Does Credit Card Usage Enhance Defaults Among Compulsive Buyers?

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INTRODUCTION

The retailing environment in India is fast changing with large domestic and foreign retailer groups setting shops of different formats (A.T. Kearney and CII, 2006). The gross retail sales in India amounted to around US$242 billion in 2007. The organized retail market was to attain US$30 billion mark by 2010 (A.T. Kearney and CII, 2006). The Indian retail market has the largest retail outlet density in the world, with around twelve million outlets. The organized retail sector in India was expected to grow at a compounded annual growth rate of 35 percent for four years until 2010 (A.T. Kearney and CII, 2006). The per capita consumption in India was around US$400 compared to that in USA (US$27,643), China (US$609), Malaysia (US$2,042) and Thailand (US$1,572) (Equity master, 2009).The total operational retail space available in 2008 was 100 million square feet (Economic Times, mall mania, 2007). The retailing space per capita was two square feet in India compared to 16 square feet in the US (ICT, KSA Technopak, 2007).

India's economic growth has accelerated significantly over the past two decades and it has inflated the spending power of its citizens. Real average household disposable income has doubled since 1985.With rising incomes, household consumption has increased and a new Indian middle class has emerged (McKinsey Global Institute, 2007). Income levels will almost triple and India will climb from its position as the 12th largest consumer market today to become the world's fifth-largest consumer market by 2025.As Indian income rises, the shape of the country's income pyramid will also change dramatically. Over 291 million people will move from desperate poverty to a more sustainable life, and India's middle class will swell by over ten times from its current size of 50 million to 583 million people. By 2025, over 23 million Indians will number among the country's wealthiest citizens. While much of this new wealth and consumption will be created in urban areas, rural households will benefit too. Annual real rural income growth per household will accelerate from 2.8 percent over the past two decades to 3.6 percent over the next two (McKinsey Global Institute, 2007).

The identity of the Indian family is changing with many educated women entering the workforce, generating higher family disposable income and propelling consumer demand. The increase in variety, quality, availability of products and the convenience in the purchase process has resulted in consumers increasingly using supermarkets for personal shopping (Sinha and Dwarika, 2005). The consumer behaviour indicates people taking more time out for shopping and window shopping. There is an increasing tendency of brand switching and decreasing brand loyalty as well (Business Today, 2009).

With 25 million credit cards in circulation, a major concern is the default rate in India, which was at an average of 10 to 12 percent in 2007 (Economic Times, credit cards, 2007). The annual spending on credit cards, which was US$ 11 billion, is expected to grow 50 percent annually for the next five years (Economic Times, Plastic Money, 2007). In the given context, the study attempts to understand the impact of the retailing and credit card environment on compulsive buying and credit default.

REVIEW OF LITERATURE

According to the Classical Learning Theory, stimuli such as the sensory qualities of the product, the retail environment, the consumer's train of thoughts and emotional responses evoke the conditioned response of impulse buying **(Kotler, 1973; Hirschman, 1992; Rook and Fisher, 1995)**. Compulsive behaviour is seen as an impulse disorder, or its one's inability to restrain an impulse. Impulse behaviour is seen as a combination of attributes like a sudden and

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spontaneous desire to get, a state of psychological disequilibrium, the onset of psychological conflict representing an inner battle of thoughts, a reduction in rational evaluation of product attributes and lack of regard or denial for consequences in behaviour **(Rook and Hoch, 1985)**. The extent to which consumers tend to buy products on impulse could determine their compulsivity.

Positive outcomes of buying in the form of benefits of the product and satisfaction of consumer needs reinforce the impulse behaviour with a feeling of pleasure and excitement **(Gardner and Rook, 1988)**. Impulse buying can temporarily block negative thoughts and feelings, like the inability to repay credit.

As buyer motivation shifts from the desire to purchase a specific product to desire for the buying process, acute episodes of impulse buying may give way to chronic compulsive buying, escalating out of proportion to become addictive buying. Addictive buying is the transition from abuse to dependency, marked by diminished response (tolerance), withdrawal symptoms, and other indicators commonly associated with chemical addictions **(Marlatt G. A, Baer J .S, Donovan D. M., and Kivlahan D. R, 1988)**.

The Social Cognitive Theory (SCT) stemming from the Social Learning Theory (SLT) is otherwise called Classical Learning Theory (CLT) **(Bandura, 1977; 1986; 1989)**. The SCT defines human behaviour as an outcome of triadic, dynamic and reciprocal interaction of personal factors and behaviour in the environment. The SCT maintains that most external influences affect behaviour through cognitive processes. The cognitive process includes formation of symbols and vicarious processes of learning including direct and observational learning. The cognitive process additionally includes human behaviour regulated by forethought and expectations of behavioural outcomes. In conclusion, the self-regulation and self-reflection explicates buying behaviour as a rational response to a set of stimuli **(Bandura, 1977; 1986; 1989)**.

Self-regulation mechanisms are used to explain the rational process of buying. Self-regulatory systems mediate external influences and provide a basis for purposeful action, allowing people to have personal control over their own thoughts, feelings, motivations and actions **(Bandura, 1989)**. Self-regulation is an internal control mechanism that governs what behaviour is performed, and the self-imposed consequences of that behaviour. Self-regulation is extremely important because it allows the gradual substitution of internal controls for external controls of behaviour. Self-reflection enables people to analyze their experiences, think about their own thought processes, and alter their thinking accordingly **(Bandura, 1977; 1986; 1989)**. Lack of self-regulation leads to unregulated buying and distinguishes compulsive from non compulsive buyers **(Rook, 1987; Marlatt *et al.,* 1988; O'Guinn and Faber, 1989; McElroy, Satlin, Pope, Keck, Hudson, 1991, 1994; Valence, d'Astous, Fortier, 1988; O'Guinn and Faber, 1992; Weun, Jones, Beatty 1998; Nataraajan and Goff, 1992)**.

❁**Credit Card Default :** Credit card default measures the credit quality or worthiness of an individual, which can best be evaluated by analyzing the probability of an individual running out of both- cash and profits at any given moment, thereby adversely affecting ones liquidity position. The disproportionate spending tendency of compulsive buyers can lead to adverse liquidity position and to credit default.

❁**Compulsive Buying :** Compulsive buying is chronic, repetitive, excessive purchasing as a response to negative life events, inner deficiencies or negative feelings and carries strong compensatory components. The buyers are confronted with a tendency to perform the act of buying in order to compensate for stress, disappointment, frustration, or lack of self-esteem **(O'Guinn and Faber, 1989; Scherhorn, Reisch and Raab, 1990)**.The causes of compulsive buying are psychological, socio-cultural, and psychiatric in nature (APA, 2000). Compulsive buying lies along a continuum rather than at the extremes, i.e. a person either is or is not a compulsive buyer **(d'Astous, 1990)**. It can be a temporary behaviour, and not just an inherent one where individuals temporarily develop compulsive buying tendencies in stressful situations. The second group has a pre-dispositional tendency **(Desarbo and Edwards, 1996)**.

Repeated buying, a chronic symptom of compulsive buying can harm not only the individual, but his/her family and society, and can result in overspending, extreme indebtedness and bankruptcy **(McElroy, Satlin, Pope, Keck and Hudson, 1991; O'Guinn and Faber, 1992)**.

H1- Compulsive buying is positively related to credit default.

❁**Materialism :** Materialism is conceived as a complex trait, which reflects the centrality of possessions in an individual's life **(Belk, 1985)**.Materialistic individuals prefer to pursue happiness by acquiring possessions. These individuals tend to judge people's success by the quantity and quality of their possessions. Materialistic people tend to direct their thoughts and behavior toward possessions over other pursuits like personal relationships, experiences, or intellectual enrichment **(Christopher, Marek, & Carroll, 2004; Richins & Dawson, 1992; Richins & Rudmin, 1994)**. The trait materialism has three sub dimensions which include **(a)** The Role of acquisition in happiness **(b)** The Role of possessions in defining success and **(c)** The acquisition centrality. **Richins and Dawson (1992)** identified the following traits in materialistic individuals: **(a)** They desire a higher level of income than those low in materialism **(b)** Such individuals place greater emphasis on financial security and less on interpersonal relationships, **(c)** They prefer to spend more on themselves and less on others, **(d)** They engage in fewer voluntary simplicity behaviors, and **(e)** Are less satisfied with their life in general.

When the need for security, safety and sustenance are not fully satisfied, people place a strong focus on materialistic values and desires and turn to buying, in an attempt to claim status **(Kasser and Sheldon, 2000)**. It is found that highly materialistic individuals tend to experience greater negative effects and less positive effects than did less materialistic individuals **(Christopher and Schlenker, 2004)**. People highly oriented towards the acquisition of wealth and possessions, usually report low levels of well being **(Belk, 1985; Richins and Dawson, 1992; Wright and Larsen, 1993; Mick, 1996; Sirgy, 1998; Carver and Baird, 1998; Kasser and Ryan, 1993, 1996, 2001)**. To summarize, materialistic individuals, in their pursuit for possession of goods, end up in more frequent buying and this can adversely affect their financial outcomes.

H2- Materialism is positively related to both compulsive buying and to credit default.

☸**Enhanced Credit Card Spending Behaviour :** Credit card enhances spending as it permits current purchases to be made on the basis of anticipated future income **(Hirschman, 1979)**.The probability, speed and magnitude of spending is enhanced when credit card stimuli is used, which is attributed to conditioning **(Fienberg,1986)**. The increased spending could be a result of consumer computation bias: the use of credit cards reduces the relevance of immediate payments and consumers are unable to keep track of actual expenditure and the status of their wealth. On the other hand, maintaining a check book makes prominent the consumers expenditures and the wealth status. Spending power that is offered by a credit card's credit limit is confused by consumers with increased wealth, especially since this credit line has been granted by experts **(Soman, 1996)**. The presence or absence of credit card(s) has its influence on one's shopping habits like planned/unplanned purchases, spending and repayment style, and thus effects financial outcome which is predominantly tall among compulsive buyers.

H3a- Compulsive buying is positively related to enhanced credit card spending.

H3b- Enhanced credit card spending leads to credit default.

☸**Credit Card Financing Behaviour :** There are several reasons why people use and abuse credit: economic necessity, lack of budgeting skills, the influence of media images and compulsive buying **(O'Guinn and Faber, 1988)**.Many people borrow because they do not have the resources necessary to achieve a certain standard of living. Some choose to go beyond an achievable standard to maintain a higher desired standard of living and use credit to achieve it. Some people do not know how to budget their money, and to live within their means. People arrange wealth into three different mental accounts viz current income, current assets, future income and their propensity to consume differs based on their mental accounts **(Shefrin and Thaler, 1988, 1992)**. Convenience users pay their credit card balances in full every month, the finance users carry a balance from month to month **(Janvrin,1999)**. If credit card financing behaviour is beyond of one's controllable limits, that will lead to a loss of track on ones mental accounts and thus enhances the probability of default.

It is reported that credit cards are widely abused by compulsive buyers due to their disproportionate buying behaviour and their inability to perceive its financial consequences **(O'Guinn and Faber, 1992)**. There is increasing evidence that credit card debt has contributed to the rise in family financial problems and personal bankruptcies **(Brobeck, 1997)**. Consumers who use credit cards spend more when compared to customers using other means of payment **(Tokunaga, 1993; Soman, 2001)**. Behavioural, psychological, demographic variables can predict consumers, who use consumer credit effectively **(Tokunaga, 1993)**. The differences in credit card spending and credit card financing behaviour of highly materialistic persons from those who are less materialistic need to be investigated **(Palmer,Pinto,Parente,2000)**. The presence of a credit card enhances the urge to finance ones spending particularly among individuals who are materialistic and compulsive buyers.

H4a- Compulsive buying is positively related to credit card financing behaviour.

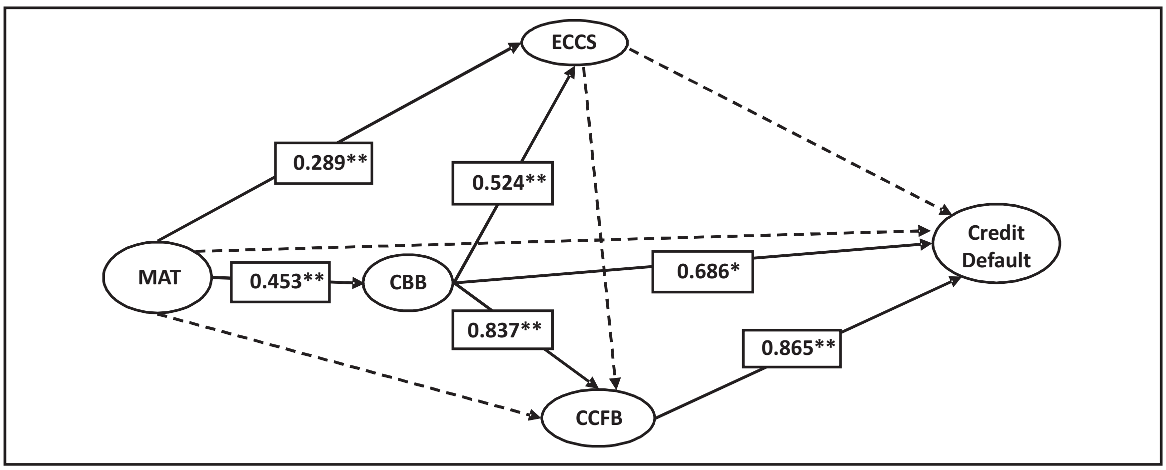
H4b-Credit card financing behaviour leads to credit default.

H5a-Materialism is positively related to enhanced credit card spending.

H5b-Materialism is positively related to credit card financing behaviour.

Compulsive shoppers encounter temptations daily due to various factors such as easier access to malls, variety of products being available and the fact that present shoppers have little social stigma attached to constant shopping **(Hirschman, 1992)**. Shopping is also changing in nature **(Cambell, 2004)**.The focus of modern shoppers is shifting from the purchase of provisions to satisfying the physical needs of oneself, to the use of consumer goods as a distinctive means of acquiring and expressing ones self-identity, regulatory emotions and gaining social status **(Dittmar and Beatty, 1998; Elliott, 1994; McCracken, 1990)**. Changes in the family and environment have enhanced the complexity of consumption and created an atmosphere to be more favourable to demonstrate compulsive behaviour **(Mick, Broniarczyk and Haidt, 2004)**. The belief that consumer goods are a route towards success, identity and happiness are the core values of consumer society **(Dittmar and Drury, 2000)**.

Figure 1: SEM Model Depicting The Relationship Among The Variables



❁**Explanation Of The Figure:** The significant regression weights are indicated by the *bold* directional arrow together with their reported values (Final Model). Rejected paths are shown in *dotted* lines. Both types of arrows together represent the base model. Table 2 and 3 indicate goodness of fit of the model. Indicators and error terms of latent variables are not part of the figure.

RESEARCH DESIGN

❁**Population And Sample:** There are around 0.35 million credit card users in Cochin metropolitan area, Kerala (Total of 1.5million people). These cards are offered by 28 different national and international banks together having 199 different types of product offerings. A quota sample of 350 respondents was selected from among those who are using the credit cards for a period of greater than one year. This method was identified by the researcher as a credible way of tracking credit card spending and financing patterns as the respondents had completed a few billing cycles in the said period. Prior to this, a pilot study was conducted among 100 credit card users to measure their responses and to validate the questionnaire. The number of completed questionnaires received by the researchers were 299.

❁**Questionnaire And Data Collection:** Materialism (MAT) has 5 items measured on a 5 point Likert scale from strongly disagree to strongly agree. Those who score three neither agree nor disagree to materialistic nature. The scale was adopted from James Carl Stone IV, (2001) Oklahoma State University for reduced number of items. The following were the statements in the questionnaire. **(a)** I enjoy buying expensive things. **(b)** My possessions are important for my happiness. **(c)** I like to own nice things more than most people in my immediate and comparable vicinity. **(d)** Acquiring valuable things is important to me. **(e)** I enjoy owning luxury items. To avoid measurement error, in the beginning of the questionnaire, it has been quoted that respondents need to indicate what they do in daily life and not what they think about.

The Compulsive buying (CBB) has 9 items measured on a 5 point scale from never to very often. Those who score three are sometimes compulsive buyers. The following are the statements in the questionnaire **(a)** I have bought things that I could not really afford. **(b)** I bought something to make myself feel better. **(c)** I felt depressed after shopping. **(d)** I have gone on a buying spree without being able to stop. **(e)** I bought something and when I got home, I wasn't sure why I bought it. **(f)** I felt anxious on days I didn't do shopping. **(g)** I buy things simply because they are on sale. **(h)** I just wanted to buy and didn't care what I bought. **(i)** I have felt that others would be horrified if they knew about my spending habits. The scale was adopted from James Carl Stone IV, (2001) Oklahoma State University. To avoid measurement error, in the beginning of the questionnaire, it has been stated that respondents need to indicate how frequently they engage in the following in daily life and not how they wish they could.

Enhanced credit card spending (ECCS) has 5 items measured on a five point Likert scale from strongly disagree to strongly agree. Those who score three neither agree nor disagree to be enhanced credit card spenders. The following are the statements in the questionnaire **(a)** I end up buying more due to the possession of a credit card. **(b)** When I shop with credit card(s), I tend to make unplanned purchases. **(c)** It is easy for me to overspend when I shop in the presence of a credit card. **(d)** Without a credit card, my spending habits would not be different. **(e)** If I did not have a credit card, I would probably spend less. The scale was adopted from the credit card consumption scale (Sahni, 1995). The fourth statement affected the overall scale reliability and hence was removed. This does not affect the content validity as the fifth item is of similar nature.

Credit Card financing behaviour (CCFB) has 6 items measured on a five point Likert scale from strongly disagree to strongly agree. Those who score three neither agree nor disagree to have credit card financing behaviour. The following are the statements in the questionnaire **(a)** I exhaust the credit limit on my credit card(s) **(b)** When purchasing, I have been told that I have spent beyond the credit limit. **(c)** The way I use my credit card, I always have enough credit. **(d)** I manage bills in an effort to make payments on my credit cards. **(e)** I pay credit card bills after their due dates. **(f)** Creditors have threatened to cancel my credit cards. The scale was adopted from the Credit card consumption scale (Sahni, 1995). The fourth item was deleted as it affected the overall scale reliability. The deleted item does not interfere with content validity due to the fact that there are statements cross checking one's ability to pay bills on time.

A *debt know how* quiz (Master Card, 2006) was administered to measure the dependent variable Credit default probability (CD). The set of questions were pertaining to credit card bills and payment management patterns. The statements asked were **(a)** Do you avoid looking at your bills and credit card balances? **(b)** Do you usually pay only the minimum on your credit cards? **(c)** Do you sometimes pay your bills late or miss payments entirely? **(d)** Do you use credit cards and store credit to make purchases because you don't have the money to pay for them at the time? **(e)** Is your paycheck already spent before you receive it? **(f)** Do you choose the longest allowable payment period or installment plan to make major purchases- for example, a car or major appliance-affordable? **(g)** Have you taken out a home loan to pay down your debt and already run up new consumer debts? **(h)** Do payments on your debt account for more than 20 percent of your household take-home pay each month (excluding your mortgage or rent payment)? **(i)** Do you have savings to fall back on if something unexpected happens, such as a car repair or medical emergency? **(j)** Do you spend more time worrying about your bills than paying them? The questionnaire has a nominal scale and the answer gets accumulated as points indicating probability of credit default. All ten questions have a yes or no choice. In all questions, the option yes has a score of one and no has a zero score. In question number nine, option *Yes* has a zero score and *If No* has a score of one. If all answers were *Yes*, then the total score was nine and if all answers were *No*, then the total score was one. A score of zero meant excellent, as the credit default probability was nil. A score of one to four (both inclusive) indicated an early warning stage and a score of five to ten (both inclusive) indicated high on credit default probability. *The respondents, after their categorization, fell into three groups, viz non-defaulters who were 47 in number, the early warning stages were 214 and the defaulters were 38.This allocation was used as part of the descriptive interpretation.* In order to use Structural Equation Modelling using AMOS 7, the dependent credit default was taken as a single item measure by summing up the actual score of each respondent from zero to ten.The higher the score, the greater was the probability to default. The validity and reliability of the single-item summated score from ten nominal questions was appropriate (Wanous and Reichers, 1997).The dependent credit default score (metric) was used for further analysis using SEM.

All the questionnaires were administered in English. The target respondents were identified by closed group networking using judgement. The business management students of Rajagiri School Of Management, Cochin were asked to identify at least ten respondents in their family and friends circle who were voluntary and willing to cooperate with the study. In case of a few respondents, there were some clarifications regarding the questions and the student volunteers were more than helpful in providing the same.

☸**Model And Data Analysis:** The data analysis is done was done in two stages, descriptive statistics followed by structural equation modelling. Structural equation modelling was used in the study as it was robust due to its ability to model mediating variables and also, to test the overall model rather than coefficients individually. It included confirmatory factor analysis (measurement model) and full model testing.

The structural equation model (SEM), depicting the relationship among the variables (see figure 1), were modeled using covariances. The hypothesized relationship between the variables, which included their indicators and error terms, was used to draw the full model. With the theoretical grounding firmly in place, the change in Modification Indices (MI) was used to assign the covariate relations between error terms within the indicators of the respective variables. This enabled the researchers to find the most optimal model or combination of the variables that fitted well with the data on which it was built and served as a purposeful representation of the reality from which the data had been extracted, and provided a parsimonious explanation of the data (Kline, 1998).

RESULTS

Among 299 credit card users, 90.6 % of the respondents belonged to the age category between 18 and 55.With job opportunities increasing in a fast growing developing economy like India, the cross section of people holding credit cards are relatively young. The working population with credit cards was predominantly male, who formed 82.9 % of the respondents. Nearly 52 % of the respondents with credit cards had annual incomes greater than INR 300000, which is a definite indication of purchasing power. About 27 % of respondents fell within the income brackets of INR 150001 to 300000. The purchasing power (PP) in family units gained further prominence with the fact that 40% of respondents had double incomes (market rate of 1USD=INR 48, PP Parity of 1USD=INR 18, year 2008 estimate). Further 70 % of credit card holders had no more than 2 dependents which included wife, child or parents, indicating that smaller families have better disposable income. Nearly 64.5 % of respondents were married, whose spending patterns are likely to be more established and mature than young single adults. Almost 85 % of respondents were professionals or salaried class with steady incomes and a few were self employed entrepreneurs. Further, 97 % of the respondents were graduates and nearly 72% of the respondents were professionals or post graduates with doctoral qualifications.

In the confirmatory factor analysis, the standardized regression weights for all the variables viz, materialism (5items), compulsive buying (9 items), enhanced credit card spend (4 items) and credit card financing behaviour (5 items) had a factor loading for each indicator, which is greater than 0.70 with their critical ratio (C.R) greater than 1.96 ($p<.05$), which shows good construct validity (Schumacker and Lomax, 2004). One indicator each in compulsive buying scale (CB), enhanced credit card spends (ECCS) and credit card financing behaviour (CCFB) had factor loading greater than 0.5, but the critical ratio was greater than 1.96 ($p<.05$). The variances extracted from each of the error terms of the indicators were greater than 0.5, with their critical ratio greater than 1.96 ($p<.05$) (Graham 2006).One error term of an indicator in the enhanced credit card spends scale, 4 error terms of compulsive buying scale and 3 error terms of credit card financing behaviour scale had variances extracted just above 0.4 with their critical ratio greater than 1.96 ($p<.05$).The goodness of fit measures like IFI and CFI indicated good fit with values >0.90 (Table 1).

Table 1: Measurement Model Goodness Of Fit (Confirmatory Factor Analysis)

Variables	Number of Indicators	IFI	CFI
Materialism (MAT)	5	0.96	0.959
Compulsive Buying (CBB)	9	0.909	0.908
Enhanced credit card spends (ECCS)	4	0.991	0.991
Credit card financing behaviour (CCFB)	5	0.916	0.916

The final model fit summary for SEM showed reasonable good values, indicating sound theoretical grounding and data fit as well (Table 2). The regression weights of materialism (MAT) on compulsive buying (CBB) and enhanced credit card spends (ECCS), that of compulsive buying on credit card financing behaviour (CCFB), enhanced credit card spends and credit default, along with credit card financing behaviour on credit default were all significant with the paths reporting critical ratio greater than 1.96 (p<.02) (Table 3 and Fig 1). The influence of compulsive buying (CBB) directly on credit default (CD) was 0.686 .The influence of compulsive buying on credit card financing behaviour was 0.837, and that of credit card financing behaviour on credit default was 0.865.This indicated that among compulsive buyers, credit card financing behaviour was definitely enhancing (mediating) the probability of credit default. The Sobel test was used to calculate the critical ratio as a test of whether the indirect effect of the independent variable on the dependent variable via the mediator was different from zero, which was found to be significant (t-statistic 2.94, p<0.0032) (Baron and Kenny, 1986).To ensure that there was no regression to the mean, one sample t-test for each of the predictor variables showed that there was no significant difference between sample mean and population mean (p>.05).

Table 2: Model Fit Summary

	CMIN	DF	CMIN/DF	SRMR	GFI	IFI	TLI	CFI	RMSEA	PCLOSE
Base Model	516.217*	243	2.124	0.0582	0.871	0.898	0.883	0.897	0.061	0.006
Final Model	365.738*	235	1.556	0.0473	0.911	0.951	0.942	0.951	0.043	0.906

*sig at <.05

Table 3 : Regression Weights For The SEM Model

			Estimate	S.E.	C.R.
CBB	<---	MAT	0.453**	0.082	5.523
CCFB	<---	CBB	0.837**	0.096	8.727
ECCS	<---	MAT	0.289**	0.116	2.497
ECCS	<---	CBB	0.524**	0.117	4.471
CD	<---	CCFB	0.865**	0.277	3.12
CD	<---	CBB	0.686*	0.299	2.294

sig at **<.01 *<.02 (2-tailed)

DISCUSSION

The **Hypothesis (H1), that compulsive buying (CBB) is positively related to credit default (CD) is accepted**. Of the total 299 respondents, those with compulsive buying (CBB) score greater than and equal to three were 23 respondents (7.69%).Out of the total 23 compulsive buyers 12 (52.17 %) were defaulters, and 11 (47.83%) were on the early warning stage. Of the remaining 276 respondents (92.3% of total), all had a compulsive buying score of less than three. Out of the 276 rarely compulsive buying respondents, 26 (9.42%) respondents were defaulters, 203 (73.55%) were in the early warning stage and 47 (17.03%) were non-defaulters. The percentage of defaulters was very high among compulsive buyers, making the path significant.

The **Hypothesis (H2), that materialism (MAT) is positively related to compulsive buying is accepted**. At the same time, the path in the model representing materialism leads to credit default (CD) is rejected. Out of 23 compulsive buyers, those with their materialistic score greater than three was 13 (56.52 %). Among the 276 rarely compulsive buyers, those with their materialistic score greater than three was 110 (39.86%). There were sufficiently large number of materialistic individuals among compulsive buyers and rarely compulsive buyers. This indicates that materialism is only one of the reasons of compulsive buying behaviour. Previous literature shows psychological, socio-cultural and psychiatric reasons can cause compulsive buying behaviour. These arguments help to reject the path that compulsive buying leads to materialism.

Out of 123 materialistic cases, the number of defaulters were 17 (13.82%), whereas, among 23 compulsive buyers, the number of defaulters were 12 (52.17%).Among 123 materialistic cases, it was found that 82 (66.67%) of the respondents had an enhanced credit card spend score greater than three, and 12 (9.76%) had a credit card financing behaviour score greater than three. **This helps to accept the hypothesis (H5a) that materialism leads to enhanced credit card spending and at the same time, reject that (H5b) materialism leads to credit card financing behaviour**. It was also found that among 165 high enhanced credit card spenders, 82 were high on materialism (49.70%). Being materialistic, the enhanced credit card spending pattern is high, but it need not directly lead to high score on credit card financing behaviour. Out of 21 high credit card financing behaviour respondents, those with materialism score greater than three was 12 (57.14%).However, this path did not have theoretical support and was also insignificant (p>.05) without disturbing the existing model. But compulsive buying leads to high default rate. So materialism influences default rate only through its positive relationship with compulsive buying. This is evident because in absolute numbers out of 23 compulsive buyers, 13 of them were high on materialism and 12 were defaulters.

The hypothesis (H3a) that compulsive buying is positively related to enhanced credit card spends is accepted but that (H3b) enhanced credit card spends leads to credit default is rejected. About 17 (73.91 %) of the 23 compulsive buyers exhibited an enhanced credit card spends score greater than three and 148 (53.62%) of 276 rarely compulsive buyers exhibited an enhanced credit card spends score of greater than three. Out of 165 respondents with enhanced credit card spends mean scores greater than three, only 26 (15.76%) were defaulters, 121 (73.33%) were in the early warning stage and 18(10.91%) were non-defaulters. Analyzing the enhanced credit card spending scores of compulsive and rarely compulsive buyers, it gives rise to the question whether compulsive buying necessarily gives rise to enhanced credit card spends? Or does enhanced credit card spends gives rise to compulsive buying? The latter path has no theoretical grounding because high spenders need not be compulsive buyers .But the fact is that people have high disposable incomes and they are also high spenders using credit cards .This is good for the economy and the credit card industry at large. But in the case of compulsive buyers, there is a definite higher percentage of cases linked to enhanced credit card spending. Therefore, spending while keeping in track of ones income does not lead to credit default.

The hypothesis (H4a) - compulsive buying is positively related to credit card financing behaviour and (H4b) credit defaults are both accepted. About 11 (47.83%) of the compulsive buyers exhibited a credit card financing behaviour (CCFB) score greater than three. Among 276 rarely compulsive buyers, only a meager 10 (3.62%) have a credit card financing behaviour greater than three. The high credit card financing is adopted only by compulsive buyers and by a very few number of rarely compulsive buyers. Moreover, among 21 respondents with high credit card financing behaviour, the number of compulsive buyers among them is 11 (52.38%). A question that rises here is whether credit card financing behaviour leads to compulsive buying, which is rejected primarily for lack of theoretical support and the large number difference in credit card financing behaviour between high and rarely compulsive buyers. Of the total 21 respondents who have high credit card financing behaviour, it was found that 11 (52.38%) respondents were defaulters and nine (42.86%) were in the early warning stage. The influence of compulsive buying and credit card financing behaviour was large and profound on credit default - both together and separately. The presence of credit cards has enhanced the probability of credit defaults. However, there can be other reasons to credit default other than compulsive buying and credit card financing behaviour as it is found that nearly 26 (9.42 %) of rarely compulsive buyers were defaulters and 203 (73.55%) were on the early warning stage.

Out of a total of 165 enhanced credit card spenders, only 18 (10.91%) respondents had a credit card financing behaviour mean score greater than three. The proposition that enhanced credit card spending gives rise to high credit card financing behaviour is rejected. Further, out of 21 high credit card financing behaviour respondents, those with an enhanced credit card spends score greater than three was 18 (85.71%). This preludes that the presence of credit card increases the available credit finance options and can thereby lead to increased spending on cards. However, this path is insignificant in the model (P>.05).In such a case where the previous path is considered, then the path showing compulsive buying behaviour leads to enhanced credit card spending, which becomes insignificant in the model (p>.05).

The argument now crystalizes as follows. The higher the compulsive buying behaviour, the enhanced credit card spending will be high. If a compulsive buyer has transformed into a high credit card financing behaviour respondent from a high enhanced credit card spender, then the probability of default is higher. This is clearly evident as compulsive buying directly can lead to default and this relationship is mediated (enhanced) by credit card financing behaviour.

Among 299 credit card users, those who have a credit card financing behaviour mean score greater than three was 21 (7%) respondents.The compulsive buyers who have a mean score greater than three was 23 (7.69%). This indicates that the majority 93% exhibits a spending pattern keeping in track of mental accounts. The findings are in confirmation to the fact that most Indian consumers exhibit brand consciousness and materialistic tendencies, but at the same time, they are price and value conscious as well, even after two decades of globalization and market transformation (Business Today, 2009).

PRACTICAL SIGNIFICANCE AND MANAGERIAL IMPLICATIONS

All variables affecting the dependent credit card default probability have an increasing influence (as indicated by rising mean scores) when moving along three categories viz credit non-defaulter, early warning stage and defaulter. But for most of the respondents, the difference in the extent of influence is moderate. Very large influence within and between the three categories would be an indication of lack of self-regulation among credit card users. In that case, many respondents would be high on compulsive buying and credit card financing behaviour. Such a situation needs deeper and focused attention as the social milieu could be more disturbing.

The increasing faith in the material success of life as perceived by consumers in India is definitely a positive sign for the marketers. The disturbing figure among credit card retailers is the default rate of 12.71 % (38) and what is even more disturbing is the fact that 71.57 % (214) are on the early warning stage of default. The consolation is that compulsive buying as a predominant trait was observed only among 23 (7.69%) of the total respondents. Of the total 38 defaulters, 16 (42%) were directly accounted for by either high compulsive buying score ($\geq$3) or high credit card financing behaviour (>3). For the remaining 22 of the defaulters, eight cases had credit card financing behaviour score greater than 2.5, when the average for the whole sample was 1.86.Another seven cases had a relatively high compulsive buying score, when the whole sample average was 1.99.Thus, for the respondents who have defaulted a cumulative 81% percent cases, are attributable to relatively high compulsive buying and high credit card financing behaviour. This substantiates the earlier argument that default is happening due to other factors.

The concern is whether a consumer is more likely to become a compulsive buyer in the future and is it really going to further aggravate the credit default situation? With more and more credit cards sold by financial retailers, there is a high chance that credit cards will become indispensable for a consumer. The first question to be raised is, what percentage of future consumers would have high enhanced credit card spends and high credit card financing behavior from the present 55.18% and 7% respectively? The second question is, how many more rarely compulsive buyers will become compulsive buyers? The practical solution for the financial retailers is to device mechanisms to increase customer suitability in the retail sale of a product like the credit card.

There is a growing impetus to consider issues that lead to the potential mis-selling of credit cards and its services (Basel Committee on Banking Supervision, 2008). Individuals now are forced to take greater personal financial responsibility. Their reliance on the state and employers is decreasing with sweeping changes in banks due to the Basel Committee norms on banking supervision and also due to the general economic and market reforms. Relatively low nominal interest rates supported with high disposable income have been a factor contributing to rising levels of personal debt. The increasing availability of easy to use financial products like the credit card is making things worse for a customer with weak self-regulation. The complexity of financial products like the credit card may make the associated post-possession credit card usage risks less apparent to individual credit card users. This heightens the potential for unsuitable transactions.

Competition between financial retailers has increased manifold and thereby, a substantial growth in cross-selling of credit cards was seen over the last many years. This has resulted in a single customer possessing many cards of different retailers, enhancing the possibility of misuse.

LIMITATIONS AND SCOPE FOR FUTURE RESEARCH

The credit non-defaulters and defaulters in the present study were categorized based on their scores in the self-response form. A more reliable method was to take a source list of credit card users from banks, categorized in actual as credit non-defaulters and defaulters. This is a possible way to increase cross-validation.Inspite of including card users of more than one year who are sufficiently exposed to the billing cycle, around 19 percent of respondents were defaulters due to factors which are incidental that could not be explained with supportive data. A longitudinal study would be an apt method to meaningfully account for changes in consumer attitudes and preferences to buying, which is spread over wide time frames. The socio-cultural settings in India are slightly different from the west, an area to be emphasized and explored in future studies.

BIBLIOGRAPHY

1) American Psychiatric Association (2000), Diagnostic and Statistical Manual for Mental Disorders (4th Ed.), American Psychiatric Association, Washington, DC, Text Revision (DSM-IV-TR).

2) AT Kearney & Confederation of Indian industry (CII) Report (2006), Retail in India: getting organised to drive growth, New Delhi, India.

3) Bandura,A (1977), Self efficacy: towards a unifying theory of behavioural change, Psychological Review, 84.2, pp.191-215.
4) Bandura,A (1986), Social foundations of thought and action: a social cognitive theory. Prentice hall, Englewood Cliffs, NJ.
5) Bandura, A (1989),Human agency in social cognitive theory, American Psychologist,44.9,pp.1175-1184.
6) Baron, M R & Kenny, A D (1986), The moderator mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations, Journal of personality and social psychology, 51.6, pp.1173-1182.
7) Basel Committee on Banking Supervision (2008), Customer Suitability in the Retail Sale of Financial Products and Services, ISBN print: 92-9131-763-2 ISBN web: 92-9197-763-2, Basel, Switzerland.
8) Belk, R (1985), Materialism: Trait aspects of living in the material world, Journal of Consumer Research, 12.3, pp.265 - 280.
9) Brobeck, S (1997), The consumer impacts of expanding credit card debt. Consumer Federation of America News release, February.
10) Business Today (2009) Indian men survey, retrieved on march 13, 2009 from, http://specials.indiatoday.com/indianmensurvey/index.php
11) Campbell, C (2004),I shop therefore i know that i am: The metaphysical basis of modern consumption, in K.Ekstro¨m and H.Brembeck (Eds.), Elusive Consumption, pp.27 44, Publisher: Berg Oxford.
12) Carver,C S & Baird,E (1998), The American dream revisited: Is it what you want or why you want it that matters? Psychological Science, 9.4, pp.289-292.
13) Christopher, A N; Marek, P & Carroll, S M (2004) Materialism and attitudes toward money: An exploratory investigation. Individual Differences Research, 2.2, pp.109-117.
14) Christopher, A N & Schlenker, B R(2004). Materialism and affect: The role of self- presentational concerns. Journal of Social and Clinical Psychology, 23.2, pp. 260-272.
15) d'Astous, A (1990), An enquiry into the compulsive side of normal consumers, Journal of consumer policy 13.1, pp.15-31.
16) DeSarbo, W S & Elizabeth, A E (1996), Typologies of compulsive buying behaviour: A constrained clusterwise regression approach, Journal of consumer psychology, 5.3, pp.231-262.
17) Dittmar, Helga & Beatty, J (1998), Impulsive and excessive buying behaviour. In Taylor-Gooby.P(Ed), Choice and publicity: The limits to welfare markets. Great Britan: Macmillan Press, 123-144.
18) Dittmar, Helga & Drury, J (2000), Self-Image: Is it in the Bag? A qualitative comparison between 'ordinary' and 'excessive' consumers, Journal of Economic Psychology, 21.2, pp.109 - 142.
19) Elliot, R (1994), Addictive Consumption: Function and Fragmentation in Post-Modernity, Journal of Consumer Policy, 17.2, pp.159 - 179.
20) Equity master (2009), Retail, retrieved on august 18,2009 from http://www.equitymaster.com/research-it/sector-info/retail
21) Feinberg, R A (1986), Credit cards as spending facilitating stimuli: A conditioning interpretation, Journal of consumer research, 13.3, pp. 348-356.
22) Gardener, M P & Rook, D W (1988), Effects of impulse purchases on consumers affective states, Advances in Consumer research, 15.1, pp.127-130.
23) Graham, J M (2006), Congeneric and (essentially) tau-equivalent estimates of score reliability: what they are and how to use them, Educational and Psychological Measurement,66.6, pp.930-944.
24) Hirschman, E C (1979), Differences in consumer purchase behaviour by credit card payment system, Journal of consumer research, 6.1, pp.58-66.
25) Hirschman, E C (1992), The consciousness of addiction: Toward a general theory of compulsive consumption, Journal of Consumer Research, 19.2, pp.155 - 179.
26) India Consumer Trends (2006-07), KSA Technopak India Pvt. Ltd.Gurgaon, India.
27) James Carl Stone IV, (2001) Compulsive buying: review and relevance to consumer debt management, PhD thesis, Oklahoma State University, USA.
28) Janvrin, D (1999), Past employee of Norwest credit card services, discussion held Feb 19.In Ericson, Ann. E(2001), Antecedents of Older Adolescent's Credit Card Enhanced Spending Attitude and Self Reported Financing Behaviour, Ph.D Thesis, University of Iowa,Iowa city, USA.
29) Kasser,T & Ryan,R M (1993), A dark side of american dream: correlates of financial success as a central life aspiration, Journal of Personality and Social Psychology, 65, pp. 410-422.
30) Kasser,T & Ryan,R M (1996), Further examining the American dream: Differential correlates of intrinsic and extrinsic goals, Personality and Social Psychology Bulletin, 22,pp. 280-287.
31) Kasser,T & Ryan,R M (2001), Be careful what you wish for: Optimal functioning and the relative attainment of intrinsic and extrinsic goals. In P.Schmuck and K.M.Sheldon (Eds), Life goals and well-being. Gottingen: Hogrefe and Huber.
32) Kasser, T & Sheldon, K M (2000), Of wealth and death: materialism, mortality salience and consumption behaviour, Psychological Science, 11.4, pp.348 - 351.
33) Kline ,R B (1998), Principles and practice of structural equation modelling (edition 1), New York: Guilford Press.ISBN 1-57230-337-9(pbk)
34) Kotler, P (1973), Atmospherics as a marketing tool, Journal of retailing 49.4, pp.48-64.
35) Marlatt, G A; Baer, J S; Donovan, D M & Kivlahan, D R (1988), Addictive behaviours: etiology and treatment, Annual Review of Psychology, 39.1, pp.223 - 252.
36) Master Card (2006), Security and basics, retrieved on January 22, 2006 from http://www.mastercard.com/us/securityandbasics/debtknowhow/quiz.html.
37) McCracken, G (1990), Culture and consumption. Indianapolis, Indiana University Press, USA.
38) McElroy ,S L; Satlin, A; Pope, H G; Keck, P E & Hudson, J I (1991), Treatment of compulsive shopping with antidepressants: a report of three cases, Annals of Clinical Psychiatry, 3.3, pp.199 - 204.
39) McElroy, S L; Keck, P E; Pope jr, H J; Smith, J M & Strakowski, S M(1994), Compulsive buying: a report of 20 cases, Journal of Clinical Psychiatry, 55.6, pp.242 - 248.
40) Mckinsey Global Institute (2007), The bird of gold: the rise of india's consumer market, retrieved on August 4, 2009 from www.mckinsey.co/mgi.
41) Mick, D G (1996), Are studies of dark side variables confounded by socially desirable responding? The case of materialism, Journal of Consumer Research, 23.2, pp.106-119.
42) Mick, D G; Broniarczyk,S M & Haidt,J (2004), Choose, choose: emerging and prospective research on the deleterious effects of living in consumer hyperchoice.Journal of Business Ethics, 52.2, pp.207-211.
43) Nataraajan, R & Golf, B G (1992), Manifestations of compulsiveness in the consumer-marketplace domain, Psychology and Marketing, 9.1, pp.31- 44.
44) O'Guinn, T C & Faber, R J (1988), "Compulsive consumption and credit abuse", *Journal of Consumer Policy*, 11.1, pp.97-109.
45) O'Guinn, T C & Faber, R J (1989), Compulsive buying: a phenomenological exploration, Journal of Consumer Research, 16.2, pp.147 - 157.
46) O'Guinn, T C & Faber, R J (1992), A clinical screener for compulsive buying, Journal of Consumer Research, 19.3, pp.459 - 469.
47) Palmer, T S; Pinto, M B & Parente, D H (2000), Materialism and credit card use by college students, Psychological Reports,86.2,pp. 643-652.
48) Richins, M L & Dawson, S (1992), A consumer values orientation for materialism and its measurement: scale development and validation, Journal of Consumer Research, 19.3, pp. 303 - 316.
49) Richins, M L & Rudmin, F W (1994), Materialism and economic psychology, Journal of Economic Psychology, 15.2, pp. 217 - 231.

(Contd. On Page 21)

BIBLIOGRAPHY

1. Dr. S.K.Sinha (2008), Analyzing growth of cellular telecom sector and understanding consumers preferences and choices on the use of cellphone." Indian Journal Of Marketing" vol38(9)(27-35).
2. Funk.J, " The crisis in the western mobile internet market" ITU telecom Asia (2004a).
3. How low can you go? Business India, December 13,2009.
4. Kathuria R(2004)"Trade in telecommunication services: opportunities and constraints"Indian council for research on international scenario relations, working paper.No149.
5. Pandya K Bulsari,S (2007)"telecom service development in post liberalization period in India, the Icfaian jounal of management research, vol-VI,No-4, april 2007.
6. Samantha singh(2006) a critical marketing appraisal of the global telecommunications industry, cranfield university.e article.
7. Telecom wars, business world, 21 dec2009, www.businessworld.in
8. 3G A new era, Voice and data, ,oct 2009
9. www.trai.co.in accessed on 31.3.2010
10. www.bsnl.co.in accessed on 31.3.2010
11. www.airtel.com accessed on 31.3.2010
12. www.coai.com accessed on 31.3.2010
13. www.voiceanddata.com viewed on 31.3.2010
14. www.businessindia.in accessed on 31.3.2010
15. www.businessline.com accessed on 31.3.2010

(Contd. From Page 12)

50) Rook, D (1987), The Buying Impulse, Journal of Consumer Research, 14.2, pp.189 - 199.
51) Rook, D W & Fisher ,R J (1995), Trait and normative aspects of impulsive buying behaviour, Journal of Consumer Research, 22.3, pp. 305 -313.
52) Rook ,D W & Hoch, S J (1985), Consuming impulses, in advances in consumer research, 12 eds. Elizabeth C.Hirschman and Moris B.Holbrook, Provo,UT:Association for Consumer Research,pp.23-27.
53) Sahni, A (1995), The many faces of credit card consumption: An exercise in scale development, unpublished manuscript. In Ericson, Ann. E (2001), Antecedents of Older Adolescent's Credit Card Enhanced Spending Attitude and Self Reported Financing Behaviour, Ph.D Thesis, University of Iowa,Iowa city, USA.
54) Scherhorn, G; Reisch, L A & Raab, G (1990), Addictive buying in west germany: an empirical study, Journal of Consumer Policy, 13.4, pp.355 - 387.
55) Schumacker ,R E & Lomax, R G (2004), A beginners guide to structural equation modelling (2nd edn), Mahwah.NJ: Lawrence Erlbaum Associates.
56) Shefrin, H H & Thaler ,R H (1988), The behavioural life cycle hypothesis, Economic Inquiry, 26.4, pp.609-643.
57) Shefrin, H H & Thaler, R H (1992),Mental accounting, saving, and self-control. In Lowenstein G and Elster J (eds) (1992), Choice over time (pp 287-330), New York: Russell sage.
58) Sinha, P K & Dwarika, U (2005), Retail management: an asian perspective, thomson learning, singapore (Draft).
59) Sirgy, M J; Lee, D; Kosenko, R & Meadow, H L (1998), Does television viewership play a role in the perception of quality of life? Journal of Advertising, 27.1, pp.125 - 142.
60) Soman, D (1996), Do credit cards influence spending? Unpublished manuscript. In Ericson, Ann. E (2001), Antecedents of Older Adolescent's Credit Card Enhanced Spending Attitude and Self Reported Financing Behaviour, Ph.D Thesis, University of Iowa,Iowa city, USA.
61) Soman, D (2001), Effects of payment mechanism on spending behaviour: the role of rehearsal and immediacy of payment, Journal of Consumer Research, Vol 27.4, pp.460-474.
62) The Economic Times (2007), Mall mania, ET retail survey in association with SAP 2007, The Economic Times, Chennai/Kochi, Friday january 5, pp.9.
63) The Economic Times (2007), Credit card-India goes plastic, but cant repay, retrieved on august 18, 2009 from http://economictimes.indiatimes.com/personal_finance/credit_cards/india_goes_plastic_but_cant_ repay/rssarticleshow/23755367.cms
64) The Economic Times (2007), Indians get elastic with plastic money, retrieved on august 25, 2009 from http://economictimes.indiatimes.com/Specials/credit_cards/indians_get_elastic_with_plastic_money/articleshow/2426398.cms
65) Tokunaga, H (1993), The use and abuse of credit: applications to psychological theory and research, Journal of Economic Psychology, 14.2, pp. 285 - 316.
66) Valence, G A; d'Astous, A & Fortier, L (1988), Compulsive buying: concept and measurement, Journal of Consumer Policy, 11.4, pp.419 - 433.
67) Wanous, J P & Arnon, E R (1997), Overall job satisfaction: how good are single-item measures? Journal of Applied Psychology, Vol 82.2, pp, 247-252.
68) Weun, S; Jones, M A & Beatty, S E(1998), The development and validation of the impulse buying tendency scale, Psychological Reports, 82.3 pt 2,pp.1123 - 1133.
69) Wright, N D & Larsen, V (1993), Materialism and life satisfaction: a meta-analysis, Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behaviour, 6, pp.158-165.