WHAT INFLUENCE CREDIT CARD DEBTS IN YOUNG CONSUMERS IN MALAYSIA

Syed Shah ALAM
School of Management, Faculty of Economics and Management, The National University of Malaysia, 43600 UKM Bangi, Selangor, Malaysia
shahalam@ukm.my

Ruzita Abdul RAHIM
School of Management, Faculty of Economics and Management, The National University of Malaysia, 43600 UKM Bangi, Selangor, Malaysia
ruzitar@ukm.my

Md Ridhwanul HAQ
Taylor's Business School, Taylor's University Lakeside Campus
No 1 Jalan Taylor's, 47500 Subang Jaya, Selangor Darul Ehsan
mdridhwanul.haq@taylors.edu.my

Md Atiqur Rahman KHAN
Dept. of Finance & Banking, School of Business, Curtin University, 98009, Miri, Sarawak, Malaysia.
atiqur@curtin.edu.my

Abstract: *This paper examines empirically antecedents of the credit card debts in young consumers in Malaysia. We examine whether easy access to credit card, credit card related knowledge, aggressive promotion by credit card industry, low minimum payment requirement and attitude towards credit cards influence credit card debts in the younger generation. Regression model was used to meet the objectives. These findings based on a sample of 240 young credit card holders, show that the factors that affect credit card debts are credit card related knowledge, aggressive promotion by credit card industry and low minimum payment requirements. These findings also provide insights for both bank management and policy-makers to improve the bank performance in terms of credit card debts.*
Keywords: *credit car, debt, Malaysia*

1. INTRODUCTION

In modern business, credit cards serve as a payment device for millions of regular purchases as well as for many transactions that would otherwise be inconvenience, or perhaps impossible (for example, for making retail purchases by telephone or over the internet). Credit cards have also become the primary sources of unsecured open-end revolving credit, and they have replaced the installment-purchase plans that were important to the sales volumes at many retail stores in earlier decades.

In this societal changes, questions arises whether the trend is beneficial or detrimental (or somewhere in between), when the rise of plastic cards for payments and open-end credit is merely inevitable. Credit cards certainly are widely used and accepted by the public to by things with unparalleled convenience and speed, but they have also raised the concerns of whether the growth of credit cards usage has fueled an explosion in consumer debt.

In Malaysia, the Director General of Department of insolvency Malaysia, Datuk Abdul Karim Abdul Jalil mentioned that, in March of 2009 23.3 billion credit card balances remained unsettled. As reported from year 2005 to 2009 there were 3548 people declaring bankruptcy from credit card usage and half of them (1774) belong to those aged 30 and below. Although the amount of credit card debt in relation to total receivables in Malaysia is not as high compared to that in other developed country in the world and as well as some Asian economies but obviously there is a need to create awareness to keep the debts in control.

2. SCOPE

The scope of the study was to examine on the essential factors of the independent variables which contribute to the reliance on credit card debts. Thus, this study is a causal study rather than correlational in nature. Because this research attempted to agree on the essential factors leading to credit card debts, the sample of the study focused on consumers who had the means and opportunities to use of credit cards as their payment device during purchases. Moreover, this study was mainly confined to full time working adults aged below 35, who are the target customers for major financial institutions. This group also records a high percentage of purchasing power over other age groups. The research was undertaken in Klang valley in Malaysia and data for this study were composed over a period of three months.

The augmentation of credit card has been efficient over the past decade. In recent years, much information has recorded an evident increase in the total of personal economic failure fillings due to credit card debt. In the US, nearly seven out of ten young Americans aged 25 to 34 have one of more credit cards. Compared to the population as a whole, however, young adult cardholders are much more likely to be in money owing (Tamara, and Javier, 2004).

With all these evidence, one can sense that the society of credit card’s indebtedness is becoming more theatrical in the modern society today.

3. THE CONCEPTUAL FRAMEWORK FOR THE STUDY

In this study, credit card debt is proposed to have influence from five main factors as shown in Figure 1. These factors are identified from an extensive review of the literature which indicates that they are relevant to credit card debt. The influencing factors on credit card considered for this are easy access to credit card, credit card related knowledge, aggressive promotion by credit industry, low minimum payment requirement and attitude towards credit cards. In the following sections, the literature on each of the components and their influence on credit card debts are discussed.

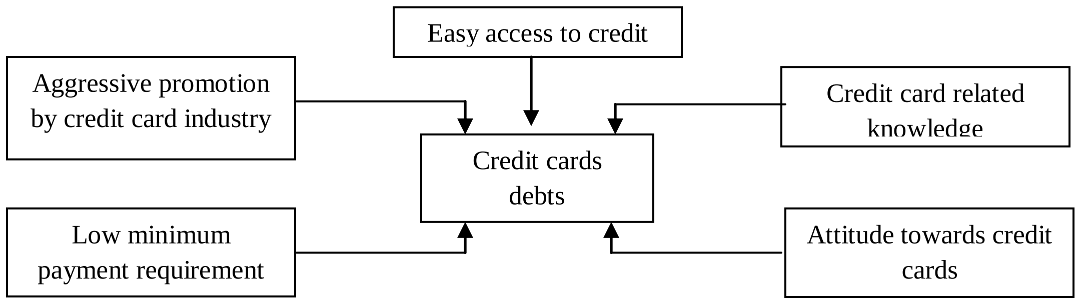

Figure 1 A Schematic diagram of the research model

The schematic diagram of the theoretical framework above is use to show the relationship between the dependent and independent variables. Essentially, the theoretical framework show above is the foundation on which the entire research is based upon.

3.1 Easy access to credit card

According to Schor (1998) easy access to credit card is one of the important causes of overspending. Indeed, several pragmatic studies also evidenced that liquidity enhances both the probability of making a purchase and the amount one is willing to pay for a given item being purchase and the amount one is willing to pay for a given item being purchased, over and above any effects due to relaxation of liquidity constraints (Shefrin & Thaler, 1998, Prelec & Simester, 2001). A series of experiments conducted by Berkowitz and Lepage (1967) may have provided insight into the impact credit cards used have on consumer debts. Berkowitz and Lepage study found that being exposed to belligerent stimulus led to aggressive behavior. In the realm of consumer behaviour, credit cards could certainly be constructed as promoting spending by making transaction simpler or by removing the immediate need for money. In a variation of the theme, Feinberg (1986) found that card holders decided to purchase more rapidly and spend more than consumers who were exposed to the same product without the presence of credit card logo likely to purchase. Decided to purchase more rapidly and spend more than consumers who were exposed to the same product without the presence of credit card logo. By letting consumers buy things with unparalleled convenience and speed, they tend to spend more; often more than their income and what they have in bank. This condition related well with that credit card directly fueled an explosion in consumer debt (Sapsford, 2004).

Using credit card for purchasing and payment purposes is very much convenient for the consumers and also it is less expensive. Nowadays getting credit card is very easy which consumer to purchase without causing any cash flowing out from their pockets or a diminution in their bank balances; they merely need to sign their names and not even think about the payment until the end of the month. In economic sense, if they pay the credit owed totally so that no balance is carried over the credit card, the credit is actually “free” for the time between the exchange and the payment. Meanwhile the money that is supposed to be spent in cash purchase can be invested in any money market instrument and earns interest. This make the credit card purchases less expensive than cash purchases. Credit cards start to create problem when consumers pay the minimum amount due or even skip payments. Their credit balances keep accumulating with their subsequent spending which continues to be charged on the credit cards until they reach their credit limit. In short, a credit card facilitates purchasing and creates discount purchases but it also raises debt easily as little effort is required to access fund. The argument and past evidence lead to the first hypothesis of this study which is:

Hypothesis 1: There is a significant relationship easy access to credit card and credit card debts

3.2 Credit card related knowledge

Warwich and Mansfield (2000) suggested that dwindling of credit card debt can come about through an increase in awareness and understanding in the use of credit card. However, awareness and understanding are two different things; companies listings credit card interest rate increase attentiveness of the price of credit but this does not guarantee improvement in consumer understanding. Thus, a mandatory disclosure of information itself (which leads to awareness) does not help consumer make effective credit decisions unless they understand the information provided. In a study by Lee and Horgarth (2000) reported that there is a general consent that consumers' lack of understanding is a problem in credit card market. Yet there is also empirical evidence that credit card holders have a reasonably good understanding of the interest rate and of the other main terms in their credit card accounts, including how balances is accumulate (Durkin, 2000). Based on this evidence, this study proposes its second hypothesis as follows:

Hypothesis 2: There is a significant relationship between credit card related knowledge and credit card debts.

3.3 Aggressive promotion by credit card industry

It may be more than a mere coincidence that the predicament of debt has increased with the rapid expansion in the bankcard industry (Jones, 2005). In the US, credit cards are easily accessible to college students and are marketed aggressively to the college student population (Mannix, 1999; Schembari, 2000). Credit card debt has grown more rapidly than other debt for decades; however, in the mid 1990s it increased even more rapidly. This is mainly attributable to the increased advertising efforts of banks and credit card issuers. Credit cards are so profitable that banks and lenders have becoming so eager to give more credit cards to people including those who are less able to pay (Direct Selling Education Foundation, 1997).

High credit limits, low interest rates and pre-approval, these have become familiar terms to many consumers, who are increasingly bombarded with unsolicited credit card applications in the mail, in the newspaper and even from salespersons at the mall. In fact, most of the countries report highlighted that credit companies over last few years have increased their marketing and credit card expansion scheme resulting the credit business has enjoyed record profits. It is ultimately influence the consumer's personal debt (Chien & Devaney, 2001). Sirgy et al. (1998) reported that, credit card promotion through television advertising reinforces material consumption for the images of "good life". Research shows that credit companies waive some requirements such as previous credit histories, income requirement and parental co-signatures (Duffy, 1990). Nowadays credit card companies are promoting aggressively by offering incentives like free one year charge, offer supplementary card for the applicant to encourage consumers to use their credit card (Duffy, 1990). According to Eugeni (1993) supply of huge amount of credit card may affect the quantity of credit card usage by consumers. Overall aggressive promotion and less strict credit card approval requirement by financial institution have encouraged consumers to use more credit card as their easier way of financing means. In the form of testable hypothesis, this study predicts that

Hypothesis 3: There is a significant relationship between aggressive promotion by credit card industry and credit card debts.

3.4 Low Minimum payment requirement

Since 1990s credit card companies re are competing with each other to have more customer (Tamara & Javier, 2003). To have more customer credit card companies are lowered their minimum payment requirement. Studies show that, the main competitive strategy that is documented is the reduction in the minimum payment requirement from 5 percent to only 2 to 3 percent of the balance. This result in a lower obligated payment each month, which has made it easier for consumer to carry more debt balances. Credit card companies are actually benefitting from this strategy because interest is charged on the larger credit balance as consumer who pays only the least amount will only revolve their balance over a long period of time. In short, this study uses this evidence to develop the forth hypothesis as follows:

Hypothesis 4: There is a significant relationship between low minimum payment requirement and credit card debts.

3.5 Attitude towards credit

Credit card has the change the attitude of the bank customers in all over the world (Zuckerman, 2000). According to Lea et al., (1995) and Zuckerman, (2000) it is viewed that attitudes about debt have changed dramatically during the twentieth century- from a general revolution of debt to acceptance of credit as part of a modern consumer society. Lea et al. (1995) reported the growth of the “culture of indebtedness”. The new culture accepting overspending and excess buying as community debtor creates an environment that re-enforces one’s beliefs, attitudes, and personal norms differently. Moreover, social norms and attitude may be tailored to reflect this dysfunction orientation. Researches also identified that attitude towards debt and towards credit have been found to be pertinent (Livingstone and Lunt, 1992).

Furthermore, studies show that belief is more influential than the knowledge about credit card practices. They are positive that attributes flow from beliefs. Danes and Hira (1990) and Chien and DeVaney (2001) found that younger consumers have more positive attitudes towards credit card use then do older consumers, because younger consumers believe that the potential to earn more money in the near future, thus they are willing to adjourn their payment. Roberts and Jones (2001) study shows that young generation have more lenient attitude towards debts. Another author Ritzer, (1995) reported that nowadays 18 to 35 years olds have grown up with a culture of debt, and use credit freely. Young generation believed that debt can be settled, as a result they feel that certain amount of debt can be settle through proper credit management. This evidenced by the fact that credit cardholders younger than 35 are least likely to pay their bills in full each month. Accordingly, this study predicts that:

Hypothesis 5: There is a significant relationship between attitude towards credit cards and credit card debts.

5. RESEARCH DESIGN AND DATA ANALYSIS

5.1 Research design

The general aim of this research is to determine the factors that influence the credit debts of young adults in Malaysia. In this paper, we carried out a survey with 500 credit card users of age below 35 years in Malaysia in November to December 2011 to investigate their credit card debts. Survey is a widely used data collection technique in behavioral science research. The data were gathered by means of a structured questionnaire. The respondents of this study were required to hold at least one credit card with debts. The respondents do not have any credit card debt were well thought-out as an invalid respondents.

5.2 Sample and Data Collection

Data for this study was gathered by primary data collection method through consumer survey administered among credit card holders. An in-depth interview was conducted with three lecturers from one university before the final survey was conducted in order to identify the key elements to be asked in the questionnaire. A total of 500 questionnaires were distributed to credit card holders but only 240 were finally used for this study. For this study credit card holder with debts were used as the respondents because they went through the experience and therefore serve our research objective. The credit cardholders were age below 35 years and resided in Klang Valley in Malaysia. The survey was conducted in August until September 2012.

The majority of the respondents were female (56.6 percent), more than half (60.0 percent) were between the age of 21 and 25. Chinese group was the highest contributors of the total respondents (45.0 percent) and the second highest group is represented by Malays with (37.08 percent). Majority of the respondents (86.66%) fulltime permanent employees while only a small fraction which comprised of 13.34% of the respondents was hired on contractual basis. As for the personal monthly income level, majority of the respondents (61.66%) earned between RM2,000.00 to RM3,000.00 and only 2.91% earned below RM2,000.00.

5.3 Reliability and Multicollinearity

Before performing the multiple regression procedure, a factor analysis was conducted on the five variables measured using Likert scale to verify whether they could be treated as a single measure. The test was conducted using principal component analysis and varimax rotation with Kaiser Normalization. As suggested by Hair *et al.*, (1995) five factors were identified for factor analysis using the eigen value criteria that suggested extracting factors with an eigenvalue of greater than 1.0. The method was used in this research has been widely accepted as a reliable method of factor analysis (see, Alexander & Colgate, 2000). In this survey, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy score (0.91) was well above the recommended 0.5 level (Malhotra, 1999) suggested that the data may be factorable. Furthermore, the Bartlett's test of sphericity indicated that there was adequate correlation among the chosen variables.

To test the reliability the Cronbach's coefficient alpha values for the five variables are presented in Table 1 below. Table I shows the number of items comprising each scale: the reliability reported by Moore and Benbasat (1991) for the scale and Cronbach's alpha for scale reliability obtained for our sample. Reliability from our sample showed a reasonable level of reliability (α>0.70).

Table 1 Reliability Analysis

Variables	Coefficient Alpha
Easy access to credit card	0.793
Credit card related knowledge	0.787
Aggressive promotion by credit card industry	0.859
Low Minimum payment requirement	0.769
Attitude towards credit cards	0.712

The impact of multicollinearity is a concern when interpreting the regression result (Hair *et al.*, 1998). Highly collinear variables can distort the results substantially and thus are not generalizable. According to Bryman and Cramer (2001), the Pearson's r between each pair of independent variables should not exceed 0.80, otherwise the variables may be suspected of exhibiting multicollinearity. The output in Table 2 showed that the correlations were significant but none exceeded 0.80, which indicate that multicollinearity is not a problem in this study. Another two common measures for assessing the multicollinearity are the tolerance and variance inflation factor (VIF) values. A common cut-off threshold is a tolerance value of 0.10, which corresponds to a VIF value above 10 (Hair *et al.*, 1998). In Table 3, the tolerance values of all variables are above 0.10. Likewise the VIF value is less than 10, thus further confirming that multicollinearity problem is not a concern. The acceptable Durbin – Watson range is between 1.5 and 2.5. In this analysis Durbin – Watson value of 1.909, which is between the acceptable ranges, show that there were no auto correlation problems in the data used in this research. Thus, the measures selected for assessing independent variables in this study do not reach levels indicate of multicollinearity.

Table 2 Correlation Matrix between Independent Variables

	X1	X2	X3	X4	X5	X6
X1	1.00					
X2	.446(**)	1.00				
X3	.287(**)	.452(**)	1.00			
X4	.296(**)	.478(**)	.531(**)	1.00		
X5	.654(**)	.502(**)	.469(**)	.457(**)	1.00	

Table 3 Test of Collinearity

Variable	Tolerance	VIF
Easy access to credit card	.824	1.213
Credit card related knowledge	.702	1.424
Aggressive promotion by credit card industry	.790	1.266
Low Minimum payment requirement	.812	1.231
Attitude towards credit cards	.770	1.298

6. RESULTS AND DISCUSSION

Table 4 presents results of the multiple regression analysis used to evaluate the strength of the proposed relationship. Five hypotheses were formulated and all the variables were retained after filtering with factor analysis. The individual hypothesis was tested using a multiple regression prediction model following the guidelines established by Hair *et al.* (1998) with credit card debts as the dependent variable. The results obtained, as shown in Table 4, revealed that H2, H3, and H4 were supported as the coefficients of the respective variables were found to be positive and significant in the prediction model. The results provide support for hypotheses H2, H3, and H4 that is, the relationship between credit card related knowledge (β=.135; $p<0.05$), aggressive promotion by credit card industry (β=.187; $p<0.01$), and low minimum payment requirements on credit card debts (β=.195; $p<0.01$). The significantly positive impact of credit card related knowledge supports the earlier findings by Jacquenlyn and Mansfield (2000). This evidence suggests that more knowledge about credit card usage will decrease the possibility of credit card debts.

The study also confirmed that aggressive promotion by credit card industry has significant impact on credit card debts. The relationship is positive, suggesting the more promotion activities done by the credit card industry increase the credit card debts. The results are similar to those in the literature (Eugeni, 1993) and aggressive promotion by credit card indeed proves to be a powerful predictor for credit card found in this study. In this study, the respondents agree that aggressive promotion make them use credit cards more often in the daily purchasing habit. At the end of the day, it all comes down to the increase of their credit card debts.

Studies like Tamara and Silva (2003) generally shown that low minimum payment requirement has a positive and significant influence on the credit card debts. At present, the consumption pattern of younger consumers has changed spectacularly. They like to use credit card to replace cash, often using credit card to finance their purchases, not only to satisfy the minimum physiological needs, but to meet their urge for luxurious life style. However, all these were happening for reasons that the youth is willing to take risk of debt. The young group with inadequate income to service the due debts ultimately takes this low minimum payment opportunity, not realizing that their credit card debts continue to increase.

Table 4 Regression Results

Variables	Beta	t-value	p-value
Easy access to credit card	.089	1.410	.160
Credit card related knowledge	.135	1.982	.049
Aggressive promotion by credit card indus	.187	2.907	.004
Low Minimum payment requirement	.195	3.068	.002

Attitude towards credit cards	.105	1.615	.108

Note: Dependent variable is credit card debt

Meanwhile, the effects of easy access to credit card and attitude towards credit card that were tested by H1 and H5 which were rejected by this test. This result indicated that easy to access to credit card and attitude towards credit card would not affect credit card debts. Previous result is in contradiction with the present studies done by other researchers (e.g. David &Nicholas, 2000; Sapsford, 2004; Schor, 1998). However, the contradicting results here might be due to the fact that all credit card users in Malaysia are already familiar with availability of credit card from any banks. They do not see it as a factor that will affect credit card debts because they are very much aware that the credit existence. Finally attitude towards credit card usage has no significant effect on predicting the amount of credit card debts. This was inconsistent with findings by Lea *et al.,* (1995), Zuckerman (2000) and Chien and Devaney (2001), whereby spending pattern and attitudes toward credit card of young consumers lift up the doubt about the impact of spending on credit card debts.

7. CONCLUSION

The research was done under a theoretical framework developed based on the previous study. The multiple regression analysis shows that credit card related knowledge aggressive promotion by credit card industry, and low minimum payment requirements are significant elements affecting credit card debts by young consumers in Malaysia. The model explains 23% of the variance in credit card debts. This information is particular helpful for the policy makers in Malaysia to formulate and regulate policies that help control the surmounting credit card debts among the young consumers. Until then, bad experiences and stories of credit card debts need to be publicized to educate and put off some potential consumers from using credit cards.

Although this study provided substantive explanations for the credit card debts, it still has several limitations. It only considers five predictors variables that are influencing credit card debts. Some other factors need to be included. Contingency factors such as economic condition, competitions and rises of prices of the consumer’s goods or fuel hike might have incoherent effect on credit card debts formation. This research was also conducted on the younger respondents that it cannot be fully generalized to represent the view of the entire consumers of the credit card debts. Consumer behavior is known to be influenced by their cultural factors, which are not incorporated in this study. Future studies should address this lacking.

Credit card has many potential benefits and greater economic choice for many consumers. These same benefits, however sometimes lead to financial trouble for the cardholders. Almost everyone has heard media reports or knows of someone who has struggled with credit card debts. This study of credit card debts explored the factors leading to credit card debts, and this will be useful to the consumers to understand the reasons of why certain people took a few years to get out of their repayment.

It is hoped that findings from this study will give support to the government in rejoinder to the signal of the growth young consumer in debt. To keep the amount outstanding situation from deterioration, supervisory authorities in a number of organizations should tighten credit card lending standard and raised provisioning requirement in order to lessen the risk of deficit that caused by credit card debts which can affect financial and macroeconomics steadiness.

Lastly the findings will of course be a benefit to the potential young consumers, who are the forthcoming users of credit card, to use their credit card intelligently and stay away from getting into debts from the factors that had been revealed in this research.

Lastly the findings will of course be a benefit to the potential young consumers, who are the potential credit card users, to use their credit card intelligently and stay away from getting into debts from the factors that had been revealed in this research.

As the awareness on rise of credit card debts among young working adults, this research further suggested to the Malaysian government body shall concern about the matter in order to reduce credit card debts among young adults.

Finally, Malaysian government should tighten the rules of approving credit card since majority of the adults below age 30 indebted. Bank Negara should ask the commercial bank to take concern about the consumers' income and commitment level in order to approve credit limit. The credit limit shall set which do not exceed 2 months of the salary of the credit card applicant.

Last but not least, government should control the aggressive promotion of credit by the commercial banks. Providing benefits in the advertising of using credit card ultimately consumers will use credit card adversely.

References:

[1] Alexander, N. and Colgate, M. (2000), "Retail financial services: transaction to relationship marketing", *European Journal of Marketing*, Vol. 34 No. 8, pp.938-953.

[2] Antoinette, C. (1996) 'Easy Credit for Students Teaching Hard Lessons', *American Banker*, Vol. 161 No. 200, pp.16-17.

[3] Berkowitz, L. and LePage, A. (1967), "Weapons as Aggression consumers without much credit card experience, those who Eliciting Stimuli", *Journal of Personality and Social Psychology*, Vol. 7, pp.202–207.

[4] Bryman, A. and Cramer, D. (2001), *Quantitative Data Analysis with SPSS Release 10 for Windows*, London: Routledge.

[5] Chien, Y. and DeVaney, S. A. (2001), "The effects of credit attitude and socioeconomic factors on credit card and installment debt", *The Journal of Consumer Affairs*, Vol. 35, pp.162–179.

[6] Danes, S. M., and Hira, T. K. (1990), "Knowledge, beliefs, and practices in the use of credit cards", *Home Economics Research Journal*, Vol. 18, pp.223–235.

[7] Darkin, T.A. (2000), "Credit card use and consumer attitude 1970-2000", Available at http://www.federalreserve.gov/pubs/bulletin/2000/0900lead.pdf. (Accessed 12 February 2012)

[8] Davies, E., and Lea, S. E. G. (1995) 'Student attitudes to student debt', *Journal of Economic Psychology*, Vol.16, pp. 663-679.

[9] Duffy, M. (1990), "In Crowded Market, Specialty Players Seek a Niche", *American Banker*, No.17, pp.6A.

[10] Eugeni, F. (1993), "Consumer Debt and Home Equity Borrowing' Federal Reserve Bank of Chicago", *EconomicPerspectives,* Vol. March/April, pp. 2—14.

[11] Feinberg, R.A. (1986), "Credit Cards as Spending Facilitating Stimuli: A Conditioning Interpretation", *Journal of Consumer Research,* Vol. 12, pp384-356.

[12] Hair, J. F., Anderson, R. E., Tatham, R. L. and Black, W. C. (1998), *Multivariate Data Analysis*. 5thed. Pearson Education, Upper Saddle River, NJ.

[13] Jacquelyn, W. and Mansfield, P. (2000), ''Credit Card Consumers: College Students' Knowledge and Attitude'', *Journal of Consumer Marketing*, Vol. 17 No. 7, pp.617-626.

[14] Jones, J.E. (2005), ‘‘College Students' Knowledge and Use of Credit’’, *Journal of Financial Counseling & Planning,* Vol. 16 No.2, pp.9-16.
[15] Lea, S.E.G., Webly, P. and Walker, C.M. (1995), ‘‘Psychological Factors in Consumer Debt: Money Management, Economic Socialization, and Credit Use’’, *Journal of Economic Psychology,* Vol. 16 No. 4, pp.681-701.
[16] Lee, J. and Hogarth, J.M. (2000), ‘‘Relationships among information search activities when shopping for a credit card’’, *Journal of Consumer Affairs,* Vol. 34 No. 2, pp.330-360.
[17] Livingston, S.M. and Lunt, P.K (1992), ‘‘Predicting personal debt and debt repayment: Psychological, social and economic determinants’’, *Journal of Economic Psychology,* Vol. 13, pp.111-134.
[18] Malhotra, K. (1999), *Marketing Research: an applied orientation*, Upper Saddle River, NJ: Prentice Hall
[19] Mannix, M. (1999), “The Credit Card Binge. U.S. News and World Report”, Available at http://www.usnews.com/usnews/edu/articles/990906/archive_001825.htm. (Accessed 15 August 2012)
[20] Moore, G. C. and Benbasat, I. (1991), ‘‘Development of an instrument to measure the perceptions of adopting information technology innovation’’, *Information System Research,* Vol. 2 No. 3, pp.173–191.
[21] Prelec D. and Simester D. (2001), ‘‘Always leave home without it: a further investigation of the credit-card effect on willingness to pay’’ *Marketing Letters,* Vol. 12 No. 1, pp.5–12.
[22] Ritzer, G. (1995), *Expressing America: A critique of the global credit card society*, Thousand Oaks, CA: Pine Forge.
[23] Roberts, J.A. and Jones E. (2001), ‘‘Money attitudes, credit card use, and compulsive buying among American college students’’, *The journal of Consumer Affairs,* Vol. 35, pp.213-240.
[24] Sapsford, J. (2004), “Plastic Passes Checks, Cash as the Way to Pay”, The Wall Street Journal, Available at: http://articles.sun-sentinel.com/2004-07-25/business/0407230927_1_debit-cards-credit-cards-visa-card. (Accessed 13 January 2012)
[25] Schembari, J. (2000), “New College Sticker Shock: Junior's Credit Card Bill”, The New York Times, http://www.nytimes.com/2000/02/27/business/personal-business-midstream-new-college-sticker-shock-junior-s-credit-card-bill.html?pagewanted=all&src=pm. (Accessed 12 August 2012)
[26] Schor, J. (1998), *The overspent American: Up scaling. Downshifting and new Consumer*, New York: Basic Books.
[27] Sirgy, M. J., Lee D., Kosenko, R., Meadow, H. L., Rahtz, D., Cicic, M., Guang, X. (1998), ‘‘Does television viewership play a role in the perception of quality of life?’’, *Journal of Advertising,* Vol. 27 No. 1, pp.125-142.
[28] Shefrin H.M., Thaler R.H. (1994), ‘‘The behavioral life-cycle hypothesis’’, *Economic Inquiry* Vol. 26, pp.609–643.
[29] Tamara, D. and Javier, S. (2004), ‘‘Generation Broke: The Growth Debt among Young Americans’’, Available at. http://www.demos.org/pubs/Generation_ Broke.pdf. (Accessed 10 January 2012)
[30] Warwick, J. and Mansfield, P. (2000), ‘‘Credit card consumers: college students’ knowledge and attitude’’, *Journal of Consumer Marketing*, Vol. 17 No. 7, pp. 617-26.
[31] Zuckerman, G. (2000), ‘‘Borrowing Levels Reach a Record, Sparking Debate’’, *The Wall Street Journal* Vol. 5, p.1.