Unrealistic Optimism, Compulsive Purchasing and Debt-Stress among Credit Card Users in Sri Lanka

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ABSTRACT

Credit cards become increasingly popular in Sri Lanka while a total of 78,201 new issues were in 2019 first quarter (Central Bank report). Credit card usage affects the consumption patterns of people, sometimes leading to purchase excessively with impractical confidence (Omar, et al., 2013). According to the central bank report, around total of 118,905 cards are being defaulted where the payment is in arrears for 90days or more in 2019 showing an increment in credit card debts, which may result in stress among card users. In view of the timeliness and relevance of this issue, this study aims to investigate the impact of unrealistic optimism and compulsive purchasing on debt-stress among credit card users in Sri Lanka.

This study employs the quantitative approach in collecting data using self-administered questionnaires among 301 credit cardholders in Western Province, Sri Lanka who were chosen based on the non-probabilistic convenience sampling method. This study found a moderate positive impact of both the unrealistic optimism and compulsive purchasing on debt stress. Further, a moderate positive correlation was found between unrealistic optimism and compulsive purchasing too. This research contributes to fill the gap in the extant literature by broadening the understanding on concepts such as unrealistic optimism, compulsive purchasing, and debt stress which is prevalent among credit card users. Further, as managerial implications, this study provides a better understanding on cardholders in Sri Lanka which might be a good reference for banks, card service providers and investors in developing their policies. Further, it will support the business sector to develop the Sri Lankan non-cash payment market while policymakers and tax authorities can understand the causes of high credit card debts.

Keywords: *Unrealistic Optimism, Compulsive Purchasing, Debt Stress, Credit Cardholders*

1. INTRODUCTION:

Credit is derived from the Latin word "credere"; giving meaning the trust (Crouspeyre, et al., 2019) and takes place when a seller transfers his assets to a buyer who has agreed to pay later. In the present-day context, credit cards serve as a prominent payment instrument than cash or checks. The absence of a credit card would be problematic or perhaps tricky for many transactions. Though credit cards have become increasingly popular and more frequently used in many transactions, still there are arguments on pros and cons of using them. In such discussions, use of credit cards and widespread indebtedness took priority as interconnected elements (Durkin, 2000).

In 1989, the Commercial Bank of Sri Lanka had introduced credit cards to Sri Lanka. Currently, there are 17 licensed organizations engaging in credit card business where 14 of them are Commercial Banks and 03 belong to Finance Companies (Central Bank of Sri Lanka, 2019). With that, the demand for credit cards and the volume of transactions recorded an increase within the period of 2015 – 2019. In the first quarter of 2019, total of 78,201 cards were issued, and as a percentage it is a shift from 13.3% in 2018 to 23% in 2019 (CBSL, 2019). It shows a rise of volume and value of credit card transactions, proving that Sri Lanka is heading towards cashless world with more credit card purchases.

In Sri Lanka, majority of workers get their salaries in monthly or weekly basis, while very few people get in daily based. However, consumers spending has no specific time profile, thus, they use credit cards to make day today payments without waiting for the next salary leading to make payments arrears. When analyze the trend of credit cards being defaulted within last 5 years, it was found that first quarter in 2019 had the maximum defaults of 118,905 cards. The percentage change in defaulted credit cards increased from 15.8% in first-quarter 2018 to 16.1 % in first-quarter 2019 (CBSL, 2019).

In such a backdrop, understanding the major determinants of credit card use and its bad impacts such as indebtedness become more important. Accordingly, this study focuses on examining the impact of unrealistic optimism and compulsive purchasing on debt stress among credit card holders in Sri Lanka.

The remainder of the paper consists with four sections. First, the relevant literature is given and thereafter the paper details the research design and methodologies. Third, it presents the

findings of the study followed by a detailed discussion. The final chapter focuses on the conclusion, recommendations and the future research directions.
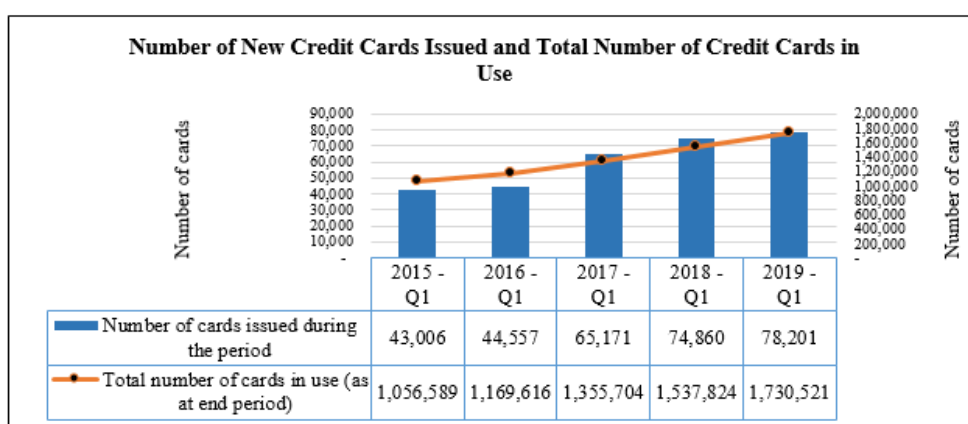
2. LITERATURE REVIEW:

This section begins by presenting a quick historical overview on Sri Lankan credit card market. Next it reviews the theoretical background of unrealistic optimism, compulsive purchasing, and debt-stress. Hypotheses are developed based on the literature.

2.1. Sri Lankan Credit Cards Market:

Sri Lanka's banking sector comprises Licensed Commercial Banks (LCBs), and Licensed Specialized Banks (LSBs). In 1989 Commercial Bank launched credit cards in the Sri Lankan context (Payments Bulletin, First Quarter 2019). The credit card market leaders are American Express, which is handled by the Nations Trust Bank and also recently by Sampath and HSBC. According to the Central Bank evidence, 14 Licensed Commercial Banks and 3 Finance Companies had been licensed to engage in the business of credit cards in the first quarter of 2019. According to Central Bank statistics, there was a significant upward trend in credit card issuance in Sri Lanka such that 1,056,589 activated credit cards were in use in September 2015 increase up to 173, 521 in 2019. Among them, 31,289 were only accepted locally, whereas 1,084,010 (more than 97%) were accepted globally.

The trend of credit card issuance and usage in Sri Lanka within the years (2015-2019) is shown in figure 1.

Figure 1: Credit cards issuance and usage in Sri Lanka (quarter base)

	2015 - Q1	2016 - Q1	2017 - Q1	2018 - Q1	2019 - Q1
Number of cards issued during the period	43,006	44,557	65,171	74,860	78,201
Total number of cards in use (as at end period)	1,056,589	1,169,616	1,355,704	1,537,824	1,730,521

Source: First quarter payment bulletins 2015-2019 – Central Bank of Sri Lanka

Figure 2 shows the volumes and values of the transaction in the Sri Lankan context. It was increased continuously during the period. Spending through credit cards rose by 22% year-on-year to Rs. 63 billion during the January - March first quarter of 2019 against Rs. 51.6 billion last years, according to data released by the payment bulletin 2019.

Figure 2: Credit card transactions in Sri Lanka (quarter base)
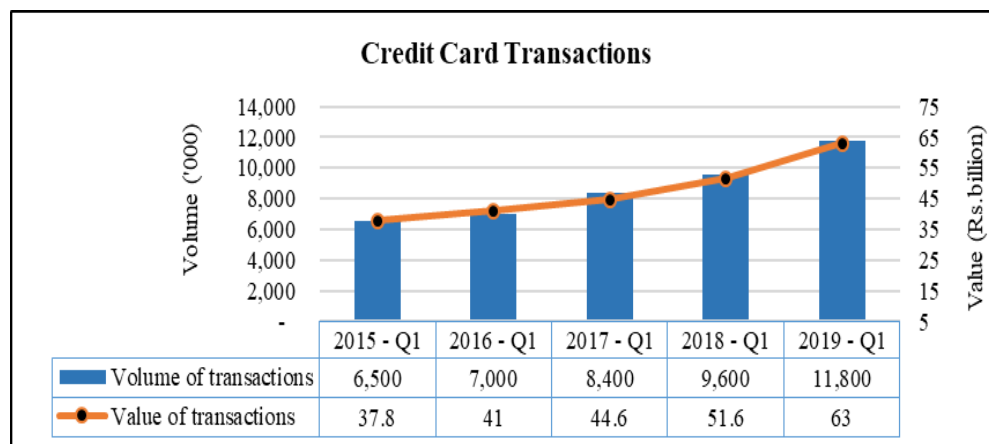
Source: First quarter payment bulletins 2015-2019 – Central Bank of Sri Lanka

However, the problem is not the increasing trend of credit card issuance or use. The problem is the increasing trend of credit card indebtedness in past years. Accordingly, the credit cards default with a total of 118,905 cards where the payment is in arrears for 90 days or more in the first quarter of 2019. Figure 3 displays the credit card defaulted background in Sri Lanka.

Figure 3: Defaulted credit cards (quarter base)
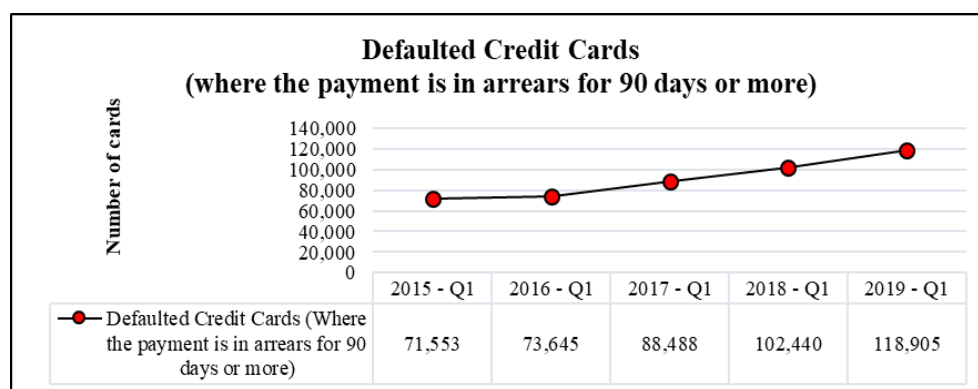
Source: First quarter payment bulletins 2015-2019

2.2. Credit Card Debt:

According to Kossman (2019), Credit card debt is a form of revolving debt that means cardholders can keep borrowing month after a month. As long as they are paying back enough, they never owe more than a set limit. Credit card debt is also unsecured, meaning that a piece

of property that can be confiscated if stop making payments is not backed up. If the holder does not repay the debt by credit card, it can seriously damage credit score and history (Kossman, 2019).

2.3. Debt and Stress:

The use of credit cards has advantages and disadvantages, depending on the pattern of use it (Punjawani, 2020). The prudent and correct use of a credit card reduces individual liquidity risk and provides additional resources. However, if credit card expenditures are unconscious and over-budgetary limits may cause individuals to have excessive debt creating financial difficulties or leading to bankruptcies. Therefore, individuals must be aware on financial regulations of credit cards their financial capacities to have a conscious use of a credit card and to reduce indebtedness. Previous scholarly work is available on identifying credit card borrowing behavior. Hayhoe (2000) found that an affective credit disposition, financial practices, and financial stressors are associated with keeping a balance of credit cards (Hayhoe, et al., 2000).

There is a connection between debt and stress. According to a Nerdwallet report (2016), the average U.S. household with credit card has $16,748 amount of debt and among them 56% had been adversely affected by such indebtedness while 28% gone through stress (Dickler, 2016). Drentea's (2000) also found that higher levels of stress and persistent anxiety correlate with the credit card debts (Drentea, 2000). This psychological distress can turn into extreme cases such as impaired mental health and social functioning problems (Norvilitis, 2006) while some rare instances such as suicides also can be happened (Manning, et al., 1999).The credit card debt become traumatic, causing both the physical and mental ill-health, reducing personal/ family well-being (Drentea & Reynolds, 2014).

2.4. Unrealistic Optimism:

Individuals are viewed as unrealistically optimistic when they assume that the future will be more favorable and when unduly expect favorable outcomes compared to other social groups (Shepperd, et al., 2013). It depends on the individual's personality and therefore can be vary from person to person (Davidson & Prkarchin, 1997). There can be many reasons for unrealistic optimism (Shepperd, et al., 2002), making it a strong and common phenomenon (Tyler & Rosier, 2009) in today's world.

There are two types of unrealistic optimism.

1) Unrealistic Absolute Optimism - It applies to an unjustified expectation (Shepperd, et al., 1996) that a particular result will be more desirable than what an objective standard suggests (Calderon, 1993) such as examination grades or starting-salaries (Newby-Clark, et al., 2000).

2) Unrealistic Comparative Optimism - It applies to the erroneous assumption that one's results will be more favorable than peer results. There are two common methods used by researchers to record unrealistic comparative optimism. The first is when a person erroneously assesses that his or her risk is lower than that of others, such as more likely, less likely, or similarly likely to experience something bad such as a fatal heart attack or a cancer than the average individual (Waters, et al., 2011). Radcliffe and Klein's (2002) recognized 56% of people are unrealistically optimistic while few of others are unrealistically pessimistic (Yanian & Cleary, 1999).

The second approach to recording unrealistic comparative optimism can only determine whether it is unrealistically optimistic for a group of people, rather than a specific individual. The method takes the premise that a group demonstrates precision when the mean for a particular outcome of its comparative risk assessments is "average." (Shepperd, et al., 2013).

People are not unrealistically optimistic at every time (Harris, et al., 2008) or for every event (Chambers, et al., 2003). Unrealistic optimism doesn't always present a problem and can result positive outcomes too (Armor & Taylor, 1998). Both the unrealistic absolute optimism and comparative optimism can have major effects on people's performance, decision-making (Jansen, et al., 2011) and behavior (Weinstein, 2001) such as insufficient preparation and time management in completing tasks (Newby-Clark, et al., 2000).

People who are in a higher degree of unrealistic optimism tend to consider that they are smarter (Wylie, 1979), less prejudiced (Fields & Schuman, 1976), more fair-minded (Messick, et al., 1986), and more expert in things like driving (Svenson, 1981) than others. Furthermore, people who are at a high level of unrealistic optimism have an opinion of managing stress, illness, or unpleasant things (Hassinger, et al., 1999). People with unrealistic optimism on credit card payment make worse decisions (Yang, et al., 2007).

Based on the above discussion this study developed a hypothesis as.

H1 – There is a significant impact of unrealistic optimism on debt stress among credit card users in Sri Lanka.

2.5. Compulsive buying behavior:

Compulsive buying is outlined as frequent preoccupation with buying or desires to buy that are recognized as irresistible, intrusive, and/or senseless (Moore, 2009). Thus, compulsive consumers have an irresistible incentive to buy goods and services even if they aware of the adverse effects of such behaviors on personal, social, and financial situation (Dittmar, 2007) If consumers do not manage their consumption patterns, it would impact on buying unnecessary things, high volumes than they needed, exceeding their financial conditions (Koran, et al., 2006) resulting financial losses (Roberts & Jones, 2001). Faber and O'Guinn (1989) observed that individuals who used to do compulsive consumption are spending more than other people, and particularly when they use credit cards, they spend more. It clearly shows that proper utilization of credit cards may provide both financial security and flexibility while inappropriate utilization creates financial difficulties (Robert & Jones, 2001; O'Guinn & Faber, 1989). .

However**,** compulsive purchasing and impulse purchasing are different from each other (Koparal & Calik, 2014) such that external stimulus such as a product near to the cash register causes impulse purchases (Johnson and Attman, 2019) while internal stimulus such as individual's personality, hopes, materialism and shopping habits causes compulsive buying. O'Guinn and Faber (1989, p. 155) described compulsive buying behavior as a "chronic, repetitive" type of purchase in response to negative feelings and events while Roberts and Jones (2001) found as a determinant of anxiety (O'Guinn & Faber, 1989; Robert & Jones, 2001). Ahmed (2010) note that credit cards are now becoming mandatory, which gives users aspirations (Delener & Katzenstein, 1994) force consumption (Robert & Jones, 2001).

Based on the above literature, the following hypothesis was developed.

H2 - There is a significant impact of compulsive purchasing on debt stress among credit card users in Sri Lanka.

Further, Park and Burns (2005) note that using credit cards cause to purchase more while Hoyer and Macinnis (2006) mentioned the same as compulsive buyers make purchases without thinking about their needs (Park & Burns, 2005; Hoyer & Maclnnis, 2006). Robert (1998) recognize that compulsive purchases could result from higher use of credit cards (Roberts, 1998). According to them compulsive purchasing exploits their customers, pushing them to pay only the minimum due amount, and pay the due with higher interest rates.

Several researchers looked at related psychological factors around consumer credit borrowing behavior. Yang (2007) has shown that unrealistic optimism about potential borrowing is associated with the use of credit cards. Tokunaga (1993) note that unsuccessful credit card users with credit-related problems display lower self-efficacy, viewed money as a source of power and prestige (Tokunaga, 1993). Not only that, they take fewer steps to retain their money, display lower risk-taking and sensation-seeking tendencies, and express greater anxiety about financial matters than successful users.

Based on the above literature, this study developed the following hypothesis.

H3 - There is a relationship between unrealistic optimism and compulsive purchasing.

The following conceptual framework (figure 4) illustrates the study design.

Figure 4: Conceptual Framework
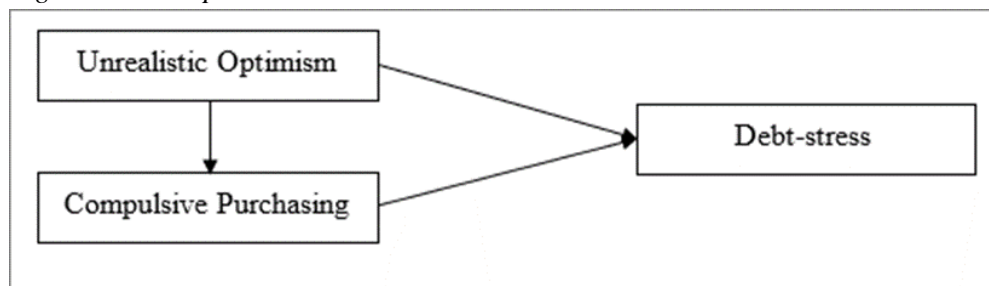
3. METHODOLOGY:

The main purpose of this study is to measure the impact of unrealistic optimism and compulsive purchasing on debt stress among credit card users in Sri Lanka. Positioning the study within the positivistic research paradigm, a quantitative approach carried out with a survey distributing self-administered questionnaires among 350 credit card users in western province, Sri Lanka chosen based on convenience sampling method. It was difficult to adopt probability sampling due to the difficulty in finding proper sampling frames and time constraints.

Constructs were operationalized through a rigorous literature review and scales were developed with five-point Likert scale ranging from 1=strongly disagree to 5=strongly agree. Expert opinions were taken with the aim of further improving the research instrument which was followed by a pilot study.

Data were checked against missing values and outliers. Multivariate assumptions were mainly checked through normality. Internal consistency of the items was measured using Cronbach's alpha and validity was ensured through content validity, construct validity and discriminant validity. Exploratory factor analysis was carried out to ensure the unidimensionality nature of the data. Finally, data were analyzed using descriptive statistics, correlation and regression.

4. DATA PRESENTATION FOR ANALYSIS:

Three hundred and twelve (312) questionnaires were returned, and eleven questionnaires were recognized with serious missing values. As a percentage, it is 3.5% of the sample and therefore, the researcher dropped them from final analysis (Glas & Pimentel, 2008). Few other questionnaires which had small number of missing values were treated with the median (Hair, et al., 2016). The researchers subsequently checked outliers using boxplots and found eight occurrences in three variables. As suggested by Hair et al (2016), researchers closely observed those variables and recognized as true expressions of the respondents than typical outliers and therefore decided to keep in the data set.

4.1. Test of Normality:

The skewness and kurtosis assessed by looking at the distribution of the variables. As recommended in the literature skewness and kurtosis values are preferred to be established in between -1.96 and +1.96 which this study satisfied the conditions (Trochim & Donnelly, 2006; Field, 2009; George & Mallery, 2010; Gravetter & Wallnau, 2014).

4.2. Validation of Measurement Properties:

Exploratory Factor Analysis (EFA) was carried out to identify the unidimensionality of the measures and all the items indicated factor loadings above 0.5 as shown in the table 1.

Table 1: Factor analysis matrix

Factors / Item	Component 1	Component 2	Component 3	% of Variance
UO03	0.806			71.643%
UO04	0.792			
UO05	0.867			
UO06	0.916			
UO07	0.845			
CP02		0.596		63.417%
CP05		0.888		
CP06		0.781		
CP07		0.754		
CP08		0.922		
DS03			0.651	64.566%
DS05			0.783	
DS06			0.873	
DS07			0.828	
DS08			0.840	
DS09			0.827	

Source: Survey Data

4.3. Test of Validity:

Validity can be assessed by examine the content validity, criterion validity, and construct validity (Sekaran, 2006, p.203). This study ensures the content validity since all the indicators (independent variables and a dependent variable) have been taken from the well-established literature. Convergent validity was ensured by checking factor loadings, squared multiple correlations, average variance extracted, reliability etc.

Table 2: Summary of convergent validity results

Variable Name	KMO	Sphericity test for Bartlett (Sig)	Average Variance Extracted (AVE)	Composite Reliability (CR)	Cronbach's Alpha
Unrealistic optimism (UO)	0.806	0.000	0.72	0.93	0.898
Compulsive purchasing (CP)	0.660	0.000	0.63	0.89	0.847
Debt-stress (DS)	0.854	0.000	0.65	0.92	0.887

Source: Survey outcome & own computation

KMO values for the three variables shown in table 4 are greater than 0.5, Sphericity test for Bartlett is also significant. All the composite reliabilities exceeded 0.7. The AVE values also are over 0.5 suggesting the convergence validity of the scales is of high quality. Cronbach's alpha coefficients of unrealistic optimism, compulsive purchasing, and debt-stress were 0.898, 0.847, and 0.887 respectively, indicating internal consistency of the data.

Table 3: Summary of discriminant validity results

Variable Name	CR	AVE	Variable Name		
			UO	CP	DS
Unrealistic Optimism (UO)	0.93	0.72	0.849		
Compulsive Purchasing (CP)	0.89	0.63	0.542	0.794	
Debt-Stress (DS)	0.92	0.65	0.580	0.601	0.806

Source: Survey outcome & own computation

The square root of each AVE values of each variable is shown as 0.849, 0.794, and 0.806 respectively and 0.542, 0.580, and 0.601 are indicated the correlation coefficients of three variables. Hence the square root of each AVE values is greater than the correlations of each other variables it ensures the discriminant validity.

4.4. Hypotheses Testing:

This study aims at examining the impact of unrealistic optimism and compulsive purchasing on debt stress among credit card users in Sri Lanka. And also attempt to explore relationship between unrealistic optimism and compulsive purchasing.

Examine the impact of unrealistic optimism and compulsive purchasing on debt stress among credit card users in Sri Lanka.

A linear regression analysis was performed on the variables to check this hypothesis. According to the findings, unrealistic optimism and compulsive purchasing together explain the 45% of the debt stress, denoting that possibility of having other factors which can influence debt stress among credit card holders which have not addressed in the study.

Table 4: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.672ᵃ	.452	.448	. 627
a. Predictors: (Constant), Unrealistic Optimism				

Source: Survey Data

According to the table 5, model became significant at (f= 122.94, df=2, p<0.05), suggesting that analysis would generate correct findings.

Table 5: ANOVA table

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	96.698	2	48.349	122.942	.000b
	Residual	117.193	298	.393		
	Total	213.891	300			
a. Dependent Variable: Debt Stress						
b. Predictors: (Constant), Compulsive Purchasing, Unrealistic Optimism						

Table 6 suggests that Unrealistic optimism has a moderate positive significant impact (β=.364, p<0.05) while Compulsive Purchasing also has a moderate positive significant impact (β=.543, p<0.05) on debt stress.

Table 6: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.244	.193		1.264	.207
	Unrealistic Optimism	.364	.052	.359	7.042	.000
	Compulsive Purchasing	.543	.068	.406	7.952	.000
a. Dependent Variable: Debt Stress						

Source: Survey Data

Examine the relationship between unrealistic optimism and compulsive purchasing

A correlation analysis was performed to understand the relationship between unrealistic optimism and compulsive purchasing.

Table 7: Correlation

		Unrealistic Optimism	Compulsive Purchasing
Unrealistic Optimism	Pearson Correlation	1	.542**

Sig. (2-tailed)		.000
N	301	301

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Survey Data

A moderate positive relationship was found in between unrealistic optimism and compulsive purchasing (0.542, p<0.05).

5. DISCUSSION:

This study attempted to understand the impact of unrealistic optimism and compulsive purchasing on debt stress among credit card holders in Sri Lanka. The study found that both the compulsive purchasing (β=.543, p<0.05) and unrealistic optimism (β=.364, p<0.05) have significant positive impact on debt stress.

According to the literature, debt stress is influenced by many reasons (Shepperd, et al., 2002) whereas people with unrealistic optimism about credit card payment take worse decisions (Yang, et al., 2007). With wishful thinking or unrealistic optimism, credit cardholders use their cards continuously (Hassinger, et al., 1999), and find difficulties in settling the credit cards which cause to debt-stress (Shepperd, et al., 2002).

However, people are not unrealistically optimistic at every time, (Harris, et al., 2008) and they will be less likely to show unrealistic optimism about things they consider beyond their control (Klein & Helweg-Larsen, 2002). Unrealistic optimism does not always present a problem (Armor & Taylor, 1998) and it can have positive effects too. However, use of credit cards with unrealistic optimism cause more use of it exceeding their financial capacities that finally result stress.

Further, if consumers do not manage their patterns of consumption, it would have an impact on buying what they necessarily want or high volumes than they needed, exceeding their financial limits (Koram,2006). Roberts and Jones (2001) stated that the major negative effect of performing compulsive purchasing practices is a high volume of debt. similarly, O'Guinn (1992) also observed that individuals who have compulsive consumption meet higher spending goals, leading to financial difficulties (O'Guinn & Faber, 1989; O'Guinn & Faber, 1989).

In the Sri Lankan context, proper utilization of credit cards may provide both financial security and flexibility. Inappropriate utilization, however, creates financial difficulties.

6. CONCLUSION, RECOMMENDATIONS AND FUTURE RESEARCH DIRECTIONS

Currently, credit cards have become increasingly popular and more frequently used than cash in purchases. However, still it is debatable that the credit card trend is beneficial or detrimental. At the beginning of this paper, current usage and default rates of credit cards were provided with statistical evidence. Accordingly, both the use of credit cards and rates of bring default are increasing in Sri Lanka. The wide spreading of credit card usage affects the consumption patterns of consumers. However, if credit cards are misused, the drawbacks can result in behavioral and economic consequences such as stimulating compulsive purchasing and credit card debt. This unmanageable debt burdens eventually cause stress. This study also proved that credit card user's compulsive purchasing and unrealistic optimism result in debt stress.

Since there were limited literature available in Sri Lankan context, this study contributed to fill the theoretical gap by well explaining the concepts with practical blend. From a practical perspective, the findings of this study provide valuable insights into the Sri Lankan credit card users to better understand the trap that they might catch if they use credit card without proper management. The banks and other financial institutions who engage with credit card business also can obtain insights from this study to better comprehend their customers.

As limitations, this study was conducted at western province, using 301 sample chosen based on non-probabilistic convenience sampling method, thus, won't be generalize to the whole Sri Lankan context.

Since unrealistic optimism and compulsive purchasing are not only the factors that effect on debt stress, but future researchers can also investigate on social influence, situational factors, depression, guilt, excessive debt, family conflict relate with the use of credit cards.

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