

Compulsive buying behaviour in Indian Consumers and its impact on credit default- An emerging paradigm

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Executive summary

A major area of concern in marketer-consumer relation is the growing influence and utilization of the credit market, an outcome of compulsive buying, which has negatively affected the consumers, leading them to unmanageable debt levels.

A study to find whether there is any association of the following variables on compulsive buying viz, big five Personality traits, materialism, demographics and credit card usage.

The research design is a conclusive design which is single cross sectional descriptive in nature. The primary data was collected using non probability sampling technique. A quota sample of 120 credit card holders (using credit card/s above one year) was chosen.

The respondents in aggregate 'neither agree nor disagree' to materialism and have 'rarely' compulsive buying.

The respondents 'moderately agree' that they are high enhanced credit card spenders, but at the same time they 'rarely' indicate compulsive buying, which is a positive outcome. They 'disagree' to high credit card financing behaviour, which again exposes to the fact that they 'spent and finance their spending' cautiously, keeping track of mental account⁴ as a self control device against environmental factors, like retailing environment, availability of credit and so.

Emotional stable extroverts tend to have a steady spending behaviour and external influences do not impact much, is true in this study.

Twelve percent of respondents have 'high credit default probability', with a score between 5 to 10 on the scale.

The emergence of relationship in some cases is as supported by literature from previous studies at the same time poses a challenge before the researcher to take up complicated models (like structural equation modeling) to possibly explore a new direction to the nature of relationships.

Problem definition

a. Background to the research problem

A plethora of product market opportunities are available to the post-modern consumers of present day globalized economy. The competitive product-marketers produce and supply a variety of products and a number of brands to choose from and, these products are targeted to the consumers in every possible way, as part of the marketer's push strategy. Consumerism describes the effects of equating personal happiness, with purchasing material possessions and consumption in excess of ones need. Traditionally, Consumerism is associated with Capitalism and the Western culture. Today it is multi-cultural and non-geographical. Capitalistic economy leads to the fetishization of goods and services, devaluing the intrinsic worth, the focus are on its price and the brand name. Consumerism has become a negative term today. People deny, the idea that they are "compelled to consume". Or compulsive buying. They rationalize the consumption process and find reasons for their buying behaviour.

One of the major area of concern in marketer-consumer relation is the growing influence and utilization of the credit market, an outcome of compulsive buying, which has negatively affected the consumers, leading them to unmanageable debt levels.

b. Statement of the problem

To find whether there is any association of the following variables on compulsive buying viz, big five Personality traits, materialism, demographics. and credit card usage.

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c. Objectives of the study

- To find the association of materialism on compulsive buying.
- To find the association of introversion, emotional stability, agreeableness and conscientiousness on compulsive buying.
- To find the association (affect) of credit card spending style on compulsive buying.
- To find the association (affect) of credit card financing behaviour on compulsive buying.
- To find the credit default probability of respondents.
- To find the association of age on personality variables.
- To find the association of demographics like age, Income on compulsive buying and materialism.
- To find the association of demographics like age and income on credit card usage pattern.

d. Hypothesis

- Materialism is positively associated with compulsive buying.
- Introversion is negatively related to compulsive buying.
- Emotional stability is negatively related to compulsive buying.
- Agreeableness is positively related to compulsive buying.
- Self-control (conscientiousness) is negatively related to compulsive buying.
- Enhanced credit card spending is positively associated with compulsive buying.
- Credit card financing behaviour is positively associated with compulsive buying.

Approaches to the problem:

a. Conceptual review of literature:

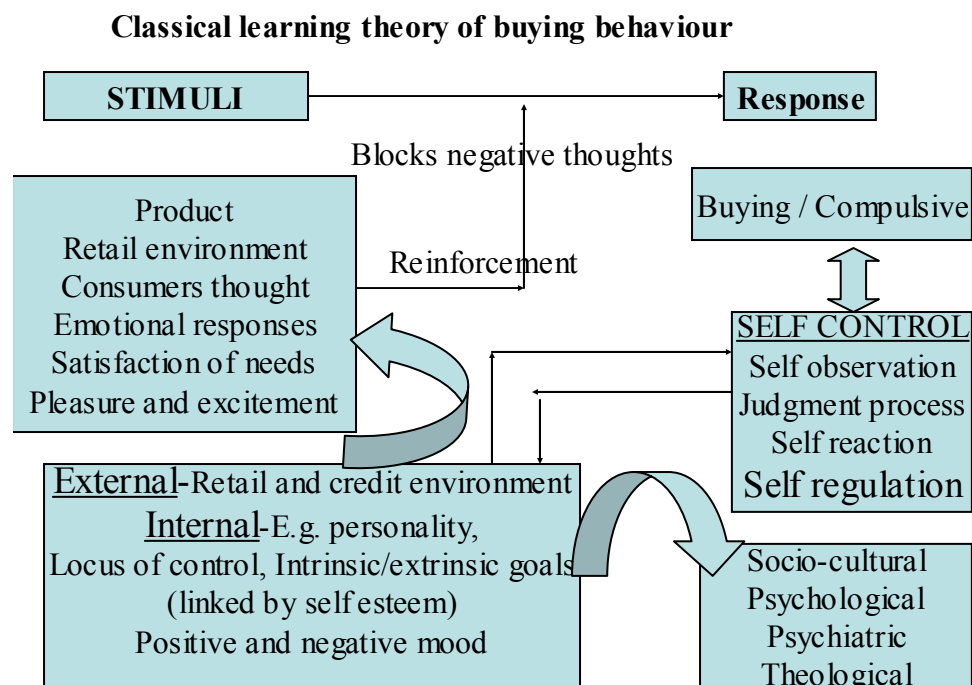


Figure 1. Classical learning theory of buying behaviour (Bandura 1986)

The classical learning theory, which has evolved to Social cognitive theory (Bandura 1986), Socio- cognitive view of addiction (Bandura, 1999), self-regulation mechanism (Bandura, 1991) explains buying behaviour as a response to a stimuli. The factors of stimuli are in the form of the product, retail environment, emotional responses, satisfaction of needs, pleasure and excitement.

These factors are classified into socio-cultural, psychological, psychiatric and theological domains. The factors can be further divided into external and internal.

The response (buying) is rationalized using the self-regulation mechanism. The potential buyer goes through the process of self observation, judgement, self reaction and self regulation. The self observation is monitoring one's action to provide diagnostic information about the impact of behaviour and attainment of goals. In the judgment process the personal standards, social comparisons with associates, reference group norms and prior behaviour or collective comparisons are done. The self-reaction process involves when behaviour is observed and judged to deviate from personal or social standards of conduct.

Unregulated buying may reflect ineffective self-reactive control. Previous research shows that forty percent of respondents admit that they are impulsive in nature, the reason being their self-control mechanisms not working and in reality more than ninety percent of buyers are impulsive. The impulsive² behaviour when repeated continuously becomes compulsive buying and when in a very higher degree is called addictive buying.

In consumer literature compulsive buying is described as chronic, repetitive, excessive purchasing that becomes a primary response to negative life events, inner deficiencies or negative feelings and hence carries a strong compensatory component¹ (O'Guinn & Faber 1989, Scherhorn, Reisch & Raab 1990).

Compulsive buying can harm not only the individual but his/her family and society (Faber, 2000, p. 29; Faber & O'Guinn, 1992, p. 467) and can result in overspending, extreme indebtedness, and bankruptcy (McElroy, Satlin, Pope, Keck, & Hudson, 1991). Substantial research further suggests that people highly oriented toward the acquisition of wealth and possessions report relatively low levels of well-being. (Belk, 1985; Carver & Baird, 1998; Kasser & Ryan, 1993, 1996, 2001; Mick, 1996; Richins & Dawson, 1992; Sirgy, 1998; Wright and Larsen, 1993). Neuroticism, Extraversion, Openness to experience, Agreeableness, Conscientiousness. (Personality traits) on consumption. Hermann Brandstatter, Werner Guth (2000).

Richins and Rudimin (1994) - have reviewed how materialistic tendencies are associated with individual's identities, use of money, motivation for work, and social behaviour. Substantial research further suggests that people highly oriented toward the acquisition of wealth and possessions report relatively low levels of well-being. (Belk, 1985; Carver & Baird, 1998; Kasser & Ryan, 1993, 1996, 2001; Mick, 1996; Richins & Dawson, 1992; Sirgy, 1998; Wright and Larsen, 1993). Consumers who use credit cards spend more than those who use other means of payment (Tokunga 1993) (Somar 2001). Behavioural, psychological, demographic variables can predict consumers who use consumer credit effectively (Tokunaga, 1983).

With easier access to malls, a sea of products available, and little or no social stigma attached to constant shopping (which formerly had been considered an indication of moral or spiritual decay), (Hirschman 1992), compulsive shoppers encounter temptations daily. Shopping is changing in nature (Cambell, 2004). The focus is shifting from the purchase of provisions to satisfy the physical needs of oneself towards the use of consumer goods as a distinctive means of acquiring and expressing a sense of self identity. (Dittmar & Beatty 1998), regulatory emotions (Elliott 1994) or gaining social status (McCracken 1990). Changes have enhanced the complexity of consumption (Mick, Broniarczyk & Haidt, 2004) and created an atmosphere that has turned out to be more favorable for the risk of compulsive behaviour than before. The belief that consumer goods are an important route towards success, identity and happiness (Dittmar 2000) are core values of consumer society.

b. The emerging retail segment and life style changes:

The literature being predominantly western but having gone into the process of globalization for the last 15 years the Indian retail environment provides a similar picture. Retail sales in India amount to \$180 billion and account for 10-11 % of GDP. The Indian retail market has around 12 million outlets and has the largest retail outlet density in the world. Indian retail has bright prospects, propelled by the fast lifestyle changes taking place in the Indian household. Over the

last decade, India's middle and high-income population has grown at a rapid pace of over 10% per annum, even as the large low-income base has shrunk. The changing identity of Indian women and the structure of the family is driving demand for convenience. Customers are demanding better store ambience and are looking for solution providers and external guarantors of quality and useability. The Indian consumer is increasingly focusing on value, convenience, variety and a better shopping experience. The increase in variety, quality, and availability of products, as well as an increase in spending power has resulted in consumers increasingly using supermarkets for their personal shopping. Indian lifestyles are changing, with the emergence of more educated women entering the workforce, and with more two-income households with higher disposable incomes. The rise of working women is a growth accelerator. According to the consumer outlook 2002 study by KSA techno park the overall spending of working woman is about 1.3 times that of an average housewife. However they spend much more on life style products. The ratio of men to women spending in single income household to double income household is 1.2:1 whereas the same is 1.05:1 in case of household with Double Income No Kids (DINK). The study further finds, increased relative spending of youth compared to elders has gone up over 3 years. Teenagers are getting richer with every passing year. In fact 90 percent of youth get pocket money, with the average amount having increased from Rs.284 (2003) to Rs.375 (2004). Youth is emerging as core for lifestyle products. The study was aimed at exploring their mindsets, media preferences, attitudes and their behaviour in the market place. According to the study, much of their pocket money went on grooming, hanging out, indulgence and on high ticket items as well. Food and beverages account for the largest proportion of the teenagers pocket money (with ice-creams and soft drinks leading the category). Further, personal durable ownership has increased, with teenagers also influencing purchase of entertainment durables at home.

c. The Credit market in India:

Credit card market in India is estimated at 14-20 million according to a recent survey conducted by global management consultant McKinsey. ICICI Bank asserts an average of Rs. 32,000 as annual spends per card (comparable to that of more advanced markets like Taiwan and Malaysia). ICICI Bank, which has more promotions in the pipeline, now claims to add up to 100,000 new customers every month while Citibank adds 80,000-90,000 and State Bank of India adds 70,000-75,000 cards per month. The other forms of credit market like automotive loans, housing loans, personal loans, education loans are all expanding.

Consumerism or consumerist philosophy is buy now and pay later. It is under this scenario the linkages between the retail segment and the credit market seems important.

d. compulsive buying and the Indian consumers:

The post globalized economy offers the consumers with countless brands in the product –market. The credit market is equally poised to co-exist to the increasing demand, as consumers are on a shopping spree. The economy is growing at an average rate of 6% every year, for the last 12 years. The employment opportunities are on the rise leading to increasing disposable income. According to the National Council of Applied Economic Research, the Indian middle class has increased on the back of the economic boom, growing by some 10 to 12 percent per year, and estimates its size to reach 300 million people. As an outcome of consumerism, the money that could have spent on social capital like education, nutrition is spent on dubious items that give no social return. There is an endless quest to purchase newer products and the life is focused on the imaginary world of the unattainable. As a consequence of spending to exhibit wealth, now major life events like weddings and births are transformed into consumer events. The increasing buying frequency is leading families to a path of huge debts traps. The point of concern here, are defaults accumulating as an outcome of a phenomenon called consumerism?

In the post-modern consumerist economies, the Maslow's hierarchy of needs is circumvented at a faster pace. The product life cycle is shorter and buying urges are intensifying amongst consumers in India, due to personal, socio-cultural and the emerging trends in the market place

and its offerings. As a result of the impact of globalization and the forces of post-modern consumerism, the hierarchy of needs of individual is moving unnaturally, not exactly in the same order as Maslow predicted in the continuum (natural). The marketers of the present steer in a lot of mesmerizing effect, particularly using the “persuasive advertisements³”. The availability of easy and plenty of credit product offerings to the consumers aggravates the situation. The compulsive buying which is rising in stature and is recognized as a ‘behavioral anomaly’.

The firm that spend (invest) a lot of money on socially non-viable projects create more of social costs or no social returns. This anomaly makes both the firm and individual spending model non-sustainable in the long run. For an individual, buying beyond one’s need/ability is a leading indicator to a path of high personal debt. As per the Basel committee norms on banking, there is a growing importance for the non-financial credibility of the potential borrowers, over and above his/her financial credibility. This argument falls in line with sustainable borrowing and spending as the urges of consumerism are growing stronger, faster and getting deep rooted in our value and belief systems.

Research design

The research design is conclusive, in which it is single cross sectional descriptive in nature. The primary data was collected using non probability sampling technique. A quota sample of 120 credit card holders (using credit card/s above one year) was chosen. A self-response questionnaire was used to collect data. The data cleaning has reduced the final sample size to 100.

A nine point scale (likert type) was used to measure introversion (six items), emotional stability (seven items), agreeableness (three items) and conscientiousness (four items) enabling the respondents to take a neutral position. The source of the questionnaire is “Antecedents of older adolescent’s credit card enhanced spending attitude and self reported financing behaviour” Ann Elizabeth Ericson, University of Iowa. This questionnaire was adopted for its reduced number of items against each personality traits.

The compulsive buying and impulsiveness scale (CBIS or CB) (nine items) and Materialism (MAT) (five items) scale of the same author is used. Each of these items are measured on a five point scale (likert type), enabling the respondents to take a neutral position.

Enhanced credit card spending scale of Sahni (1995) (four items) and Credit card financing behaviour scale (sahni 1995) (four items) adapted from Edwards (1992) was used to measure credit card usage pattern. Both these scales were used on a seven point scale (likert type), enabling the respondents to take a neutral position.

A ‘debt know how’ quiz of *master card* was administered to find the credit default probability of the respondents. (A nominal scale with ten items, the answer gets accumulated as points indicating probability of credit default.)

The reliability of the scales is tested in the new external setting and certain elements from the original scales are deleted to enhance the reliability of the measuring instruments.

The reliability statistics Cronbach’s alpha and inter-item correlation matrix for each of the variable is looked into. According to J.C. Nunnally (1998), the alpha of a scale should be greater than .70 for items to be used together as a scale which is accomplished by all the constructs. The scales need to be improved on its inter-item correlation to $>.6$. The significance is kept at .05 or less to reduce type I error. These steps enhances the possibility of internal and conclusion validity.

Data Analysis

A combination of descriptive (mean, standard deviation, distribution, bivariate/partial correlation), and inferential (t-test and ANOVA) analysis is undertaken. Chi-square goodness of fit test is done to test, that the obtained frequencies do not differ significantly from those that would be expected if all cell frequencies were equal in the population. ANOVA is used to capture the impact of categorical items on certain relationships /associations.

Results

The signs of correlation are to be reversed as compulsive buying scale is a reverse scale^s as compared to other scales. (Aggregate reverse score of 1.92).

In testing the premises, materialism (MAT) is positively associated with compulsive buying, aggregate respondents ‘neither agree nor disagree’ with MAT, mean score of 2.93 and they are ‘rarely’ compulsive buyers with a mean score of 3.92. The bivariate correlation values are between -.258 to -.417 (sig .01) reporting only 14 relations out of possible 45. The age (categorical) was controlled for and the values were between -.2012 to -.4178 (sig .05) reporting 23 inter-item correlations. The income (categorical) was controlled for and the values are between -.2162 to -.4189 (sig .05) reporting 25 inter-item correlations. Hypothesis is proved.

In testing premises, Introversion is negatively associated to compulsive buying, aggregate respondents are ‘rarely introverts’ with a mean score of 2.75 and ‘rarely’ compulsive buyers. The bivariate correlation value is -.274 (sig.01) reporting only 1 relation out of possible 54. The age was controlled for and the values were between -.2180 to -.2750 (sig.05) reporting 7 inter-item correlations. The income was controlled for and the values are between -.2054 to -.2802 (sig .05) reporting 5 inter-item correlations. Hypothesis is rejected due to insignificant number of relations.

In the premises, emotional stability is negatively associated to compulsive buying; the aggregate respondents are ‘rarely emotionally unstable’, with a mean score of 3.19 and ‘rarely’ compulsive buyers. The bivariate correlation value is between -.2 to -.358 (sig .01) reporting 7 relations out of possible 63. The age was controlled for and the values were between .2033 and -.2060 to -.3427 (sig.05) reporting 5 inter item correlations. The income was controlled for and the values are between .2094 and -.2073 to -.3538 (sig .05) reporting 6 inter item correlations. Hypothesis is rejected due to insignificant number of relations.

In the premises, agreeableness is positively associated to compulsive buying, the aggregate respondents are ‘very frequently’ agreeable, with a mean score of 6.52 and ‘rarely’ compulsive buyers. The bivariate correlation is .260 (sig .01) reporting only 1 relation out of possible 27. The age was controlled and the correlation value is .2562 (sig .05) reporting only one inter item correlation. The income was controlled and the value is .2532 (sig .05) reporting only one inter item correlation. Hypothesis rejected due to insignificant number of relations.

In the premises, conscientiousness is negatively associated to compulsive buying, the aggregate respondents are ‘sometimes’ with high conscientiousness, with a mean score of 5.93 and ‘rarely’ compulsive buyers. The bivariate correlation reported is ‘nil’ out of possible 36. The age was controlled and the correlation value is .1999 (sig .05) reporting one case. The income was controlled and the value is .2041 (sig .05) reporting one case of inter item correlation. Hypothesis rejected due to insignificant number of relations.

In the premises, enhanced credit card spending (ECCS) is positively associated to compulsive buying, the aggregate respondents ‘moderately agree’ to be high ECCS, with a mean score of 4.45 and ‘rarely’ compulsive buyers. The bivariate correlation is -.286 (sig .01) reporting only one relation out of possible 36. The age was controlled and the values are between -.1992 to -.2753 (sig .05) reporting 7 inter item correlations. The income was controlled and the values are between -.1990 to -.3175 (sig .05) reporting 12 cases of inter item correlation. Hypothesis rejected due to insignificant number of relations.

In the premises, credit card financing behaviour (CCFB) is positively associated to compulsive buying; the aggregate respondents ‘disagree’ to having high credit card financing behaviour, with a mean score of 2.17 and are ‘rarely’ compulsive buyers. The bivariate correlation is between -.280 to -.460 (sig .01), reporting 30 relations out of possible 36. The age was controlled and the values are between -.2480 to -.4538 (sig .05), reporting 32 inter item correlations. The income was controlled and the values are between -.2020 to -.4542 (sig .05) reporting 33 inter item correlations. Hypothesis accepted.

In the premises to determine, the ‘possibility of credit default’ among the respondents, it is found that an aggregate of 77% of respondents are on an ‘early warning stage’ of default. The scores they have accumulated is between 1 to 4 on a 10 point scale, ten indicating maximum credit default possibility. Twelve percent of respondents have ‘high debt default probability’, with a score between 5 to 10 on the scale. Eleven percent of respondents are excellent with ‘no possibility’ of default.

In the premises to determine, the impact of ‘age’ on introversion, emotional stability, agreeableness and conscientiousness, there is no significant difference between age groups on these variables.

In the premises to determine, the impact of categorical variables (age and Income) on Materialism and compulsive buying, there is no significant difference on both the variables, either due to age or income differences.

In the premises to determine, the impact of categorical variables (age and Income) on credit card usage pattern, there is no significant difference on both the variables, either due to age or income differences.

Limitations and caveats

1. The sampling was non probability and there is a possible sampling frame error and respondent unwillingness error.
2. Only coefficient alpha was used to measure reliability.
3. The conclusion validity is unbinding, inspite of good statistical power (sig.05 or less), due to moderate reliability for certain measurement instruments and moderate quality in implementation.

Conclusions and recommendation

The respondents in aggregate ‘neither agree nor disagree’ to materialism and are ‘rarely’ compulsive buying. The dilemma is– “Are we as consumers moving towards “high materialistic tendencies”? A prolonged longitudinal study alone may find an answer, inspite of the fact that materialism and compulsive buying is positively related in the study.

The respondents ‘moderately agree’ that they are high enhanced credit card spenders (ECCS), but at the same time they ‘rarely’ indicate compulsive buying, which is a positive outcome. They ‘disagree’ to high credit card financing behaviour, which again exposes to the fact that consumers ‘spent moderately high and finance their spending’ cautiously, keeping track of mental account⁴ as a self control device against environmental factors, like retailing environment, availability of credit and so.

The personality factors (Introversion, emotional stability, agreeableness and conscientiousness) individually is less significant, as from the present study, but for a few studies elsewhere, they had moderate directional relationship.

In this study the number of reported cases of relationship between personality factors and ‘rarely’ compulsive buying is very few (insignificant), when compared to maximum possible number of correlations. The paring of traits seems important as reported from an experimental study done by Hermann Brandstatter and Werner Guth in “A psychological approach to individual differences in intertemporal consumption patterns”

Emotional stable extroverts tend to have a steady spending behaviour (‘moderately agree’ to high ECCS) and external influences do not impact much, is true in this descriptive study also. This is indicated by ‘rarely’ compulsive buying, ‘neither agree nor disagree’ to materialism and ‘disagree’ to high credit card financing behaviour.

The emergence of repetitive relationship in some cases is as supported by literature from previous studies, but at the same time poses a challenge before the researcher to take up complicated models (like structural equation modeling) to possibly explore a new direction to the nature of relationships. A longitudinal study or a multi cross sectional study hopefully will throw more

light into the complex nature of relations. The study would be of immense use to marketers of products and services, particularly financial in nature.

Tables

Table 1.a							
Descriptive characteristics							
Age	N	Gender	N	Income	N	Marital Status	N
between 18 and 25(1)*	27	male	89	50000-96000 per annum(1)*	8	single	43
between 26 and 30(2)*	24	female	11	96001-150000 per annum(2)*	22	married	57
between 31 and 45(3)*	24	Total	100	150001-300000 per annum(3)*	31	Total	100
between 46 and 55(4)*	16			300001 and above per annum(4)*	39		
between 55 and 62(5)*	8			Total	100		
between 62 and 75(6)*	1						
Total	100						

* Ordinal value

Table 1.b							
Descriptive Characteristics							
Type of Income	N	Education	N	No. of dependents	N	Employment Type	N
Single income	69	under graduate	4	self	34	Self employed	12
Double Income	31	graduate	35	1 dependent	7	professional	29
Total	100	Post graduate	30	2 dependent	31	firm	6
		professional	31	3 dependent	17	salaried class	53
		Total	100	4 dependent	9	Total	100
				5 dependent	2		
				Total	100		

Table 1.c

Descriptive Statistics for variables: sample size (100) without categorization:

	N	Mean	Std. Deviation
I1	100	3.4300	2.19391
I2	100	2.9100	1.91272
I3	100	2.6200	1.54906
I4	100	2.9900	1.94102
I5	100	2.3200	1.36241
I6	100	2.2800	1.49125
ES1	100	2.6700	1.53119
ES2	100	3.2800	1.61483
ES3	100	3.5800	1.88658
ES4	100	2.9000	1.59228
ES5	100	4.0500	1.75450
ES6	100	3.3200	1.81953
ES7	100	2.5500	1.74295
A4	100	6.0500	2.11953
A6	100	6.4100	2.03055
A7	100	7.0900	1.91799
C2	100	5.2600	2.15847

C3	100	6.2700	1.95843
C4	100	6.2300	2.04917
C6	100	5.9400	2.31298
CB1	100	3.6400	1.05906
CB2	100	3.8200	1.07666
CB3	100	2.6100	1.05309
CB4	100	3.9000	1.06837
CB5	100	4.1200	.91320
CB6	100	4.4300	.92392
CB7	100	4.2800	.93290
CB8	100	4.1900	.80019
CB9	100	4.2800	.84184
Mat 1	100	2.6600	.94516
Mat 2	100	3.3100	1.02193
Mat 3	100	2.8600	1.10115
Mat 4	100	2.9600	1.16272
Mat 5	100	2.8700	1.15168
ECCSS1	100	4.5600	1.82198
ECCSS2	100	4.3400	1.85984
ECCSS3	100	4.4000	1.75810
ECCSS5	100	4.4900	1.82295
CCFBS1	100	2.4400	1.54606
CCFBS2	100	2.2200	1.59912
CCFBS5	100	2.2400	1.38622
CCFBS6	100	1.7900	1.28153
Valid N (listwise)	100		

Table 1.d. Central tendency measures for variables: sample size (100) without categorization:

	Index Score (Sample Mean)	Hypothesized mean [@] (H0) for one sample t test, at sig .05, where p>.05 to Accept H0*	Direction of scale
Materialism (MAT)	2.93	2.75	5 high MAT
Compulsive buying(CB)	3.92	4.27	5 Low CB [§]
Introversion(Intro)	2.76	2.57	9 High Intro
Emotional stability(ES)	3.19	2.97	9 High Emotional Instability
Agreeableness(Agree)	6.52	6.73	9 High Agreeableness
Conscientiousness (CONSC)	5.93	5.93	9 High Conscientiousness
ECCS	4.45	4.45 #	7 High Enhanced credit card spending(ECCS)
CCFB	2.17	2.14	7 High credit card financing behaviour(CCFB)

H0=There is no significant difference between sample mean and population mean.

*minority number of items in each scale had p<.05(the data distribution may not exactly be normal)

@the regression to the mean is minimal.

§ Reverse scaling to other variables.

all items with p> .05

The Chi-square goodness of fit test is used to see if count frequencies (for each item in the variable/s) deviate significantly from random, if cell frequencies were equal in the population.

The obtained frequencies do not differ significantly from those that would be expected if all cell frequencies were equal in the population at Asymp. Sig<.05

Reliability of Introversion Scale:

Table: 2.a Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.854	.868	6

Table: 2.b Inter-Item Correlation Matrix

	I1	I2	I3	I4	I5	I6
I1	1.000	.423	.441	.535	.386	.488
I2	.423	1.000	.554	.446	.438	.342
I3	.441	.554	1.000	.593	.642	.685
I4	.535	.446	.593	1.000	.540	.671
I5	.386	.438	.642	.540	1.000	.656
I6	.488	.342	.685	.671	.656	1.000

Reliability of Emotional Stability Scale:

Table: 2.c Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.785	.788	7

Table: 2.d Inter-Item Correlation Matrix

	ES1	ES2	ES3	ES4	ES5	ES6	ES7
ES1	1.000	.495	.336	.405	.183	.151	.284
ES2	.495	1.000	.569	.506	.430	.385	.357
ES3	.336	.569	1.000	.551	.452	.319	.114
ES4	.405	.506	.551	1.000	.266	.342	.340
ES5	.183	.430	.452	.266	1.000	.409	.011
ES6	.151	.385	.319	.342	.409	1.000	.374
ES7	.284	.357	.114	.340	.011	.374	1.000

Reliability of Agreeableness Scale:

Table: 2.e Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.866	.867	3

Table: 2.f Inter-Item Correlation Matrix

	A4	A6	A7
A4	1.000	.711	.618
A6	.711	1.000	.727
A7	.618	.727	1.000

Reliability of Conscientiousness scale:

Table: 2.g Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.851	.853	4

Table: 2.h Inter-Item Correlation Matrix

	C2	C3	C4	C6
C2	1.000	.452	.413	.493
C3	.452	1.000	.734	.704
C4	.413	.734	1.000	.753
C6	.493	.704	.753	1.000

Reliability of Compulsive buying Impulsiveness scale:

Table: 2.i Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.801	.806	9

Table: 2.j Inter-Item Correlation Matrix

	CB1	CB2	CB3	CB4	CB5	CB6	CB7	CB8	CB9
CB1	1.000	.492	.299	.361	.212	.191	.205	.201	.284
CB2	.492	1.000	.178	.441	.279	.302	.372	.310	.279
CB3	.299	.178	1.000	.261	.154	.184	.143	.209	.261
CB4	.361	.441	.261	1.000	.344	.249	.495	.247	.380
CB5	.212	.279	.154	.344	1.000	.357	.363	.425	.455
CB6	.191	.302	.184	.249	.357	1.000	.468	.462	.259
CB7	.205	.372	.143	.495	.363	.468	1.000	.388	.439
CB8	.201	.310	.209	.247	.425	.462	.388	1.000	.445
CB9	.284	.279	.261	.380	.455	.259	.439	.445	1.000

Reliability of materialism Scale:

Table: 2.k Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.706	.710	5

Table: 2.l Inter-Item Correlation Matrix

	Mat 1	Mat 2	Mat 3	Mat 4	Mat 5
Mat 1	1.000	.267	.255	.401	.395
Mat 2	.267	1.000	.461	.444	.292
Mat 3	.255	.461	1.000	.382	.073
Mat 4	.401	.444	.382	1.000	.313
Mat 5	.395	.292	.073	.313	1.000

Reliability of Enhanced Credit card Spending Scale (ECCS):

Table: 2.m Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.827	.827	4

Table: 2.n Inter-Item Correlation Matrix

	ECCSS1	ECCSS2	ECCSS3	ECCSS5
ECCSS1	1.000	.632	.560	.543
ECCSS2	.632	1.000	.533	.445
ECCSS3	.560	.533	1.000	.556
ECCSS5	.543	.445	.556	1.000

Reliability of Credit card financing behaviour scale (CCFB):

Table: 2.o Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.850	.851	4

Table: 2.p Inter-Item Correlation Matrix

	CCFBS1	CCFBS2	CCFBS5	CCFBS6
CCFBS1	1.000	.749	.492	.455
CCFBS2	.749	1.000	.596	.585
CCFBS5	.492	.596	1.000	.654
CCFBS6	.455	.585	.654	1.000

**Table 3: Categorical variability table:
Using ANOVA:**

Table 3.a

Mean Score	
Age (ordinal value)	Introversion
1	2.48
2	2.48
3	3.25
4	3.04
5	2.53
6	2.67

Test of Homogeneity of Variances (Age)

	Levene Statistic	df1	df2	Sig.
I1	1.908	5	94	.100
I2	1.186	5	94	.322
I3	2.889	5	94	.018
I4	1.341	5	94	.254
I5	.846	5	94	.520
I6	3.065	5	94	.013

Sig=.05 Homogeneity of variance exists.

As $p > .05$ (at $\text{sig} = .05$) in ANOVA, Accept H_0 , there is no significant difference of introversion between age groups.

Post hoc tests are not performed for variables (I1 to I6) in Introversion because at least one group has fewer than two cases.

Table 3.b

Mean Score	
Age(ordinal value)	Emotional Stability
1	3.36
2	3.11
3	3.12
4	3.37
5	2.86
6	2.43

Test of Homogeneity of Variances (Age)

	Levene Statistic	df1	df2	Sig.
ES1	2.115	5	94	.070
ES2	1.218	5	94	.307
ES3	.647	5	94	.665
ES4	2.546	5	94	.033
ES5	.516	5	94	.763
ES6	.636	5	94	.672
ES7	3.255	5	94	.009

Sig=.05 Homogeneity of variance exists.

As $p > .05$ (at sig=.05) in ANOVA, Accept ho, there is no significant difference of Emotional stability between age groups.

Post hoc tests are not performed for variables (E1 to E7) in Emotional stability because at least one group has fewer than two cases.

Table 3.c

Mean Score	
Age	Agreeableness
1	6.58
2	6.28
3	6.54
4	6.48
5	6.71
6	9.00

Test of Homogeneity of Variances

Age

	Levene Statistic	df1	df2	Sig.
A4	2.498	5	94	.036
A6	1.955	5	94	.093
A7	.766	5	94	.577

Sig=.05 Homogeneity of variance exists.

As $p > .05$ (at sig=.05) in ANOVA, Accept ho, there is no significant difference of Agreeableness between age groups.

Post hoc tests are not performed for variables (A4, A6 to A7) in agreeableness because at least one group has fewer than two cases.

Table 3.d

Mean Score	
Age	Conscientiousness
1	5.6475
2	5.47
3	6.1875
4	6.25
5	7.005
6	4.25

Test of Homogeneity of Variances (Age)

	Levene Statistic	df1	df2	Sig.
C2	.887	5	94	.493
C3	4.992	5	94	.000
C4	4.867	5	94	.001
C6	2.964	5	94	.016

Sig=.05 Homogeneity of variance does not exist.

As $p > .05$ (at sig=.05) in ANOVA, Accept H_0 , there is no significant difference of conscientiousness between age groups.

Post hoc tests are not performed for variables (C2, C3, C4, C6) in conscientiousness because at least one group has fewer than two cases.

Table 3.e

Mean Score		
Age	CB	MAT
1	3.83	2.99
2	3.74	3.24
3	4.05	2.85
4	3.84	2.78
5	4.42	2.43
6	4.67	2.60

Test of Homogeneity of Variances (Age)

	Levene Statistic	df1	df2	Sig.
Mat 1	1.178	5	94	.326
Mat 2	1.707	5	94	.141
Mat 3	1.573	5	94	.175
Mat 4	1.241	5	94	.296
Mat 5	1.716	5	94	.138

Sig=.05 Homogeneity of variance exists.

As $p > .05$ (at sig=.05) in ANOVA, Accept H_0 , there is no significant difference of materialism between age groups.

Post hoc tests are not performed for Mat 1 to Mat 5 because at least one group has fewer than two cases.

Test of Homogeneity of Variances (AGE)

	Levene Statistic	df1	df2	Sig.
CB1	2.468	5	94	.038
CB2	4.061	5	94	.002
CB3	.969	5	94	.441
CB4	2.923	5	94	.017
CB5	1.968	5	94	.091
CB6	1.395	5	94	.233
CB7	1.866	5	94	.108
CB8	.826	5	94	.534
CB9	1.435	5	94	.219

Sig=.05 Homogeneity of variance exists.

As $p > .05$ (at sig=.05) in ANOVA, Accept H_0 , there is no significant difference of CB between age groups. Post hoc tests are not performed for CB1 to CB9 because at least one group has fewer than two cases.

Table 3.f

Mean Score		
Income	CB	MAT
1	3.81	3.15
2	3.83	2.76
3	3.98	3.01
4	3.94	2.93

Test of Homogeneity of Variances (Income)

	Levene Statistic	df1	df2	Sig.
Mat 1	.091	3	96	.965
Mat 2	1.814	3	96	.150
Mat 3	1.287	3	96	.283
Mat 4	.390	3	96	.761
Mat 5	1.670	3	96	.179

Sig=.05

Homogeneity of variance exists.

As $p > .05$ (at sig=.05) in ANOVA, Accept H_0 , there is no significant difference of materialism between income groups.

Test of Homogeneity of Variances

Income

	Levene Statistic	df1	df2	Sig.
CB1	1.824	3	96	.148
CB2	.729	3	96	.537
CB3	1.436	3	96	.237
CB4	3.097	3	96	.030
CB5	1.619	3	96	.190
CB6	2.951	3	96	.037
CB7	4.379	3	96	.006
CB8	.830	3	96	.481
CB9	2.260	3	96	.086

Sig=.05 Homogeneity of variance exists.

As $p > .05$ (at sig=.05) in ANOVA, Accept H_0 , there is no significant difference of CB between income groups.

Table 3.g

Mean Score	
Age	ECSS
1	4.58
2	4.79
3	4.40
4	4.05
5	4.22
6	2.00

Test of Homogeneity of Variances
Age

	Levene Statistic	df1	df2	Sig.
ECCSS1	1.014	5	94	.414
ECCSS2	1.569	5	94	.176
ECCSS3	1.152	5	94	.339
ECCSS5	.673	5	94	.645

Sig=.05 Homogeneity of variance exists.

As $p > .05$ (at sig=.05) in ANOVA, Accept H_0 , there is no significant difference of ECCS between age groups.

Post hoc tests are not performed for ECCSS1 to ECCSS5 because at least one group has fewer than two cases.

Table 3.h

Mean Score	
Income	ECCS
1	3.41
2	4.51
3	4.33
4	4.72

Test of Homogeneity of Variances (Income)

	Levene Statistic	df1	df2	Sig.
ECCSS1	.403	3	96	.751
ECCSS2	2.695	3	96	.050
ECCSS3	.492	3	96	.688
ECCSS5	1.921	3	96	.131

Sig=.05 Homogeneity of variance exists.

As $p > .05$ (at sig=.05) in ANOVA, Accept H_0 , there is no significant difference of ECCS between income groups.

Table 3.i

Mean Score	
Age	CCFB
1	2.32
2	2.41
3	1.92
4	2.33
5	1.50
6	1.75

Test of Homogeneity of Variances (Age)

	Levene Statistic	df1	df2	Sig.
CCFBS1	4.285	5	94	.001
CCFBS2	2.960	5	94	.016
CCFBS5	3.798	5	94	.004
CCFBS6	.899	5	94	.485

Sig=.05 Homogeneity of variance does not exist.

As $p > .05$ (at sig=.05) in ANOVA, Accept H_0 , there is no significant difference of CCFB between age groups.

Post hoc tests are not performed for CCFBS1 to CCFBS6 because at least one group has fewer than two cases.

Table 3.j

Mean Score	
Income	CCFB
1	2.13
2	2.56
3	1.93
4	2.16

Test of Homogeneity of Variances (Income)

	Levene Statistic	df1	df2	Sig.
CCFBS1	1.076	3	96	.363
CCFBS2	2.652	3	96	.053
CCFBS5	1.395	3	96	.249
CCFBS6	2.669	3	96	.052

Sig=.05 Homogeneity of variance exists.

As $p > .05$ (at sig=.05) in ANOVA, Accept H_0 , there is no significant difference of CCFB between income groups.

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Footnotes

1. Compensatory components¹- 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.
2. Impulse² - Compulsive behaviour is impulse disorder, inability to restrain an impulse. Rook and Hoch (1985) define impulse behaviour as 1. A sudden and spontaneous desire to get.2. A state of psychological disequilibrium.3.The onset of psychological conflict representing an inner battle of thoughts.4.A reduction in rational evaluation of product attributes.5.Lack of regard or denial for consequences in behaviour. The extend to which consumers tend to buy products on impulse could determine their compulsivity.
3. In persuasive advertisements³, there are basically two ways to persuade the buyers. These are 1) Psychological persuading. 2) Emotional persuading. According to Mills, we are persuaded every second day so the emotional brain here plays an important role in making decisions. Our rational brains concentrates on arguments that are logical as well planned and are supported by evidence. On the other hand emotions approach us on the first instinct. These are the most powerful persuaders. It is noticed that people buy emotionally on the first hand and justify their decision after buying any product, which was a result of emotional persuasion (Blass, 1999, 955-978).
4. Mental account⁴ - People decompose wealth into three different mental accounts-current income, current assets, future income- their propensity to consume differs (shefrin and Thalers 1988, 1992) based on their mental accounts.