

# Personality and Irregular Buying Behavior: Adaptation and Validation of Core Self Evaluation Personality Trait Model in Consumer Impulsive and Compulsive Buying Behavior

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## Abstract

This research aimed at application and validation of core self evaluation (CSE) personality traits model in consumer impulsive & compulsive buying behavior in the context of fashion shopping. Two studies (study 1 & Study 2) with different populations were devised. In study 1, a causal relationship between CSE, impulsive and compulsive buying behavior was examined. Study 2 aimed to examine the causal relationship between CSE traits (self efficacy, self esteem, neuroticism and locus of control) and impulsive & compulsive buying behavior. Questionnaire adopted from literature was modified and administered to sample consumers in Islamabad. Structural equation models using AMOS 22 was analyzed utilizing maximum likelihood method. Results illustrated that consumers scoring high on CSE, were highly impulsive and compulsive. Impulsive buying behavior proved to be a significant predictor of compulsive buying behavior. Major contributions of this research included development of a new theoretical model of impulsive and compulsive buying behavior based on personality traits. CSE traits were adopted from work place environment and tested in consumer impulsive and compulsive behavior for the first time. Significant positive relationship between self efficacy and impulsive & compulsive behavior was established. Research implications and future directions are provided in the end.

**Keywords:** Compulsive buying behavior, Impulsive buying, Core self evaluation.

## Introduction

Compulsive buying behavior research in marketing and consumer behavior started with the work of Faber, O'Guinn & Krych (1987). Compulsive buying is characterized by repetitive, time consuming, excessive and uncontrolled buying (Faber & O'Guinn, 1992). Numerous factors influencing consumer's compulsive buying can be categorized into two broad categories i.e. external (environmental) influences and internal (Psychological) influences (Aboujaoude, 2013). Psychological influences include personality of a consumer and various researchers considered personality traits to be of prime importance in compulsive buying behavior (Amos, Holmes & Keneson, 2014; Black, 2010) because these traits are reasonably constant over time (Mowen & Spears, 1999). A lot of personality related factors like low self esteem, high depression; high stress, high anxiety, high emotional instability and materialism were associated with compulsive buying behavior (Davenport, Houston & Griffith, 2012). The net effects of these traits have no theoretical linkages with each other. Mowen and Spears, (1999) for the first time employed a personality trait model (Five Factor Model of personality traits) to predict compulsive buying behavior whose traits had theoretical linkages. Big Five Model (neuroticism, extraversion, agreeableness, openness to experience and conscientiousness) had significant insights for consumer impulsive and compulsive buying behavior.

A relatively new broad personality trait termed as core self-evaluation (CSE) is found to be a sound predictor of individual's behavior apart from traits in Big-Five personality model (Judge, Heller & Klinger, 2008). CSE (includes personality traits: locus of control, self esteem, neuroticism and self efficacy) is equipped with trait like self-efficacy that was not present in the Big Five model and possesses the ability to better describe personality in broader way. Mowen and Spears (1999) also failed to establish the structure of Big Five Model in their study on compulsive buying behavior (p. 421). So we consider it worthwhile to take up CSE from work and organizational environment (like Mowen and Spears (1999) did with Big Five model) and bring it into compulsive buying behavior.

Impulsive and compulsive behaviors are categorized as irrational buying behaviors (Penman & McNeill, 2008). These irrational behaviors, especially compulsive buying behaviors are also considered negative or problematic behaviors due to their damaging consequences (LaRose, 2001). Impulsive buying is an unintentional behavior that involves prompt decision making and propensity of acquiring the product immediately (Rook & Gardner, 1993). Compulsive buying behavior has been studied through impulsive tendencies, impulsiveness,

impulse control disorder and compulsiveness. According to the continuum developed by Rook (1987) impulsive buying behavior precedes compulsive buying behavior. It signals the potential capacity of impulsive buying behavior (not impulsiveness) to generate compulsive buying behavior (Kwak, Zinkhan & Roushanzamir, 2006; Callesen et al., 2014). This potential gap is worth studying because it has not yet been empirically tested.

The purpose of this research is to develop and test a structural model to broadly understand the underlying personality traits leading to compulsive buying behavior. Bono and Judge (2003) suggested two ways to measure CSE. One is direct way in which CSE is measured as a single latent trait and the other is indirect way in which CSE is measured through four dimensions as separate latent traits. CSE were to be measured in consumers impulsive and compulsive buying for the first time so we decided to utilize both methods. We designed two studies. In study 1, we developed a model that measured CSE directly on general consumers of fashion products. In study 2, we developed a model that measured CSE indirectly on university students who were consumers of fashion products. Brief review of literature is provided in following section.

## **Literature Review**

### **Compulsive Buying Behavior**

Compulsive buying is a buying behavior that is continuous, repetitive and it is stimulated in result of some negative feelings or events (O'Guinn & Faber, 1989). Compulsive purchasing leads to acquisition of quantities that are either not required or not affordable (Duroy, Gorse & Lejoyeux, 2014). Consumer's compulsive behavior consisted of a rather broader category of compulsive consumption (alcoholism, gambling, addictive eating or eating disorder and drug abuse) and compulsive buying (Aboujaoude, 2013). In literature, this demonstration of synchronized compulsive behaviors in an individual is called as Comorbidity (Kwak, et al., 2006).

Compulsive behavior is a response to void in individual's life which creates a negative feeling. Negative feelings in the life of people such as boredom and stress also cause anxiety in the life of people. People try to address the anxiety through compulsive buying and tend to grant meaning, power and control over their life (Davenport, Houston & Griffith, 2012). Compulsive buying is a negative compulsive behavior of a consumer and requires further inquiry to unfold its true influence on the well being of a person and the whole society (Callesen et al., 2014).

### **Impulsive Buying Behavior**

Impulsive buying is an unintentional behavior that involves prompt decision making and propensity of acquiring the product immediately (Rook & Gardner, 1993). Stern, (1962) laid the basic framework of impulsive buying behavior by categorizing it as planned, pure, reminder and suggestion impulse buying. He called it impulse mix. This classification of impulsive buying was further modified by Han, Morgan & Kotsiopulos (1991) into fashion context. He introduced the term fashion oriented impulsive buying synonymizing suggestion impulse buying. Impulsive buying behavior is motivated by psychological or internal states of a consumer and consumer is not concerned with its consequences (Sun & Wu, 2011).

Impulsive buying behavior and compulsive buying behavior are difficult to distinguish all together based on their consequences Callesen et al., 2014. Impulsive buying behavior may further become a cause of impulse control disorder and ultimately turn into compulsive buying behavior (Kwak et al., 2006). The only difference between both these behaviors is the level of planning and control mechanism (Xiao & Nicholson, 2013). Impulsive buying behavior and compulsive buying behavior are stimulated by identical psychological determinants. These psychological antecedents predicted both these irregular behaviors simultaneously (Sneath, Lacey & Kennett-Hensel, 2009).

### **Core-Self-Evaluation**

CSE is an individual's subjective bottom line judgment that they hold about their overall self worth, capabilities and competencies (Judge, Locke & Durham, 1997). CSE has four dimensions that include locus of control, self esteem, neuroticism and self efficacy. CSE traits have indispensable and important implications for an individual as research illustrates that individual's attitude and behavior can be effectively predicted by CSE traits and psychological process associated with them (Bono & Judge; 2003). Study and understanding of CSE traits enable us to examine and understand the psychological processes behind each dimension and eventually enables us to predict and understand an individual's behavior (Mäkikangas et al., 2013).

Literature indicates that individuals having higher levels of CSE are motivated, confident, efficient, successful, expressive, and stable and satisfied from their lives. Whereas, individuals scoring low on CSE are low in confidence, does not rely on themselves, are extroverts, emotionally unstable, consider them worthless and are less satisfied from their lives. They experience larger level of stress, depression and anxiety (Judge & Bono; 2001). This stress, depression lack of confidence in oneself and anxiety caused by low level CSE may lead to exhibit irrational buying behaviors and result in impulsive or compulsive consumption.

### ***Self Efficacy***

Bandura, (1977) defined self efficacy as individual's future oriented judgments regarding their capabilities of managing and performing certain activities required to achieve a specific performance in a specific context. Individuals having self efficacy of strong level are more flexible and hard working when it comes to achieving specific objectives (Sun & Wu, 2011). Sense of self efficacy in people is formed by four sources which are physiological/emotional simulation, mastery experiences, social influence/persuasion and vicarious experiences. The magnitude of these two may vary in individuals in accordance with the situation (Lee, Park & Jun, 2014). Mostly the construct of self efficacy has remained the subject for exploration in health, education, information technology, work performance and organizational life. In spite of the acknowledgement in the literature that it is psychological construct, a cognitive process (Vohs & Baumeister, 2011) and a personality trait, we were unable to find any study undertaken in compulsive behavior context. This study tried to fill this gap by incorporating self efficacy along with locus of control, self esteem and neuroticism in consumer compulsive behavior.

### ***Self esteem***

Self esteem is defined as "is the evaluative aspect of the self-concept that corresponds to an overall view of the self as worthy or unworthy" (Baumeister, 1998). Self esteem is an analysis undertaken and maintained by an individual regarding him/herself. Self esteem is a belief or mind set of an individual that he/she holds about his/her competency and worthiness. Researchers argue that consumers with high levels of self esteem are considered happy and psychologically healthy as they usually feel good about themselves and are effective challenge and depression handlers (Roberts, Manolis, & Pullig, 2014). People who are shy, anxious and psychologically depressed are people with low self esteem scores. They are usually pessimistic and see world through a destructive filter (Reeves, Baker & Truluck, 2012). Low self esteem evidently has a strong relationship with compulsive buying behavior (Black, 2010).

### ***Neuroticism***

Neuroticism is the foremost and broader trait of CSE and is also a part of Big Five personality traits. Neuroticism is a propensity to carry out emotional instability and psychological grief (Costa & McCrae, 1992). Individuals having high neuroticism score tend to have high anxiety, depression and low self esteem (Mikołajczak-Degrauwe et al, 2012). Behavioral and cognitive modes are linked with neuroticism because these modes are attached with carrying out distress. Scales used to measure neuroticism estimate a person's emotional stability and his relative adjustments. A person who scores high on neuroticism is likely to be insecure, emotional, nervous, inadequate, worried) and anxious, tense, self pity and unstable (McCrae & John, 1992). If a person has low neuroticism score then he is calm, self satisfied, secure, unemotional, relaxed, and unflappable and hardly (Bivens, Gore & Claycomb, 2013). All of the above mentioned characteristics of neuroticism are directly related to compulsive buying behavior (Sun & Wu, 2011). So it can be said that a person experiencing neuroticism is more likely to show compulsive behavior while shopping.

### ***Locus of Control***

Rotter, (1954), introduced locus of control in his theory of social learning. Social learning theory incorporated concepts of cognitive learning theory and behavioral learning theory. This construct can be defined as an individual's understanding that whatever happens to them is a consequence of certain forces which are either in their control (internal locus of control) or out of control(external locus of control), such as chance, luck or influence of others (Rotter, 1966). In marketing, locus of control is mostly studied in buying situation to project differences among internal and external behaviors by associating or combining environmental and psychological constructs to scrutinize post purchase and post consumption behavior (Kongsompong, 2006). Despite a lot of research undertaken on locus of control in consumer behavior domain, there is a very limited amount of research that explores consumer's internal and external behavioral and attitude differences (Lee, Chang, Lin & Cheng, 2014).

### **Theoretical Model and hypothesis**

Social cognitive theory (Bandura, 1986) argues that internal (psychological) factors are foremost contributors in shaping up behavior. We based our theoretical model on this theory.

**Figure 1: Proposed Theoretical Model Study 1**

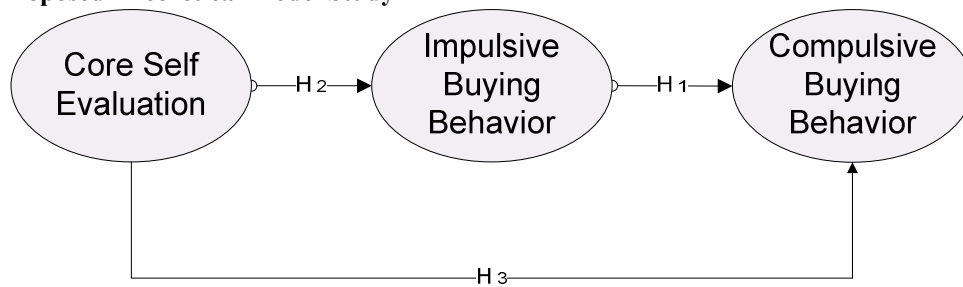


Figure 1 demonstrated the theoretical model of study 1 which was developed to directly investigate the relationship between CSE traits, impulsive & compulsive buying behavior.

H1: Impulsive buying behavior has a significant positive impact on compulsive buying behavior.

H2: Low core self evaluation has a significant positive impact on impulsive buying behavior.

H3: Low core self evaluation has a significant positive impact on compulsive buying behavior.

**Figure 2: Proposed Theoretical model Study 2**

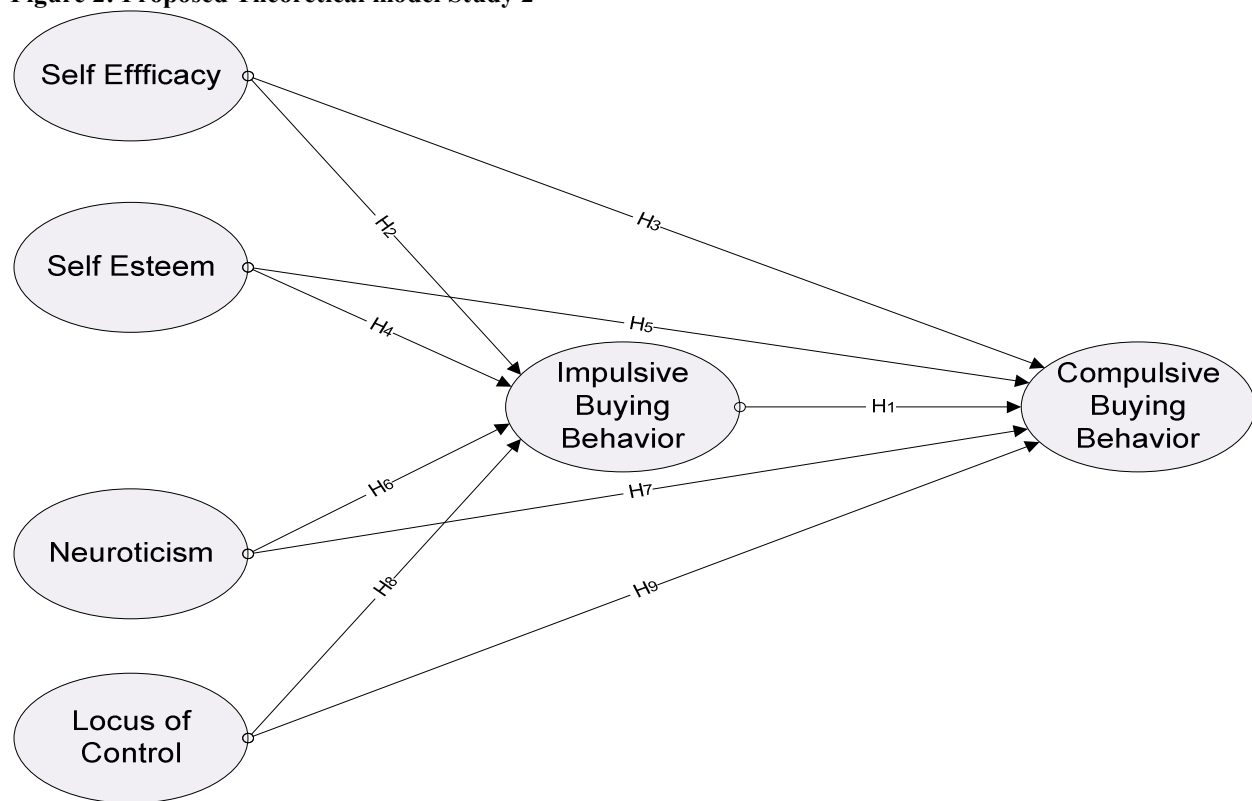


Figure 2 demonstrated the theoretical model of study 2 which was developed to investigate the relationship between CSE traits , impulsive & compulsive buying behavior.

H1: Impulsive buying behavior has a significant positive impact on compulsive buying behavior

H2: Low self efficacy has a significant positive impact on impulsive buying behavior.

H3: Low self efficacy has a significant positive impact on compulsive buying behavior.

H4: Low self esteem has a significant positive impact on impulsive buying behavior.

H5: Low self esteem has a significant positive impact on compulsive buying behavior.

H6: High neuroticism has a significant positive impact on impulsive buying behavior.

H7: High neuroticism has a significant positive impact on compulsive buying behavior.

H8: External locus of control has a significant positive impact on impulsive buying behavior.

H9: External locus of control has a significant positive impact on compulsive buying behavior.

**Study 1**

**Methodology**

**Sample**

In study 1, sample was 641 consumers of Islamabad. Consumers from diverse backgrounds were considered to

be efficient while predicting their personality based buying behaviors.

### Data collection

In this study data was collected through survey method. A self-administered questionnaire was distributed online to different individuals using google doc via emails.

### Measurements

We employed 13 items scale of Edwards (1993) and 12 items scale of Han et al., (1991) to measure compulsive and impulsive buying behavior of consumers respectively. To measure core self evaluation traits famous scale developed by Judge, Bono, Erez & Thoresen (2003) was employed. This twelve item scale measures CSE directly as a trait.

Respondents were asked to record their responses against each item on a five point Likert scale (1=strongly disagree to 5= strongly agree) except demographic questions.

### Data Analysis

We employed structural equation modeling (SEM) for analyzing the measurement and structural model using maximum likelihood estimation (Kline, 2011). We used AMOS 22 to conduct SEM. Cronbach's alpha, composite reliability and average variance extracted established inter item reliability, convergent and discriminant validity.

### Results

#### Sample Demographics

This sample of 641 consumers consisted of 196 (30.5 %) male respondents and 445 (69.5%) female respondents. 130 (20.2%) consumers out of 641 were from age group of 20 to 30, 223 (35 %) from age group of 30 to 40, 221 (34.5%) were from age group 40 to 50 and 69 (10.3%) were above 50 years old.. 150 (24.2%) respondents had the income ranging from rupees 1 to 10000, 150 (24.2%) were earning rupees 20000 to 30000, 159 (25%) were earning rupees 20000 to 30000 and 184 (28.63) were earning more than rupees 30000. Out of 641 respondents, 131(20.4%) were students, 245 (38.2%) were professionals, 169 (26.4%) had their own business and 96 (15%) fell into others category.

#### Measurement model

Confirmatory factor analysis was conducted for confirming the measurement model with three latent variables (Compulsive buying behavior, impulsive buying behavior, core self evaluation traits) and thirty seven observed variables. A series of confirmatory factor analysis and detailed testing of measurement model was conducted with maximum likelihood on selected items of three latent variables. Initial measurement model yielded poor model fitness CMIN/DF=6.04, GFI=0.70, AGFI=0.67, NFI=0.61, TLI=0.63, CFI=0.65 and RMSEA=0.89. During respecification of measurement model (Kline, 2011) we identified 13 observed variables out of 37 that were problematic in model fitness. 4 items were from the scale of impulsive buying, 6 were from CSE scale and 3 were from compulsive buying scale. These 13 items had factor loadings/standardized regression weights less than 0.7 or had squared multiple correlations (SMCs) below 0.2. These items were eliminated one by one starting with the item having lowest factor loadings/standardized regression and SMCs. The fit of respecified measurement model vastly improved CMIN/DF=4.97, GFI=0.86, AGFI=0.83, NFI=0.82, TLI=0.85, CFI=0.90 and RMSEA=0.70.

Cronbachs alpha stats for all latent variables exceeded the required limit and ranged from 0.87 to 0.92 establishing the scales reliability. AVE was calculated 0.50 and CR coefficients ranged between 0.86 and 0.87 for all latent variables of the study meeting the recommended threshold. Further, convergent validity was assessed by the criteria  $CR > AVE$  provided by (Fornell & Larcker, 1981), while discriminant validity was assessed by comparing the variance extracted to the square of the correlation between the two latent variables. Average variance extracted (AVE) values above 0.50 are considered as the evidence of constructs discriminant validity. Table provides reliability and validity statistics for measurement model. Thus it can be concluded that the model is fit for hypothesis testing.

**Table 1. Reliability, Validity and Correlation Analysis**

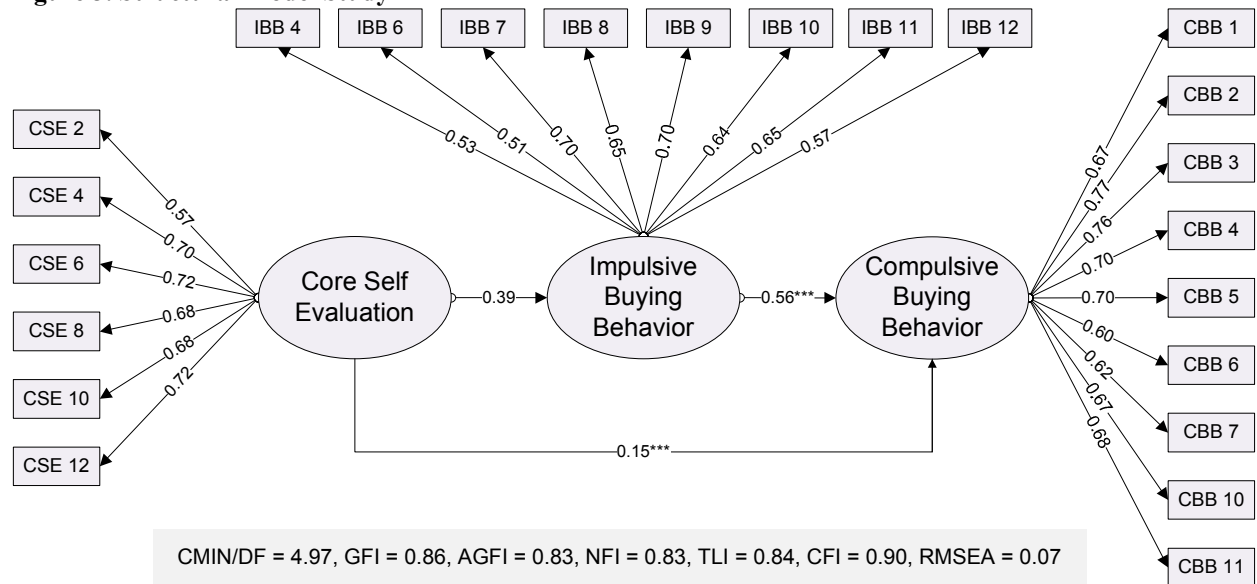
	M	SD	$\alpha$	CR	AVE	CSE	IBB	CBB
<b>CSE</b>	3.44	0.70	0.84	0.86	0.50	1		
<b>IBB</b>	3.59	0.63	0.83	0.86	0.50	.39**	1	
<b>CBB</b>	2.89	0.78	0.89	0.87	0.50	.36**	.62**	1

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

#### Structural Model

In this study we employed simultaneous estimation of measurement and structural model to test the purposed causal relationships between latent variables in the theoretical model. In structural model CSE was specified as exogenous variable whereas impulsive and compulsive buying behaviors as endogenous variables. Fit statistics for structural model i.e. CMIN/DF=4.97, GFI=0.86, AGFI=0.83, NFI=0.82, TLI=0.85, CFI=0.90 and RMSEA=0.70 indicated a good fit and no addition or deletion of paths was suggested (Kline, 2011). Model shown in figure 3 was considered a good fit for testing of hypothesis.

**Figure 3. Structural Model Study 1**



**Hypothesis testing**

All three hypothesized paths were statistically significant in structural model analysis. As predicted, we found a positive and significant relationship between impulsive buying behavior and compulsive buying behavior (H1:  $\gamma = 0.56$ ,  $p < 0.01$ ). CSE traits were found to have significant and positive relationship with impulsive buying behavior (H2:  $\gamma = 0.39$ ,  $p < 0.01$ ) and compulsive buying behavior (H3:  $\gamma = 0.15$ ,  $p < 0.01$ ).

**Discussion**

We measured CSE directly with 12 items scale developed to directly measure CSE by Judge et al. (2003). All conceived hypothesis in the theoretical model were accepted and several major and interesting findings emerged from this study results. First, impulsive buying behavior (not impulsiveness) caused significant variations in compulsive buying behavior in a positive direction. Findings suggested that the consumers who buy impulsively are more likely to become compulsive buyers as they lose impulse control (Larose, 2001). Second, CSE proved to be strong predictor of impulsive buying behavior. People who have lower levels of CSE i.e. low self esteem, lack confidence, emotionally instable and extroverts are impulsive purchasers. They experience stress, depression and anxiety and to cope with this situation, they indulge themselves in impulsive buying (Sneath, et al. 2009). Third, CSE caused considerable variations in compulsive buying behavior. Consumers scoring low on CSE are low in confidence, does not rely on them, extroverts, emotionally unstable, consider them worthless and are less satisfied from their lives. They experience larger level of stress, depression and anxiety (Judge & Bono, 2001; Workman & Paper, 2010). This stress, depression lack of confidence and anxiety caused by low level CSE leads to exhibit compulsive consumption. Findings also suggested consumers who are low on CSE are likely to exhibit impulsive behavior more than compulsive behavior.

**Study 2**

**Sample**

Sample in study 2 was 372 university students of different universities in Islamabad. The reason behind selecting university students for this study is to understand young consumer’s consumption patterns at present and forecast how they are likely to shape up in future as they are the future consumer of the country (Ramayah & Rahbar 2013).

**Data collection**

We used survey method for the collection of primary data in this study. Using convenient sampling method, self-administered questionnaire was distributed among the students enrolled in consumer behavior classes in different universities. We collected data in regularly scheduled classes where every student was provided 30 minutes to complete the form. Respondents were asked to record their responses against each item on a five point Likert scale (1=strongly disagree to 5= strongly agree) except demographic questions.

**Measurements**

We measured compulsive buying behavior on a 13 item scale developed by Edwards (1993). We used 12 items scale of impulsive buying behavior developed by Han et al (1991). A 10 item scale developed by Schwarzer & Jerusalem (1995) was employed to assess generalized self-efficacy. Rosenberg’s (1965) scale for self esteem

consisting of 10 items was adopted. Neuroticism was measured using Eysenck, Eysenck & Barret (1985) 12 item scale and locus of control was measured on 14 items scale developed by Busseri, Lefcourt & Kerton (1998).

### Data Analysis

We employed structural equation modeling (SEM) with maximum likelihood method (Kline, 2011). We used AMOS 22 to conduct SEM. Reliability and validity was established through Cronbach's alpha, composite reliability and average variance.

### Results

#### Sample Demographics

Sample of 372 university consumers consisted of 187 (50.3 %) male respondents and 185 (49.7%) female respondents indicating the even distribution of sample as far as gender is concerned. 191 (51.3%) consumers out of 372 fit in to age group of 18 to 22, 159 (42. %) fit in to age group of 22 to 26, 22 (5.9%) were of age group 26 to 30. Out of 372 respondents, 166 (44.6%) had bachelors education, 127 (34.1%) had Masters, 77 (20.7%) had MS/MPhil and only 2(0.5%) had PhD education. Income profile of the sample indicated that 89 (23%) respondents had the income ranging from rupees 1 to 10000, 148 (39.8%) were earning rupees 20000 to 30000, 41 (11%) were earning rupees 20000 to 30000 and 94 (25.3) were earning more than rupees 30000.

#### Measurement Model

Confirmatory factor analysis (CFA) was conducted for measurement model confirmation with six latent and 71 observed variables. As recommended by Kline (2011), a series of CFA with maximum likelihood method was conducted on six latent. Poor model fitness results were observed during initial measurement model analysis i.e. CMIN/DF=1.95, GFI=0.70, AGFI=0.68, NFI=0.71, TLI=0.83, CFI=0.83 and RMSEA=0.05. Measurement model was then respecified by identifying and eliminating problematic observed variables having factor loading > 0.7 and SMCs > 0.2 (Kline, 2011). 10 items qualified as problematic in model fitness. All of these items were eliminated one by one starting with the lowest factor loading and SCMs. After completing the elimination process of these items, we observed a major improvement in measurement model. Fit statistics for respecified measurement model were CMIN/DF=1.68, GFI=0.90, AGFI=0.80, NFI=0.801, TLI=0.90, CFI=0.90 and RMSEA=0.04.

Reliability statistic indicated by Cronbach's alpha ranged from 0.87 to 0.92 exceeding desired threshold (Nunnally, 1978). Average variance extracted (AVE) and composite reliability (CR) coefficients were calculated as 0.50 and from 0.84 to 0.90 respectively establishing scales reliability (Fornell & Larcker, 1981). Convergent and discriminant validity of the scales were examined using the criteria recommended by Fornell & Larcker (1981). Reliability and validity statistics are provided in table 2.

**Table 2. Reliability, Validity and Correlation Analysis**

	M	SD	CR	AVE	SE	LOC	NEU	GSE	IBB	CBB	
SE	3.53	0.72	0.87	0.84	0.50	1					
LOC	3.63	0.68	0.89	0.86	0.50	.66**	1				
NEU	3.65	0.79	0.90	0.93	0.50	.56**	.69**	1			
GSE	3.64	0.73	0.92	0.91	0.50	.65**	.66**	.71**	1		
IBB	4.25	0.47	0.89	0.90	0.46	.67**	.68**	.66**	.65**	1	
CBB	4.28	0.50	0.92	0.93	0.50	.63**	.60**	.60**	.64**	.53**	1

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

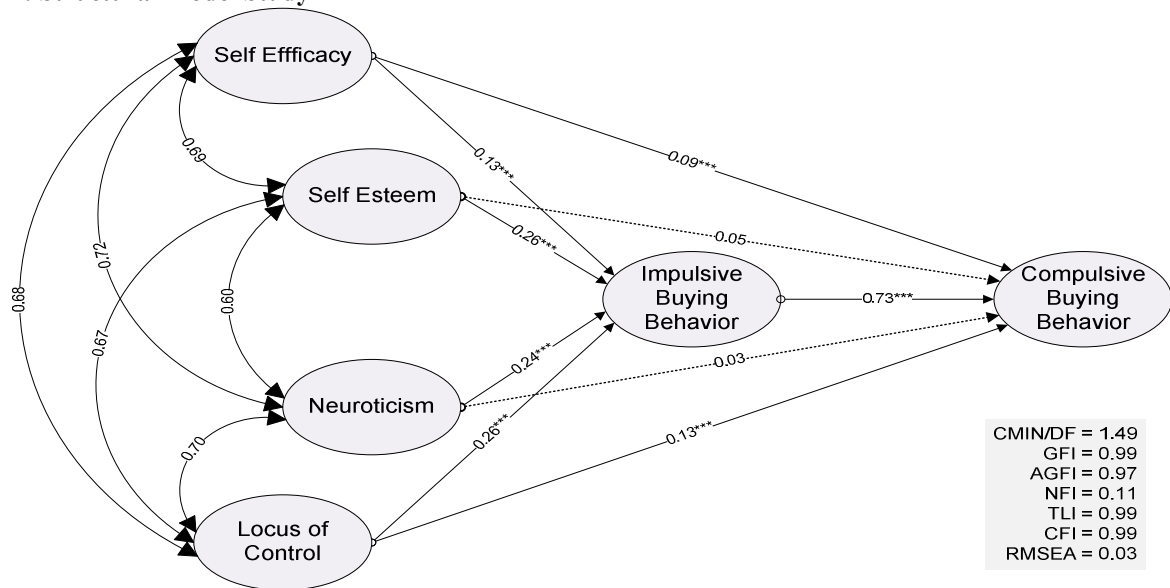
#### Structural Model

We employed a single indicator latent variable model to explore the relationships assumed in the theoretical model. In structural model CSE traits were employed as exogenous latent variables whereas impulsive and compulsive buying behavior was specified as endogenous variables. Two insignificant paths i.e. SE to CBB and NEU to CBB were eliminated from the final structural model (Kline, 2011). Structural model was a good fit CMIN/DF=1.49, GFI=0.99, AGFI=0.97, NFI=0.801, TLI=0.90, CFI=0.99 and RMSEA=0.03 and there were no glitches of misfits.

#### Hypothesis Testing

Seven out of nine hypothesized paths were proven statistically significant in the structural model analysis. A positive relationship was found between impulsive buying behavior and compulsive buying behavior (H1:  $\gamma = 0.73$ ,  $p < 0.01$ ) as predicted. Self-efficacy was found to have a positive relationship with impulsive buying behavior (H2:  $\gamma = 0.13$ ,  $p < 0.01$ ) and compulsive buying behavior (H3:  $\gamma = 0.09$ ,  $p < 0.01$ ) as assumed.

**Figure 4: Structural Model Study 2**



Structural model analysis confirmed significant positive relationship between self-esteem and impulsive buying behavior (H4:  $\gamma = 0.26$ ,  $p < 0.01$ ) whereas self-esteem had no significant relationship with compulsive buying behavior (H5:  $\gamma = 0.06$ ,  $p < 0.13$ ). Neuroticism was found significantly related to impulsive buying behavior (H6:  $\gamma = 0.24$ ,  $p < 0.01$ ) but could not establish a statistically significant relationship with compulsive buying behavior (H7:  $\gamma = 0.30$ ,  $p < 0.41$ ). A significant positive relationship was found between locus of control (H8:  $\gamma = 0.26$ ,  $p < 0.01$ ) and impulsive buying behavior and compulsive buying behavior (H9:  $\gamma = 0.14$ ,  $p < 0.01$ ). Except H5 and H7, all assumed hypotheses were accepted.

### Discussion

Several major findings emerged from this study. First, results revealed that consumers, who exhibit impulsive behavior more often, were more prone to become compulsive buyers supporting the arguments of Kwak et al., (2006) and Mikołajczak-Degrauwe et al, (2012). Another major finding of the study suggested that consumers who had low confidence in their purchasing capabilities, were proved to be impulsive and compulsive buyers. People with lower scores of self efficacy were more prone to stress anxiety, discontentment and inferiority complex which lead to acquisition of quantities that are either not required or not affordable (Duroy, Gorse & Lejoyeux, 2014). Their inability to manage their purchasing behaviors ends up in indulging impulsive and/or compulsive buying.

Results showed that people who are shy, anxious and psychologically depressed are people with low self esteem scores. They are usually pessimistic and see world through a destructive filter (Reeves, Baker & Truluck, 2012). As a result they buy impulsively to apprehend this situation (Sneath, et al. 2009). Result of this study indicated that a person who scores high on neuroticism is likely to be insecure, emotional, nervous, inadequate, worried and anxious, tense, self pity and unstable and is prone to impulsive buying behavior (Bivens, Gore & Claycomb, 2013).

Self esteem and neuroticism had no significant relationship with compulsive buying behavior. Low self esteem evidently has a strong relationship with compulsive buying behavior (Black, 2010) but in our study, self esteem did not predicted compulsive buying behavior. Impulsive buying may boost up a consumer's self esteem but it is not necessary that this impulsive behavior should become compulsive buying behavior. Possible explanation can be extracted from the work of Faber, (2010) where he argued about the different nature and treatment of impulsive and compulsive buying behavior with respect to their antecedents. He argued that an impulsive purchaser uses (utilitarian or emotional usage) the product and a compulsive consumer mostly does not. Neuroticism had no impact on compulsive buying behavior unlike the work of other researchers (Mowen, 1999; Mikołajczak-Degrauwe et al, 2012). The reason behind this contradiction may be the difference between CSE traits and Big Five personality traits structure (Bono & Judge, 2003).

Consumers having external locus of control are more likely to purchase impulsively and compulsively. CSE personality traits proved to be more efficient and effective predictor of impulsive buying behavior than compulsive buying behavior. We can establish an overall relationship of all CSE dimensions on the basis of their inter correlation with compulsive behavior.



## General Discussion

We designed two studies in this research to establish relationships between CSE, impulsive and compulsive buying behavior. We used direct and indirect approach to measure CSE (Judge et al, 2003) to gather an enhanced understanding of CSE in consumer behavior. In study 1, we collected data online from general consumers from diverse backgrounds where majority of the respondents were females. In study 2, we specifically collected data from university students. When combined, the results of study 1 and study 2 validated the theoretical model and identified the causal relationship between CSE, impulsive and compulsive buying behavior. Both studies provided similar sort of results where impulsive buying behavior proved to be a strong influence in the development of compulsive buying behavior. This supported the previous arguments that impulsive buying behavior is a state of psychological disequilibrium in which a consumer experiences inner clashes (Sun & Wu, 2011) causing impulse control disorder which is also known as compulsive buying behavior (Kwak et al, 2006). Result of both studies 1 and 2 also indicated that impulsive buying behavior is the most influencing factor in construction of compulsive buying behavior.

Results of both studies provided new insights as far as CSE traits in consumer behavior are concerned. In study 1, CSE caused significant variations in impulsive buying behavior when it was measured directly with 12 items. Similar results were found in study 2 when each of CSE traits (self esteem, neuroticism, self efficacy and locus of control) was measured with their own separate questions. Study 2 established the new relationships between self efficacy, neuroticism, self esteem, locus of control and impulsive buying behavior. In study 1 and 2, positive associations between CSE traits and compulsive buying behavior were found but not as strong as the association between CSE traits and impulsive buying behavior. New relationship between self efficacy and compulsive buying behavior was established in study 2. Study 2 confirmed the inter-correlation between CSE traits (Bono & Judge, 2003) in consumer settings hence validating the structure of CSE in different contexts.

Moreover, this research validated and furthered the stance of personality researchers in consumer behavior who consider this personality to be the prime factor in predicting compulsive buying behavior (Mowen & Sprears, 1999, Workman & Paper, 2010). Results of both studies demonstrated similar results; hence we can suggest that CSE can be measured through both direct and indirect methods in consumer behavior studies.

## Conclusion

Results of both studies suggest that compulsive buying is generated by impulsive buying behavior. Moreover, both studies provided empirical evidence of low level CSE generating more impulsive purchasing behavior than compulsive buying behavior. We find both direct and indirect method of measuring CSE appropriate as neither of these methods caused considerable difference in findings of this research. Based on the results, we can conclude that consumers with low CSE score were prone to impulsive and compulsive buying and consumers who are impulsive purchasers made more compulsive purchases.

## Implications

Major contributions of this research included development of a new theoretical model of impulsive and compulsive buying behavior based on personality trait theories. CSE traits were adopted from work place environment and tested in consumer impulsive and compulsive behavior. This research employed and verified the impact of impulsive buying behavior (not impulsiveness) on compulsive buying behavior. In this research we incorporated self efficacy in consumer impulsive and compulsive behavior.

On the basis of CSE traits, retailers and marketers may categorize consumer into different segments. Retailers and marketers should devise separate suitable strategies for capturing the attention of impulsive and compulsive consumers. They can devise the theme of their messages highlighting the traits that cause a consumer to behave impulsively and compulsively.

Consumers with pro impulsive and compulsive personalities often find themselves in stress, uncertainty, anxiety and depression and the only way out for them is exhibition of more impulsive and compulsive behavior which further worsens the situation. Policy makers may devise strategies as to counter these behavioral provoking initiatives and campaigns for the welfare of the consumer and society based on the results of the study.

In this research, personality traits of consumers that are more vulnerable to this sort of behaviors were highlighted. Consumers may use the results of this study to evaluate themselves and devise counter mechanism. Consumers may use findings of the research to better psychiatrically evaluate themselves. This research may also be used to counsel consumers who are impulsive or compulsive buyers.

## Future research and limitations

In this research, we only incorporated CSE traits to predict impulsive or compulsive behavior. Future researches should focus on incorporating more predictive traits i.e cardinal or surface traits like materialism, arousal seeking, impulsiveness and compulsiveness etc. to predict impulsive and compulsive behaviors. Additional theoretical developments are also required for CSE to be used in consumer behavior studies. Future researches should look

to identify environmental factors that influence CSE in formation of impulsive or compulsive buying behaviors. Future research from an applied perspective should look to extend our research to different populations such as impulsive or compulsive consumers, housewives, office employees, traveler shoppers high or low income consumers etc. Future researchers should look to extend our work by specifying fashion products and also include other product categories like food, home appliances, durables, groceries and others. Longitudinal studies are recommended for better and enhanced understandings of the concepts. Demographic differences are not checked in this research. Future research should consider identifying demographic differences.

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