COMPULSION OR EXCITEMENT: UNVEILING THE MYSTERY OF COMPULSIVE BUYING BEHAVIOR

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Abstract

The inquiry into compulsive buying behavior is vital in consumer and marketing research. Although this behavior previously remained important due to its negative aspects in medicine, psychology, and social sciences literature, the current study examined the positive role of compulsive buying behavior from a marketing psychology perspective. The study investigated the impact of determinants of compulsive buying behavior (i.e., anxiety, depression, stress, and need for uniqueness, materialism, and lack of self-control) on consumers' repurchase intention through mediating role of compulsive buying behavior. Data was collected through a questionnaire adopting the survey research method by using multistage cluster and stratified sampling techniques were used to determine the sampling unit and sample size. Nine hundred (900) questionnaires were distributed among university students and faculty members. Seven hundred eighty one valid questionnaires were selected for data analysis and to examine the proposed model of the study by applying SPSS and Amos. The findings suggest that determinants of compulsive buying behavior (CBB) are positively associated with consumers' repurchase intention through mediation relationship of compulsive buying behavior. Furthermore, results contribute theoretically to the existing literature on compulsive buying behavior in a developing country. Whereas, it guided the brand managers to use compulsive buying behavior for society's well-being, enhancing of marketer shares, and retail researchers. Excessive consumption patterns and coping strategies will provide new perspectives for future studies in developing countries by highlighting positive aspects of compulsive buying behavior.

Keywords: Determinants, Compulsive Buying Behavior, Repurchase Intention, Positive Aspects

1. INTRODUCTION

Emotions, fun, and pleasure played a vital role in consumer behavior and attained critical importance in consumer shopping (Griffin et al., 2000). The increasing trend of unnecessary buying worldwide has become a problematic issue (Ridgway, Kukar-Kinney, Monroe & Chamberlin, 2008). Now a day, routine life is no more without shopping that amuses buyers and gratifies their daily necessities and individuality. Shopping attained vital, convenient, and socially acceptable entertainment in consumers' life. Consequently, people progressively go shopping for pleasure and amusement, such as gaining immediate satisfaction (Elliott, 1994). Such inclinations in shopping magnify global market sales and encourage compulsive buying. Excessive shopping is categorized as compulsive buying and a class of consumer behavior. It has become paramount and got the attention of many scholars across the globe for more or less three decades (Dittmar, 2005a; Manolis & Roberts, 2008). Compulsive buyers are especially prone to advertising and overreact to shopping-related motives and cues (Mikołajczak-Degrauwe, & Brengman, 2014; Starcke et al., 2013). Compulsive buying results when a consumer

experiences dominant, overwhelming urges to buy and shop (Edwards, 1993). Compulsive buyers often buy to compensate for unfortunate events and low self-esteem or to increase self-identity (O'Guinn & Faber, 1989). Mueller and Szolnoki (2010) associated compulsive buying with depression and anxiety, which compel the buyer to buy the products to eliminate these thoughts. O'Guinn and Faber (1989) elaborate that compulsive buyers enjoy the activity of buying to alleviate their negative psychological state of mind and are less interested in buying necessities. Excess buying is reported in the extant literature as a destructive weapon that creates some negative consequences for individuals.

Apart from the above notable findings of numerous scholars, the Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association, 2013) did not list compulsive buying as a disorder under the section on behavioral addictions (Reus et al., 2018). Although Compulsive buying behavior is not a part of the disorder, most researchers investigated only the negative aspects of consumption. Nevertheless, few scholars revealed that compulsive buying behavior provides comfort from depression, anxiety, stress, and sadness. It becomes an origin of pleasure, self-satisfaction, self-identity, and social uniqueness during shopping activity (Black, 2007). Studying only the negative aspects of compulsive buying behavior. Therefore, understanding the positive aspects of compulsive consumption is crucial and necessary to elaborate on the compulsive buying behavior and its impact on society. The ongoing study empirically aimed to determine determinants of compulsive buying behavior and their direct and mediating role of compulsive buying behavior and consumers' repurchase intention in the Pakistani Apparel market.

2. LITERATURE REVIEW

2.1 Stress, Anxiety, Depression, and Escape Theory

Escape theory is people's tendency to engage in different actions or behaviors to escape negative and unpleasant psychological thoughts (Baumeister, Stillwell & Heatherton, 1994). Escape is commonly used to shift oneself from one place to another physically. In consumer behavior, escape theory is used to express behaviors that enable an individual to get relaxation from negative perceptions and urges. The escape from self provides temporary relief and may help a person to avoid an adverse psychological reaction. In the situation of stress, depression, and anxiety, escape is a coping strategy to get relief from these thoughts and involve and motivate the individuals in some different behaviors like the use of drugs, compulsive buying, or addictive behavior (Sabourin, Hilchey, Lefaivre, Watt, & Stewart, 2011). Escape theory is so critical and can be applied to several behavioral dimensions. Involving individuals in addictive behaviors provides immediate relief and long-term negative consequences (Donnelly et al., 2016). Compulsive buying behavior is used to escape stress, anxiety, depression, or other negative emotions.

2.2 Stress and Compulsive Buying Behavior

The definition of "Compulsive Buying Behavior" is a state of mind that occurs due to negative urges or thoughts (O'Guinn & Faber, 1989). Many scholars identified compulsive buying as a coping approach to escape negative thoughts and psychological and mental states (Manolis & Roberts, 2008). Therefore, compulsive buyers adopt shopping or spending activity as self-medication to treat mood repair. Valence, d'Astous & Fortier (1988) identified a positive relationship between anxiety and compulsive buying. Stress, anxiety, depression, and low self-control are the critical determinants of compulsive buying.

Stress is created from different events of individuals, which disbalances a psychological equilibrium. People designed coping strategies to tackle psychological stress, like compulsive buying behavior (Gardarsdottir & Dittmar, 2012). Compulsive buying behavior is a socially acceptable retail therapy (Dittmar, 2005). Similarly, Manolis and Roberts (2012) indicated that stress among young consumers enhances the propensity for compulsive buying behavior. Therefore, compulsive buying behavior is the consumer's tendency to involve in shopping without impulse control (He, Kukar-Kinney & Ridgway, 2018). Sharif and Khanekharab (2017) prospected that psychological variables such as individuals' personality traits and values, perceived stress, goals, and self-concept play significant roles in boosting compulsive buying. Thus, the recent study examines the interconnection between stress and compulsive buying behavior, which leads to the first and second hypotheses:

- H1. Stress is Positively Associated with Compulsive Buying Behavior.
- H2: Stress is Positively Associated with Consumer's Repurchase Intention through Compulsive Buying Behavior.

2.3 Depression and Compulsive Buying Behavior

Compulsive buying behavior results in psychological comfort from negative emotions and repetitive thoughts (Christenson et al., 1994). Maraz et al. (2015) demonstrated that internal and external factors create an individual's depression and other psychological emotions. Compulsive buying behavior functions in a cycle. The individuals indulged in compulsive buying behavior as an escape strategy to relieve the downbeat mood in the short term. Still, for a long time, overspending, guilt, and dissatisfaction with consumer objects pushed the individuals into a depression, which again compels the consumers to repeat purchase episodes as an escape technique (Raab et al., 2011).

It is evident from extant studies that compulsive buying behavior is used as an escape and self-medication therapy to overcome distress and sadness. Nevertheless, this maladaptive buying behavior disturbs marital, social, or professional functioning due to financial constraints in the long run to indebtedness (McElroy et al., 1994). Müller et al. (2013) explained that compulsive buying episodes are probably used as an escape strategy to get relaxation from negative mood states. In marketing, the expression of compulsive behavior includes purchasing behaviors to obtain a sense of security, gain comfort, and temporary escape (Ridgway et al., 2008), and alleviation from depression

(Faber & Christenson, 1995). Thus, the recent study examines the relationship between depression and compulsive buying behavior, which leads to the third and fourth hypotheses:

- H3. Depression is Positively Associated with Compulsive Buying Behavior.
- H4: Depression is positively associated with Consumer's Repurchase Intention through Compulsive Buying Behavior.

2.4 Anxiety and Compulsive Buying Behavior

Anxiety is a combination of unpleasant feelings, such as fear, nervousness, or uneasiness, which is a familiar negative feeling among female undergraduate students during routine life (Zheng et al., 2020). Different studies identified that high state anxiety levels are associated with the creation of compulsive behavior. According to the cognitivebehavioral model, Kellett and Bolton (2009) demonstrated that anxiety is a significant determinant that stimulates an individual's compulsive buying. Many scholars identified that the prevalence of anxiety is high among females who go for shopping to get relief from this negative state of mind (Rose & Dhandayudham, 2014; Mueller et al., 2011). Compulsive buying may be used as an escape therapy for aversive sensations associated with negative affect due to anxiety, which is a combination of three factors such as cognitive, physical, and social concerns (Taylor & Baker, 1994). Additionally, Christenson et al. (1994) examined the relationship between compulsive buying and anxiety. Thus, the present study examines the association between anxiety and compulsive buying behavior, which leads to the fifth and sixth hypotheses:

- H5. Anxiety is Positively Associated with Compulsive Buying Behavior.
- H6: Anxiety is positively associated with Consumer's Repurchase Intention through Compulsive Buying Behavior.

2.5 Theoretical Background, Materialism, Consumers' need for Uniqueness, Lack of Self Control and Compulsive Buying Behavior.

2.5.1 Theory of Uniqueness

According to the theory of uniqueness, people are inspired to see their selves as unique and individual from others to maintain self-recognition (Vignoles, Chryssochoou & Breakwell, 2000). The mystery behind the need for uniqueness is empirically established and dug out why people need to see themselves as novel and unique compared to their social group (Snyder & Fromkin, 1977). Individuals having a high degree of "need for uniqueness" feel hostile about the opinion of similarity with others and intend to express themselves as unique and different (Snyder & Fromkin, 1977). Therefore, naturally, people are motivated to sustain their originality to enjoy the status of self-image and express themselves to others (Tian, Bearden & Hunter, 2001).

2.5.2 Social Identity Theory

Tajfel and Turner (1978) defined that individuals establish their own identities in the circle of their social setup, which helps them to protect and boost their self-identity. According to social identity theory, a specific range between self and social identity shifts parallel

and determines the extent to which group-related or unique features influence a person's emotions and actions (Turner, Brown & Tajfel, 1979). Social identity is a salient basis for self-conception and influences self-perception, feelings, beliefs, attitudes, and behaviors. Thus, the role of social identities is to motivate individuals to engage in a particular behavior for their own identity and self-definition (Terry & Hogg, 1996).

2.5.3 Consumers need uniqueness and Compulsive Buying Behavior

The term "need for uniqueness" was coined by Snyder and Fromkin (1977) based on the theory of uniqueness. According to the theory, individuals purchase different goods to differentiate themselves from others and enhance their self-image (Knight & Kim, 2007). Tian, Bearden, and Hunter (2001) concluded that consumers have a high degree of "need for uniqueness" to purchase new brands and exclusive products to express their selfidentity and differentiation. Therefore, consumers who avoid similarities intend to consume popular brands to distinguish themselves. The individuals' need for uniqueness is the need to express their selves to be "different," "uniqueness," and "just another face in the crowd" (Fromkin & Snyder, 1980). The individuals' need for uniqueness results due to the outcome of social comparison (Festinger, 1954). Individuals compare themselves with others members of society which influence their decision-making behavior. They adopt specific affective and behavioral strategies to maintain the level of uniqueness by purchasing or spending (López, Sicilia & Moyeda-Carabaza, 2017). Therefore, individuals' need for uniqueness influences consumers' purchase behavior and consumption patterns. Thus, the present study examines the association between consumer's need for uniqueness and compulsive buying behavior, which leads to the seventh and eighth hypotheses:

- H7. Consumer is Need for Uniqueness is Positively Associated with Compulsive Buying Behavior.
- H8. Consumers' need for uniqueness is positively associated with Consumer's Repurchase Intention through Compulsive Buying Behavior.

2.5.4 Consumer Materialism and Compulsive Buying Behavior.

Materialism is defined as the consumer's quest to achieve the desired social status through acquiring and possessing different material goods (Richins & Dawson, 1992). Materialistic people mostly remain unhappier and dissatisfied with life and feel a gap between their actual and ideal lives. People involve compulsive buying behavior to fill the gap and upgrade their social status (Chang & Arkin, 2002). Materialistic consumers follow the theories of self-congruence, social identity, social comparison, and uniqueness. Faber (1992) investigated that consumers satisfy their feelings of insufficiency and low self-esteem through compulsive shopping. In line with the previous findings, compulsive buyers experience feelings of negative moods like stress, depression, and anxiety which influence their decision to shop (Faber & Christenson, 1995). Similarly, Dittmar (2005) found that consumers with higher materialistic values exhibit compulsive buying behavior. Consequently, Pirog and Roberts (2007) found that people with high materialistic values tend to maintain higher levels of status. Materialistic individuals express a significant relationship with compulsive buying behavior. They intend to buy expensive things to

accomplish their primary life goals of achieving their social image, accumulation of money, and possession of brands (Frost, Steketee, & Williams, 2009). Thus, the present study examines the association between materialism and compulsive buying behavior, which leads to the ninth and tenth hypotheses:

- H9. Consumer's Materialism is Positively Associated with Compulsive Buying Behavior.
- H10. Consumer's Materialism is positively associated with Consumer's Repurchase Intention through Compulsive Buying Behavior.

2.5.5 Consumer Lack of Self-Control and Compulsive Buying Behavior

Consumer research indicated that self-control is inversely associated with buying behavior of consumers. Numerous studies found that self-control resists temptation, decreases unexpected purchases, and controls spending behavior (Ridgway, Kukar-Kinney, & Monroe, 2008). Whiteside and Lynam (2001) found that impulsivity is created due to a lack of self-control. Billieux et al. (2008) focused on the three features of impulsivity. They found that urgency, lack of persistence, and lack of planning are positively correlated with compulsive buying. Gottfredson and Hirschi (2017) argued that individuals with a lack of self-control indulge in addictive behavior such as sex, gambling, or excessive shopping. The previous literature presented that a considerable amount of empirical evidence has been found in self-control theory. Hofmann and Van Dillen (2012) investigated that low self-control positively influences consumer offending behaviors. Individuals with high self-control levels repel negative, repetitive, and emotional thoughts. They try to systematically control all triggers of compulsive buying behavior and develop frugal buying patterns (Ridgway et al., 2008). Thus, the present study examines the association between lack of self-control and compulsive buying behavior, which leads to the eleven and twelve hypotheses:

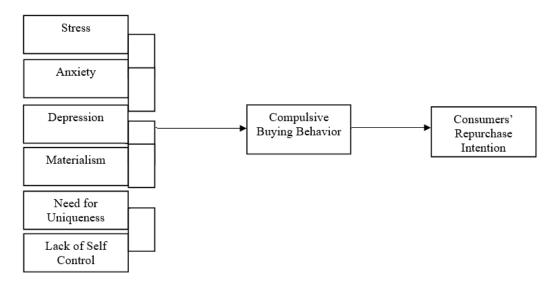
- H11. Lack of self-control is Positively Associated with Compulsive Buying Behavior.
- H12. Consumer Lack of Self-Control is positively associated with Consumer's Repurchase Intention through Compulsive Buying Behavior.

2.5.6 Compulsive Buying Behavior and Consumer's Repurchase intention

It is evident from consumer research that customer retention positively affects long-term business profitability. Customer retention provides continuous profitability through repurchasing and spending more money over time (Söderlund, 2006). According to the definition of compulsive buying behavior, it results from negative emotions, thoughts, and repetitive urges that compel individuals to purchase (Kellett & Bolton, 2009). The purchasing of goods consists of repeated episodes and boosts the repurchase construct. Compulsive buyers repeat the purchasing episodes to get excitement from shopping and relief from negative repetitive thoughts (Rose & Dhandayudham, 2014). Consumers' repurchase intention is a vital element of any business in predicting profitability and success. Any business's sustainability depends on durable market share and customer loyalty. Many scholars proposed that compulsive buyers get good knowledge about product anticipation and preparation before the shopping experience. They found that

compulsive buyers feel positive after shopping activity (Assari & Lankarani, 2016). Such consumption activities help them to attain their self and social identity, which helps them to mitigate their anxiety and depression. According to enduring literature, it can be concluded that determinants of CBB (i.e., Stress, Anxiety, Depression, Materialism, Need for Uniqueness, and lack of Self-control) trigger compulsive buying behavior and enable the consumers to repeat the purchasing episodes. Thus, the recent study examines the direct and mediating relationship between determinants of CBB and consumer repurchase intention, which leads to the thirteen and fourteen hypotheses:

H13. Compulsive Buying Behavior Mediates the Relationship Between Determinants of Compulsive Buying Behavior and Consumer's Repurchase Intention.



Research Model (Psychosomatic-Social Model)

3. METHODOLOGY

Consumer behavior research consists of a collection of methods and a procedure for producing new knowledge about the social world by applying a scientific approach. A relevant research approach has been selected according to the research objectives. The research settings for current study was cross-sectional to take a snapshot of the work and collect data simultaneously to save cost and time. The quantitative methods were applied to collect data through a survey, which gives the researcher a glimpse of the behavior of the people in apparel brands. As survey methods provide objective results and researchers have fewer chances of direct involvement and influence over data collection. Moreover, the data collected through surveys can be generalized over a large population.

The target population for the current study was the students and faculty members of Pakistani Universities. Young students involve in critical changes in an individual's

environmental setting and become more independent from family, starting their substantive employment for the first time. Moreover, societal changes also affect the development of young students' brains in function and structure (Casey et al., 2017). Multistage cluster and stratified sampling techniques were used to conduct the survey and get a homogeneous sample. Lastly, the departments were selected based on consistent presence in all the selected universities, as it was impossible to collect data from the whole university as a unit of analysis. The census was conducted in the selected departments.

Determining sample size is a tricky and mathematical calculation based on logic. There are many guidelines used to determine the sample size of the studies. Item Response Theory of Van der Linden & Hambleton (1997) demonstrates that sample size could be calculated for data collection with a ratio of (10:1), i.e., ten respondents against one item of the construct. The 10-times rule was used to determine the sample size by keeping in mind the guidelines. The number of questions was 75, and according to the formula, the recommended sample size for the current study was (75*10=750). Nevertheless, on the safer side, 900 questionnaires were distributed in the nine universities of the nine divisions in the Punjab province. Further, based on characteristics and similarities, two departments were selected. The data was collected through a self-administrated survey, and 800 questionnaires were collected back. After scrutiny of the data, 19 questionnaires were incomplete and discarded from the data. Finally, a sample of 781 was selected for analysis. The scale used for the survey research in the current study was a five-point Likert scale, starting from 'strongly disagree = 1' to 'strongly agree = 5'. Most behavioral studies frequently use the Likert scale to measure attitudes, which Likert (2017) developed.

S#	Variables	Source of Scale	Items	α
1	Compulsive buying behavior	Kukar-Kinney et al., 2009 & Edward's, 1993	24	.97
2	Depression, Anxeity & Stress	DASS-21 by Lovibond and Lovibond (1995)	6	.96
3	Need for Uniqueness	Kumar et al. (2009).	7	.96
4	Lack of Self-Control	Tangney, Baumeister, and Boone (2004)	6	.93
5	Materialism	Richins & Dawson (1992)	4	.88
6	Consumers' Repurchase Intention	Chiu et al. (2009).	9	.89

Table 4.1

4. RESULTS

Data management catered post-data collection phase, screening, and cleaning of data, normalizing data and checking reliability and validity through Exploratory Factor Analysis. It examined the association of variables through correlation analysis and the model fitness and path analysis through CFA, and SEM. the SPSS 25 and AMOS 23 software were applied to achieve the objective of data analysis.

4.1 Respondents' Demographic profile

The demographic variables were described with the help of descriptive statistics: frequency and percentages. Findings indicate that men were 41.70%, and women were 58.30% of the total sample (N = 718). Most participants are 18 to 35 years old, i.e., 91.7%

and 8.3% were 36 years and above. It has been found that most participants were undergraduates, i.e., 43.4%, and the least percentage belonged to a doctorate, i.e., 6.7%. The occupation category was divided into two groups, i.e., faculty (17%) and students (83%). The results show that comparable data was collected from selected sample universities in Pakistan. In the present study, two distinct groups, i.e., departments were included to study variables such as business administration, engineering, and science. The results show that 51.9% of participants belonged to business administration and 48.1% of participants belonged to engineering and science. The percentages for income group of 10000 to 50000 (22.3%), 51000 to 100000 (44.8%), 101000 to 200000 (26.4%), 201000 and above (6.5%) respectively. The unmarried were79% and the married were 21%.

4.2 Correlation Analysis

The current study used the Pearson correlation coefficient to measure the association among variables of the study. The below Table 4.3 indicates the results of the correlation analysis.

		Depressio		Anxiet				
	CBB	n	Stress	у	NFU	LSC	RPI	Materialism
CBB								
Depression	.923**							
Stress	.903**	.949**						
Anxiety	.918**	.948**	.941**					
NFU	.930**	.881**	.860**	.879**				
LSC	.945**	.896**	.877**	.887**	.911**			
RPI	.868**	.809**	.821**	.824**	.842**	.855**		
Materialism	.877**	.827**	.805**	.821**	.891**	.858**	.808**	

Table 4.2

Table 4.3 present the values of Pearson correlation analysis. The results indicate that there are positive and significantly correlation among compulsive buying behavior, depression (r = .92, p < .001), stress (r = .90, p < .001), anxiety (r = .91, p < .001), NFU (r = .93, p < .001), LSC (r = .94, p < .001), RPI (r = .86, p < .001), and materialism (r = .87, p < .001). Furthermore, it indicates that there is positive and significant correlation among depression, stress (r = .94, p < .001), anxiety (r = .94, p < .001), NFU (r = .88, p < .001), LSC (r = .89, p < .001), RPI (r = .80, p < .001), and materialism (r = .82, p < .001). Whereas, there is positive and significant correlation among stress, there is positive and significant correlation among stress, anxiety (r = .94, p < .001), NFU (r = .86, p < .001), LSC (r = .87, p < .001), RPI (r = .82, p < .001), and materialism (r = .82, p < .001), and materialism (r = .80, p < .001), LSC (r = .87, p < .001), RPI (r = .82, p < .001), and materialism (r = .82, p < .001), and materialism (r = .80, p < .001), LSC (r = .88, p < .001), RPI (r = .82, p < .001), and materialism (r = .80, p < .001), LSC (r = .88, p < .001), RPI (r = .82, p < .001), and materialism (r = .80, p < .001), LSC (r = .88, p < .001), RPI (r = .82, p < .001), and materialism (r = .81, p < .001), RPI (r = .82, p < .001), and materialism (r = .82, p < .001), RPI (r = .84, p < .001), RPI (r = .82, p < .001), and materialism (r = .80, p < .001), RPI (r = .84, p < .001), and materialism (r = .89, p < .001). LSC positive and significantly correlates with RPI (r = .85, p < .001), and materialism (r = .80, p < .001). LSC positive and significantly correlates with RPI (r = .85, p < .001), and materialism (r = .80, p < .001). LSC positive and significantly correlates with RPI (r = .85, p < .001), RPI (p = .80, p < .001).

4.3 Structural Equation Modeling (SEM)

Testa (2001) stated that structural equation modeling is the process of multivariate statistics that enables the theoretical model testing by using multiple indicators for the latent and latent variables. SEM is only used for theory testing, not for theory development (Anderson & Gerbing, 1988). The current research study used SEM to analyze the quantitative data as it helps conduct multiple regression equations simultaneously.

Model	CMIN/DF	CFI	AGFI	PNFI	RFI	P-Close	RMSEA
Observed Value	2.86	0.95	0.80	0.856	0.919	0.894	0.049

Table 4.3: CFA Model fit

Table 4.4: SEM Model fit

Model	GFI	CFI	AGFI	RFI	TLI	RMR
Observed Value	0.967	0.99	0.804	0.919	0.954	0.017

4.4 Confirmatory Factor Analysis

To check the best fit of the proposed model or not, the current study used the Confirmatory factor analysis (Kline & Tamer, 2016). The main objective of this analysis was to verify whether the data collected through the distribution of the questionnaire (the questionnaire was based on previously validated measures in existing literature) was reliable. The analysis demonstrated the values of CFA and justified a proposed model and measurement model. The results also present loading values and model fit criteria in detail.

4.5 Structural Equational Modeling and Hypotheses Testing

After the measurement model testing through Confirmatory factor analysis (CFA), the second step was to test the structural model. As discussed in the previous chapter of the theoretical framework and literature review section, the hypotheses of the current study were developed based on the previous literature and theories. The below Table 5.27 shows the path coefficient values of direct relationships of independent and dependent variables.

Variables Relationships			β	SE	CR	р	Result
CBB	<	Depression	.11	.02	3.54	.000	Significant
CBB	<	Stress	.09	.02	3.88	.000	Significant
CBB	<	NFU	.21	.02	8.14	.000	Significant
CBB	<	LSC	.38	.03	15.23	.000	Significant
CBB	<	Anxiety	.14	.02	4.63	.000	Significant
CBB	<	MASIC	.08	.02	4.18	.000	Significant
RPI	<	CBB	.87	.02	48.08	.000	Significant

Table 4.5: Direct paths without Mediation

Table 4.6 shows the direct path coefficients computed by AMOS 23. It has been found that depression positive and significantly predicts the CBB (B = .11, p = .000), stress positive and significantly predicts CBB (B = .09, p = .000), NFU positive and significantly predicts CBB (B = .21, p = .000), LSC positive and significantly predicts CBB (B = .38, p = .000), anxiety positive and significantly predicts CBB (B = .14, p = .000), MASIC positive

and significantly predicts CBB (B = .08, p = .000), and Compulsive buying behavior positive and significantly predicts RIP (B = .87, p = .000).

	Variable Relationship		β	SE	CR	р
RPI	<	Anxiety	.19	.04	3.28	.00
RPI	<	Depression	26	.05	-4.14	.000
RPI	<	Stress	.30	.04	6.65	.000
RPI	<	NFU	.16	.05	3.18	.00
RPI	<	LSC	.38	.06	8.06	.000
RPI	<	MASIC	.16	.05	4.14	.00

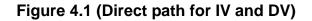
 Table 4.6: Direct Impact without Mediator

In Table 4.6, direct effects have been computed with the help of AMOS 23. Findings of the study suggests that anxiety positive and significantly predicts repurchase intention (RPI) (B = .19, p = .00), depression negative and significantly predicts RPI (B = -.26, p = .000), stress positive and significantly predicts RPI (B = .30, p = .000), NFU positive and significantly predicts RPI (B = .16, p = .000), LSC positive and significantly predicts RPI (B = .38, p = .000), and materialism (B = .16, p = .00).

	Direct Paths			SE	CR	р
CBB	<	NFU	.21	.02	8.14	.000
CBB	<	LSC	.38	.03	15.23	.000
CBB	<	MASIC	.08	.02	4.18	.000
CBB	<	Anxiety	.14	.02	4.63	.000
CBB	<	Depression	.11	.02	3.54	.000
CBB	<	Stress	.09	.02	3.88	.000
RPI	<	CBB	.31	.08	4.52	.000
RPI	<	Anxiety	.14	.04	2.54	.01
RPI	<	Depression	29	.05	473	.000
RPI	<	Stress	.27	.04	6.05	.000
RPI	<	NFU	.09	.05	1.82	.07
RPI	<	LSC	.27	.06	5.00	.000
RPI	<	MASIC	.13	.05	3.48	.000

Table 4.7: Direct path analysis with mediator

In Table 4.7, mediation analysis has been computed with the help of AMOS 23. Results indicate significant direct effect of depression (B = -.29, p = .000), stress (B = .27, p = .000), anxiety (B = .14, p = .01), NFU (B = .09, p = .000), LSC (B = .27, p = .000), and MASIC (B = .13, p = .011) on RPI. In addition, significant path coefficients were found on NFU (B = .21, p = .000), LSC (B = .38, p = .000), MAISC (B = .08, p = .000), anxiety (B = .14, p = .000), depression (B = .11, p = .000), stress (B = .09, p = .000).



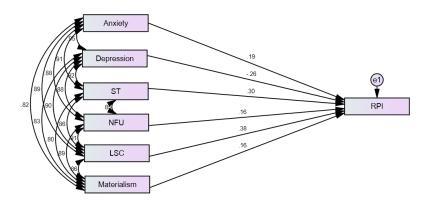
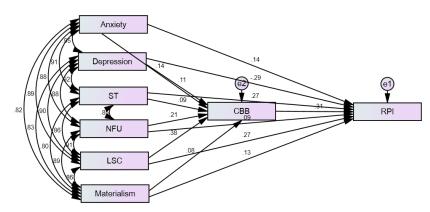


Figure 4.2(Full Mediational model)



Note. Figure 4.2 shows direct impact of IVs on DV with Mediator; in this model standardized values are shown.

Table 4.8: CBB as Mediator between DAS, NFU, LSC, MAS and RPI

Variables	Indirect	Direct W/o Mediator	Direct with mediator	Result
DEP-CBB-RPI	.82***	26**	29**	Supported
MAS-CBB-RPI	.69***	.16**	.13***	Supported
STR-CBB-RPI	.66***	.30***	.27***	Supported
ANX-CBB-RPI	.71***	.19**	.14**	Supported
LSC-CBB-RPI	.56***	.38***	.27***	Supported
NFU-CBB-RPI	.63***	.16**	.09 ^{ns}	Supported

Note. ***p < .001, **p < .01, ns = non-significant

In Table 4.8, results show significant indirect effect of depression (B = .82, p = .000), materialism (B = .69, p = .000), stress (B = .66, p = .000) anxiety (B = .71, p = .000), LSC (B = .56, p = .000), and NFU (B = .63, p = .000). In conclusion, depression, materialism, stress, anxiety, LSC and NFU shows significant mediational effect on RPI. The results indicate that all the study scales (CBB, DAS, NFU, LSC, Materialism, and RPI) are reliable and valid (as indicated by EFA and CFA). Pearson correlation analysis has been

computed to check the association and relationship among the variables. It has been found that CBB, RPI, DAS, NFU, LSC, and Materialism are positive and significantly correlated. In addition, after correlation, regression analysis (path coefficients) has been computed with the help of AMOS 23. It has been found that CBB, DAS, NFU, LSC, and Materialism significantly predict the RPI. Moreover, findings reveal that CBB is a significant mediator between the relationships of determinants of compulsive buying behavior (i.e., DAS, NFU, LSC, and materialism) and RPI. Furthermore, the Independent Sample T-Test demonstrates that Female participants have a high prevalence of compulsive buying behavior than Male participants. The participants who were students had a higher trend of compulsive buying behavior than the Faculty. Lastly, the students studying in Business Administration Department have a higher prevalence of compulsive buying behavior than those learning in the Engineering & Science Department. The results also indicated that unmarried participants have a higher prevalence of compulsive buying behavior than married participants have a higher prevalence of compulsive buying behavior than married participants have a higher prevalence of compulsive buying behavior than those learning in the Engineering & Science Department. The results also indicated that unmarried participants have a higher prevalence of compulsive buying behavior than married participants do.

5. DISCUSSION AND CONCLUSION

The current study aimed to recognize consumers' primary progress puzzle of compulsive buying behavior by empirically investigating the psychosomatic-social analysis of maladaptive spending among university students and teachers. The determinants of compulsive buying behavior explained a significant variance (Model R2 = 0.93). They described that these determinants of psychosomatic-social analysis of maladaptive spending are the powerful triggers of compulsive behavior among young consumers. The study's findings verify the previous results of different scholars (Kukar-Kinney et al., 2009; Billieux et al., 2008). Similarly, compulsive buyers experience positive emotions after buying clothing-related products from a shopping mall (Weinstein et al., 2016). The excitement lasts for a short period, but they get immediate relief from negative emotions (Ridgway et al., 2008). According to some scholars, those compulsive buyers tend to hide their purchases to avoid criticism over their shopping trips and excessive and needless shopping (Lejoyeux & Weinstein, 2010). In the psychological term, compulsive buyers are obsessed with shopping like individuals addicted to drugs or alcohol. They possess and express the dependent or addicted behavior. They indulge in the behavior they depend on to eliminate obsessive thoughts. Lejoyeux et al. (1997) proposed that compulsive buyers experience repetitious, alluring and uncontrollable hankering to buy products that are often needless or excessive. They usually buy famous brand clothes and expensive, exceptional products to establish their self-identity and uniqueness (Kukar-Kinney et al., 2009). Online shopping facilities in Pakistan have changed the retail environment. enabling compulsive buyers to be alone while accomplishing their addiction without facing criticism. No physical or social contact is required in online shopping. Compulsive buyers are fast fashion seekers who gather novel information about launching new fashions using different information sources such as the internet, electronic, and print media, as well as word of mouth.

5.1.1 Stress and Compulsive Buying Behavior

The current study reports that stress significantly correlates with compulsive buying behavior. These results are in the same direction as described in the study of Lins and Aquino (2020), which also revealed that stress in both gender influence consumer buying behavior. The study's overall results revealed that perceived stress predicts compulsive buying behavior. The results are consistent with the previous results of other empirical studies, as mentioned by Lee and Workman (2015). Moreover, the current study extends the previous literature by elaborating that stress has a 6% direct effect on compulsive buying behavior and 30% on consumers' repurchase intention. At the same time, stress has a 27% variation in repurchase intention through the mediation effect of compulsive buying behavior. The results showed that the hypothesis was accepted and supported the theory.

5.1.2 Depression and Compulsive Buying Behavior

It is evident from previous research that distress and depression can increase compulsive buying behavior significantly (Atalay & Meloy, 2011). In the present study, the question was whether "retail therapy" factually helps to reduce depression or not. It is observed that the value of r Pearson's correlation coefficients between compulsive buying behavior and depression was positive. The current study's results align with prior findings, which elaborate that anxiety and depression are good determinants of compulsive buying behavior, as presented by Iqbal and Aslam (2016). It has been evident that depressed females were more involved in online compulsive buying during COVID-19. After the relaxation of COVID-19 restrictions, the same behavior was observed in females while making retail purchases.

5.1.3 Anxiety and Compulsive Buying Behavior

Compulsive buyers strongly focus on shopping activity. They are keenly interested in acquiring goods instead of possessing or using purchased items. Compulsive buying behavior is present among university students in Pakistan due to anxiety. The results of both constructs are similar to the findings of previous studies (Alavi, 2010). The findings concluded that anxiety is responsible for positive variation in compulsive buying behavior, which motivates individuals to go shopping to get calmness from sadness and mental pressure. The study's results supported the argument, similar to previous findings. Similarly, the results also suggest that consumers find an escape from anxiety and indulge themselves in compulsive buying behavior and consumers' repeated purchases. Thus the results of the present study supported our hypothesis, confirming that anxiety is positively associated with compulsive buying behavior among university students and teachers.

5.1.4 Consumers' need for uniqueness and Compulsive Buying Behavior

The vital goal of the study was to explore correlations between an individual's need for uniqueness and compulsive buying behavior. The current study shows that the need for identity strongly correlates with compulsive buying behavior and consumers' repurchase intention. Thus, individuals' need for uniqueness elaborates on consumers' individuality,

self-completeness, differentiation, and independence. The current empirical study determines that consumers' need for unique tendencies prefers different types of luxury brands relying on their self-concepts. The findings explain that individuals' need for uniqueness prefers inconspicuous brands not only for self and social identity but also for worldly gain. An individual's desire to feel unique compels the consumer to acquire unique and sophisticated apparel brands, contributing to a significant variance in compulsive buying behavior. The results indicate that individuals' need for uniqueness may influence buying decisions and preferences. The results proposed that individuals' need for uniqueness is responsible for a 21% variation in compulsive buying behavior and a 16% variation in consumer repurchase intention.

5.1.5 Materialism and Compulsive Buying Behavior

The results of the current study provide insight into how consumers' social comparison, self, and social identity compel them to get information about new fashion and boost their materialist approach interest. Consumers' materialism influences their compulsive shopping behavior of apparel among university students in Pakistan. The results are consistent with many previous studies (Mueller et al., 2011) that materialism is positively associated with compulsive buying behavior. The results reveal that materialism is responsible for an 8% change in compulsive buying behavior and 16% in consumers' repurchase intention among the large sample of university students. The study's estimates endorse that the prevalence of compulsive buying is owing to determinants of compulsive buying behavior and materialism plays a vital role in it. The results of the current study are also similar to those mentioned by Otero-López and Villardefrancos (2014). Interestingly, it is revealed in the current study that materialism emerged as a relevant determinant of compulsive buying behavior and confirmed that materialism is responsible for establishing a statistically significant impact on consumer repurchase episodes. These findings support the existing literature demonstrating the relationship between materialism and its crucial role in increasing the predisposition for compulsive buying.

5.1.6 Lack of Self-Control and Compulsive Buying Behavior

Self-control is a directing force that controls such negative emotions and thoughts. However, a lack of self-control initiates repetitive urges and negative emotions, which compel individuals to indulge in excessive buying behavior. Lack of self-control allows the consumers to get preliminary relief from negative repetitive feelings through shopping and retail therapy. The driving force of repetitive thoughts and emotions motivates compulsive buyers to focus on temporary happiness instead of bothering about the negative consequences of their purchasing behavior. The recent study is the first to analyze the links between lack of self-control, compulsive buying behavior, and consumers' repurchase intention within one model. The findings of the present study indicated that lack of self-control is responsible for compulsive buying behavior and consumers' repurchase intention is 38%, which elaborated that lack of self-control, is the crucial determinant of the current research. The results verify the existing theory and are similar to the existing findings of Rose (2007). In addition, DeSarbo and Edwards (1996)

demonstrated that a lack of self-control makes consumers involved in addictive behavior, and people who cannot resist them buy.

5.1.7 Compulsive Buying Behavior and Consumer Repurchase Intention

The current study examines the relationship of determinants (i.e., anxiety, stress, depression, materialism, consumer's need for uniqueness, and lack of self-control) of compulsive buying behavior and compulsive buying behavior among university students and faculty in Pakistan. The results revealed that anxiety contributes 14%, depression contributes 11%, stress contributes 9%, consumer's need for uniqueness contributes 21%, lack of self-control contributes 38%, and materialism contributes 8% to compulsive buying behavior. All the independent variables have a significant positive relationship with compulsive buying behavior. The results elaborated that the need for uniqueness and lack of self-control are vital determinants of compulsive buying behaviors. At the same time, materialism is a lower determinant of compulsive buying behavior. The results verify the previous theories and are consistent with the findings of studies (e.g., Donnelly et al., 2016; Sharif & Khanekharab, 2017; Dittmar, 2005).

5.1.8 Mediation Role of Compulsive Buying Behavior

The current study demonstrated relevant evidence to underpin extant literature and theories about compulsive buying behavior; consumers' repurchase intention, and the underlying mediation mechanisms. The theoretical model of the current study revealed compulsive buying behavior as a crucial predictor of consumers' repurchase intention. Additionally, the present study strengthens the previous literature by unveiling the mediated relationship between compulsive buying behavior and consumers' repurchase intention. Specifically, Sharif & Khanekharab (2017) presented that the tendency for compulsive consumption increased in women due to materialism. The results showed that 94% variation in compulsive buying behavior is due to determinants of compulsive buying behavior. Similarly, 78% variation in consumers' repurchase intention is due to determinants of compulsive buying behavior. By taking compulsive buying behavior as a mediator, the results showed anxiety scores reduced from 19% to 14%, stress scores reduced from 30% to 27%, depression scores reduced from -26% to -29%, and consumers' need for uniqueness scores reduced from 16% to 9%, materialism scores reduced from 16% to 13% and lack of self-control scores reduced from 38% to 27%. These results verify the mediation effect of compulsive buying behavior and consumers' repurchase intention as dependent variables.

5.2 Theoretical contribution

The key objective of the current study was to investigate the relationships between determinants of compulsive buying behavior and consumers' repurchase intention in apparel brands. In addition, drawing upon different theories of consumer behavior, psychology and sociology, the present study developed a model examining the influence of personality traits on consumers' repurchase intention. Few previous studies have examined the proposed variables model in the context of compulsive buying behavior.

The current study contributes to the existing body of research by strengthening a theoretical model through investigating and validating the predictors responsible for compulsive buying behavior and Consumers' repurchase intention among young University students and teachers in Pakistan.

The current studies demonstrate the psychosomatic social analysis of maladaptive shopping behavior positively. The results verify and differentiate the prevalence of compulsive behavior between students and faculty, providing solid evidence that the majority is more among the young than the older.

The core insight from the present research is to identify the key driver of compulsive buying behavior: a lack of self-control. The results indicate that by acquiring material goods, individuals seek pleasure and motivation through overspending, which enables them to get relief from negative feelings and urges experienced before doing repeated episodes of purchasing.

The present study extends this finding by incorporating other factors important in predicting compulsive buying, such as the need for uniqueness, materialism, and lack of self-control.

5.3 Managerial Contribution

The current study provides important practical implications for clinicians, public policymakers, marketers, and consumer advocates. Individuals are involved in different behavioral addictions like gambling, gaming, compulsive buying, drugs, and alcoholism to alleviate these negative emotions and thoughts through retail therapy.

In addition, the results link the compulsive buying behavior is also helpful for marketers and companies for multiple reasons. Individuals enjoy the fantasy of shopping activity that alleviates negative mental pain and thoughts. Therefore, companies must be aware of consumers' compulsive buying behavior when creating sales, placing products in stores, or developing promotional strategies.

Furthermore, the results reveal that lack of self-control is the critical determinant of compulsive and repetitive purchases. Brand managers may design their promotional strategies in physical or online stores to decrease consumer self-control.

The firms may launch their products in a way that every promotional campaign adds something new to influence and motivate these compulsive buyers. The firms may design promotional campaigns by understanding the marketing psychology of the consumers and highlight worldly benefits and self and social identity by purchasing these products. In this way, the firms will capture a significant market share and profit, and individuals will gain high status and social identity through buying material goods.

5.4 Limitations and Recommendations for future research

Intriguing and critical issues relating to compulsive buying behavior remain to be addressed. The present study proposes numerous valuable insights regarding compulsive buying behavior and consumers' repurchase intention but is not without limitations. An important limitation of this study is using appeal brands to investigate the

determinants of compulsive buying behavior and consumers' repurchase intention. Moreover, the current study used a quantitative research approach while investigating and interpreting the different relationships of independent, dependent, mediating, and moderating variables in the tested models. Future research may apply an alternative research approach for more in-depth analysis. The current study used a questionnaire as a research instrument, whereas future studies may collect data through interviews, group discussions, and in-store observation methods. In comparison, future research may incorporate the moderating role of money to investigate the patterns of compulsive buying behavior.

5.5 Conclusion

The current study has addressed all the research questions and examined the proposed relationship of the research model based on existing literature and theories of marketing psychology, sociology, biology, and consumer behavior. The fundamental purpose of the current study was to examine the impact of determinants such as anxiety, depression, stress, materialism, need for uniqueness, and lack of self-control on consumer repurchase intention by mediating compulsive buying behavior. These determinants of compulsive buying behavior create negative repetitive thoughts and feelings, which compel individuals to escape from this mental distress and involve themselves in compulsive buying behaviors (Sharif & Khanekharab, 2017). The current study investigated the direct impact of anxiety, depression, and stress on consumer repurchase intention based on escape theory. In contrast, depression has a negative relationship with repurchase intention, leading to depression in the individual who could not go shopping. Although the finding verifies the theory of SOR that depression creates negative thoughts as stimuli that develop compulsive behavior, individuals repurchase the products in response. According to statistical analysis, H1, H2, H3, H4, H5 & H6 are accepted. Additionally, the study examines the need for uniqueness and its effect on compulsive buying behavior. The theories of self-identity, self-congruence, and uniqueness identified that individuals with a higher level of uniqueness tend to compulsive buying behavior and repeat their purchases to maintain their social status and individuality (Wu et al., 2017). Most studies indicated that consumers' traits influence their purchasing behavior and consumption level (Shao, Grace & Ross, 2019). The result of the study also verifies the existing theories and demonstrates that an individual's need for uniqueness is positively associated with both compulsive buying behavior and consumers' repurchase intention. Therefore, the results **accepted** the **H7**, **H8**. In line with our proposed theoretical model, expectation, and theories, i.e., Social Identity and Comparison, the results of the present studies are similar to numerous previous studies. It was observed that materialism was an essential predictor of compulsive buying behavior. Therefore, the results accepted the H9 &H10. Shenhav et al. (2017) elaborated that consumers lacking self-control may be unable to control their repetitive inner thoughts, urges, and environmental factors. The extant literature showed that lack of self-control is the core element in indulging individuals in addictive behaviors. Similarly, the present study also found that lack of self-control is the primary determinant of compulsive buying behavior and repeated consumer purchases. As individual loses self-control, they will become involved in compulsive buying behavior. Thus H11 & H12 are accepted. Finally, the

results show the complete mediation between determinants of compulsive buying behavior and consumers' repurchase intention. Therefore, H13 is accepted.

References

- Alavi, S. S. (2010). Psychometric properties of Young internet addiction test. International Journal of Behavioral Sciences, 4(3), 183-189.
- Assari, S., & Lankarani, M. M. (2016). Association between stressful life events and depression; intersection of race and gender. Journal of Racial and Ethnic Health Disparities, 3(2), 349-356.
- Atalay, A. S., & Meloy, M. G. (2011). Retail therapy: A strategic effort to improve mood. Psychology & Marketing, 28(6), 638-659.
- Baumeister, R. F., Stillwell, A. M., & Heatherton, T. F. (1994). Guilt: an interpersonal approach. Psychological bulletin, 115(2), 243.
- Billieux, J., Rochat, L., Rebetez, M. M. L., & Van der Linden, M. (2008). Are all facets of impulsivity related to self-reported compulsive buying behavior?. Personality and Individual Differences, 44(6), 1432-1442.
- Black, D. W. (2007). A review of compulsive buying disorder. World Psychiatry, 6(1), 14.
- Casey, J., Yue, X., Nguyen, T. D., Acun, A., Zellmer, V. R., Zhang, S., & Zorlutuna, P. (2017). 3D hydrogel-based microwell arrays as a tumor microenvironment model to study breast cancer growth. Biomedical Materials, 12(2), 025009.
- Chang, L., & Arkin, R. M. (2002). Materialism as an attempt to cope with uncertainty. Psychology & Marketing, 19(5), 389-406.
- Chiu, C. M., Chang, C. C., Cheng, H. L., & Fang, Y. H. (2009). Determinants of customer repurchase intention in online shopping. Online information review.
- Christenson, G. A., Faber, R. J., De Zwaan, M., Raymond, N. C., Specker, S. M., Ekern, M. D., ... & Eckert, E. D. (1994). Compulsive buying: descriptive characteristics and psychiatric comorbidity. The Journal of clinical psychiatry.
- DeSarbo, W. S., & Edwards, E. A. (1996). Typologies of compulsive buying behavior: A constrained clusterwise regression approach. Journal of consumer psychology, 5(3), 231-262.
- Dittmar, H. (2005). A new look at "compulsive buying": Self–discrepancies and materialistic values as predictors of compulsive buying tendency. Journal of Social and Clinical Psychology, 24, 806–833.
- Donnelly, G. E., Ksendzova, M., Howell, R. T., Vohs, K. D., & Baumeister, R. F. (2016). Buying to blunt negative feelings: Materialistic escape from the self. Review of General Psychology, 20(3), 272-316.
- Edwards, D. (1993). But what do children really think? Discourse analysis and conceptual content in children's talk. Cognition and instruction, 11(3-4), 207-225.
- Elliott, D. S. (1994). Serious violent offenders: Onset, developmental course, and termination—The American Society of Criminology 1993 presidential address. Criminology, 32(1), 1-21.
- Faber, R. J., & O'guinn, T. C. (1992). A clinical screener for compulsive buying. Journal of consumer Research, 19(3), 459-469.
- Faber, R. J., Christenson, G. A., De Zwaan, M., & Mitchell, J. (1995). Two forms of compulsive consumption: Comorbidity of compulsive buying and binge eating. Journal of Consumer research, 22(3), 296-304.
- Festinger, L. (1954). A theory of social comparison processes. Human relations, 7(2), 117-140.

- Fromkin, H. L., & Snyder, C. R. (1980). The search for uniqueness and valuation of scarcity. In Social exchange (pp. 57-75). Springer, Boston, MA.
- Frost, R. O., Tolin, D. F., Steketee, G., Fitch, K. E., & Selbo-Bruns, A. (2009). Excessive acquisition in hoarding. Journal of anxiety disorders, 23(5), 632-639.
- Garðarsdóttir, R. B., & Dittmar, H. (2012). The relationship of materialism to debt and financial wellbeing: The case of Iceland is perceived prosperity. Journal of Economic Psychology, 33(3), 471-481.
- Gottfredson, M. R., & Hirschi, T. (2017). Self-control and opportunity. In Control theories of crime and delinquency (pp. 5-20). Routledge.
- Griffin, W. L., Pearson, N. J., Belousova, E., Jackson, S. V., Van Achterbergh, E., O'Reilly, S. Y., & Shee, S. R. (2000). The Hf isotope composition of cratonic mantle: LAM-MC-ICPMS analysis of zircon megacrysts in kimberlites. Geochimica et cosmochimica acta, 64(1), 133-147.
- He, H., Kukar-Kinney, M., & Ridgway, N. M. (2018). Compulsive buying in China: Measurement, prevalence, and online drivers. Journal of Business Research, 91, 28-39.
- Hofmann, W., & Van Dillen, L. (2012). Desire: The new hot spot in self-control research. Current directions in psychological science, 21(5), 317-322.
- Iqbal, N., & Aslam, N. (2016). Materialism, depression, and compulsive buying among university students. International Journal of Indian Psychology, 3(2), 91-102.
- Kellett, S., & Bolton, J. V. (2009). Compulsive buying: A cognitive-behavioural model. Clinical Psychology & Psychotherapy: An International Journal of Theory & Practice, 16(2), 83-99.
- Kline, B., & Tamer, E. (2016). Bayesian inference in a class of partially identified models. Quantitative Economics, 7(2), 329-366.
- Knight, D. K., & Kim, E. Y. (2007). Japanese consumers' need for uniqueness: Effects on brand perceptions and purchase intention. Journal of Fashion Marketing and Management: An International Journal.
- Kukar-Kinney, M., Ridgway, N. M., & Monroe, K. B. (2009). The relationship between consumers' tendencies to buy compulsively and their motivations to shop and buy on the Internet. Journal of Retailing, 85(3), 298-307.
- Kumar, A., Lee, H. J., & Kim, Y. K. (2009). Indian consumers' purchase intention toward a United States versus local brand. Journal of business research, 62(5), 521-527.
- Lee, S. H., & Workman, J. E. (2015). Compulsive buying and branding phenomena. Journal of Open Innovation: Technology, Market, and Complexity, 1(1), 3.
- Lejoyeux, M., & Weinstein, A. (2010). Compulsive buying. The American Journal of Drug and Alcohol Abuse, 36(5), 248-253.
- Lejoyeux, M., Tassain, V., Solomon, J., & Ades, J. (1997). Study of compulsive buying in depressed patients. Journal of Clinical Psychiatry, 58(4), 169-173.
- Lins, S., & Aquino, S. (2020). Development and initial psychometric properties of a panic buying scale during COVID-19 pandemic. Heliyon, 6(9), e04746.
- López, M., Sicilia, M., & Moyeda-Carabaza, A. A. (2017). Creating identification with brand communities on Twitter: The balance between need for affiliation and need for uniqueness. Internet Research.
- Lovibond, P. F., & Lovibond, S. H. (1995). The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories. Behaviour research and therapy, 33(3), 335-343.

- Manolis, C., & Roberts, J. A. (2008). Compulsive buying: Does it matter how it's measured?. Journal of Economic Psychology, 29(4), 555-576.
- Maraz, A., Eisinger, A., Hende, B., Urbán, R., Paksi, B., Kun, B. ... & Demetrovics, Z. (2015). Measuring compulsive buying behaviour: Psychometric validity of three different scales and prevalence in the general population and in shopping centres. Psychiatry research, 225(3), 326-334.
- McElroy, S. L., Keck, P. E., Pope, H. G., Smith, J. M., & Strakowski, S. M. (1994). Compulsive buying: a report of 20 cases. The Journal of clinical psychiatry.
- Mikołajczak-Degrauwe, K., & Brengman, M. (2014). The influence of advertising on compulsive buying—the role of persuasion knowledge. Journal of behavioral addictions, 3(1), 65-73.
- Mueller, S., & Szolnoki, G. (2010). The relative influence of packaging, labelling, branding and sensory attributes on liking and purchase intent: Consumers differ in their responsiveness. Food quality and preference, 21(7), 774-783.
- Müller A, Arikian A, Zwaan M, and Mitchell JE: Cognitive behavioural group therapy versus guided self-help for compulsive buying disorder: a preliminary study. Clin Psychol Psychother 2013, 20:28– 35.
- O'Guinn, T. C., & Faber, R. J. (1989). Compulsive buying: A phenomenological exploration. Journal of consumer research, 16(2), 147-157.
- Otero -López, J. M., & Villardefrancos, E. (2014). Prevalence, sociodemographic factors, psychological distress, and coping strategies related to compulsive buying: a cross sectional study in Galicia, Spain. BMC psychiatry, 14(1), 1-12.
- Pirog, S. F., & Roberts, J. A. (2007). Personality and credit card misuse among college students: The mediating role of impulsiveness. Journal of Marketing Theory and Practice, 15(1), 65-77.
- Raab, G., Elger, C. E., Neuner, M., & Weber, B. (2011). A neurological study of compulsive buying behaviour. Journal of Consumer Policy, 34(4), 401-413.
- Reus, V. I., Fochtmann, L. J., Bukstein, O., Eyler, A. E., Hilty, D. M., Horvitz-Lennon, M., ... & Hong, S. H. (2018). The American Psychiatric Association practice guideline for the pharmacological treatment of patients with alcohol use disorder. American Journal of Psychiatry, 175(1), 86-90.
- 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), 303-316.
- Ridgway, N. M., Kukar-Kinney, M., Monroe, K. B., & Chamberlin, E. (2008). Does excessive buying for self-relate to spending on pets?. Journal of Business Research, 61(5), 392-396.
- Rose, S., & Dhandayudham, A. (2014). Towards an understanding of Internet-based problem shopping behaviour: The concept of online shopping addiction and its proposed predictors. Journal of behavioral addictions, 3(2), 83-89.
- Sabourin, B. C., Hilchey, C. A., Lefaivre, M. J., Watt, M. C., & Stewart, S. H. (2011). Why do they exercise less? Barriers to exercise in high-anxiety-sensitive women. Cognitive behaviour therapy, 40(3), 206-215.
- Shao, W., Grace, D., & Ross, M. (2019). Consumer motivation and luxury consumption: Testing moderating effects. Journal of Retailing and Consumer Services, 46, 33-44.
- Sharif, S. P., & Khanekharab, J. (2017). Identity confusion and materialism mediate the relationship between excessive social network site usage and online compulsive buying. Cyberpsychology, Behavior, and Social Networking, 20(8), 494-500.
- Shenhav, A., Musslick, S., Lieder, F., Kool, W., Griffiths, T. L., Cohen, J. D., & Botvinick, M. M. (2017). Toward a rational and mechanistic account of mental effort. Annual review of neuroscience, 40(1), 99-124.

- Snyder, C. R., & Fromkin, H. L. (1977). Abnormality as a positive characteristic: The development and validation of a scale measuring need for uniqueness. Journal of Abnormal Psychology, 86(5), 518.
- Söderlund, M. (2006). Measuring customer loyalty with multi-item scales: A case for caution. International journal of service industry management.
- Starcke, K., van Holst, R. J., van den Brink, W., Veltman, D. J., & Goudriaan, A. E. (2013). Physiological and Endocrine Reactions to Psychosocial Stress in Alcohol Use Disorders: Duration of Abstinence Matters. Alcoholism: Clinical and Experimental Research, 37(8), 1343-1350.
- Tajfel, H., & Turner, J. C. (1978). Intergroup behavior. Introducing social psychology, 401-466.
- Tangney, J. P., Boone, A. L., & Baumeister, R. F. (2018). High self-control predicts good adjustment, less pathology, better grades, and interpersonal success. In Self-regulation and self-control (pp. 173-212). Routledge.
- Taylor, S. A., & Baker, T. L. (1994). An assessment of the relationship between service quality and customer satisfaction in the formation of consumers' purchase intentions. Journal of retailing, 70(2), 163-178.
- Terry, D. J., & Hogg, M. A. (1996). Group norms and the attitude-behavior relationship: A role for group identification. Personality and social psychology bulletin, 22(8), 776-793.
- Testa, M. R. (2001). Organizational commitment, job satisfaction, and effort in the service environment. The Journal of Psychology, 135(2), 226-236.
- Tian, K. T., Bearden, W. O., & Hunter, G. L. (2001). Consumers' need for uniqueness: Scale development and validation. Journal of consumer research, 28(1), 50-66.
- Turner, J. C., Brown, R. J., & Tajfel, H. (1979). Social comparison and group interest in ingroup favouritism. European journal of social psychology, 9(2), 187-204.
- Valence, G., d'Astous, A., & Fortier, L. (1988). Compulsive buying: Concept and measurement. Journal of consumer policy, 11(4), 419-433.
- Van der Linden, W. J., & Hambleton, R. K. (1997). Handbook of item response theory. Taylor & Francis Group. Citado na pág, 1(7), 8.
- Vignoles, V. L., Chryssochoou, X., & Breakwell, G. M. (2000). The distinctiveness principle: Identity, meaning, and the bounds of cultural relativity. Personality and Social Psychology Review, 4(4), 337-354.
- Weinstein, J. S., Herman, E. I., Lainez, B., Licona-Limón, P., Esplugues, E., Flavell, R., & Craft, J. (2016). TFH cells progressively differentiate to regulate the germinal center response. Nature immunology, 17(10), 1197-1205.
- Wu, J., Zhao, Y., Qi, H., Zhao, X., Yang, T., Du, Y. ... & Wei, Z. (2017). Identifying the key factors that affect the formation of humic substance during different materials composting. Bioresource technology, 244, 1193-1196.
- Zheng, Y., Yang, X., Zhou, R., Niu, G., Liu, Q., & Zhou, Z. (2020). Upward social comparison and state anxiety as mediators between passive social network site usage and online compulsive buying among women. Addictive Behaviors, 111, 106569.