THE EFFECTIVITY OF TECHNOLOGY AS A COMMUNICATION TOOL IN LOCAL MUNICIPALITY OF SOUTH AFRICA

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Abstract: Over the last few decades, there has been a significant increase in the use of internet and information technology, which has influenced various government departments to shift their traditional strategies of communication to digital methods of communication. The emergence of technological advancements improves the communication in the local government sphere. The problem of delayed communication between municipalities and its residents. This paper sought to investigate the role played by technology in enhancing communication between King Sabata Dalindyebo Local Municipality with its residents. To showcase the impact played by technology on issues of local government, the open systems theory was utilised as a theoretical foundation of this paper. The literature indicated that technology plays a fundamental role in the communication process between local government and its stakeholders. Studies conducted in this research area revealed that technology plays a pivotal role in the dissemination of public information to the residents. This paper adopted a mixed method approach and a case study research design. The quantitative data was collected through closed ended questionnaires while the qualitative data was collected through semi-structured interviews. This paper sampled a total of 96 participants in the King Sabata Dalindyebo Local Municipality through simple random sampling technique in the few selected different wards of the municipality. The closed ended questionnaires were distributed to 90 participants while 6 municipal officials were interviewed. The quantitative data was analysed using SPSS while the qualitative data was analysed through a thematic approach. The study found that technology is not fully utilised as a communication tool between the municipality and the residents. The study revealed that traditional and modern ways of communication are integrated by the municipality to communicate with the residents. The study concluded that technological advancements must be exploited by the King Sabata Dalindyebo Local Municipality to improve communication with its residents. The paper further recommended that new software applications must be developed by the municipality to improve communication with the residents.
Keywords: Technology; Communication; Residents; Local government; Municipality

Introduction and background

The public sector has been forced to adapt to the introduction of new technologies to enhance communication with the residents. Communication is defined as the process of transmitting and receiving of information among people, and this sharing of information can take place either face-to-face or through electronic or technological means of communication (Venter, 2019). Milakovich (2021) noted that in the modern days, there is a notable symbiotic relationship between technology and communication more-especially in the public sector. Technology is defined as the alteration or control of the human

environment, is the implementation of scientific knowledge to the goals of everyday life (Britannica, 2024). It is therefore the interest of this paper to investigate the effectiveness of technology as a tool of communication within local government, and in this regard King Sabata Dalindyebo Local Municipality in the Eastern Cape province of South Africa has been used as a case study. The 4IR is commonly defined by the technological advancement and disruptive developments in the private and public sectors worldwide (Esposito, & Kapoor, 2022). Koh, *et al* (2019) characterizes the 4IR with the recent popularization of the Internet of Things (IoT) and Cyber-Physical System (CPS), whereby capitalizing on the two emerging technologies brings hope of smoothening the connection between information and people. When considering the 4IR, the private sector has been the most responsive, but the public sector has also had to adapt to this new reality (Chalmers, 2021). The "e-government" term refers to the concept of electronic government, which is widely regarded as the focal point of almost all public sector innovation and as a conceptual platform for testing out different information and communication technologies in government (Adeniran & Adafin, 2022). In this regard, e-government reforms have always aimed at automating public service delivery models, whether they are implemented in the context of developed or developing countries (Dhaoui, 2022). As a result, it is also considered an electronic replica of an actual autonomous government, which is now enriched using a wide range of digital technologies for its primary operations: capturing, processing and delivering public information to its key stakeholders, namely citizens and government (Kassen, 2022). Zervoudi (2020) states that government lacks innovation and the capacity to instantly adapt and easily adopt the innovation introduced by the fourth industrial revolution. However, Allin (2021) states that government is making amends and is gradually embracing the integration of technological aspects to service delivery. Due to the complexity of government, the adoption of technology is low, because of the social hierarchy where people are not equal and thus cannot instantly adapt to digitally offered services. This paper is encouraged by the digitalization of government and is thus interested to assess the use of introducing technology as a tool to enhance service delivery and local government efficiency.

Problem statement
Despite the fact that the digitalization of governance is not a new phenomenon (Criado, 2021), citizens or residents frequently struggle to engage municipalities on issues of local government. This study identified poor communication between local government and the residents as a problem and thus seeks to assess the extent of the usage of technological opportunities in promoting communication between local government and the residents. Put differently, the idea is to establish how the Municipality has taken the advantages of technological developments to promote efficient and effective communication with its residents. To achieve this, King Sabata Dalindyebo Local Municipality is used as a case study. The study also intends to identify theoretical gaps in literature pertaining to how technology affects or influences communication.

Aim of the study
The primary intention of this article is to investigate the effectiveness of King Sabata Dalindyebo Local Municipality in using technology as a communication platform with its residents.

Theoretical Frameworks

This paper adopted the open systems theory as its theoretical foundation. The open systems theory was introduced in 1956 by a biologist named Ludwig von Bertanlanffy. It began as (scientific) biological theory, but due to its applicability, it spread to other disciplines or fields of study. Hence, Katz and Kahn (1966) extended the open system concept to organizations. The organisation is viewed as an energetic input-output system, with the output energy reactivating the system. Due to their material interactions with the environment, social organizations are open systems. Ghiat, *et al* (2021) indicate that there are two types of systems, namely closed and open. Adams and Lanford (2021) define a closed system as structures, relationships and interdependent entities that are totally separated - or "cloistered" - from their environment. In contrast, an open system freely trades information, resources and energy with its social and cultural context, and its equilibrium is determined by these transactions (Sony & Naik, 2020). The fundamental idea of an "open system," according to Hanna (1997) and Kristian (2019), is that all organisations have the same traits as other living organisms. An organisation is an open system as, in theory, it is similar to living organisms in that it depends on its surroundings for development, maintenance, and goal achievement (Jackson, 2019). Because an organisation is an open system, its survival depends on its ability to interact, adapt, and cohabit with its surroundings. When making decisions or putting in effort to accomplish goals, organisations need to view environmental impacts as an open system. As mentioned earlier, if an organisation ignores its surroundings, it will not be able to grow and prosper (Contreras, *et al,* 2020). Like other public organisations, municipalities must evaluate their external environment since it affects their decisions, either directly or indirectly. A wide range of factors make up municipalities' external environment, including households as the primary stakeholders, the climate, the political environment, the cultural environment, and the technology environment (Ndaguba & Hanyane, 2019). Since these elements are a component of the municipality's external environment, they must be considered when providing services (George, 2021). Since technology is the subject of this study, the municipality should view it as a chance to improve communication with the public by not only informing them about services but also getting their input on those services (Rotta, *et al,* 2019). Technological advancements are a constant, and for municipalities to remain relevant to their constituents, or the external environment, they must adjust as open systems. It should be noted that municipalities must adapt to provide services in an effective and efficient manner, as their external environment is always changing and beyond their control (Mees, *et al,* 2019). The writers highlight that an organization's potential to grow and endure depends on its environment. It is widely believed that municipalities must use technology to successfully interact with their inhabitants (Kim & Kreps, 2020). According to Kassen (2022), citizens can now communicate and use government services without physically visiting municipal offices because to the introduction of technology in government. Therefore, because technology is now part of the external environment, many municipalities have adopted the use of technology in service delivery (Schoeman & Chakwizira, 2023).

Literature Review

The importance of effective communication in government

Communication is essential in all spheres of government. The residents in local government and other government agencies at national government rely on municipalities for a variety of information (Zeemering, 2021). As a result, a communication strategic plan is required for every institution that needs to make changes, implement policies or projects, and to share information effectively (Farinloye, *et al,* 2020). A strategic communications strategy is a written document that outlines and guides the institution's communication initiatives (Einsohn & Schwartz, 2019). Strategic communication strategies provide a solid framework for residents' communications and marketing initiatives to take place through the appropriate channels (Mahoney, 2023). Local government, as the closest sphere of government to the people, needs to maintain continuous and effective communication with its residents about the new developments within the municipality (Munzhedzi, 2020). To do this, municipalities utilize various platforms to reach out to the residents and these include newsletters, social media, public television and radio (Rodríguez, Svensson & Mehl, 2020).   Furthermore, the mandate of local government as outlined in the Constitution of 1996, requires that communication of municipalities should improve access to information, allowing the residents to participate in the affairs of local government. Mthethwa, *et al* (2023) state that the more residents understand local government issues and regulations, as well as how their objectives are acknowledged, handled and executed, the more trust they will have in the capacity of their municipality, and this makes communication so important in local government. The use of technology as a communication tool thus becomes an important platform for municipalities to engage their residents (Hatuka & Zur, 2020).

According to Russell (2021), there are various platforms in which communication may be channeled. These include face-to-face discussions, phone calls, text messaging, email, the Internet (including social media sites like Facebook and Twitter), radio and television, printed letters, pamphlets and reports (Russell, 2021). In view of these channels, it is critical to select a suitable one for efficient communication. However, each communication route has its own set of advantages and disadvantages (Alfouzan, 2021). According to Moroz, *et al* (2020), the use of technological devices to facilitate communication is a cost-effective way for municipalities to easily inform and engage the residents on issues of local governance. In view of the above, Newman and Ford (2021) indicate that, for communication to be effective, it must be understood by the receiver. For this to be possible Subramaniam, *et al* (2021) suggest that an appropriate communication channel must be chosen by the message sender to reduce misunderstanding by the receiver. Following that, a response is expected to show that the message is received and understood in order that an attempt to correct any misunderstanding or confusion can be made where necessary (Bai, *et al,* 2020).

Technology as a tool of promoting community engagement
Community participation is the process in which residents work with the government on socio-economic issues facing residents. It refers to activities in which community members frequently participate (King, *et al,* 2021), for example, deliberation at community meetings or participation in community police forums. Community participation is common in drafting government policies for service delivery, such as the Integrated Development Plan (IDP). Municipalities consult with communities to determine their needs. This is often done through community meetings such as the 'Mayoral Imbizo' (Okeke-Uzodike & Dlamini,

2019). Community participation is a very important concept in a democratic government. This allows municipalities to become aware of the community needs (Wang, *et al,* 2021). Chapter 4 of the Municipal Structures Act (Act No.117 of 1998) emphasizes the importance of community participation in local government affairs. Feroz, Jabeen and Saleem (2020) emphasize that community participation is essential as it makes municipalities aware of community needs. Community participation also helps to build ownership, developing an informed and responsible citizenry for government developments and projects (Gaber, 2019). Considering the above discussions, it is evident that community participation in government matters is a crucial element for municipalities to consider, as it is also drafted in municipal legislations. Community participation gives a platform to the residents to raise their problems to the municipality, whilst it enables the municipality to be aware of what is happening within its communities. Community participation forges an understanding between the residents and the municipality. Therefore, the interest of this paper is to assess the extent to which technology is used to facilitate community participation in government matters in King Sabata Dalindyebo local municipality.

The influence of technology on public participation
It can also be argued that public participation is made easy using technology because citizens interact with government through social media platforms (Cortés-Cediel, *et al,* 2021). Talukder, *et al* (2022) show that basic services are provided by government using technology, for example, the municipality sends consumer accounts through digital platforms such as emails and SMSs. To this end, it is evident that the use of technology by municipalities reduces manual practices of service delivery (Velsberg, *et al,* 2020). Technology innovations have resulted in phenomena such as e-participation, which is the use of online techniques for the residents to participate in government service delivery issues, thus allowing government to better respond to societal needs (Kassen, 2022). One can argue that this mode of participation also contributes to the development of an economically efficient bottom-up approach that includes all stakeholders in decision making (Mathebula, 2021). The smooth bottom-up 4IR driven interaction helps the government to fulfil its constitutional obligation of promoting public participation in an effective and efficient manner (Arwati & Latif, 2019). According to Purwanto*, et al* (2020), service provision arrangements linked to various forms of community participation may improve service delivery by the government. Because of community participation, government officials are made aware of community needs, which has a direct influence on the public sector (Lipsky, 2023). Further, Hartmann and Lussier (2020) state that this can be improved using technology. The use of technology will enable communities to always be in touch with their municipalities (Alam, 2021). Wilson, *et al* (2019) noted that the traditional methods of community engagement are time consuming. Therefore, the use of technology by municipalities could bridge time constraints. Communities engage municipalities on their grievances and inform policies made by municipalities (Masiya, *et al,* 2019). Community participation is critical as the services offered by municipalities are based on what communities say they need from the municipality (Haldane, *et al*, 2019). Rodrigues*, et al (*2020) observes that increased community participation in local government affairs, partnerships with the local community in service delivery, flexible responses to service user complaints, providing value for money, and ensuring that service

users pay their bills on time, were found to be the primary strategies for improving service delivery. Communities need various platforms to be able to maintain interaction with municipalities, and technology provides those opportunities, for example, through smartphones (Lovari & Valentini, 2020). Furthermore, Krick, *et al* (2019) states that technology enables residents to have 24-hour access to the government database, thus proving that, indeed, technology enhances communication between the households and the government. Boulianne (2020) argues that easy access to government promotes efficiency in government offices through reducing long service delivery queues. This process enables residents to know services that are available and those that are not available to them in certain times, due to the use of technology as a tool of communication (Adeniran & Adafin, 2022). Blasi, *et al* (2022) mention that social media platforms, which are part of a broader technological innovation, can enhance public participation; for example, municipal Facebook pages, where residents can interact with the municipality. It is therefore evident that technology possesses social media elements such as Facebook pages which, when exploited by municipalities, can enhance public participation in government matters.

The concept of E-government and M-government
E-Government is commonly defined as the use of information and communication technologies (ICTs) by governments, in conjunction with organizational transformation, to improve governmental structures and operations (Grigalashvili, 2022). Since e-government is made up of technological features, its incorporation serves as the foundation for the link between technology and government (Hariguna, 2022). As a result, the use of digital platforms and machines by the government to deliver services to the residents is the link between government and technology (Kassen, 2022). In terms of e-government, web-based initiatives have been developed to make service delivery more convenient, such as accessible information, citizen-initiated request portals, and transaction-based services such as filing taxes online (e-filing) or filing permits or paying fines online (Nokele & Mukonza, 2021). Furthermore, local facilities with online capabilities and smartphone apps have been established in several communities to provide a common space for community members to launch inquiries and file complaints with the municipality, and this space is available and used electronically (Wali, *et al,* 2019). Failure of e-government causes significant distress, including a loss of time and money, a loss of the good image of all parties concerned, and finally, a rise in future expenditures (Sterrenberg & Decosta, 2023). According to Malodia, *et al* (2021), failing e-government initiatives lead to lack of trust in e-government projects, which causes major resistance to future e-government projects due to a loss of credibility and faith in e-government as a means of transforming the public sector. This means that e-government projects must be well planned in order not to waste government funds (Choi & Chandler, 2020); hence the need to equip and capacitate both the municipality and residents to prepare themselves for the reality of e-government. The gradual implementation of e-government in least developed countries proves difficult, necessitating proper planning of e-government projects. Instant adoption of e-government has a risk of leaving some residents behind, making them unable to access government services; therefore, there is a need to equip the residents and the municipality with prospects of technology in order to effect e-government in less developed areas. Having considered the above discussions, the study would like to establish the readiness of King

Sabata Dalindyebo Local Municipality's readiness for complete use of e-governance and investigate the challenges related to its implementation.

Methodology
This paper utilised a mixed-methods design. A mixed approach, according to Taherdoost (2022), is a means to gather and analyse data utilising two distinct methodologies or approaches or combining quantitative and qualitative methods into a single study. Quantitative data is based on closed-ended sources like questionnaires, whereas qualitative data is based on open-ended, non-predesigned sources like interviews (Bloomfield, & Fisher, 2019). This study used both questionnaires and interviews to obtain data. 90 respondents received the questionnaires, and 6 municipal officials were interviewed. The quantitative data obtained through questionnaires was analysed using Statistical Package for Social Sciences (SPSS), while the qualitative data was analysed using thematic analysis. The King Sabata Dalindyebo Local Municipality was used as a case study. The benefits of using mixed research methods in this study are that it allows corroboration of the data or results from different sources or methods, thus increasing the validity and trustworthiness of the research (Monageng, 2023). Hence, this study adopted mixed research method as a balanced approach for data collection using both qualitative and quantitative research approaches. The combination of both qualitative and quantitative research methods would enable the researchers to make inferences on both numerical data, as well as the experiences and perceptions of the residents of King Sabata Dalindyebo Local Municipality regarding the use of technology as an instrument of communication to enhance service delivery. This is perceived by the researchers as beneficial for the study as it would lead to the production of rich knowledge and generate new information.

Results and Findings
This part of the paper is composed of quantitative and qualitative data that is sequentially analysed and discussed using the instruments.
Quantitative data.

Table 1: The effectiveness of King Sabata Dalindyebo Local Municipality in using technology as a communication tool

In your opinion, how effective is King Sabata Dalindyebo Local Municipality's use of technology as a communication tool to promote service delivery in your experience?				
	Frequency	Percent	Valid Percent	Cumulative Percent
Average	35	38.9	38.9	38.9
Excellent	4	4.4	4.4	43.3
Good	11	12.2	12.2	55.6
Poor	26	28.9	28.9	84.4
Very Poor	14	15.6	15.6	100.0
Total	90	100.0	100.0	

Source: Authors (2024)

The results in Table 1 reveal respondents' perceptions regarding the effectiveness of King Sabata Dalindyebo Local Municipality (KSDLM) in utilising technology as a communication tool to enhance service delivery. The data are presented in terms of frequency, valid percentage, and cumulative percentage. In terms of the average rating,

most respondents, accounting for 35 in frequency, expressed that KSDLM is perceived as average in terms of its effectiveness in utilising technology for communication related to service delivery. This response represents 39.9% in valid percentage and contributes to a cumulative percentage of 38.9%. The positive ratings in the findings reveal that a smaller proportion of respondents, 4 in frequency, deemed KSDLM's utilisation of technology as excellent. This equates to 4.4% in valid percentage, contributing to a cumulative percentage of 43.3%. Additionally, 11 respondents rated KSDLM as good, representing 12.2% in valid percentage and contributing to a cumulative percentage of 55.6%. The negative ratings, however, reveal that the respondents expressing dissatisfaction with KSDLM's use of technology for service delivery were notable. Those who rated it as poor amounted to 26 in frequency, constituting 28.9% in valid percentage and contributing to a cumulative percentage of 84.4%.

Another subset of respondents, 14 in frequency, indicated that KSDLM's performance in this aspect was very poor. This represents 15.6% in valid percentage, contributing to a complete cumulative percentage of 100.0%. In summary, most respondents perceive KSDLM's effectiveness in using technology for communication related to service delivery as average. While there is a positive subset expressing excellence and goodness, a significant proportion holds negative views, particularly rating it as poor or very poor. These insights provide valuable feedback on areas of improvement and potential focus for enhancing the municipality's technological communication strategies. It is based on the foregoing that Table 2 below provides information about whether the suggestions of residents are considered by KSDLM.

Table 2: Suggestions of residents are considered by King Sabata Dalindyebo Local Municipality

Does King Sabata Dalindyebo Local Municipality consider the suggestions made by the residents?				
	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	38	42.2	42.2	42.2
No	52	57.8	57.8	100.0
Total	90	100.0	100.0	

Source: Authors (2024)

The presented results in Table 2 capture the respondents' responses to the question of whether King Sabata Dalindyebo Local Municipality (KSDLM) considers the suggestions made by the residents. The data are delineated in terms of frequency, valid percentage, and cumulative percentage. The majority response to the question was "No", and a significant majority of respondents, comprising 52 in frequency, responded negatively, stating that KSDLM does not consider the suggestions made by the residents. This response represents a substantial 57.8% in valid percentage. The cumulative percentage for this group is 100.0%, indicating that all respondents who responded to this question with "No" fall into this category. These results suggest a prevailing sentiment among most respondents that their suggestions are not adequately considered by KSDLM. The minority response to the question was "Yes". In contrast, a minority of respondents, numbering 38 in frequency, indicated that KSDLM does consider the suggestions made by residents. This response represents 42.2% in valid percentage and contributes to a cumulative percentage of 42.2%. While this group is in the minority, it is essential to acknowledge that a notable portion of respondents still perceives that their suggestions are considered by the municipality.

In summary, the data portrays a significant concern among the respondents regarding the responsiveness of KSDLM to residents' suggestions, with a clear majority expressing a negative perception. These results underscore the importance of addressing communication and engagement gaps between the municipality and its residents, as identified by the respondents. Further exploration and targeted initiatives may be necessary to bridge this perceived gap and enhance collaboration between the municipality and the residents. It is also critical that the use of languages that are understood by all residents be used as the Municipality engages the residents.

Table 3: The effectiveness of public participation in King Sabata Dalindyebo Local Municipality

In your opinion, how effective is public participation in King Sabata Dalindyebo Local Municipality?				
	Frequency	Percent	Valid Percent	Cumulative Percent
Very Poor	7	7.8	7.8	7.8
Poor	24	26.7	26.7	34.4
Average	38	42.2	42.2	76.7
Good	18	20.0	20.0	96.7
Excellent	3	3.3	3.3	100.0
Total	90	100.0	100.0	

Source: Authors (2024)

The provided results in Table 3 above offer a comprehensive view of respondents' perspectives on the effectiveness of public participation in King Sabata Dalindyebo Local Municipality (KSDLM). The data are presented in terms of frequency, valid percentage, and cumulative percentage. Most respondents, totalling 38 in frequency, expressed that public participation in KSDLM is perceived as average. This response represents a substantial 42.2% in valid percentage and contributes to a cumulative percentage of 76.7%. The above result or discovery suggests a prevailing sentiment among a significant portion of respondents that public participation in KSDLM falls within the moderate or average range. Some respondents, numbering 24 in frequency, indicated that public participation in KSDLM is perceived as poor. This represents 26.6% in valid percentage and contributes to a cumulative percentage of 34.4%. While this group is in the minority, their response signifies a notable concern regarding the perceived inadequacies in public participation practices within the municipality.

Respondents who regarded public participation in KSDLM as good amounted to 18 in frequency, constituting 20.0% in valid percentage. This group contributes significantly to a cumulative percentage of 96.7%, indicating a positive perception of public participation practices in the municipality. The recognition of good public participation by a sizeable proportion of respondents suggests areas of strength and effectiveness in engaging the community. A smaller subset of respondents, numbering 7 in frequency, stated that public participation in KSDLM is very poor, representing 7.8% in valid percentage. Another subset of respondents, totalling 3 in frequency, perceived public participation as excellent, contributing 3.3% in valid percentage. These groups cumulatively contribute to a cumulative percentage of 7.8% and 100.0%, respectively. The presence of respondents perceiving public participation as very poor or excellent signals polarised opinions within the study population. The results underscore a diverse range of perceptions regarding the effectiveness of public participation in KSDLM. While a significant portion view it as average, indicating a moderate level of satisfaction, other respondents' express concerns

about its poor effectiveness. The acknowledgement of good public participation suggests positive aspects, but the presence of respondents with extreme views (very poor and excellent) highlights potential areas for improvement and further exploration. These insights provide valuable feedback for KSDLM to enhance its public participation strategies and address the concerns of residents. Hence, Table 4 below provides information about the use of electronic communication, like emails, when speaking with residents.

Table 4: The use of electronic communication, like emails, when speaking with residents

Does King Sabata Dalindyebo Local Municipality use electronic communication, like emails, when speaking with residents?				
	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	27	30.0	30.0	30.0
No	63	70.0	70.0	100.0
Total	90	100.0	100.0	

Source: Authors (2024)

The presented results in Table 4 above illuminate respondents' perspectives on the use of electronic communication, particularly emails, by King Sabata Dalindyebo Local Municipality (KSDLM) when engaging with residents. The data are conveyed in terms of frequency, valid percentage, and cumulative percentage. Most respondents, comprising 63 in frequency, responded negatively, indicating that KSDLM does not use electronic communication, such as emails, when communicating with residents. This substantial majority represents a significant 70.0% in valid percentage. The cumulative percentage for respondents who responded with "No" is 100.0%, emphasising the unanimous agreement among this majority group. A minority of respondents, numbering 27 in frequency, indicated that KSDLM does use electronic communication, such as emails, when communicating with residents. This group constitutes 30.0% in valid percentage. The cumulative percentage for respondents responding with "Yes" is also 30.0%, reflecting the contribution of this minority group to the overall study. In summary, the results reveal a predominant perception among respondents that KSDLM does not extensively utilise electronic communication, specifically emails, when engaging with residents. The majority expressing a negative view suggests a potential gap in the incorporation of modern communication methods by the Municipality. The minority acknowledging the use of electronic communication signifies a recognition of some level of engagement through these channels. These results can guide KSDLM in evaluating and potentially enhancing its electronic communication strategies to better meet the preferences and expectations of the community. The use of social media is critical as communication strategies to improve communication in this Municipality. In this way, Table 5 below provides information about the use of social media platforms to communicate with residents.

Table 5: The use of social media platforms to communicate with residents

Is King Sabata Dalindyebo Local Municipality sending messages through WhatsApp, Facebook, Twitter (X), etc. to effectively communicate with residents?				
	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	55	61.1	61.1	61.1
No	35	38.9	38.9	100.0
Total	90	100.0	100.0	

Table 5 above provides insights into respondents' perceptions regarding the use of various social media platforms such as WhatsApp, Facebook and Twitter by King Sabata Dalindyebo Local Municipality (KSDLM) for effective communication with residents. The data is presented in terms of frequency, valid percentage, and cumulative percentage. Most respondents, totalling 55 in frequency, indicated that KSDLM does send messages through WhatsApp, Facebook, and Twitter to effectively communicate with residents. This substantial majority represents 61.1% in valid percentage, indicating a predominant positive perception among the respondents. The cumulative percentage for respondents who answered with "Yes" is also 61.1%, signifying the overall contribution of this majority group to the study. A minority of respondents, numbering 35 in frequency, responded negatively, stating that KSDLM does not utilise WhatsApp, Facebook and Twitter for communication with residents. This group constitutes 38.9% in valid percentage. The cumulative percentage for respondents answering with "No" is 100.0%, reflecting the contribution of this minority group to the overall study. In other words, these results highlight a predominant perception among respondents that KSDLM effectively uses popular social media platforms, such as WhatsApp, Facebook and Twitter, for communication with residents. The affirmative responses suggest a recognition of the Municipality's efforts to leverage these widely used platforms for engagement. The minority expressing a negative view indicates that there is still a segment of respondents who may not perceive effective communication through these channels or are unaware of such efforts. These insights can guide KSDLM in assessing the effectiveness of its social media communication strategies and potentially addressing any gaps or concerns expressed by residents.

Qualitative data

The qualitative data that was obtained through semi-structured interviews conducted with the 6 municipal officials from the King Sabata Dalindyebo Local Municipality. The researchers developed themes and sub-themes based on the verbatims and comments made by the respondents as means of analyzing their actual meaning in the context of this paper. The following table labelled table 6 depicts themes and sub-themes that were derived from the qualitative data.

Table 6 Themes

No.	Themes	Sub-themes
1.	Use of technology to enhance communication.	Enhancing communication using technology
2.	Consideration of residents needs	Community inputs
3.	Taking advantage of technological opportunities	Exploiting technology
4.	Technology opportunities to improve communication	Technological improvement

Source: Authors (2024)

Use of technology to enhance communication
When the participants were asked how KSDLM can improve in using technology to effectively communicate with residents, the participants mentioned that the improvement and maintenance of technological infrastructure, such as network coverage, is crucial to

enable residents to be able to have access in social media platforms. Some participants mentioned that the KSDLM should supply free Wi-Fi or data for the residents, to enable them to be able to have access to information communicated by the municipality. Some of the participants suggested that the municipality should develop a local software application that can be used as a channel of communication between the municipality and the residents. One of the participants stated, "The municipality can implement an app which will be used to report, and complaints, recommendation, or suggestions will be lodged-in through that app, in that way service delivery in KSD will improve with immediate effect, because people are advanced these days 4IR should be put into play to make life easier for citizens." Another respondent mentioned, "By utilizing online portals, mobile apps, and social media, municipalities can provide real-time information and update their residents. This not only improves transparency and accountability but also help to build trust between the municipality and the community." These sentiments reveal that the residents acknowledge the presence of new technologies and their impact on governance and thus are embracing the presence of these new technologies. This is supported by the study of Sokolova, et al (2020), that there is significant community correspondence with technological modernisation in the public sector. One participant stated, "…They are supposed to simple put Public Wi-Fi in the certain spots such as Stadium (ground), Parks, Public schools, public clinics and hospitals etc. for us to connect and have access to information uploaded on the website of the municipality." Another said, "Provide internet access to communities, for example WI-FI hotspots at clinics and libraries and through connecting with them in technology that is most familiar to them, for example by using social media to be aware of everything." The issue of thoroughly equipping the community technological infrastructure, educating the community to prepare them to use modern technology, providing free Wi-Fi and data bundles for community members appear to be the most prevalent inputs from the participants, when answering this question.

Consideration of residents needs
The paper sought to establish the method used by King Sabata Dalindyebo Local Municipality to meet the needs and expectations of its residents. The findings of the study, in this regard, revealed that King Sabata Dalindyebo Local Municipality uses both technological and manual (traditional) methods of engaging the residents, with most participants indicating that KSDLM uses technological platforms and community halls for interacting with the residents. In response to this question, one participant mentioned, "The King Sabata Dalindyebo Local Municipality usually organizes town hall gatherings, forums, or community meetings in the different wards, and this enables the residents to speak with municipal leaders directly about their expectations and concerns, this offers a forum for open discussion and debate where we robustly engage with our residents." Another respondent mentioned, "We also do public hearing sessions where locals (residents) may voice their thoughts and offer suggestions on certain projects, policies, or concerns. This is a constitutional obligation for the municipality, and we regard this as part of public participation or community engagement in other words." One participant also stated, "As King Sabata Dalindyebo Local Municipality we also make use of social media, the municipality's website to allow the residents to voice their opinions, grievances, and ideas. This satisfies the residents who use the internet frequently." The responses provided by the participants indicate that the King Sabata Dalindyebo Local Municipality uses both

a manual or physical and a technological method of engaging or interacting with the residents and this is confirmed by Nasir, *et al* (2022) that, to meet the ever-increasing demand for basic services, the government employs both technological and manual methods of service delivery. The quantitative results from the residents also confirm these findings this is noted in Table 4 where most respondents, totaling 55 in frequency and 61.1% in valid percentage, indicated that KSDLM does send messages through WhatsApp, Facebook and Twitter to effectively communicate with residents.

Taking advantage of technological opportunities
It appears that King Sabata Dalindyebo Local Municipality relies on the already existing technological platforms that are mostly utilised by most of the people. Based on the sentiments shared by the participants in relation to the above question, the findings of the study suggest that KSDLM does not have its own developed communication software application that it uses to engage its residents. Therefore, the study sought to assess the extent to which King Sabata Dalindyebo Local Municipality uses technology as a communication tool to deliver services to its residents. In response to the question, one participant mentioned, "Active participation on social media sites, such as Facebook and Twitter, enable the King Sabata Dalindyebo Local Municipality to communicate with the residents more casually and interactively while also sharing emergency information and real-time updates.'' Another participant stated, "The only way we use technology as a communication tool in King Sabata Dalindyebo Local Municipality is through social media platforms such as the Facebook municipal page." This suggests that the King Sabata Dalindyebo Local Municipality does not have a specific software application that it uses to communicate with the residents besides Facebook and Twitter that are often mentioned by the participants, whereas the study conducted by Paiva, et al (2021) suggests that municipalities must take advantage of technological opportunities to improve service delivery. These findings are also confirmed by the results shown in table 5 which shows that KSDLM uses the popular and common social media applications that already exist, such as Facebook and Twitter (X) to engage with the residents this is affirmed by the majority of 55 respondents, representing 61.1% in valid percentage as shown in table 5.

Technology opportunities to improve communication
The findings of the study suggest that King Sabata Dalindyebo Local Municipality has numerous challenges and factors that it needs to consider when integrating technology, with some challenges emanating from unequal access to digital technologies, to reluctance of employees and residents in using technology due to unfamiliarity and insecurity, and these were some of the concerns raised by the participants regarding the above question. It is because of this that the study also catered for any challenges that are or may be affecting King Sabata Dalindyebo Local Municipality, in terms of using technology to effectively communicate with its residents and deliver services. In this regard a participant mentioned, "Unequal access to digital technologies among residents can create a digital divide. It is imperative for us as the King Sabata Dalindyebo Local municipality to guarantee that our technology projects are inclusive and consider the varied demands and capacities of our residents. The application of cutting-edge technological solutions may also be restricted by financial limitations." Another participant stated, "King Sabata Dalindyebo Local Municipality carefully spends its resources to give priority to technological initiatives that

will improve communication and service delivery. Older systems or restricted internet access are also examples of inadequate technological infrastructure that might impede the adoption of digital services. Resolving infrastructure issues is essential to a smooth adoption of new technologies." One participant mentioned, "Because of unfamiliarity with the new technology the residents and municipal employees may be reluctant to accept new technologies. It is crucial to address these issues through open communication and training with both the residents and the municipality." This argument is supported by the study of Mikalef, et al (2022), that the integration of technology in municipal service delivery should be gradually introduced, to accommodate all stakeholders. With the introduction of the new digital era, both municipal employees and the residents need to be prepared through training. The King Sabata Dalindyebo Local Municipality also uses the most popular electronic platforms used by most of the people to communicate with its residents although it does not have a specific electronic tool designated for the use of its own residents. The findings indicate that KSDLM uses common social media platforms such as Facebook and Twitter (X) to communicate with its residents. These are the platforms that were commonly mentioned by the participants when asked which electronic tool King Sabata Dalindyebo Local Municipality mostly communicates with and how effective it is. In answer to the above question, one participant stated, "An accessible web hub where residents can get updates, services, and information, interacting with residents on social media platforms such as Facebook, LinkedIn, and Twitter to exchange updates and news and to have two-way communication with the residents through technological platforms." Another respondent mentioned, "We use social media platforms such as our municipal Facebook page, and yes this is effective as we are able to interact and share information with our residents." These responses confirm the findings in the study conducted by Blasi, *et al* (2022) that social media platforms, which are part of a broader technological innovation, can enhance public participation for example, municipal Facebook pages, where residents can interact with the municipality. The residents also confirm these findings in Table 5 where the results show most respondents, totaling 55 in frequency, indicated that KSDLM does send messages through WhatsApp, Facebook and Twitter to effectively communicate with residents. This substantial majority represents 61.1% in valid percentage. In conclusion, responses highlight the significance of social media and online hubs in King Sabata Dalindyebo Local Municipality's communication strategy and acknowledge their efficacy in interacting with and informing residents.

Conclusion and Recommendations
This paper extensively discussed and displayed the critical role played by technology as a communication tool that municipalities may exploit to reach a wider audience when sharing public information related to issues of local government. It was found that majority of residents advocate for the gradual adoption of technology as means of fast-tracking communication with residents. Evidence on technological advancements was drawn, indicating a positive change in the use of technological gadgets as a means of enhancing communication with residents. The migration to new technological gadgets does not mean the abolishment of the old communication methods that were previously used by municipalities, but however means that various innovative platforms may be used to make public information to be accessible for all residents. It is in this regard that the following recommendations were made in this paper. Banafaa, *et al* (2023) note that, for

technological devices such as smartphones to work, strong connectivity or network is required. Considering the foregoing this paper recommends that King Sabata Dalindyebo Local Municipality should strengthen its network connectivity across its wards to ensure that all the residents are covered in terms of network connection, and to enable them to have access to information communicated through technological devices. Proper network coverage ensures that people are easily accessible, informed and engaged with whatever is happening through social media (Kozinets, 2019). Hence, boosting the network coverage would assist King Sabata Dalindyebo Local Municipality to communicate effectively using technology.

The paper also recommends that King Sabata Dalindyebo Local Municipality should provide internet access to its residents by providing Wi-Fi spots in public spaces and in residential areas. Javed, *et al* (2022) claim that one of the crucial elements of smart cities, which are largely technologically driven, is the availability of internet access to all residents. The provision of Wi-Fi would enable the residents to view posts in the municipal page account and receive the information they need in the comfort of their homes or at any time convenient for them. Alternatively, the King Sabata Dalindyebo Local Municipality could provide mobile data for its residents monthly; however, this access cannot be entirely free, and the residents who would have access to these services should be charged a fee as the services would be too costly for the municipality to bear. Mbunge, *et al* (2022) state that buying mobile data in South Africa is more expensive than in any other country. Hence, this paper recommends that King Sabata Dalindyebo Local Municipality could impose a certain subsidised fee on the residents, to cover the costs associated with buying mobile data for the residents and installing Wi-Fi throughout the wards of King Sabata Dalindyebo Local Municipality

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