toward sustainable development.

Jong-A-Pin (2009) investigated the multidimensionality of political instability and its implications for economic growth across 90 economies using a dataset with five-year intervals. They categorized 25 political instability indicators into four dimensions and found that the instability of the political regime had a significant negative effect on economic growth, measuring de facto uncertainty. Interestingly, more instability within the political regime was associated with higher economic growth. From the reviewed works, researcher rarely looked at the non-linear effect of political stability on sustainable development in Nigeria which presents a gap for further study. Thus, this study change the approach of investigating the influence of political stability to see whether its effect on sustainable development is a straightforward one. Again, none of these studies considered the effect of political stability on sustainable development using Happy Planet Index which is an innovative new index that measures life expectancy, experienced well-being, inequality of outcomes, and ecological footprint in order to determine the level of sustainability of a nation (Marks, et al. 2006).

Methodology

Model Specification

Modernization theory held that as societies undergo economic and social development, they become more politically stable. This suggest that a stable polity is capable of sustaining development of a nation. Thus, empirically, this study adopted the model by Okeke and Kalu (2020) who looked at impact of political stability on foreign direct investment but modified it to achieve the aim of the study. Guerrero and Castañeda (2021) in their study identify government expenditure as a major factor that affect sustainable development among nations. Consequently, the modified and estimated model is written as:

$$HPI = PLT, TOT, GEXP \text{-----} 1$$

Where; (HPI) is Happy Planet Index which is a proxy for sustainable development; PLT represent political stability; TOT is Terms of Trade and government expenditure (GEXP). Partial transformation using log was applied given that all other series were either in percentages or index except government expenditure that is in nominal terms. Equation 1 was fitted into an ARDL model using the partial transformation given that the series had mixed order as:

$$\Delta HPI_t = \beta_0 + \sum_{i=1}^p \beta_1 \Delta HPI_{t-i} + \sum_{i=1}^q \beta_2 \Delta PLT_{t-i} + \sum_{i=1}^q \beta_3 \Delta TOT_{t-i} + \sum_{i=1}^q \beta_4 \Delta \ln GEXP_{t-i} + \lambda EC_{t-1} + \mu_t \text{-----} 2$$

The liner effect of political stability on sustainable development in Nigeria was therefore, examine using equation 2. Following Shin et al, (2014), the study employed non-linear asymmetric conditional ARDL model to investigate the non- linear relationship between political stability and sustainable development. Thus the asymmetric (NARDL) model of equation 2 is specified as:

$$\ln HPI_t = \alpha_0 + \alpha_1 PLT_POS_t + \alpha_2 PLT_NEG_t + \alpha_3 TOT_t + \alpha_4 \ln GEXP_t + \sum_{i=1}^p \gamma_{1i} \Delta \ln HPI_{t-i} + \sum_{i=0}^q \gamma_{2i} \Delta PLT_POS_{t-i} + \sum_{i=0}^q \gamma_{3i} \Delta PLT_NEG_{t-i} + \sum_{i=0}^q \gamma_{4i} \Delta TOT_{t-i} + \sum_{i=0}^q \gamma_{5i} \Delta \ln GEXP_{t-i} + \varepsilon_t \text{-----} 3$$

To ascertain the non-linearity effects of political stability on sustainable development in Nigeria, the study build a non-linear autoregressive distributed lagged model following Schodert (2003), and Apanisile & Oloba (2020) the NARDL approach can be specified by building new variables that explain instances of increasing financial development and decreasing financial development. This involves disintegrating the time series into two, namely (PLT_POS_t and PLT_NEG_t) as follows:

$$PLT_POS_t = \sum_{j=1}^t \Delta PLT_POS_t = \sum_{j=1}^t \max(\Delta PLT_t, 0) \text{-----} 3$$

$$PLT_NEG_t = \sum_{j=1}^t \Delta PLT_NEG_t = \sum_{j=1}^t \min(\Delta PLT_t, 0) \text{-----} 4$$

Where; ΔPLT_POS_t and ΔPLT_NEG_t represent fractional sums of increasing financial development and decreasing financial development, respectively. The error correction specification that captured the speed of adjustment towards the long-run equilibrium is given as

To specify the non-asymmetric forms, the equation becomes:

$$\Delta \ln HPI_t = \alpha_0 + \sum_{i=1}^n \alpha_{1i} \Delta \ln HPI_{t-i} + \sum_{i=1}^n \alpha_{2i} \Delta PLT_{t-i} _ POS_t + \sum_{i=1}^n \alpha_{3i} \Delta PLT_{t-i} _ NEG_t + \sum_{i=1}^n \alpha_{4i} \Delta TOT_t + \sum_{i=1}^n \alpha_{5i} \Delta \ln GEXP_t + \alpha_6 ECM_{t-1} + \mu_t \text{-----} 5$$

Where α_0 is the intercept, $\alpha_1 - \alpha_4$ are coefficients, ECM_{t-1} is the error correction and μ_t is the stochastic term.

Kinds and Sources of Data

The data used is obtained from the Bulletin of the Central Bank of Nigeria and the Nigeria Bureau of Statistics (NBS). The data are Happy Planet Index (HPI) as a proxy for sustainable development, political stability Index (PLT) to represent political stability, Terms of Trade (TOT) and government expenditure (GEXP). The data spanned between 1999 and 2021 (from the return of democracy to post global health crisis era (2021). Year 2021 is also based on the available data at the time of this research.

Method of data Analysis

This study utilized both Autoregressive Distributed Lag (ARDL) and Non- Autoregressive Distributed Lag (NARDL) techniques to investigate the symmetric and asymmetric effect of political stability on sustainable development. The use of NARDL is primary to its ability to handle the non-linearity effect and it takes into account the partial sum processes of (+) and (-) changes in the model’s parameters unlike the symmetric effect captured in the ARDL model. While the diagnostic tests of Heteroskedasticity, autocorrelation, Jarue-Bera test and cumulative sum were conducted to validate the results.

Empirical finding and discussion

Unit Root Test

The unit root tests was conducted on each variable to determine the level of stationarity in the series prior to estimating the model. The Augmented Dicker-fuller (ADF) unit root was considered in this study to validate the stationary of the data.

Table 1: Results of the ADF Unit Root Test

z	ADF t-statistic @ Level	ADF t-statistic @ 1st Difference	Order of Integration
HPI	-2.012277(0.2797)	-4.732760(0.0013)	I(1)
PLT	-7.144255(0.0000)	-3.116028(0.0407)	I(0)
TOT	-0.294524(0.9110)	-4.952532(0.0008)	I(1)
LNGEXP	-1.465815(0.5307)	-8.401982(0.0000)	I(1)

Source: Extract from EView

The ADF unit root result in Table 1 revealed that the series in the model are of mixed order of integration owing to the fact that both Sustainable development (HPI), Terms of Trade (TOT) and government expenditure (LNGEXP) were stationary after differencing (integrated of order one). While political stability (PLT) was stationary at levels. Therefore, since the variables under the study are not integrated of the same order, the application of ARDL is justified and hence the use of bounds approach to cointegration to test for symmetric effect over other conventional approaches that require the variables to be integrated of the same order.

Table 2: Result of ARDL Bound Test

F-Test Statistic	Critical Value	Pesaran Lower Bound	Pesaran Upper Bound
	1%	3.65	4.66
6.42	5%	2.79	3.67
	10%	2.37	3.2

Source: Extract from EView

Result in Table 2 indicated that, there is a long-run relationship among variables incorporated in the model. As justify by the F-statistic value of 6.42 which is larger than the Pesaran Upper Bound value of 3.67 at 5% level of significance and the Pesaran Lower Bound value of 2.79 is below the upper bound value. The result showed the existence of cointegration among sustainable development, political stability, terms of trade and government expenditure. Therefore, the null hypothesis of no cointegration among the variables is rejected implying presence of a long run relationship among the variables in the model.

Long Run Relationship among the Study Variables

The existence of a long run relationship among the variables of the study suggests the estimation of long run coefficients and short run dynamic parameters. The estimation of the ARDL model is based on the Akaike info criterion (AIC) optimal lag of 2. The long-run results are presented in the Table 3.

Table 3: Result of Long Run Relationship among the Study Variables

Regressand	HPI (Sustainable development)			
	Linear(Symmetric effect)		Non-linear(Asymmetric effect)	
	Coefficient	Std Error	Coefficient	Std Error
PLT	1.234152**	0.543628	-	-
PLT POS	-	-	0.320074***	0.017471
PLT NEG	-	-	-1.148701***	0.085605
TOT	0.000280	0.000175	5.75E-06	5.30E-06
LNGEXP	-0.905912*	0.455783	-0.085172***	0.013294
C	15.99099**	5,306517	2.940251	0.148341

Note: *, ** and *** represent significance levels at 10%, 5% and 1% respectively.
Source: Extracted from EView

The ARDL estimates for symmetric effect in Table 3 reveals that political stability and terms of trade have positive effect on sustainable development in Nigeria. This sustainable development positively responds to increase in political stability and terms of trade in Nigeria. The positive effect of political stability is significant in contrast to the insignificant effect of terms of trade at 5% level. Though, the result is consistent with theoretical expectation signifying that both political stability and terms of trade determines the level of sustainable development in Nigeria during the study. The implication of this result is that Political stability can contribute to social well-being by fostering an atmosphere of security and reducing the likelihood of conflict and unrest. This, in turn, can lead to improved living standards, better access to education and healthcare, and an overall increase in the quality of life for citizens. This finding is in line with Altun (2017) empirical findings which confirmed significant effect of political stability on economic development. The positive effect of terms of trade signifies that it can help reduce trade imbalances by increasing export revenues in Nigeria. This, in turn, can alleviate trade deficits and bolster a country's economic stability, creating a more conducive environment for sustainable development. However, result also suggests that government expenditure has adverse but not significant effect on sustainable development at 5% level of significance. It indicates that increase in government expenditure during the study period has failed to sustain development in Nigeria which defines the mismanagement of budgeted fund through

corruption or inefficiencies in the use of resources in the country. Though, the result is at variant with theoretical expectation.

The Asymmetric estimates in Table 3 indicated the distinction in the effect of positive and negative shocks of political stability on sustainable development in Nigeria. The result indicates that sustainable development increase due to positive changes (PLT_POS) in political stability. It suffice to say that positive shocks in political stability would triggers sustainable development by 32% and the coefficient is significant at 5% level. This suggest that political stability is a driving force behind the achievement of sustainable development goals in Nigeria. It further signifies that when political stability improves significantly, it leads to the initiation or acceleration of sustainable development efforts. On the other hand, negative changes in political stability (PLT_NEG) has negative relationship with sustainable development. It show that negative changes in political stability will exact positive effect on sustainable development at 5% level of significance. This implies that whenever political stability is decreasing, sustainable development increase by 1.15%. Terms of trade was found to exact positive but not significant effect on sustainable development in Nigeria in the long run implying that increase in Nigeria’s terms of trade would bring about improvement in sustainable development. Contrarily, estimates reveals a negative and significant effect of government expenditure on sustainable development, implying that the government spending in Nigeria is inefficient and has failed to assume a strong role in sustaining development.

Short Run Relationship among the Study Variables

The existence of a short run relationship among the variables of the study suggests the estimation of short run coefficients and short run dynamic parameters. The estimation of the ARDL model is based on the Akaike info criterion (AIC) optimal lag of 2. The short-run results are presented in the Table 4.

Table 4: Result of the short-run relationship among the variables

Regressand	HPI (Sustainable development)			
	Linear(Symmetric effect)		Non-linear(Asymmetric effect)	
	Coefficient	Std Error	Coefficient	Std Error
D(PLT)	0.746572***	0.248987	-	-
D(PLT POS)	-	-	-0.669314***	0.041510
D(PLT NEG)	-	-	0.283101***	0.062505
D(TOT)	1.70E-05	6.23E-05	2.56E-07	1.63E-06
D(LNGEXP)	-	-	0.022922***	0.005316
ECM	-0.491973***	0.075224	0.610919***	0.006130
R-squared	0.787777		0.999919	
Adjusted R-squared	0.734721		0.999847	
Durbin Watson Stat.	2.034324		2.861225	

Note: *, ** and *** represent significance levels at 10%, 5% and 1% respectively.

Source: Extracted from EViews

The short run estimated result in Table 4 showed that political stability has positive and significance effect on sustainable development at 5% level in the short run. The implication of the result is that improve in political stability strongly help to sustained development in Nigeria and the outcome is in accordance with the a priori expectation. A positive but insignificant effect of terms of trade on sustainable development was found in the short

run. It signifies that within the shortest possible time, sustainable development responds positively to political stability and terms of trade in Nigeria. The error correction coefficient of 0.49 with a probability value of 0.0000 is highly significant and is correctly sign which implies a high speed of adjustment to equilibrium after a shock. The result indicated that in an event of temporary deviation from the long run path, it will take an average speed of 49% for the variables to revert back to the equilibrium within the shortest possible time. Approximately 78.5% of disequilibria from the previous year's shock converge back to the long run equilibrium in the current year. All the variables of the study were found to be significant at 5% probability level.

The short run asymmetric estimates in table 4 shows that sustainable development responds adversely due to positive changes (PLT_POS) in political stability and the finding is significant at 5% level. The result implies that in the short run, increase in political stability does not lead to similar improvement in sustainable development in Nigeria. Contrary, a positive relationship was found between negative changes in political stability and sustainable development. This signifies that, decrease in political stability will decline the level of sustainable development in Nigeria. The result is statically significant at 5% level and the finding is consistent with theoretical expectation. The terms of trade and government expenditure affects sustainable development positively. It means that increase in terms of trade and government expenditure are relevant in determining the level of sustainability in Nigeria. The error correction coefficient of 0.61 with a probability value of 0.000 is highly significant and is correctly sign which implies a high speed of adjustment to equilibrium after a shock. The result indicated that in an event of temporary deviation from the long run path, it will take an average speed of 49% for the variables to revert back to the equilibrium within the shortest possible time. Approximately 61% of disequilibria from the previous year's shock converge back to the long run equilibrium in the current year. All the variables of the study were found to be significant at 5% probability level

Diagnostic Tests

Table 5: Diagnostic Test results

Test	Null Hypothesis	Linear(Symmetric effect)		Non-linear(Asymmetric effect)	
		F-Statistics	Prob	F-Statistics	Prob
Heteroskedasticity	No Heteroscedasticity	1.942947	0.1446	0.166114	0.9964
Serial Correlation	No Serial Autocorrelation	1.355663	0.3013	1.009454	0.4621
Ramsey Reset	No Misspecification	0.329352	0.7269	0.065673	0.8012
Normality (Jarque-Bera)	There is normal Dist.	0.388247	0.8236	0.388247	0.8236

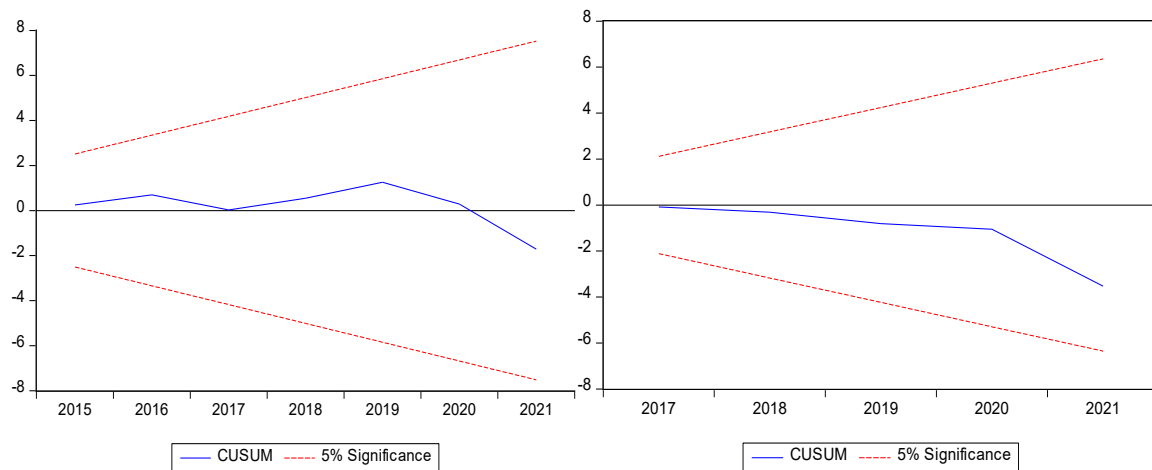
Source: Extracted from EViews

For the symmetric effect, the result of Breusch-Pagan-Godfrey Heteroskedasticity Test in table 5 revealed absence of heteroskedasticity in the model implying that the variables are homoscedastic as justify by the probability values of both F-statistic and observed R-Square which are greater than the critical value of 0.05. Therefore, the null hypotheses are accepted which implies that there is no co-variance of the error term with the explanatory

variables. The null hypothesis is that there is no serial correlation in the residuals up to a specified lag order. The above results show that the null hypothesis cannot be rejected because the p-value is greater than the 5% significance level. Thus, the model does not suffer from serial correlation. Results of the Ramsey regression equation specification error test shows that the relationship among the variables were correctly specified given that the probability value of 0.7269 for F-statistic is greater than the 0.05 threshold. With a high probability value 0.82 for Jarque-Bera statistic, it indicates that the model captures the main patters and sources of variation in data, and the errors are random independent.

For the asymmetric effect, the result of the heteroskedasticity test in table 5 unveil that the probability values of the F-statistic (0.9964), the observed R-squared (0.9569) and the Scaled explained SS (1.0000) are more than 0.05; this implies that the model is homoscedastic. The outcome of the Ramsey test clearly reveals that the model is correctly specified. This is because the probability values of 0.8012 for t- statistic and 0.8012 for F-statistic are greater than 0.05 threshold. This means the model has no specification error. A check for serial correlation was further examines as presented underneath. The result show that the residuals are not serially correlated. This implies that the outcome is free from autocorrelation problem. The asymmetric result also it indicates that the model captures the main patters and sources of variation in data, and the errors are random independent given the probability value of 0.82 just like in the linear model.

The CUSUM test was conducted to check if the model is stable and the outcome is



Conclusion and recommendations

The symmetric result showed that sustainable development positively responds to political stability in Nigeria both in the long run and short run. The asymmetric estimates indicated that sustainable development significantly increased due to positive shock in political stability in the long run in contrast to the short run. While negative changes in political stability has negative effect on sustainable development both in the long run and short run. The study theretofore, concluded that political stability triggers sustainable development in Nigeria during the study period. Based on the findings, the study recommended that policymakers should prioritize political stability, enhance economic management, adopt long-term planning approaches, invest in conflict prevention and resolution, and promote further research and data collection to inform evidence-based policy formulation. Through

concerted efforts in these areas, Nigeria can strengthen its capacity for sustainable development and improve the well-being of its citizens in the face of persistent challenges posed by political instability.

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INSURANCE ENTREPRENEURSHIP IN THE DIGITAL AGE: TRANSFORMATION THROUGH TECHNOLOGY

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Abstract: As early as 1754 BC. Hammurabi's Code, the well-known collection of laws of the Babylonians, regulated, among other things, the status of insurance. Also, both ancient Greece and the Romans had forms of insurance to protect those who remained alive after the death of the insured relative. Since then, human society has been in a permanent evolution, facing unprecedented challenges and opportunities. In today's digital age, information technologies have become essential in many sectors of the economy; of course, insurance, an important component of the financial market, benefited to the full from computer "fingerprinting". This is driving entrepreneurs in this field to look at a wide range of innovations, from artificial intelligence (AI) and machine learning (ML) to blockchain and the Internet of Things (IoT), transforming the way insurance is designed, delivered, managed and consumed. The use of information technologies has become an essential catalyst for innovation and growth in this sector. From big data processing and predictive analytics to intuitive customer interfaces and process automation, information technology is transforming the way insurance companies operate and interact with their customers. Therefore, insurance entrepreneurs need to perceive the use of information technologies not just as a simple trend, but as a strategic necessity that paves the way for innovation and sustainable success.

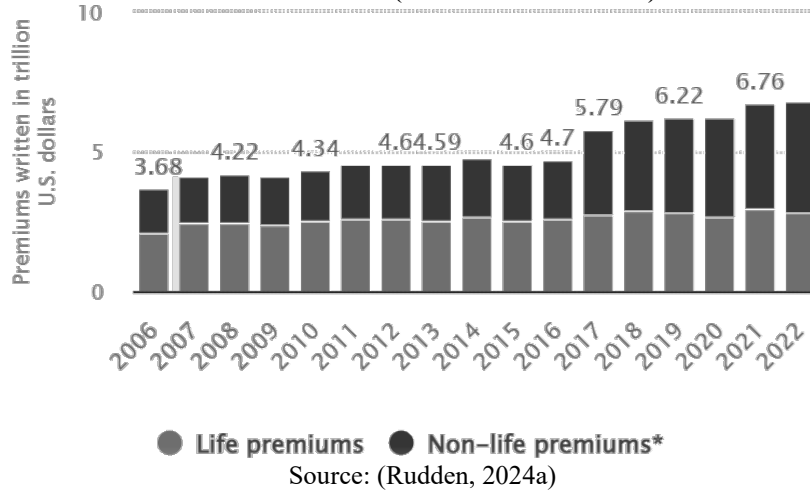
Keywords: entrepreneur consultant, machine learning, CRM, blockchain, big data, artificial intelligence
JEL Classification: G22, O33

INTRODUCTION

Insurance is one of the world's largest industries, with a global market value larger than the gross domestic product (GDP) of many countries. Thus, as an example, for the year 2022, only the USA and China had a GDP greater than the total of subscribed insurance premiums (Statista.com, 2023). The evolution of life and non-life insurance premiums had a

predominantly increasing evolution on the global level, if we look at the graph in the figure 1.

Figure 1. Life and non-life insurance direct premiums written globally from 2006 to 2022 (in trillion U.S. dollars)



As we can see, the period of the economic crisis in the first decade of this millennium did not generate a very pronounced decline. The fast evolution of technology in the digital age has influenced many industries, and the insurance sector is no exception. Since the information technologies appeared, insurance entrepreneurs have been able to use them for a deeper customization of insurance offers, adapting to the specific needs of customers and the risks associated with each situation. Over the last decade, insurance entrepreneurship has become a central driver of innovation in the industry, powered by emerging technologies such as artificial intelligence (AI), blockchain, big data and the Internet of Things (IoT). Therefore, we will highlight how digital transformations have redefined insurance entrepreneurship, but also the impact of these changes on the market, players and consumers. We will also reflect on the challenges and opportunities emerging in this new digital landscape.

According to PWC.com (2022, p. 7) there are five trends that will shape the growth trend of insurers: (1) a widening trust gap in an uncertain world; (2) rapidly evolving customer needs and preferences; (3) an increasingly digital and artificial intelligence-based world; (4) climate risk and focus on sustainability; (5) convergence, collaboration and competition. At least from our point of view, the third point is the one that requires an approach through the prism of the opportunities and challenges it generates.

The entrepreneurial spirit can facilitate several relevant aspects:

1. Consultant-Entrepreneur: a new approach to the financial consultant (Dragomir, 2018), allowing to build his own business. This approach involves flexibility, dynamism and challenges, providing an active work environment.
2. Partnerships with the big players: the life insurance industry has become a relevant partner for all advisors age segments. Big companies in this field are open to innovation, technology and collaboration with consultant-entrepreneurs.

3. Insurance market growth: in Romania, the life insurance market is growing, representing 20% of the total insurance market. The development of this segment offers opportunities for entrepreneurial consultants.

The insurance entrepreneurship perspective could be analyzed from several angles, including product and service innovation, adaptation to technological and regulatory changes, risk management and exploration of new market opportunities; the technological changes are the ones discussed in this article.

Insurance digital transformation from traditional models to Insurtech

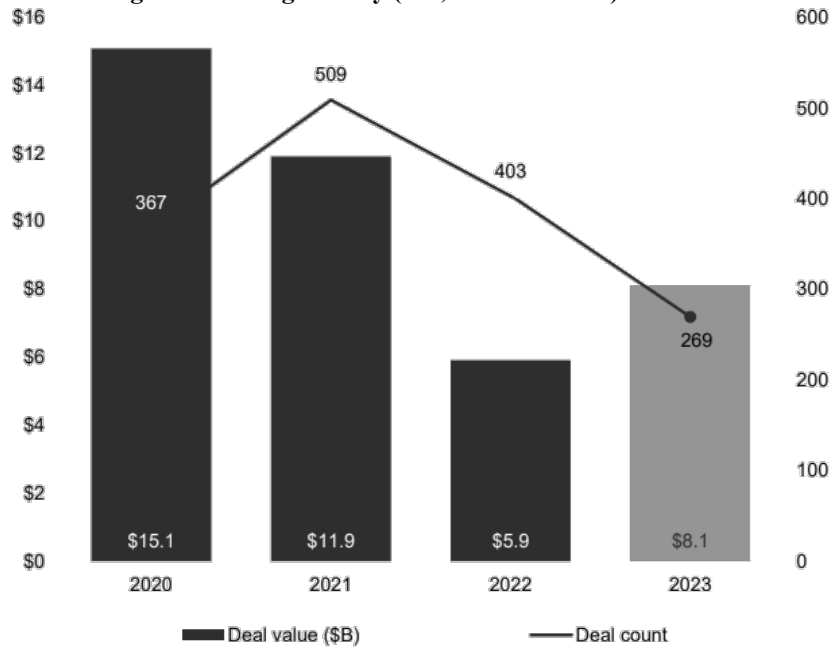
Historically speaking, the insurance industry has been one of the most inflexible (conservative) in adapting to technological change. The traditional business model was based on face-to-face interactions, manual risk assessment processes, and premium setting based on limited data sets. But digitization forced insurance companies to rethink their strategies. InsurTech (combination of the words "insurance" and "technology") involves the application of new technologies and innovations in insurance, resulting in new insurance products, new ways for consumers to obtain insurance policies, and new ways to manage insurance claims (American Academy of Actuaries, 2020).

Today, insurtech entrepreneurs (companies that innovate at the intersection between technology and insurance) are creating solutions that remove traditional barriers and bring a customer-centric approach. For example, technologies based on Big Data allow companies to offer personalized insurance, and Artificial Intelligence automates the processes of evaluating claims. According to KPMG (2024, p. 17), in recent quarters, insurtechs have increasingly focused on providing solutions to the market of small and medium-sized enterprises (SMEs) to innovate the offering of personal insurance lines in previous years. This digital transformation has changed the insurance market from a conservative field to a dynamic ecosystem open to innovation. The United States had the supremacy regarding transactions through insurtech in the first quarter of 2024, with a weight of 51%, far behind being the United Kingdom with 9% (Rudden, 2024b).

The role of entrepreneurs in the reconfiguration of the insurance industry

Entrepreneurs have played a crucial role in reshaping the insurance industry in the digital age. In the context of this change, many insurtech start-ups have emerged, using disruptive technologies to provide innovative and affordable solutions. Among other things, the choice of digital technologies stimulates innovative activity of all forms of entrepreneurship and slows the growth of etatism (Makarov, Ivleva, Shashina, & Shashina, 2020, p. 23). Unlike traditional insurance companies, which are often constrained by rigid organizational structures, start-ups benefit from the agility and flexibility to test and implement new technologies. If the year 2022 was considered very weak, later, global investments in insurtech began to increase, as can be seen in figure 2, where private equity (PE), mergers and acquisitions (M&A) and venture capital (VC) were considered.

Figure 2. Total global funding activity (VC, PE and M&A) in insurtech 2020–2023

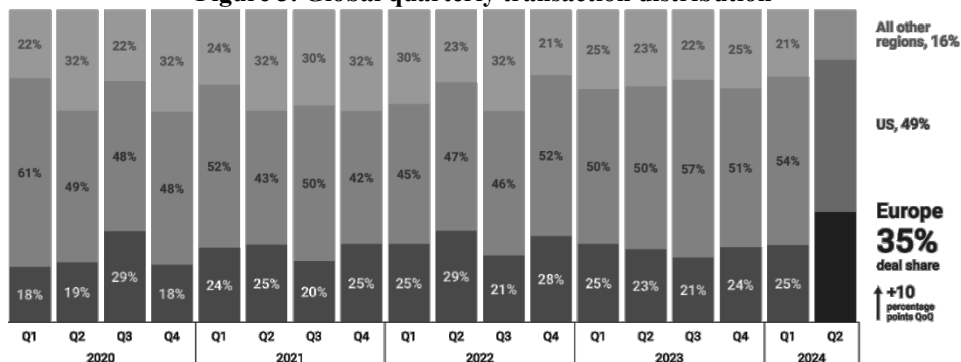


Source: (KPMG International, 2024, p. 17)

Insurtech start-ups introduced new business models such as on-demand and peer-to-peer insurance. These models have allowed customers to access insurance products in more flexible and efficient ways. For example, mobile applications developed by insurtechs allow customers to purchase temporary policies, report incidents or manage claims in real time. This kind of innovation has redefined not only how insurance products are marketed, but how they are perceived by consumers. In 2021, the Romanian insurance market continued the digitization process, recording an increase in the volume of gross written premiums (Econmedia.ro, 2021). It should be noted that, although we previously noted the year 2022 as not being too good for global investments, Romania continued to offer opportunities for venture capital investors, especially in the technology start-up sector (Schöb, 2023).

Regarding Europe, the share in insurtech transactions reaches 35% in the 2nd quarter of this year, being a record level for this continent, as can be seen in figure 3.

Figure 3. Global quarterly transaction distribution



Source: (CBInsights.com, 2024)

Emerging technologies and their impact on insurance entrepreneurship

Digital transformation would not be possible without the contribution of emerging technologies that have revolutionized the traditional processes in insurance. We can already list the classic IT components used for a while in insurance:

- customer relationship management systems (CRM): can help insurance agents organize and manage customer data, track interactions, and provide more personalized service.
- e-commerce platforms: allow insurance agents to sell policies online, making the purchase process more convenient for customers.
- mobile apps: can provide customers access to policy information, enable claims submission and facilitate premium payments.

Among the most influential technologies that have transformed entrepreneurship in this field are artificial intelligence, blockchain, internet of things, big data and machine learning. For example, blockchain can provide a secure and transparent solution for managing policies and payments, reducing costs and improving data security, while IoT can facilitate real-time monitoring of risks and events, allowing for faster and more efficient and effective response in case of disaster. Using blockchain technology, big data obtained through data analysis can be stored in the blockchain network, so it will not be misused previously used data and will not perform the same data analysis as other teams (Taherdoost, Moosavi, & Mohamed, 2024). Therefore, digital technologies manifest themselves through numerous and constantly growing technological flows (Artificial Intelligence, Big Data, Cloud Computing, Blockchain, etc.) (D'Angelo, Cavallo, Ghezzi, & Francesco, 2024).

Artificial Intelligence (AI)

AI is used in insurance to improve the underwriting process (risk assessment), to analyze large volumes of data and to automate claim processing and repetitive tasks, to provide customer support and to detect fraud. Insurtech start-ups use AI to deliver faster and more accurate solutions. Weterings (2019) noted that artificial intelligence can be used for: insurance advice, signing policies, claims processing, fraud prevention, risk management, direct marketing.

Sullivan (2024) noted five key cases of using generative artificial intelligence in insurance distribution:

1. *“Clients like you” analysis* – identifying customers with similar profiles but different insurance solutions.
2. *Submission preparation and client portfolio QA*: this technology can help guide the broker/agent on the types of questions to ask based on what is known about the insured, the industry the insured operates in, the profile of risk of the insured company compared to others and what is available in third party data sources.
3. *Intelligent Placements*: provides the account team with placement recommendations that are in the best interest of the client and the agency or broker, while reducing marketing time, both in terms of finding optimal markets and avoiding markets where a risk would not be accepted.
4. *Revenue loss avoidance*: guidance to the employee regarding fees should be invoiced based on contractual obligations.

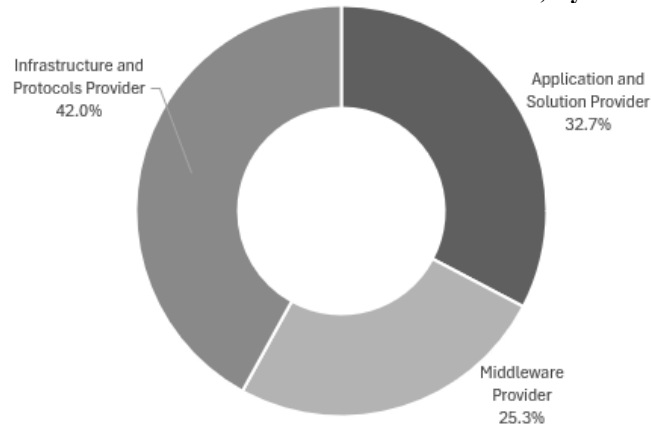
5. *Client-specific marketing materials at speed*: outputs could be customized at a fast pace.

Blockchain

This technology provides solutions for creating smart contracts that are self-executing and reduce the need for intermediaries. Blockchain provides greater transparency and security in managing insurance policies. Fraud and falsified data are prevented because data cannot be changed without the permission of a quorum of the parties. If someone tries to modify the data, all participants will be alerted and they will know who is making the attempt (Oracle.com, 2022). Blockchain can also be used to create contracts, track insurance claims and speed up claims processes (Gendelman, 2024).

Among the types of providers, in 2022 (figure 4) the market was dominated, in a proportion of 42%, by infrastructure and protocol providers (Fortune Business Insights, 2024), but a substantial increase in the adoption of solutions from application and solution providers is expected in the coming years.

Figure 4. Global Blockchain in Insurance Market Share, By Provider, 2022



Source: (Fortune Business Insights, 2024)

Internet of Things (IoT)

IoT uses a variety of technologies to connect the digital and physical worlds. Broadly speaking, IoT devices are used in the following nine areas (McKinsey & Company, 2024): (1) *human bodies* (monitor or maintain health and well-being, help manage diseases); (2) *homes* (automatic vacuum cleaners, security systems, etc.); (3) *retail environments* (in stores, banks, restaurants, and arenas to facilitate automatic payment, expand in-store offerings, or help optimize inventory); (4) *offices* (for energy management, building security, etc.); (5) *standardized production environments* (in manufacturing plants, hospitals or farms, to increase operational efficiency or optimize equipment use); (6) *custom production environments* (mining, construction or oil and gas exploration and production, for predictive maintenance or health and safety); (7) *vehicles* (condition-based maintenance - CBM -, use-based design – UBD - or pre-sale analysis for cars and trucks, ships, aircraft and trains); (8) *cities* (adaptive traffic control, smart meters, environmental monitoring or resource management); (9) *outside* (on railways, autonomous vehicles or flight navigation could involve real-time routing, connected navigation or shipment tracking).

In insurance, IoT devices enable the collection of real-time data that can be used to monitor risks and customize policies. For example, telematics devices installed in cars allow auto insurance premiums to be calculated based on the driver's driving behavior.

Big Data and Machine Learning

Big data is used to analyze massive volumes of behavioral and risk data, while machine learning algorithms allow companies to identify trends and predict future behaviors. These technologies not only optimize processes but allow entrepreneurs to create more accessible business models adapted to modern consumer needs. Machine learning and artificial intelligence are commonly used in the insurance industry to use and analyze big data. According to Ellili et al. (2023, p.2) there are several examples of the important role that big data plays in the insurance sector, such as: car insurance, life insurance, health insurance, harvest risk, catastrophe risk (hurricanes, tornadoes, geomagnetic events, earthquakes, floods and fires), climate risks and cyber risks (which is the weakest in terms of security and safety).

Big Data

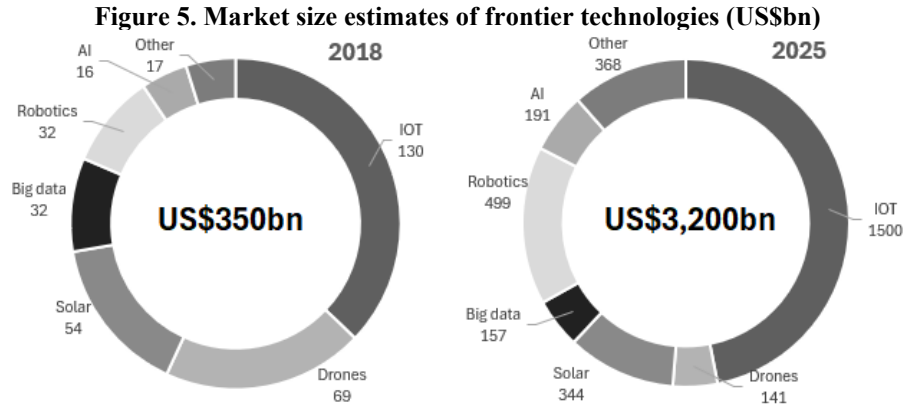
When we speak about Big Data, we mean collected data that subscribe to the 4V: *volume*, *velocity*, *variety* and *veracity*; initially there were only the first three terms, and now even 5V (*value*) - or even 6V (*variability*) (Qiao & Chen, 2022). The most common uses are descriptive analysis, data-based decisions, data visualization. The analytical capabilities of big data have allowed the insurance market to gain insight into the wider market before updating their offers, providing a more careful and in-depth assessment of risk exposure (Hossein, Unger, & Beneki, 2020, p. 4). Big Data can help insurers increase the level of accuracy in policy pricing due to greater data availability and improve the efficiency of their operations by providing more effective and efficient insight into their customers. In conclusion, the advantages of big data in insurance can benefit both customers who are looking for good products and insurers who want to reduce fraud and expenses, while providing better services to their public (Blanco, 2023).

Machine Learning

Machine Learning is considered a subset of artificial intelligence that allows algorithms to learn from data and make predictions or decisions without being explicitly programmed. Machine Learning algorithms improve system performance through experience, analyzing historical data and developing predictive models. Thus, their usual use is to make predictions, recognize patterns, automate tasks, etc. For example, it can be used in the detection of car insurance fraud using different machine learning models (Aslam, Hunjra, Ftiti, Louhichi, & Shams, 2022, p.2).

Opportunities and challenges in the insurance digital era

Automation and AI are already changing the way insurers interact with consumers across the value chain – from product design to underwriting, pricing and claims. If we compare the distribution of technologies at the level of 2018 with the estimates for 2025, we observe in figure 5 an evolution of frontier technologies (PWC.com, 2022, p.12).



Source: (PWC.com, 2022, p.12).

Although digital technologies offer significant opportunities for insurance entrepreneurs, they also come with several challenges.

Opportunities

- **Accessibility and personalization:** By using AI and big data, start-ups can customize insurance products based on each customer's profile, leading to better customer satisfaction and greater efficiency in risk assessment.
- **Cost reduction:** Process automation and the use of smart contracts significantly reduce administrative costs and human error, which can lead to lower prices for consumers.
- **Continuous innovation:** Entrepreneurs have space for continuous innovation, and the rapid pace of technological development means that new business opportunities are constantly emerging.

Challenges

If the opportunities are almost obvious, the challenges are also significant:

- **Strict regulations:** The insurance industry is one of the most regulated industries, and new technologies such as AI and blockchain raise legal and ethical questions. Entrepreneurs must navigate through a complex legal framework to implement innovative solutions.
- **Data security:** With large volumes of personal data collected and digitally processed, cyber security risks grow exponentially. Entrepreneurs need to invest significantly in security to prevent data leaks and cyber-attacks.
- **Lack of trust:** Technological innovations like AI can create reluctance among customers due to a lack of transparency in how algorithmic decisions are made. Confidence building remains a major challenge.

Conclusions

Insurance entrepreneurs can identify business opportunities and develop effective strategies to navigate emerging markets and adapt to regulatory and technological changes. The digital transformation of the insurance industry has provided entrepreneurs with unique opportunities to innovate and reconfigure the way insurance products are delivered. Technologies such as AI, blockchain, big data and IoT have enabled the development of faster, more affordable and more efficient solutions for consumers. However, entrepreneurs

also need to address major challenges such as strict regulations and data security. Going forward, the insurtech sector is likely to continue to grow and redefine the insurance market, but long-term success will depend on entrepreneurs' ability to balance technological innovation with regulatory and security needs. Therefore, the use of IT has become essential for the success of insurance entrepreneurs in the digital age. By implementing effective IT strategies, entrepreneurs can enhance efficiency, improve customer satisfaction, and create new business opportunities.

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ETHIOPIAN PHILOSOPHICAL WORK HATATA: HISTORICAL AND SOCIAL REALITY

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Abstract: For several years, debates have raged as to whether Africa has a distinct written philosophical tradition. This article seeks to argue that there is indeed a distinct written philosophical tradition in Africa. The article explores the various ways in which this phenomenon has been expressed and its unique contribution to global thought. Additionally, this article discusses how African thinkers such as Zara Yacob have used expressions of their philosophy to address pertinent social and political issues on the continent. Ultimately, the importance of this African philosophical legacy must not be underestimated, as it serves both an important academic purpose and offers insight into African societies over time. This article seeks to examine the philosophy of Zara Yacob, an Ethiopian philosopher. Zara Yacob's philosophical position encompasses metaphysical, epistemological and ethical aspects and is aimed at expanding the scope of Ethiopian-based philosophy. Claude Sumner was a key figure in introducing the influential works of Yacob to a wider audience within the realm of philosophy. The research involved the implementation of rational analysis through principles and techniques of logic.

Keywords: Zara Yacob, Sumner, Hatata, Rationality, Ethics, Eurocentric, Ethiopia, Africa

Introduction

The historical development of philosophy has largely overlooked Africa, and philosophy as a mental exercise has been seen as a Western individual pursuit. Non-Westerners, especially Africans, have been excluded from proper discourse. To counter this, it is essential to identify a genuine philosophical tradition in Africa and introduce African contributions to the world of philosophy. Understanding the nature of African philosophy can be accomplished by studying the work of African philosophers such as Zara Yacob, who provide insight into present-day realities and add new dimensions to our understanding of existence. This approach not only helps to challenge the Western ideological discourse but also offers valuable insights for our daily lives. The philosophical work titled "Hatata" by Zara Yacob demonstrates the existence of distinct philosophical traditions in Ethiopia. Through this written account, Zara Yacob's "Hatata" serves as an illustration of a philosophical text originating in Africa. The 17th-century Ethiopian philosopher Zara Yacob was a man who transcended the cultural forces of his time by arguing for the rationality of the human heart (Teshome 2016, p. 431).

Zara Yacob's "Hatata" or method is also an example of a written philosophical version in Africa that involves analyzing arguments with conceptual clarity, logical analysis, and validity. This is particularly important in Africa, where many sources of philosophy are

considered oral and collective. The role of the Canadian philosopher and Ethiopian by choice Claude Sumner in introducing Zara Yacob's works to a wider audience is also notable.

Claude Sumner's role in rediscovering Zarayacob's Philosophical treaties

Sumner's research on classical Ethiopian philosophy played a significant role in debunking the fallacy that Africans lack history and philosophy (Presbey and George 2012, p. Viii). He is the philosopher who, for the first time, translated and introduced the works of ZaraYacob and Woldehywot from the ancient Ethiopian language Ge'ez to English. The works of Sumner in introducing the Ethiopian philosophy proved that there is written philosophical work in Africa (Presbey and George 2012, p. ix). Philosopher Zara Yacob's country of Ethiopian fighters, armed with spears as their primary weapon and a few rifles, were able to defeat the mechanized Italian army with mechanized force and possessed the latest modern weaponry, ranging from tanks to machine guns, fighter planes, and gas bombs. This historical event refutes the western claim that Africans have no history.

Ethiopia, an ancient country, boasts a long-standing tradition of written philosophy that has been concealed for a considerable period of time. Only recently has this philosophical work gained prominence. The credit for bringing Ethiopian philosophy to the forefront goes to Claude Sumner, who hails from Canada but adopted Ethiopian nationality. Sumner is regarded as a prominent scholar in regard to the discourse on the existence of African philosophy because of his tireless efforts in championing and augmenting written Ethiopian philosophical work (Presbey 2003, p. 139-158). It is Sumner who introduced the philosophical thoughts that existed in Ethiopia to the world (Fasil 2017, p. 21-22)

"Classical Ethiopian philosophy" is the most well-known publication among the numerous works that Sumner authored (Wiredu 2004, p. 24). In classical Ethiopian philosophy, he translated and analyzed the treatises of Zara Yacob and Woldhywot. The effort he made to prove that Zara Yacob 'Hatata'/treatises was the work of the Ethiopian philosopher when challenged by Carlo Conti Rossini, who claimed that "Hatata's real Author is Padre Giusto d' Urbino and not the work of the Ethiopian philosopher Zara Yacob was very expounding. As Masolo (2010, p. 5) sees, Claude Sumner's attempts to introduce modern Ethiopian philosophical thought to the rest of the world are manifestations of a philosophical culture that gained momentum distance from the immediate environment. Zara Yacob, being unsatisfied with existing interpretations of reality, particularly those made available through religious teaching, introduced a new interpretation of truth. Although Christian values exert a lasting influence on the Ethiopian philosophical tradition, a distance is also attained for Masolo (Masolo 2010, p. 5). Major components of Zara Yacob's philosophy are devoted to religious disputes and issues in the philosophy of religion, such as theodicy and the nature of the divine. Zara Yacob succeeded in overcoming such objectives in his "Hatata" by inquiring about every possible philosophical question to reach a certain conclusion. Thus, for Masolo, The works of Claude Sumner on Ethiopian philosophical thought in the seventeenth century, especially on Zär'aYa'eqob, WäldäHeywät, and Skændes, are important sources of dynamic moral thinking beginning with the influence of early Christian expansions in the upper Nile Valley in the fourth and fifth centuries, from which seventeenth-century Ethiopian moral thinkers became relatively independent (Masolo 2010, p. 5).

Issues on authorship of “Hatata” and its implications

As shown above, while discussing the contribution of Sumner to the development of Ethiopian philosophy, we observed that in Ethiopian philosophical scenery, there is a significant debate concerning the authorship of the “Hatata”. On the one hand, there is an argument that Zara Yacob is an Ethiopian thinker who authored the treatise; on the other hand, there is an argument that the “hatata” is Western and Catholic in origin. The writer of this article argues that the author of “Hatata” is no doubt Zara Yacob. His philosophy originated in Ethiopia, an ancient country on the African continent where humans originated for the first time. If the West denies that there is no philosophy in Africa, this means that (Lucy) Australopithecus aphaeresis, which is the oldest humanoid remnant ever discovered in the Afar Plain in the northeastern part of Ethiopia, is false. In a true sense, civilization originated from where human beings first existed. Africa is the origin of human beings, and philosophy is one part of civilization.

Carlo Conti Rossini, who argues that Zara Yaqob is not Ethiopian and that there was no such philosopher named Zara Yacob. According to this claim, the “Hatata” is a Western author residing in Ethiopia, and there is no such author, in reality, as Zara Yacob. It is further assumed that a 19th century European wrote the treatise/“Hatata”. The first philosopher who refuted such a view was Sumner, who wrote, "The philosopher is original in many ways. He began his treatise with the story of his life" (Sumner 1985, p. 224). We can understand who Zara Yacob is by reading the autobiography of the writer "Hatata". The autobiography reflects the author’s background and the context in which his philosophy emerged. This idea is supported by Habte, who claims that "Hatata” was written by Zara Yacob, the claim that it was written by Italian Jesuit D' Urbino is a fabricated account (Habte 2002, p. 131). Hallen further stated about Zara Yacob: The most prominent Abyssinian philosopher of the seventeenth century was the man named Zar’aYa’aqob (1599–1692). The remarkable text he produced during his lifetime has as its English-language title *The Treatise of Zar’aYa’aqob*. The original Ge’ez language was known as the Hatata. This term, hatata, deserves careful consideration because of its methodological implications (Halen 2002, p. 7). Zara Yacob begins his autobiography by praising God who he considers just and witnessing what God has done to him. Zara Yacob claims that God is the creator of all things, the beginning, and the end. In Zara Yacob's philosophy, he acquired reasoning as a way to reach the truth. It is God that implants the power of human reason and the power to philosophize on all issues, including the divine. The Italian writer Carlo Conti Rossini denied the authorship of Zara Yacob according to Alemayehu: “I thought he was a man who wanted to tarnish the image of Ethiopians, to praise Italy” (Alemayehu in Daniel 1995, p. 54). This Eurocentric approach informs classic accounts of Western history that negate the existence of logic and rationality in the Ethiopian context and Africa in general. It is the denial that no country defeated Italian colonial power. History tells us that Ethiopia is the only Black Country never colonized. It is the country seen as an emblem for other colonized countries and initiated them to fight for their independence. We can infer from the Eurocentric statement that Africans in general have no history or philosophy. The writing of Carlo Conti Rossini is the continuation of others, such as Hegel, who wrote by saying ‘Africans have no history’. They excluded Africa from a philosophical circle, which in reality is intolerable. One of the good examples that disprove Carlo Conti Rossini’s justification according to Alemayehu is that it is the culture and day-to-day experience of Ethiopian scholars who

memorize in their heart and orally say the words of David and regret going somewhere without this book (Alemayehu in Daniel 1995, p. 58). Zara Yacob took the book of David with him when he flew to the cave. If he were a foreigner living at that time when fleeing to the cave, he would perhaps say he flown with my Bible and rest with the New Testament, not with the book of David (Alemayehu in Daniel 1995, p. 58). This typically echoed Zara Yacob's behavior as an Ethiopian scholar.

Like the grand philosophies of Western thinkers expressed in the name of dialectic, materialism, and the limitations of human knowledge, a hierarchical relation develops between Europe and the rest of the world. However, the realities of Ethiopian history, art, culture, and politics disprove what the white wrote about Africa in general. They presented Africa from an entirely Eurocentric perspective. I disagree..., as well as with the general sense that Africans are somehow outside the mainstream of human achievement, would be entirely negated by the full acceptance of a universal African heritage for all of humanity. This, after all, is the truth that has now been firmly established by scientific inquiry (Hall 1950, p.9). The treatise of Zara Yacob and other African philosophers disclose how Africans are critically engaged with the most significant philosophical questions taking place on African land.

The first and most obvious is that philosophy in the African context did and does have a history. The documented reflection of individuals such as Ptah-Hotep, Zara Ya'aqob, and Anton Wilhelm Amo is impossible today or to ignore. In addition, the heritage they (and other thinkers too numerous to do justice to here) have bequeathed to their continent, and the world deserves the recognition it for so long has been denied" (Hallen 200, p. 12).

The rich history of philosophy in the African context is undeniable, as evidenced by the documented contributions and reflections of African thinkers such as Ptah-Hotep, Zara Ya'aqob, and Anton Wilhelm Amo. The heritage of these philosophers has been queathed to their continent, and the world is invaluable and ought to be embraced by all. Even though there are many more influential African philosophers who are beyond the scope of this discussion, their contributions must also be recognized for their immense cultural legacy.

Alongside mythological, religious, and scientific pursuits, Africans, like the rest of humanity, also use philosophical analysis to make sense of their existence.

It is difficult to determine the real history and works of Africans from what white people said and write. It is also difficult to perceive the reality of Africa from what many of the West's are tagging. However, it is vital to recognize that there was a great philosophical and scientific tradition in Africa. The record of Zara Yacob shows how there was a critical undertaking by the Africans themselves. This can be known to the world only when Africans start to work and write about their history and culture through their efforts.

According to Hall (1950, p. 13), the history of Africa has required a much-needed shift from the traditional Eurocentric perspective. No longer is Africa reduced to a mere continent at the outskirts of world history; rather, it is placed at the center as a powerful and influential entity in its own right or free from what foreigners subsequently imposed upon it. This approach allows for a much more nuanced, unbiased, and accurate understanding of African history, culture, and politics. It also has the potential to lead to the recognition of African influence on the wider world in all areas of life. Ultimately, this shift in perspective serves to highlight the importance of African contributions to global history. In his words,

Overall, the history of Africa has been presented from an entirely Eurocentric or even a Caucasocentric perspective, and until recently, this topic has not been adequately reviewed. The penetration of Africa, especially during the last century, was important, but today, the realities of African history, art, culture, and politics are better known. The time has come to regard African history in terms of what has happened in Africa itself rather than simply in terms of what non-African individuals did when they first traveled to the continent (Hall 1950, p. 13).

It was in the seventeenth century that the African philosopher Zara Yacob realized the existence of God through critical investigation. This does not mean that people at the time did not believe in the existence of God. Christianity came to Ethiopia in the 4th century, and Islam came to Ethiopia in the 7th century. This is the time when some of the Western countries were not on the map of the world. As an individual philosopher, Zara Yacob from Africa reached the level of consciousness that Hegel wrote in realizing substantial objects of existence, such as God. Zara Yacob's rational and ethical philosophy is a witness for African consciousness that has attained the realization of any substantial objective existence—for example, God—or law—in which the interest of man's choice is involved and in which he realizes his being.

In the *Hatata*”, after he thanks God who has done many things in his life, Zara Yacob tells us the place of his birth, the date, and the status of his family. He claims, "I was born in the lands of the priest of Aksum. However, I am the son of a poor farmer in the district of Aksume; the day of my birth is the 25th of Nahase 1592 AD... by Christian Baptist I was named Zara Yacob" (Zara Yacob in Sumner 1985, p. 230). This shows that Zara Yacob lived in an agrarian economy, inherited a religious background, and lived in early modern Ethiopia. Then, as some said, it is difficult to say that “*Hatata*” was written or borrowed from foreigners because, as we understand from the author's autobiography, he was born in Aksum, a place in Ethiopia. Above all, when he told us why he was afraid to return to his birthplace and instead preferred to move from place to place, what he reasoned was evidence that his original place was in Ethiopia. Zara Yacob repeatedly made use of places in Ethiopia from different moments in his life and served as points of investigation. He also mentioned his relatives in Aksum. Here, it is important to ask whether Zara Yacob was a foreigner. How was he moved from place to place in a noncitizen country? At the same time, the author of *Hatata* wrote that he was born to a poor farmer in the district of Aksum. It is clear how it was difficult for a foreigner to be a farmer in traditional Ethiopia during that time. This further confirms his Ethiopia. Farmers in Ethiopia at the time were earning their living by plowing small plots of land or by tenants for the landlords, which made ridiculous for Europeans to be farmers or tenants at the time Zara Yacob lived. Second, during the time when Zara Yacob lived, war and religious controversy occurred, which made it difficult for noncitizens to be successful at resolving such controversies.

Zara Yacob's encounter with foreigners played a crucial role in his philosophical approach. Such an encounter is found in his discussions of the 'frange' and their part in religious disputes. Zara Yacob explained the “frange” (foreigners) by making them outsiders who are interested in imposing their religious belief on others while discussing the belief of different people. He indicated "Once I asked the 'frange' (foreigner) scholars ...many things concerning our faith: he interpreted them all according to his own faith..." (Zara Yacob in Sumner 1985, p. 234). The statement by Zara Yacob clearly shows that he is native to Ethiopia and that the man for whom he asked was a foreigner. It also affirms that

each culture imposes its own beliefs and that the nature of truth is concealed in diverse interpretations of universal reality.

Zara Yacob mentioned two types of scholars. He refers to the indigenous ones to which he belongs and the foreign ones that question conventional beliefs. Thus, we further elaborate on the evidence that Zara Yacob is an Ethiopian population. It is important to read the comparison that he made between those who he said the scholars who were an Ethiopian and those who said the 'Frang' who were foreigners for whom he did not belong. 'Frang' refers to Amharic foreigners, especially white foreigners, in most cases. It is possible to understand his sayings from his word; Thanking God for saving me, I went to the house of my master. After this, I left for another school to study the interpretation of the Holy Scriptures. I have studied this topic for ten years; I learned the interpretations of both Frang and our scholars. Oftentimes their interpretations did not agree with my reasoning, but I withheld my opinion and hid in my heart all the thoughts of my mind (with emphasis) (Zara Yacob in Sumner 1985, p. 231). From this statement, we found "the Frang and of our scholars". The frang, in this case, is the foreign, for which he said our scholars are the Ethiopians.

The African philosopher Kwasi Wiredu also stated that "long time that Ethiopia has the tradition of written philosophy" (Wiredu 2004, pp.-24). This testifies to the authorship of Zara Yacob in arguing that the "Hatata" are genuine to Ethiopia. Hatata" is the result of individual pursuits of convention and diverges from the adaptation style of most trends in Ethiopian philosophy. Thus, "Zara Yacob philosophy is an original work, the first of his reflection and not a translation or an adaptation from foreign sources, as most Ethiopian literature is" (Sumner 2004, p. 173). The treatise is from the son of poor farmers in Ethiopia. This can easily be understood from the life history of the author of "Hatata". Zara Yacob wrote his first autobiography in 1667 with the urge of Wolde Heywat, who was his disciple. His autobiography reveals who Zara Yacob is. This challenges the pervert /temama/ idea of the West and, at the same time, some African intellectuals who trained in Western universities and said that the work was not that of the Ethiopian philosopher but rather Italian. From 'Hatata', we can conclude that African philosophy both in written and oral form existed for centuries.

According to Habte, the controversy surrounding Zara Yacob's authorship exists because he is African. This denial comes in two major forms: one denying the potential for philosophy to emerge from Africa and the other claiming that all African philosophies owe their origin to Western ideas. "... Other finds philosophical thought cannot have existed outside Europe. Some such critics tell the lie that Zara Yacob philosophy was taken from the West." (Habte 2012, p. 132), which is a false fabrication.

The writer of this article argues that there has been a literate tradition in African philosophy, in the same footsteps as that of the Western. While there are several important ancient philosophers, such as Socrates, who is largely known to us through the reports of others, the tradition has developed increasingly as one that pays careful attention to a written argument in addition to the fact that the oral tradition is not unique to Africa. As we studied in the history of philosophy, Socrates, who is the founder of social, moral, and political philosophy and conceived as the father of Western philosophy, not left anything in written form. It is Plato who is the mouthpiece of Socrates as he wrote in the Republic. Even though it is difficult to admit that the discourse in the republic is truly what was materialized like

many parts of the world, we can conclude from the experiences of the two philosophers that there was an oral culture in Athens, which is part of Europe.

In the context of understanding the unique nature of African philosophy, Richard Bell argues for the need to develop different methods for approaching other cultures. Considering the various modalities of African existence and the only recent development of the written tradition in Africa, aesthetic, oral, written and other accounts must be considered alongside one another. There are various aspects of African identity that are critical, dialogical, and reflective and help us decipher philosophical thoughts (Bell 2002, p. x-12).

As Appiah puts it, there is a significant parallel between recent traditions in African philosophy and the nature of Western philosophy in that both aspire to an individualistic and written philosophy. Zara Yacob's "Hatata" are written accounts. Thus, Later, African philosophy looks more familiar to those who have studied the conventional history of Western philosophy: the literate traditions of Ethiopia, for example, which can be seen in the context of a long (if modest) tradition of philosophical writing in the Horn of Africa. The high point of such writing has been the work of the seventeenth-century philosopher Zar'aYa'ecob. His work has been compared to that of Descartes (Appiah 1998, p.2014 Routledge<<http://www.routledge.com/>

As Teodros Kiros further observes, Ethiopia in particular and Africa in general have had written tradition. "Zara Yacob becomes the first self-conscious founder of the philosophical tradition in Ethiopia" (Teodros 2004, p.183). He gave an original and the first autobiography to Ethiopia. " Hatata", which means "investigation" or "searching", is mainly concerned with viewing the mistakes of some religions and treating various ethical and rational issues, respectively. At the heart of the "Hatata" of Zara Yacob, there is an attempt to search for the truth through critical investigation.

Reason and ethical principles in "Hatata"

Zara Yacob tried to answer many questions using his philosophical investigation called "Hatata". He wondered about the manner in which different religious followers were involved. They believe in what they hear from others rather than investigating through God's given reason (Teshome 2019, p.65). Some of these issues are questions of reality, truth, morality, and how people perceive these issues (Teshome 2019, p. 65). It is through 'the light of reason 'in the heart of human beings that all the questions are investigated, not by what we heard from others as many believers do. God to Zara Yacob created man with a reason to distinguish truth from false truth. This is the reason in the heart that strives human beings to perfection (Zara Yacob in Sumner 1985, p. 242). This approach allows us to determine and answer these questions. Truth can be discovered through the intelligence set in the heart of human beings (Zara Yacob in Sumner 1985, p. 236). To ZaraYacob, to find answers to the questions human beings aspire to know has to seek it with a reason that God is endowed in us. He is a rationalist philosopher who advocated for the priority of reason. He believes "reason" is a chief source of knowledge and advances the need for critical examination to establish truth (Teshome 2019, p. 434).

Zara Yacob's ethical principles include the principle of harmony, the equality of all men, the right of women, respecting living by the fruit of work, and other Golden rules. He discussed two kinds of law, the law of God and humans. In the daily life of humans, the law of humans has checked with the Law of God. The main reason is that human beings

are not perfect by nature. God gives us "reason" that leads to perfection. God gives humans to exercise willpower. This willpower must be checked by the law of God to avoid confusion. "God sustains the world by his order which he has established... because the order of God is stronger than the order of men" (Zara Yacob in Sumner 1985, p. 240).

Zara Yacob's ethical philosophy is centered on the principle of harmony, which emphasizes good practices that bring health, stability, and happiness to human beings. He believed that an action's morality is determined by whether it advances or degrades overall harmony in the world. Yacob referred to God as the deity, and he believed that human actions must conform to God's actions to avoid punishment. Evil actions that do not obey God's will lead to punishment. Yacob's philosophy aimed to motivate human beings to do good things that are beneficial in life. His philosophy placed emphasis on human dignity, tolerance, nonviolence, and mutual responsibility.

The equality of men. To Zara Yacob, God does not show favoritism or prejudice toward any human being, regardless of sex. We can understand this by simply using our reasoning and logic. Men and women are created equal by God and given complementary roles, each of which is essential for the continuation of generations. Contrary to both the laws of God's word and nature, all words touched by women who menstruate are impure. Zara Yacob's ethical principles, 'respecting living by the fruit of labor', were observed when he obtained a job in Habtu, the rich man's house teaching his son, and copying Plaster of David. This time, Zara Yacob started living by the fruit of his work. He thanked God who gave him this chance praise bless his work. Zara Yacob believes God bless all the work of your hands for who works hard than living in other ways that God dislike. He promoted monogamous marriage. In the Golden rules, he mentioned that killing, stealing, lying, and adultery have to be prohibited.

The social basis of Zara Yacob philosophy

Zara Yacob lived in a time of civil and religious unrest in Ethiopia. The main cause of the unrest during the time was that King Susenyos was persuaded by the Portuguese Jesuits to convert from the orthodox to the Catholic religion. Historically, in Ethiopia, the country has suffered from religious conflict for a long time. The main conflict in the country's history from the religious aspect was between Muslims and the Orthodox Christian Church, and the second conflict was between Orthodox Christians and Catholics Christians. Here, it is important to know that, in the fourth century in the Aksumite Kingdom, Christianity became the state religion of the country. Christianity in Ethiopia at the time was the Orthodox Christian Church, which was influenced by the Coptic Christian Church of Egypt (Hall 1950, p. 36). A new Islamic religion came to Ethiopia in the 7th century when Prophet Mohammad followers and relatives were impeached and fled to Ethiopia after they suffered hardship in their place in Mecca. That is, in 615-616, the first Hegira, "al-hijra al-'ula, was to Christian Ethiopia. The Prophet's first followers, the Sahaba, persecuted in Mecca and Muhammad, were ordered to seek asylum with the Christian king, al-najashi Ashama, of al-habasha." In Ethiopia, they were welcomed by the Christian king and started living peacefully (Erlich 2013). This shows the country's role in the expansion of world religion (Adejumobi 2007, p. 6). Since Christianity came to Ethiopia in the 4th century, a significant number of Ethiopians became a land for the Christian church, which continued after the 7th century to host a large number of Muslim communities (Adejumobi 2007, p. 6). However, gradually after the number of followers increased, they came into conflict with

the Christians. In 1501-43, the invasion led by Ahmad Ibn Ghazi, also known as Gagn in Amharic, called the “left-handed”, declared the Jihad war against Ethiopia. It was at this time that Ethiopia required military support from the Portuguese. The Portuguese repel the Muslim invasion with well-armed soldiers led by Christopher Da Gama and killed Gagn. Thus, the Jesuit Missionaries introduced Catholicism, and King Susenyos (1607-1632) was converted. Portugal imposed Catholicism on the people of Ethiopia. From this time on, as the philosopher wrote, all those who were not converted to the Catholic religion were persecuted (Zara Yacob in Sumner 1985, p. 231).

From these historical acts, it is possible to conclude that Zara Yacob’s philosophy is the result of both internal and external factors that led to controversies over time. The war of Muslims led by Ahmad Ibn Ghazi (Gagn) and the Portuguese forces that impose Catholicism can be considered external forces, and the conflicts among different religious groups in the country are internal factors. From these factors, we can conclude that the social and political problems of the country were the result of the birth of Zara Yacob’s philosophy to address the problem of the time. This is because when the accusation was brought against him due to his teaching, he fled to the cave where he meditated on the Psalms of David and wrote his critical reflection by hiding himself in a cave near the Tekeze River.

The researcher believes that both the social and political factors, even those that were created before he flees to the cave, had an impact on the beginning of his philosophy. It is the opinion of the writer of this article that the conflict and the division among believers in the name of God were nuisances for Zara Yacob and, at the same time, the source of his critical thinking. To exclude himself from this confusion, Zara Yacob avoided taking sides with any religious faith. Instead, he tried to understand things and connect them to the reality that he thinks is true. This helped him to transcend the idea of the society of the time. He reasoned that will is the critical source of ethics and concluded that God is revealed to reason and discredited organized religion as the way to know God. According to him, our faith should not be based on what we heard from others but rather on the intelligence that God gives us to reason. Zara Yacob reflected his opinion on followers of different faiths because he witnessed that followers of every religion claimed their faith was correct and that the other’s faith was untrue. In other words, they were defending their faith as true while refusing other faiths. Truth is interpreted according to the believers’ faith to which they belong (Zara Yacob in Sumner 1985, p. 234).

Zara Yacob is a philosopher who educated himself about the historical circumstances that were formed in his country and into his society. Thus, Zara Yacob’s philosophy is born out of existing reality and the contradictions of the human condition. He produced philosophical ideas from the historic instants of the time that was created in the society in which he was living in. The historical circumstance of the time was religious violence and conflicts in the seventeenth century in the African country of Ethiopia. In the context of animosity between various religious beliefs and controversy regarding the divine, Zara Yacob situates personal rational faith as the ultimate judge. Zara Yacob, rather than seeking truth in established religion, appealed to the reason that, according to him, was the last authority in the search for truth. The reason that Zara Yacob is located in the heart is that *āyine libona* (light in the heart) refers to deep thinking and rational investigation.

Zara Yacob attended traditional religious training within the Coptic Church while accustoming himself to the teachings of the Catholic Church introduced by the Portuguese

Jesuit missions that had been in Ethiopia since the middle of the sixteenth century. This gave him a chance to learn about both religions. After this time, he was well equipped with the doctrine of all religions in his place and concluded that rather than being loyal to the particular religion, he sought to initiate a dialog and tried to make himself whole sided by learning others' religion. Zara Yacob's philosophy concerning religious pluralism seeks to establish a secular model for achieving coexistence among members of different religions. His ideas surrounding fasting, marriage, and women's rights challenge the traditional assertions of his faith and attempt to push the boundaries of toleration and understanding. Following in the footsteps of philosopher John Hick, Yacob understands that religion is uniquely complex because each faith claims to teach its believers absolute truth—often at the cost of treating other faiths with inferiority or examining them from a biased standpoint (Hick 2005, p. 1). In response, Yacob offers an alternative approach where individuals are encouraged to employ their own rationale and come to decisions through self-reflection and introspection. This type of inclusive outlook is key in helping us navigate our increasingly globalized society and foster acceptance among diverse societies with divergent beliefs.

The central issue that motivated Zara Yacob's philosophy was how each religion professes to have the truth. In such a context rather than surrendering to the views of the Catholics, Orthodox, Jews and Muslims, who all say that they have the truth, he chooses to perform further analysis. Such an analysis is going to be made possible for God who gave us a reason, and we could discover the truth through the power of our intellect. He finally concluded that truth is one. I would simply argue that Zara Yacob is not ignorant. However, he was armed with the knowledge that allows him to transcend the thinking of the people of the time. Instead of seeing things partially, he tried by himself to reply to the confusion he observed through reasoned thinking or critical investigation.

Several times, in this work, Zara Yacob lived at a time when there was no agreement between religions in Ethiopia. In brief, such disorder was expressed by the power struggle introduced by the Portuguese imposition of Catholicism on the state religion orthodox Christian. The fierce debate in the search for authentic religion among different religious truths during the time forced Zara Yacob to critically investigate truth through the methods he developed, called 'Hatata'. From these historical facts, King Susenyos was persuaded by the Portuguese Jesuits to convert from the orthodox to the Catholic religion. Zara Yacob avoided taking sides with any religious faith, and even the religious faith the king was converted to. This testifies that Zara Yacob was skeptical toward all religions, which he pictured as distorting reality. For him, one finds religious truth as expressed in religion and religious truth as accessible to human reason. He reasoned that will is the critical source of ethics, and he concluded that God is revealed to reason that is found as "the light in our heart" and discredited organized religion as the way to know God because it is only this light that helps human beings to know God. This feature of Zara Yacob's philosophy started from his life in society. He familiarized himself with new ideas such as 'The rationality of the heart', not from scratch but his experiences in the cave and the knowledge of the Bible. Zara Yacob's philosophical view has many societal implications, especially for ideas related to ethical life. His ethics aim was to outline the situation under which human beings harmoniously live with nature. This is possible, according to him, when we investigate truth through the rationality of the heart. According to his rationality, reason

should govern rather than believing in what is simply heard from others. He developed the most prominent ethics principle of harmony.

Zara Yacob's philosophy created a rational and critical foundation for ideas passed down by Ethiopian communities from generation to generation. He critically examined many issues, including ideas such as the nature of the Supreme Being, the meaning of equality, and other issues discussed in his "Hatata". Thus, he questioned conventional wisdom as a starting point of analysis. He laid the foundation for Ethiopian philosophy by raising many issues that have to be addressed through philosophizing. Keeping its originality, Zara Yacob's philosophy speaks so powerfully, from such a privileged original standpoint at the outset of Ethiopian philosophy. For the writer of this article, it is difficult to understand either Ethiopian or African philosophy unless we properly understand the foundational and pioneering influence of our predecessors, such as Zara Yacob. His philosophy shows the prospect of an indigenous response to African problems and the beginning of a written tradition complimenting oral philosophical accounts in Africa.

Conclusion

The seventeenth-century philosophical work of Zara Yacob "Hatata", which transcends the reality of the time, is the result of both internal and external issues that led to controversies. Zara Yacob, as a philosopher, exercised the use of logic over the immediate environment and developed an all rounded philosophy arising from his and the life of the society he was living. The contribution of Sumner in introducing the works of Philosopher Zara Yacob is immense. His large publications provide permanent evidence for his contribution to Ethiopian philosophy. For the first time, he translated the works of Zara Yacob, which were written in the Ge'ez ancient Ethiopian language, to English.

Zara Yacob's "Hatata" affirms meaningful philosophical heritage in Ethiopia and Africa at large. The "hatata", as a fundamental work of Yacob, is widely quoted and comprehensive in Ethiopian philosophy. In this writing, he asserts the unique thought of God existing before any material is being and explains his idea about soul, freewill and predestination. Furthermore, the writing emphasizes the clear renaissance of ancient Ethiopian philosophical thought by using an ontological notion in the face of its antiquity.

Philosopher Zara Yacob's "Hatata" reveals the distinct philosophical reflections that have existed in Ethiopia since ancient times. Western scholars have long questioned the presence of philosophy in Africa, yet Yacob's works provided undeniable proof of the contrary. Indeed, Ethiopia, being nestled within the African continent, is a cradle of mankind, and its heritages serve as evidence that it is also a cradle of philosophical thought and civilization.

There was/is strong debate regarding the authorship of "Hatata"; however, there is no doubt that the authorship of "Hatata" is a rational grand contribution of Zara Yacob. His philosophy originated in Ethiopia, an ancient country on the African continent and an ancient country that is the cradle of human beings. Zara Yacob, an influential Ethiopian philosopher, adopted a rational and logical approach to the existence of God, truth, and ethics. He wrote about his philosophy in "Hatata", analyzing the existence of God and outlining ethical principles such as the Golden Rule, mercy, and work and identifying certain forbidden practices such as killing, stealing, lying and adultery. His analysis represents a logical and rational approach to relevant questions of morality.

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THE NATIONAL COMPETITION FOR FILLING CIVIL SERVICE VACANCIES: A JOURNEY INTO THE NEW PARADIGM OF CIVIL SERVANTS' RECRUITMENT

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Abstract: Over time, Romania's civil servant recruitment process has faced various challenges, highlighting the need for reform. While the classic recruitment model upheld principles like transparency and meritocracy, it encountered several obstacles, such as bureaucratic inefficiencies and a focus on rote memorization rather than practical competencies. In response to these issues, the National Agency of Civil Servants (NACS) introduced a new model of recruitment aiming at shifting the focus to competency-based assessments and digitalization. This article explores the initial outcomes of this new model by gathering insights from NACS personnel and former candidates. Through a series of structured interviews, these groups shared their perspectives on the strengths and areas for improvement in the new recruitment model. The results reveal notable advancements while also pinpointing opportunities for further enhancement.

Keywords: Civil service, recruitment, reform.

Introduction

The quality of public services has a profound impact on our private lives, often in ways we may not readily recognize. From accessing quality education to benefiting from reliable infrastructure, or even simply feeling secure in our communities, the efficiency and effectiveness of public administration shape the opportunities available to us and the decisions we make daily. For example, the availability of a high performing healthcare system influences not just our health but also the economy, as people tend to make life choices like where to live and work based on the quality of available services. Similarly, the efficiency of local governance impacts whether businesses choose to invest in or withdraw from certain regions. As Otto von Bismarck once said, “With bad laws and good civil servants it's still possible to govern. But with bad civil servants even the best laws can't help”, emphasizing the importance of capable individuals serving within public institutions. This connection between public services and civil servants highlights why the recruitment process is one of the most critical aspects of ensuring a well-functioning public sector.

In Romania, the recruitment of civil servants is conducted through open competitions, a process designed to guarantee transparency, competitiveness, fairness, and integrity. However, both Romanian citizens and government officials, along with the European Union and the World Bank, among others, have identified significant shortcomings that must be addressed. For instance, while the competitive nature of these exams provides certain assurances, the overemphasis on rote memorization of legislative texts over actual competencies has drawn criticism. In an effort to address these concerns, the National Agency of Civil Servants (NACS) introduced a new recruitment model in 2023. This

model, structured in two stages, represents a shift from traditional testing methods focused on memorization to a more competency-based assessment process, aimed at better identifying and selecting candidates suited for the demands of modern public service.

The goal of this article is to explore the perceptions of primary participants—namely, successful and unsuccessful candidates as well as NACS personnel directly involved in organizing the national competition—regarding the new recruitment model. Understanding these perspectives is helpful for identifying areas of improvement in upcoming rounds, especially in terms of organization, promotion and optimization of the competition's IT platform.

To gather these insights, a qualitative research approach was employed, centred on in-depth interviews. The interviewees included three civil servants from NACS, specifically from the Directorate for Civil Service Reform Operationalization, tasked with implementing this new recruitment model, as well as four candidates who participated in the national competition. Of these candidates, two were admitted and currently hold civil service positions, while the other two were not successful. Each group was asked a tailored set of questions: NACS employees focused on evaluating the organization and execution of the competition, while former candidates shared their experiences and views on the outcomes of the process. At the time of writing, several rounds of recruitment under the new model have taken place, targeting various levels of public service roles, including debutants (twice), assistants, directors, deputy directors, as well as high civil servants.

The state of play and the call for innovation in the recruitment of civil servants

The recruitment procedure in the civil service of Romania, applied for all categories of civil service positions until the introduction of the national competition and thereafter applicable only for certain categories (hereafter referred to as the classic recruitment procedure) was designed to ensure the hiring of the most suitable candidates, in accordance with principles such as meritocracy and transparency. In this sense, the filling of vacancies within public institutions was realized through a contest, announced and advertised through open channels of communication so that the information could reach any interested person. Any individual was allowed to apply, provided that he or she met the conditions of employment for the position to which they applied, conditions that are clearly communicated once the announcement of the contest is published. Additionally, given the public nature of the competition, this method allowed a certain degree of public scrutiny, while the verification of test results by specialists provided some assurance that one individual was correctly chosen over another (Carausan, 2012).

The classic recruitment procedure involves a series of formalities to be met by both the organizing public institution as well as the candidates. First of all, the public institution has to notify the National Agency of Civil Servants (NACS), the governmental organization responsible for civil service and civil servant management, prior to the publication of the competition announcement regarding its desire to fill a vacancy (Săvulescu, 2023). This announcement shall be posted both on NACS' website and the public institution' website (i.e. where the vacancy to be filled is located), at least 30 days before its deployment (date of the written exam) or exceptionally 15 days if the position is only temporarily vacant and is located at the executive level (G.E.O. no. 57/2019 on the Administrative Code; Săvulescu, 2023). According to existing legislation (Annex no. 10 of G.E.O. no. 57/2019), the same announcement shall include information related to the identification of the public

organization, identification of the position (i.e. title, professional grade and class, structure), date and time of testing, conditions for participation, registration period, bibliography and lastly the attributions of the position. Furthermore, a competition selection committee and a committee for settling possible appeals are formed. Generally, these will be made up of civil servants from within the public institution in question, but there may also be situations in which a NACS or prefect's institution official is assigned within these committees, e.g. for managerial positions (G.E.O. no. 57/2019).

In the classic recruitment procedure, candidates are required to physically assemble and submit their dossiers. In other words, the person wishing to undergo the examination will first check the competition announcement for the time period allocated for dossier assembling and submission, then make copies of each required document, place them in a physical file and proceed to the public institution office where the vacancy exists. In addition to these copies, the candidate will also have the original documents with him/her for comparison. Alternatively, he/she can directly present certified copies, thus avoiding the need of bringing the original documents. Once there, he/she will be greeted by the secretary of the competition selection committee, who will make a written record of the documents enclosed and, where appropriate, will ask the candidate to write the phrase "in conformity with the original" on certain copies.

Once the deadline for submitting dossiers has closed, the competition selection committee checks the content of the files to ensure that candidates fulfil all the conditions stipulated in the competition announcement. Subsequently, candidates whose dossiers are complete will be admitted and those with incomplete dossiers will be rejected. If a candidate considers that he/she has been wrongly assessed, he/she may lodge an appeal, which will be dealt with by the appeals committee. Once they have passed this stage, candidates may take part in the actual examination, which consists of a written exam based on the bibliography mentioned in the competition announcement, an interview and, where appropriate, an additional exam.

If an additional exam has been included, it will be taken first and only candidates who pass it may proceed to the written one. The interview will be attended only by those who have passed the written exam. During the testing procedure, dissatisfied candidates may lodge appeals which will be either admitted or rejected. In the end, the candidate with the highest score will be appointed (G.E.O. no. 57/2019).

While the classic recruitment procedure does help to ensure a body of professional civil servants, it is not without its weaknesses. Examining the manner in which human resource management (HRM) is carried out in the public sector, both national and international organizations, as well as experts from academia have pointed out various structural problems that lead to failure in fully achieving the government's mission in this particular area (Word Bank, 2020; NACS, 2022; 2023a; 2024a; The Romanian Government, 2023; Transparency International Romania, 2023; Săvulescu, 2023). Among them, the most urgent and impactful ones include:

the exams are designed in such a way that too much emphasis is placed upon memorizing and duplicating legislative texts and too little on assessing the actual competences of an individual;

the classic recruitment procedure implies a lot of human involvement, which sometimes leads to errors or preferential treatment;

politicization of public service and the existence of clientelist relationships;

lack of a unitary approach to HRM / fragmentation of HRM practices;
insufficient HR strategic planning;
ineffective forms of communication and advertising regarding competitions to fill civil service positions;
a constant ageing trend in the civil service with an average age of 49 in 2023;
job stability as the main factor of attraction rather than the opportunity to serve society;
the rather negative view of citizens towards the state in general and the recruitment of civil servants in particular;
the mandate and technical capacity of NACS needs to be clarified and improved.

In light of these structural issues, it has become clear that the classic recruitment procedure requires a major reform. To address these shortcomings and to ensure the necessary competencies in carrying out activities of general interest, a new model known as the National Competition for filling civil service vacancies was introduced in 2023.

The national competition for filling public service vacancies

The concept for this new recruitment model originated from a key deliverable of the World Bank, provided to Romanian authorities under the SIPOCA 136 project. This project aimed at developing an integrated strategic human resource management system capable of supporting a modern, high-performing, inclusive, and innovative public administration (NACS, N/A). One of the specific objectives of the project was to create a competency framework aligned with an objective and inclusive system for recruitment and performance assessment, based on performance indicators and salary policies within the public administration (NACS, N/A). The project beneficiary was the General Secretariat of the Romanian Government, in partnership with NACS and the Ministry of Labour and Social Solidarity. Implemented between November 2017 and September 2022, it was co-financed by the European Social Fund through the Administrative Capacity Operational Program 2014-2020 (NACS, N/A)

The deliverable (World Bank, 2020) outlines that: *„The new model for the central public administration will be structured in two main stages: (I) a national competition, as the first step, which leads to the creation of a pool of preselected candidates and (II) an on-the-job competition, organized by each public institution. (...) The national competition model is based on: a strategic human resource planning process, grounded in the necessary competencies; a clear sequence of steps, along with a solid distribution of roles and responsibilities for the relevant actors involved; an efficient publicity process that reaches the target audience; a streamlined, digitalized application phase that simplifies eligibility verification; transparent, merit-based testing focused on competencies; and a rigorous audit trail embedded in the IT tools intended for use.”*

Today, these elements constitute the foundation of the national competition model. At the same time, the deliverable addresses various aspects, ranging from workforce planning to both preliminary and advanced testing; from the introduction of psychometric assessments (verbal, numerical, and abstract reasoning) to the operationalization of testing and assessment centres (World Bank, 2020). Moreover, some features of the national competition such as the existence of two stages, the numerical, abstract and verbal reasoning, the placement of successful candidates in a pool of eligible individuals for selection, also point out to the EPSO recruitment procedure used by certain EU institutions, which seems to be one of the sources of inspiration for the new recruitment model.

The first mention of the national competition in the Romanian legislation occurred in 2019, with the adoption of the first-ever Administrative Code (through G.E.O. no 57/2019), which merged and supplemented the legislation in the field of civil service and civil servant. In this initial version of the Code, article 467 (3) c), stipulated that the competition for filling of state (central level) and territorial (county level) civil positions, except for those under special statutes, has two stages, namely the recruitment stage and the selection stage (G.E.O. no 57/20219). Together these two stages form the new civil service recruitment model. However, another stipulation of the Code, namely article 597 (1) d) stated that the above-mentioned provisions shall enter into force on January 1, 2022 (G.E.O. no 57/2019). Despite the fact that the period between the first reference and the date on which it was foreseen to enter into force seemed to be rather generous, the Romanian Government decided in 2021 (two days before January 1, 2022, to be precise) to amend the deadline, so that the two stages would be applicable starting September 30, 2023 (G.E.O. no 138/2021).

Another key legislative moment was marked by the adoption of Government Emergency Ordinance no. 191/2022, which introduced Annexes 8 and 9 to the Administrative Code. The new recruitment model is intended, among other things, to ensure the shift from the memorization testing paradigm to one in which the person's competences are being assessed. But how can something that is not defined be tested? Thus, the aforementioned Annex no. 8 establishes the framework of general and specific competences, i.e. it defines those competences that any individual who wants to hold a civil service position must have. According to this normative act (Annex 8 to G.E.O. no 57/2019), there are five categories of general competences, as shown in figure no. 1.

Figure 1. Categories of competences

Competence category	Competences
Personal efficiency	Problem solving and decision making
	Initiative
	Planning and organization
Interpersonal efficiency	Communication
	Teamwork
Social responsibility	Citizen orientation
	Integrity
Managerial competences	Performance management
	Team development
Leadership	Generating commitment
	Promoting innovation and initiating change

(Source: the author, based on the provisions of articles 8-9 of Annex no. 8 of the Administrative Code)

Additionally, the same normative act (Annex 8 to G.E.O. no 57/2019) establishes: descriptors and indicators for each general competence; that managerial competences are assessed only for managerial civil positions and those in the category of high civil servants; that leadership competences are assessed only for certain categories of managerial civil positions such as general director, deputy general director, director, deputy director, executive director, deputy executive director, as well as high civil servants; that specific competences are established at the level of each public institution, in compliance with the procedure set out in Annex no. 8.

In addition to the competences framework, G.E.O. no. 191/2022 also introduced Annex no. 9 to the Administrative Code, which sets out the organization and execution of the pilot-project for the national competition. The pilot-project was dedicated only to debutants and high civil servants, i.e. the two ends of the civil service spectrum. This annex provides in detail information related (but not limited) to: the method used by public institutions to forecast their personal needs (debutants and high civil servants), as well as the way in which NACS is informed; the content and the publishing space for the competition announcement of the pilot-project; rules regarding the formation of competition recruitment committees and the committees for settling any eventual appeals, as well as their duties; the specific tests for each stage and the manner to conducted them; rules on filling the positions reported by public institutions in the pilot-project; the manner in which interested individuals access the competition IT platform, create their account, build their dossier, apply for the competition, access practice questions and choose their testing centre; how the eligibility of candidates is verified; marking the exams, settling appeals, publishing the results and managing the group of admitted candidates; organization and conduct of the selection stage (on-the-job competition); audio-video recording of testing; appointment of civil servants.

All these aspects were taken into account during the actual implementation of the pilot-project, in the spring of 2023. Through the European-funded project SIPOCA 870, NACS inaugurated the new model of recruitment in the civil service, based on the introduction of two stages (recruitment and selection); on the launching of an IT platform where interested persons could submit their digital dossier; respectively on the first-ever testing of cognitive aptitude and general competencies defined in Annex no. 8 of the Administrative Code (in addition to testing knowledge in the field of public administration, equal opportunities between men and women, non-discriminatory treatment, digital competences and, only for high civil servants, communication skills in an internationally spoken language). Following the recruitment stage of the pilot-project, a total of 191 debutants and 21 high civil servants were admitted (NACS, 2023b). They did not automatically become civil servants but earned the right to participate for a period of three years in the selection stage, i.e. to participate to on-the-job competitions organized by the public institutions holding vacancies, a right that those who did not go through this procedure or who were rejected do not have.

The main advantage of piloting a project is to identify what is working well and what needs to be improved. And in order to avoid tunnel vision, NACS decided on commissioning an ex-post analysis of the pilot-project. Accordingly, Romania's National Recovery and Resilience Plan (NRRP) included milestone 416, which called for the ex-post analysis of the national (pilot) competition to be carried out by the second quarter of 2023 (Council of the European Union, 2021). Benefiting from European funding, NACS co-opted Transparency International Romania through a public procurement procedure in order to conduct the ex-post analysis. Among the main findings of the analysis, the following can be listed (Transparency International Romania, 2023):

The pilot-project met to a high extent the executive staffing needs of public institutions and to a partial extent the staffing needs of high civil servants (due to the reluctance of public institutions to communicate their staffing needs for this category and due to the practice of filling positions through temporary appointments rather than through competitions).

The pilot-project addresses the levers, not the causes of the politicization of public administration (at senior management and high civil service level) and although it leads to increased professionalism, performance and integrity, the sustainability of the project depends on maintaining political will at high level in the medium and long term.

49% of the potential candidates surveyed by Transparency International Romania consider that the pilot was organized well or very well, while the actual candidates (80% of them) were generally very pleased with the project organization and transparency (with one exception related to the usefulness of training exercises).

The access to some of the information available in the competition IT platform needs to be rethink and better presented to members of the competition and appeals committees because it did not provide sufficient transparency in certain processes.

The estimated cost of recruitment through the pilot-project is efficient compared to historical cost estimates in the context of digitization of the recruitment process.

The recruitment model achieved is based on merit, which confirms that the pilot-project achieved its objectives, but needs to be supplemented by other reforms in order to ensure significant results.

This feedback may prove valuable in designing the next rounds of the national competition. The latest key legislative milestone places us in the current paradigm. In December 2023, the Romanian Government adopted G.E.O. no. 121/2023 which introduced Annex no. 10 to the Administrative Code. It sets out the rules for the career development of civil servants and thus regulates the extended national competition (i.e. all rounds of the national competition organized after the pilot-project). Thus, the new recruitment model requires two stages: the recruitment stage (also known as the national competition, organized by NACS) in which general knowledge and competences are assessed and the selection stage (also known as the on-the-job competition, organized by the public institutions that have vacancies) in which specific knowledge and competences are assessed. The new recruitment model is being implemented gradually, first for the central public administration and then, starting in 2026, for the local public administration. Until then, the classic recruitment procedure still applies for local public administration. The financing of the national competition rounds until 2026 is also based on the National Recovery and Resilience Plan with Milestone 417 stipulating the organization of at least two national competitions for at least 3 categories/grades of civil service positions annually (Council of the European Union, 2021).

From a procedural point of view, the new model starts with the elaboration by NACS of a recruitment plan for civil servants and its approval by Government Decision. This plan foresees the staffing needs of central and territorial public institutions for a period of two years (Annex no. 10 of G.E.O. no. 57/2019). Concerned public institutions will determine their personnel requirements (i.e. the number of vacancies and projected vacancies they wish to fill through the national competition) and will send it to NACS to be centralized (Annex no. 10 of G.E.O. no. 57/2019). The legislation in force (Annex no. 10 of G.E.O. no. 57/2019) also stipulates that once communicated, civil service positions cannot be filled by other means, such as conversion to contractual-based positions or to positions of another professional class/grade; transfer, definitive relocation; nor can they be reduced (except through institutional reorganization by reducing the number of positions). Moreover, for the first rounds of the national competition, public institutions concerned had to ensure (even through transformation, if necessary) a minimum of 10% of positions in the category

of debutants and assistants, out of the total number of vacant public executive positions (Annex no. 10 of G.E.O. no. 57/2019). One can thus observe NACS' attempt to address on the one hand the criticism regarding the lack of strategic HRM planning, and on the other hand the aging trend of the civil servants body. Subsequently, the announcement on the organization of the recruitment stage of the National Competition will be published in the Official Journal of Romania and on NACS's website (NACS, 2024b).

NACS has also pursued the digitization of the recruitment process and introduced a competition IT platform, where almost all the processes related to recruitment take place. Thus, the first step for interested individuals is to access the aforementioned platform, to create an individual profile by uploading various documents (which can be permanently updated), to identify the national competition (in the „available competitions” section), to assemble their dossier (by filtering the documents already uploaded in the profile) and apply for the competition (Annex no. 10 of G.E.O. no. 57/2019). According to the same Annex, the submission of the electronic dossier must be done within 20 calendar days from the competition publication's date and must contain: the application form (available on the platform); a copy of the identity card; proof of name change, if applicable; copies of the educational degrees; proof of employment period (with focus on the field of studies); copy of the master's degree in public administration, management or other studies useful for a vacant position (requirement for civil service management positions and those in the category of high civil servants); proof of completion of the training course for high civil servants organized by the National Institute of Administration (only for positions in the category of high civil servants).

Following the expiration of the 20-day period, the dossiers will be examined, again via the IT platform, by an eligibility verification committee to ensure that candidates fulfil all the conditions stipulated in the competition announcement. These committees are composed of three members, two of which are from NACS, and one of which is appointed either from the Ministry of Development, Public Works and Administration (NACS hierarchical superior institution) or from the public institution that has the highest number of public positions foreseen in the Recruitment Plan (Annex no. 10 of G.E.O. no. 57/2019). After the examination, the committee will decide on the rejection or admission of the applicants and the results will be published, with the possibility of lodging appeals by dissatisfied candidates through the IT platform (Annex no. 10 of G.E.O. no. 57/2019). The appeals are settled by a special committee set up for this purpose in the same manner as the eligibility verification one. Afterwards, successful candidates can choose the testing centre where they will take the next exam (there are 9 centres in 8 regions of Romania), namely the preliminary testing (NACS, 2024b).

Within the preliminary testing the following requirements shall be assessed (NACS, 2024b): general knowledge in the areas of respect for human dignity, protection of human rights and fundamental freedoms, preventing and combating incitement to hatred and discrimination, equal opportunities and equal treatment; general knowledge of public administration; digital competencies; candidates' cognitive abilities; general knowledge of written communication skills in a foreign language widely used in the European institutions, namely English, French, Spanish or German (only for high civil servant).

According to law (Annex no. 10 of G.E.O. no. 57/2019), the questions from the first two above-mentioned categories are developed by NACS representatives, in partnership with the Ministry of Development, Public Works and Administration and members of academia

(university professors from faculties specialized in public administration). For digital and foreign language proficiency, NACS purchases test sets validated by a public or private entity specialized in that respective field, either from Romania or abroad, or by an educational institution with a relevant department (Annex no. 10 of G.E.O. no. 57/2019). Lastly, the legislation (Annex no. 10 of G.E.O. no. 57/2019) stipulates that cognitive abilities are tested using instruments endorsed by the Romanian College of Psychologists. For each subject, the items are single-choice grid questions and are administered on a computer provided in the testing centre, within a maximum of three hours (NACS, 2024b). For the preliminary testing, there are also competition committees and appeals committees. Following the preliminary testing comes the advanced testing. This is aimed at identifying the presence (and level) of the general competences set out in Annex no. 8 of the Administrative Code. However, it should be mentioned that the manner of conducting the advanced testing differs according to the category of civil service. Thus, for executive positions and for those of head of service, director, deputy director, executive director and deputy executive director (who do not manage public institution), the advanced testing consists of a situational questionnaire administered after the preliminary testing (Annex no. 10 of G.E.O. no. 57/2019). However, for general directors, deputy general directors, executive directors, deputy executive directors (who manage public institutions) and for high civil servants, the advanced testing takes place at a later date, in an assessment center where only candidates who have passed the preliminary testing are present (Annex no. 10 of G.E.O. no. 57/2019). There, candidates go through a series of individual and group exercises, such as case study and role-play, being evaluated by a series of experts through direct observation of behavioural indicators that constitute general competencies (Annex no. 10 of G.E.O. no. 57/2019).

After the final results are published, NACS manages the pool of admitted candidates via the competition IT platform. For a period of three years, these candidates have the right to apply for the on-the-job competition, which constitutes the selection stage. At this stage, specific knowledge and competences are examined for each job. According to the legislation (G.E.O. no. 57/2019), individuals who are already civil servants may also participate in this stage, as long as they fulfil the conditions of employment and the position they currently occupy is either in the same category, class and professional grade as the position for which they are applying, or higher. Otherwise, the civil servant in question will have to participate in a special session of the national competition, in which only the advanced testing takes place (G.E.O. no. 57/2019). During the selection stage, selection and appeals committees will also be established, consisting of civil servants from within the public institution where the competition is held, and for high civil servants, of five persons appointed by the Prime Minister upon the proposal of the Minister in charge of public administration (Annex no. 10 of G.E.O. no. 57/2019). The announcement of the competition, the submission of dossiers and the eligibility verification will also be carried out on the competition IT platform. In terms of testing, the written exam and the interview are mandatory during the selection stage, while an additional exam, aimed at assessing specific competences is optional (Annex no. 10 of G.E.O. no. 57/2019). Once the competition is over, the candidate with the highest score can be appointed.

With the new recruitment model fully outlined, it is important to understand how the different parties involved perceive and respond to this reformed approach. Assessing these

perceptions helps ensure that the model allows for timely adjustments that enhance the system's long-term effectiveness and fosters public trust.

A perception on the conduct of the national competition

The first group interviewed consisted of NACS personnel directly involved in operationalizing the new recruitment model.

With reference to the main difficulties encountered in designing and implementing the reform, the three civil servants emphasized:

Adapting the existing legislative and administrative framework to fit the new requirements set by the reform, in the sense of replacing some traditional practices in the recruitment process, which everybody knew, with some modern ones. Thus, resistance to change emerged, both administratively and politically. Extensive discussions were needed in an attempt to both persuade and promote the advantages of the national competition among management and human resources personnel within public institutions.

Financial and personnel constraints. The significant scale of the reform entailed costs that NACS would not have been able to cover in the absence of European funding instruments. Nevertheless, considerable effort on the part of NACS personnel was required to ensure access to these financial instruments. At the same time, the team dealing with the reform was not particularly numerous, which meant that the personnel were overburdened.

When asked to explain why the national competition is a necessity, NACS interviewees referred to countering speculation about illicit civil service hiring procedures through decreasing the human factor parot, increasing transparency and fairness, but also through changing the way of examination (from memory-testing to competence assessment). Rejuvenating the administration, which is facing an ageing trend, by bringing in open-minded, flexible and result-oriented people, was also brought into the discussion.

In relation to the collaboration between NACS and various stakeholders involved in the national competition's implementation, several strengths and areas for improvement were identified. Overall, a common strength highlighted across responses was the collective effort and shared commitment among the involved parties. In particular, the active involvement of academia was seen as crucial, providing support without financial incentives and strengthening trust in the project despite financial constraints. The collaboration also bolstered the credibility of the initiative, especially with the involvement of entities like the Ministry of Development, Public Works and Administration and the National Institute of Administration, which provided critical support during the process.

However, the communication between NACS and the private organization that was co-opted through a public procurement procedure could be improved. There was a recurring concern about their understanding and integration of the administrative system's unique constraints. Issues with communication and synchronization between teams were also noted, affecting the execution and consistency of the national competition's advertising campaigns. This points to a need for better coordination and clearer expectations from the outset.

In regard to the development and utility of the competition IT platform, respondents recognized its importance as a vital tool for modernizing the civil service recruitment. A common theme among the responses was the acknowledgment that the platform represents a significant step forward in increasing the efficiency, accessibility, and transparency of the recruitment process. Furthermore, respondents noted that the platform is proof that

public administration is opening up to digitalization, signalling an embrace of technological advancements as a means to improve public services. The platform also facilitates higher levels of transparency by reducing physical interactions between candidates and the competition committee, and by eliminating out-dated practices, such as the reliance on paper applications. It was also highlighted that predicting all the functionalities required was difficult at the outset, but the piloting of the project provided valuable insights into areas needing improvement. Respondents pointed out that the ongoing technical assistance through 2026 offers the opportunity to refine and update the platform in response to practical experiences during each competition round. To ensure the platform's optimal performance, continuous monitoring and adjustments were deemed essential to address technical issues and enhance the user experience.

In terms of advertising campaigns for the national competition, respondents were satisfied with their extensive efforts to persuade individuals to take part in the new recruitment model. A key positive theme was the multi-channel approach employed in the campaigns, which involved both online and offline strategies. These included brochures, social media platforms such as Facebook, Instagram, and LinkedIn, television appearances, and participation in job fairs and university visits. Respondents noted that these efforts resulted in a significant number of candidates applying for the debutant and assistant positions, with over 1,000 applicants. Additionally, respondents underscored that the campaigns were well-structured. However, while the general sentiment was that the promotion campaigns were successful, some opportunities for improvement were noted. Specifically, tailoring the messaging to different audience segments was suggested as a way to enhance future efforts, ensuring that the right information reaches specific groups.

Lastly, interviewees were asked (regardless of their affiliation to NACS) how they envision further civil service reform. Lastly, the interviewees were asked about their personal vision (meaning not the institutional vision of NACS) on how they envision the civil service reform to continue. They stressed (I) extending the model to include the local public administration; (II) launching digital competence development activities among local public administration in order to have the prerequisites for a successful take-up of the new recruitment model; (III) organizing public consultation sessions to involve citizens more actively in the reform process and to ensure that the measures adopted respond to the real needs of the community.

The second group interviewed comprised former candidates in the national competition. In the first part of the discussion, candidates were asked to assess the usefulness of the reformed recruitment model, which introduced a second stage and changed the testing criteria and methods. Both successful candidates strongly supported the new model, finding the focus on different competences across stages appropriate. They agreed that testing cognitive abilities, IT skills, foreign languages, and public administration knowledge covered the needs of future civil servants. They also emphasized that the reform makes the testing process more rigorous, with one of them believing that it provides reassurance about the qualifications of those who pass it. The unsuccessful candidates also acknowledged the model's relevance and offered suggestions. One attributed her failure to inadequate preparation, not to the process itself, and recommended adding graphical elements throughout all of the IT section (not only for certain questions). The other suggested displaying a timer consistently across all tests to help candidates manage time effectively (e.g. missing from the cognitive abilities examination).

Next, former candidates were asked to give their opinion on how the national competition was organized. All four candidates agreed that the organization of the national competition was strong, with clear and transparent communication. Two of them noted that the candidate's guide was particularly useful. One of the unsuccessful candidates described the organization as well-managed and ethical, with no negative aspects to highlight. The other unsuccessful candidate suggested shortening the response time for appeals, given that test re-evaluations are also conducted through the IT platform, as well as the organization of the competition twice a year for the same professional category.

With reference to the competition IT platform, 3 out of the 4 candidates were satisfied, saying that it is intuitive and that information is easy to find. The fourth candidate did not agree and was dissatisfied with the platform. She considers that the platform is not intuitive enough, and has security mechanisms and other fields that make the process cumbersome. Afterwards, candidates were asked what the national competition experience meant to them. All interviewees saw the competition as a valuable opportunity to showcase their skills in a competitive environment. One highlighted how the focus on meritocracy and competitiveness boosted their confidence in the fairness of the process. Another candidate viewed it as a significant step in personal development, pushing them beyond their comfort zone. Regarding the other two candidates, while the process was emotional, they valued the exposure to topics that later became relevant in their careers, whether in public or private sector.

When asked to evaluate the advertising campaigns for the national competition, successful candidates generally appreciated their effectiveness. They praised the campaigns on social media for being well-structured and helpful in guiding them through the procedure. One of them suggested that more webinars/face to face events should be held before each round, in order to clarify vague topics. Additionally, they proposed including testimonials from unsuccessful candidates too, in order to learn from their experience. In contrast, the unsuccessful candidates had more mixed feelings. One noted that while the information effectively circulated within university environments, broader outreach could be improved. The communication channels employed (e.g. Instagram, Facebook and LinkedIn) were considered adequate. The second unsuccessful candidate felt that the campaign had little to no visibility, only finding out about the competition through university colleagues.

When asked how their perception of the civil service had changed after the competition, one successful candidate remarked that they realized the role of a public servant requires more than theoretical knowledge. It demands strong communication, organization, and resource management skills, along with a focus on citizens' needs. Another admitted candidate and one of the unsuccessful ones stated that their positive perceptions remained unchanged, while the other unsuccessful candidate noted that the experience highlighted the professionalism within the field, motivating them to try again in the future.

When asked about potential changes to the recruitment model, one unsuccessful candidate suggested making the IT questions more applied, incorporating visual elements rather than relying solely on theory. The other unsuccessful candidate suggested reducing the amount of information on the IT platform and in the candidate's guide as too much detail can be confusing and cause delays, recommending that only essential information should be provided. One of the successful candidates recommended adding elements that test the candidates' ability to apply theoretical knowledge to practical situations (e.g. case studies

that simulate real-life decision-making scenarios). The second admitted candidate suggested extending the recruitment model to local public administrations as well.

Conclusion

The quality of public services is inherently linked to the competence and dedication of civil servants, making recruitment a key pillar of effective governance. As highlighted throughout this research, the classic recruitment system in Romania, while grounded in meritocratic principles, has faced several persistent issues. Among these challenges are the overemphasis on rote memorization in examinations, high levels of human involvement that lead to potential errors and/or preferential treatment, politicization of public service, lack of strategic planning and an aging workforce with a steadily increasing average age.

The new recruitment model, introduced in 2023 through the National Competition, addresses a significant portion of these deficiencies. The model introduces a competency-based framework, which is more aligned with the practical demands of public service roles. At the same time, introducing a recruitment plan addresses the need for strategic HR planning in public administration.

The perspectives of stakeholders involved in the national competition, as discussed in the article, provide valuable insights into the model's implementation. The organization of the competition was largely viewed as effective, with participants appreciating the transparency and structure of the process. However, areas for improvement were noted, particularly regarding the communication and coordination between NACS and external service providers (private actors). The advertising efforts, which included multi-channel campaigns through social media and universities, were generally well-received, yet suggestions were made to enhance outreach to broader audiences, particularly outside academic circles. For the candidates, the competition represented a meaningful opportunity to engage with a modernized recruitment process. Many saw it as a rigorous and transparent system that reinforced their confidence in public administration, though some recommendations were made regarding the content and structure of the testing, especially in terms of IT-related questions.

Looking ahead, the findings suggest that while the new model has brought substantial improvements, further refinements are necessary. These include enhancing communication and advertising campaigns and refining the IT platform in order to be more intuitive. At the same time, NACS should seek to reduce resistance to change among people within the political-administrative system and to extend the new recruitment model to local public administration. By continuing to build on these advancements, Romania can ensure a more capable and responsive civil service, better equipped to meet the needs of the public and to maintain the integrity of its institutions.

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