



The Effect of Big Five Factors of Personality on Compulsive Buying: The Mediating Role of Consumer Negative Emotions

Mohamed Shemeis¹, Talaat Asad², Samaa Attia³, *

1 PhD researcher, Assistant Lecturer at Raya High Institute for Management and Foreign Trade, New Damietta, Egypt

2 Professor of Marketing, Faculty of Commerce, Mansoura University, Egypt

3 Professor of Marketing, Head of Business Administration Department and Vice-Dean of Post Graduate Studies and Research, Faculty of Commerce, Suez University, Egypt

Emails: mohamedshemeis14@gmail.com; tasaad44@gmail.com; sataher@yahoo.com

*Correspondence: mohamedshemeis14@gmail.com

Abstract:

This study has examined the direct effect of Big Five Factors of personality (BFF) which include (Neuroticism, Agreeableness, Extraversion, Conscientiousness, and Openness to Experience) on Compulsive Buying (CB). Besides, examining the mediating effect of Consumer Negative Emotions (CNE) in the relationship between Big Five Factors of personality (BFF) and Compulsive Buying (CB). The questionnaire for the study was adapted from earlier established scales and measures which were based on five points Likert Scale. The study was concentrated on shopping malls' customers in North Delta (Egypt). The study used a sample size of 384 and data was collected randomly using systematic random sampling. 314 questionnaires were valid for statistical analysis and free of missing data were retrieved with a response rate of 81.7%. Smart PLS-SEM3 software was used for data analysis. The results showed that there is a significant positive effect of Neuroticism on compulsive buying. While the results indicated that Extraversion has a significant negative effect on compulsive buying. Also, the results found that Conscientiousness has a significant negative effect on compulsive buying. While Agreeableness and Openness to Experience hadn't had any effect on compulsive buying. As for the mediating effect of Consumer Negative Emotions, the results mentioned that Consumer Negative Emotions has a partial mediation in the relationship between Neuroticism, Extraversion, and Conscientiousness, and Compulsive Buying. While Consumer Negative Emotions fully mediated the relationship between Openness to Experience and Compulsive Buying. But there was no mediation for Consumer Negative Emotions in the relationship between Agreeableness and Compulsive Buying.

Keywords: Big Five Factors of personality (BFF); Compulsive Buying (CB); Consumer Negative Emotions (CNE).

1. Introduction:

A large majority of consumers are willing to buy and consume goods and services in the belief that this makes them valuable members of society. Therefore, individual spending has already exceeded

disposable income because compulsive shopping has caused individual life to go. Most researchers believed that excessive shopping is more individual spending than individual needs. Therefore, it is a painful issue for individuals and families and not suitable for countries and the business environment. Given that this behavior is very important for psychologists, physicians, economists, sociologists, and marketers. Marketing researchers usually call this behavior as compulsive buying behavior or buying addiction (Singh & Nayak, 2016).

Compulsive buying is characterized by excessive ideas of shopping and buying that produce distress and damage which includes hard-to-control impulsivity to buy which is often associated with consumers buying unnecessary goods or shopping longer than planned. Compulsive buying has many economic and psychological effects such as financial distress, insolvency, minimum savings, anxiety, frustration, and low self-esteem (Lee & Workman, 2015).

For the knowledge of the authors, there is no scientific research that examined the effect of the big five factors of personality traits on compulsive buying through the mediation of consumer negative emotions. The motivation for the current study derives from the harmful results of compulsive buying. Therefore, the authors tried to highlight the most affecting factors which lead the consumer to engage in this behavior. As for the most affecting factors, the authors adopted Big Five Factors of personality (BFF) as an independent variable and Consumer Negative Emotions (CNE) as a mediator.

Based on the above, this paper seeks to build a framework that allows examining the direct effect of Big Five Factors of personality (BFF) on compulsive buying behavior (CB). Besides, testing the direct effect of Consumer Negative Emotions (CNE) on Compulsive Buying (CB). Moreover, exploring the mediating effect of CNE in the relationship between BFF and CB.

The organization of the paper as follows. Section two explains the conceptual background, section three includes hypotheses development, section four details methodology, section five presents the results, section six shows discussion, section seven presents conclusion, section eight shows implications, and the final section includes limitations and suggestions for future research.

2. Conceptual background

Biolcati (2017) defined compulsive buying as a recurring chronic purchase which becomes an initial response to negative events or feelings as a way to modify the general mood which includes intense impulsivity from consumers towards purchasing items they don't need. Also, it can be defined as a tendency to purchase addiction that arises from the persistence of repeated motivations to buy or perform ritual purchases that are difficult to resist and which may be enjoyable. Therefore, compulsive buying in its essence is a chronic psychological disorder that is difficult to control (Harnish et al., 2016).

Roberts & Roberts, (2012) indicated that four basic criteria are required to diagnose compulsive buying which are: Firstly, A constant preoccupation with shopping, spending, and impulsivity towards purchasing in an intrusive and difficult to control manner, secondly, Money that is often spent on unnecessary items, Thirdly, buying causes anxiety, shame, and guilt, Finally, the time spent in shopping and spending conflicts with work and family. Moreover, Horváth et al., (2018) agreed with Iqbal & Aslam, (2016) that compulsive buying has some consequence which can be stated as follows:

- 1) Financial distress, insolvency, marital and legal problems.
- 2) Compulsive buyers are more likely to develop additional maladaptive behaviors such as eating disorders, drug use, mood disorders.
- 3) Compulsive buyers feel a sense of remorse, guilt, and shame after completing the compulsive buying cycle, as the buying process itself, not the products that modify from their negative emotions.

- 4) Getting rid of the products that the compulsive buyer has purchased because he is not interested in these products, he feels the pleasure and joy of the short-term only during the purchase cycle itself.

Big Five Factors of personality can be defined as they are five basic factors for describing and explaining human personality traits. These traits have been reached through many researchers in the field of personality namely, Neuroticism, Agreeableness, Extraversion, Conscientiousness, and Openness to Experience. Each factor represents an abstraction of a different set of harmonious traits (Yoon & Lim, 2018).

Kude et al., (2017) defined every factor of these personality factors. Neuroticism is characterized by excessive anxiety that causes psychological distress, emotional suffering, and an inability to deal with the activities of daily life. While Agreeableness refers to the individual's concern for cooperation and social harmony, the characteristics of his behavior include observing friendliness with others and being prepared to serve the interests of others. As for Extraversion, it is described as firm and always action-oriented, members of this trait are excited and interested in drawing feelings and love to talk to others. Conscientiousness refers to that individuals can control and regulate their impulsivity concerning decision-making and work-oriented behaviors. Finally, Openness to Experience is characterized by openness to new ideas, involves patterns of awareness and creative imagination. Therefore, its members are widely distinguished by intellectual curiosity.

Undoubtedly, emotions play an important role in consumer behavior. Consumers communicate emotionally with products and brands. Therefore, their purchasing behavior is based on this relationship. Some researchers believe that emotion is perceptual as a behavioral trait of the individual. On the other hand, they are viewed by others as a response to external motivations and for the individual's evaluation of information. Consumer behavior researchers also believe that emotion has a fundamental impact on consumer behavior through different feelings of fear, anxiety, general mood, how they think, and make purchasing decisions, moreover how they feel after making their purchasing decisions (Koshkaki, 2014). Consumer Emotions can be defined as Short-term, intense, and conscious responses from the individual to stimuli in his environment, as well as having a great impact on individual thinking and behavior, in addition to having long-term consequences for the quality of life (Isaac & Çakmak, 2016). Also, it can be defined as responses to the motivational event, which include subjective experiences as the cognitive component and physiological changes as an excitement component in addition to physical inclinations such as body position and facial expressions (Foroughi et al., 2016).

Ma et al., (2016) showed that emotion is a complex, multi-dimensional phenomenon. Many studies have indicated that positive and negative emotions represent antecedents to emotions. Positive emotion is an antecedent to a set of behaviors such as repurchase intention, good word of mouth, customer satisfaction, and loyalty. While negative emotion is an antecedent to a set of behaviors like anger, sadness, behavioral shifts, and bad word of mouth.

Laros & Steenkamp, (2005) indicated that consumer emotional response after consumption is considered a real prediction of future consumer attitudes, it showed the existence of a hierarchy of emotions in its positive and negative effects. Happiness, love, contentment, and pride are emotions extracted from positive emotional effects. While anger, fear, sadness, and shyness are emotions extracted from negative emotional effects.

Han & Jeong, (2013) stated that consumer emotions have emerged as a powerful factor in influencing consumer's behavior and attitude, it indicates that the positive or negative feelings of the individual are a result of individual beliefs. This proves that positive emotions are closely related to consumer positive

behavioral attitudes, moreover negative emotions are closely related to negative behavioral tendencies when engaging in specific behaviors.

Saran et al., (2016) mentioned that positive emotions develop through success in achieving the goal. Therefore, positive emotions represent a great opportunity for marketers as one of the strong influences on consumer purchasing decisions and behavior. Also, these studies warn of consumer's negative emotions which results in effects that harm the interest of marketers and lead to consumer dissatisfaction in the end.

Further, Moon & Attiq (2018) stated that negative emotions are the way for consumers to engage in compulsive buying. The authors added that when consumers have a negative emotion, they would be more able to go shopping to modify their negative feelings by doing a lot of buying process. Therefore, negative emotions will be adopted in the current paper.

Based on the above theoretical discussions, we have developed a conceptual framework that has direct and indirect relationships, depicted in Figure1. The literature support for the proposed hypotheses are presented in the subsequent sections.

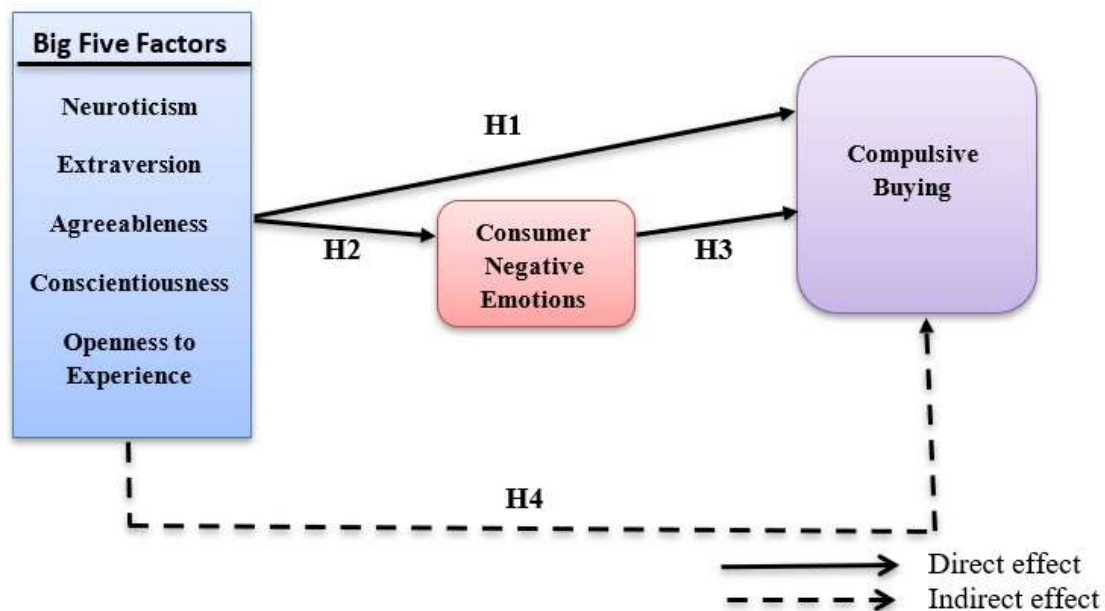


Figure 1: Research framework

3. Hypotheses Development

Big Five Factors and Compulsive Buying

A few previous studies have shown that there is a correlation between the big five factors and compulsive buying. (Sun et al., 20014; Wang & Yang, 2008; Johnson & Attmann, 2009) found that Neuroticism has a significant correlation with compulsive buying. Also, (Shahjehan et al., 2012; Mikołajczak-Degrauwe et al., 2012) stated that all factors of personality have a significant effect on compulsive buying. While the results of (Bivens et al., 2013) showed a positive correlation between the traits (Neuroticism, Agreeableness, Extraversion) and compulsive buying, but Conscientiousness was negatively related to compulsive buying.

Other previous studies like (Rose & Segrist, 2014) examined extraversion and neuroticism as a predictor for compulsive buying. The results confirmed that extraversion and neuroticism act as a predictor for

compulsive buying behavior. Also, (Otero-López et al., 2017) explored the prediction of compulsive buying behavior through personality factors. The results found that neuroticism is positively related to compulsive buying. While Agreeableness and conscientiousness were negatively related to compulsive buying. (Shehzadi et al., 2016) indicated that all factors of personality have a significant correlation with compulsive buying. Although, Yoon & Lim, (2018) found that all factors of personality traits have no significant and compulsive buying. Therefore, as an agreement with these previous studies, the following hypothesis can be formulated:

H1: Big Five Factors (BFF) of personality have a significant effect on Compulsive Buying (CB), this hypothesis is divided into the following sub-hypotheses:

H1a: Neuroticism has a significant effect on Compulsive Buying.

H1b: Extraversion has a significant effect on Compulsive Buying.

H1c: Agreeableness has a significant effect on Compulsive Buying.

H1d: Conscientiousness has a significant effect on Compulsive Buying.

H1e: Openness to Experience has a significant effect on Compulsive Buying.

Big Five Factors and Consumer Negative Emotions

(Tan et al., 2003; Matzler et al., 2005) found that neuroticism has a negative effect on consumers' positive emotions and even lead to display negative emotions. While (Ramanathan & Williams, 2007) showed that the big five factors moderate the relationship between negative emotions and impulsivity. Also, the study indicated that there is a significant correlation between the big five factors and negative emotions.

(Jani & Han, 2013) mentioned that neuroticism has a significant effect on consumer emotions. While (Saran et al., 2016) stated that all factors of personality have a significant effect on consumer emotions. Thus, the following hypothesis can be formulated:

H2: Big Five Factors (BFF) of personality have a significant effect on Consumer Negative Emotions (CNE), this hypothesis is divided into the following sub-hypotheses:

H2a: Neuroticism has a significant effect on Consumer Negative Emotions.

H2b: Extraversion has a significant effect on Consumer Negative Emotions.

H2c: Agreeableness has a significant effect on Consumer Negative Emotions.

H2d: Conscientiousness has a significant effect on Consumer Negative Emotions.

H2e: Openness to Experience has a significant effect on Consumer Negative Emotions.

Consumer Negative Emotions and Compulsive Buying

Saraneva & Sääksjärvi, (2008) tended to examine the relationship between consumer emotions and compulsive buying. The results found that compulsive buyers' emotions swing positively and negatively while shopping until they can get what they want. So, the results showed that the emotions that compulsive buyers possess are more complicated than previously thought, as during the shopping process positive or negative emotions often don't appear. Consumers are satisfied with obtaining their full desires at the same time they have a sense of fear of losing a new opportunity to buy a product. If their desires are

realized then they feel proud, happy, and achieving the goal which creates positive emotions. If they cannot get what satisfies their desires then they feel disappointment, sadness, and lack of success which leads to negative emotions.

Also, Sneath et al., (2009) explored the relationship between consumer emotions, impulsive, and compulsive buying. The results mentioned that there is a positive correlation between negative emotions and consumer attitude towards impulsive and compulsive buying behaviors. Also, Lue et al., (2018) found that negative emotions lead to the tendency towards compulsive buying.

Additionally, (Moon & Attiq, 2018) explored the relationship between negative emotions and compulsive buying. The results indicated that negative emotions have a positive correlation with compulsive buying behavior. So, the results considered negative emotions as an antecedent for compulsive buying. Moreover, the results found that consumers after doing their compulsive buying have positive emotions for the short term only. Thus, the following hypothesis can be formulated:

H3: Consumer Negative Emotions have a significant effect on Compulsive Buying.

The mediating role of Consumer Negative Emotions

Ramanathan & Williams, (2007) indicated that the big five factors moderate the relationship between consumer negative emotions and his attitude towards impulsive buying which leads to compulsive buying. Also, (Saran et al., 2016) found that the big five factors are related closely to consumer emotions.

Also, the results obtained from (Williams & Grisham, 2012) showed that consumer emotions are closely related to the possibility of his attitude towards compulsive buying behavior. Besides, the results obtained from (Sneath et al., 2009) and (Moon & Attiq, 2018) reported that the formation of negative emotions for the consumer pushes him towards compulsive buying behavior.

Considering the above, there is a direct relationship between the big five factors of personality and consumer emotions. As well as a direct relationship between consumer emotions and compulsive buying. With a review of previous studies, it is found that there is an absence of a study that addressed the indirect effects of the big five factors of personality on compulsive buying by mediating consumer negative emotions according to the researcher's knowledge. Therefore, the current paper seeks to examine this indirect effect through the current research proposed framework by merging hypotheses 1,2,3. Therefore, the following hypothesis can be suggested:

H4: Consumer Negative Emotions mediate the relationship between big five factors and Compulsive Buying, this hypothesis is divided into the following sub-hypotheses:

H4a: Consumer Negative Emotions mediates the relationship between Neuroticism and Compulsive Buying.

H4b: Consumer Negative Emotions mediates the relationship between Extraversion and Compulsive Buying.

H4c: Consumer Negative Emotions mediates the relationship between Agreeableness and Compulsive Buying.

H4d: Consumer Negative Emotions mediates the relationship between Conscientiousness and Compulsive Buying.

H4e: Consumer Negative Emotions mediates the relationship between Openness to Experience and Compulsive Buying.

4. Methodology

Survey measures

The current research adopted a survey using questionnaires to obtain data for testing the research hypotheses. The questionnaire included measures of the research variables. For measuring Big Five Factors of personality (BFF) (Yoo & Gretzel., 2011) scale was adopted. As for Consumer Negative Emotions (CNE) (Babin et al., 2013) scale was used. (Ridgway, 2008; Robert & Robert, 2012) scales were used to measure Compulsive Buying (CB). Besides, all items measuring the research variables were assessed on a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

Sampling technique

The current study which is a part of a large study depended only on shopping malls' consumers in north Delta (Egypt). The questionnaires were distributed according to a systematic random sampling approach. The questionnaires were distributed to consumers in Damietta and Mansoura which represent North Delta. 8 shopping malls were selected (4 in Damietta and 4 in Mansoura) as the most famous shopping malls in North Delta. In order to complete the procedures for drawing the systematic random sampling and to achieve the randomness in the selection, the questionnaires were distributed to customers by making a time selection distance of 10 minutes in the sense of collecting one questionnaire list every 10 minutes until completing the required sample members. Moreover, the distribution was done within 4 fixed days per week, starting from Wednesday to Saturday during the period from January 2020 to March 2020. Basically, 384 questionnaires were directed to customers. 314 questionnaires were valid for statistical analysis and free of lost data were retrieved with a response rate of 81.7%.

Sample characteristics

Table 1 shows a summary of the respondents' demographic profiles. The sample represents the consumers who visit the most famous shopping malls in north delta. Of the 314 respondents, 22.3% were males, and 77.7% were females. The sample respondents' age who are less than 30 years represents 43.6%. 29% from the sample respondents their ages ranged between 30 to less than 40 years. 19.4% of respondents were between the age of 40 to less than 50 years. 8% of the respondents were more than 50 years. 58% of respondents were married, 23.9% were single, 16.2% were divorced, and 1.9% were widowed.

Table 1: Summary of respondent demographics profile.

Demographic variables	Description	Frequency	Percentage
Gender	Male	70	22.3%
	Female	244	77.7%
Age	Less than 30 years	137	43.6%
	30 to less than 40 years	91	29%
	40 to less than 50 years	61	19.4%
	More than 50 years	25	8%
Social status	Single	75	23.9%
	Married	182	58%
	Widowed	6	1.9%
	Divorced	51	16.2%

Also, these results can be illustrated graphically as in the following figures 2,3,4:

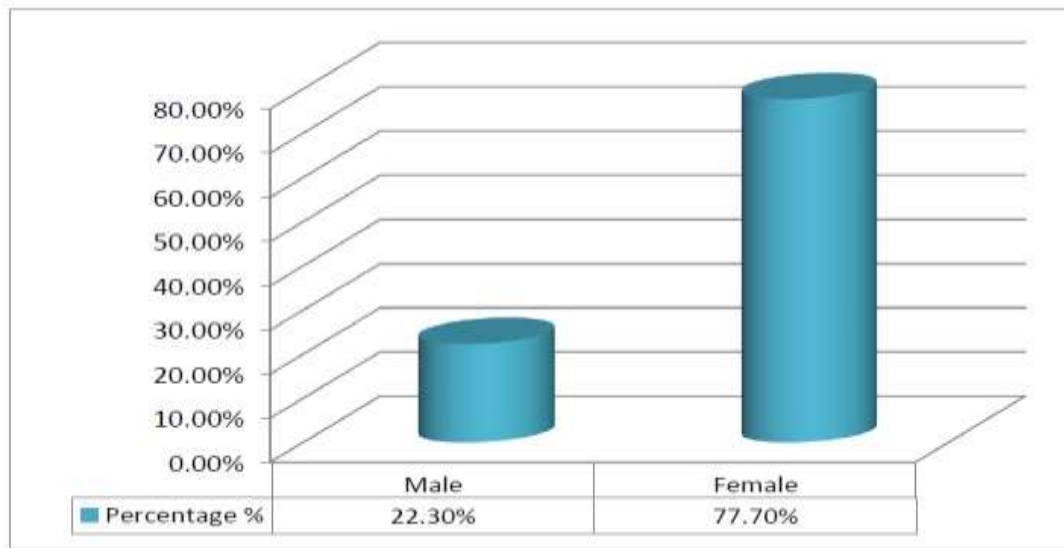


Figure 2: Demographic characteristics of the research sample according to gender

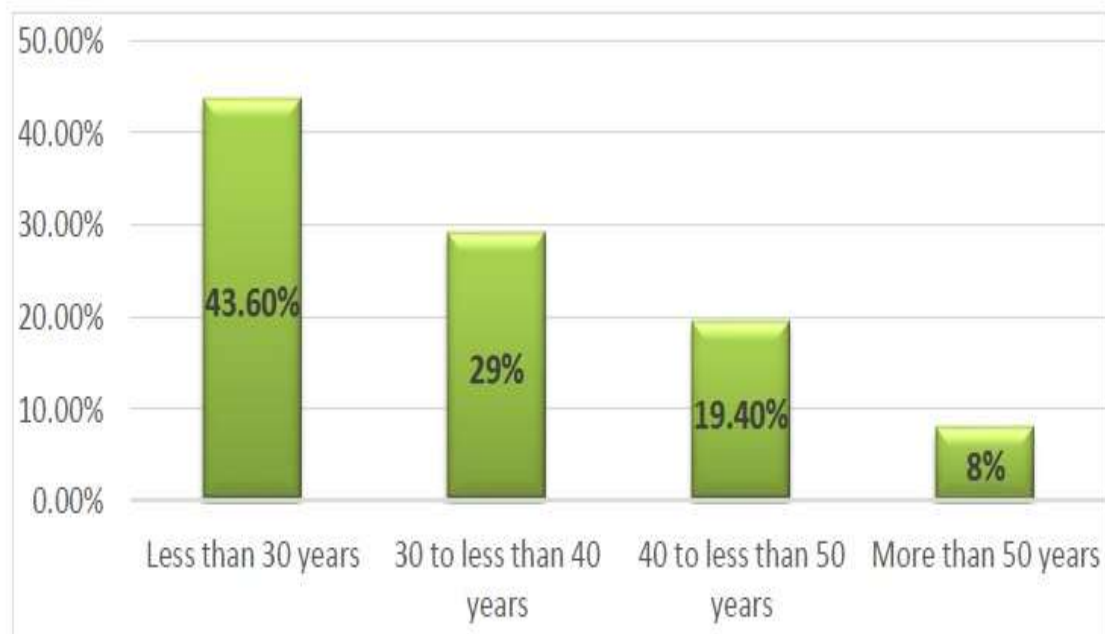


Figure 3: Demographic characteristics of the research sample according to age

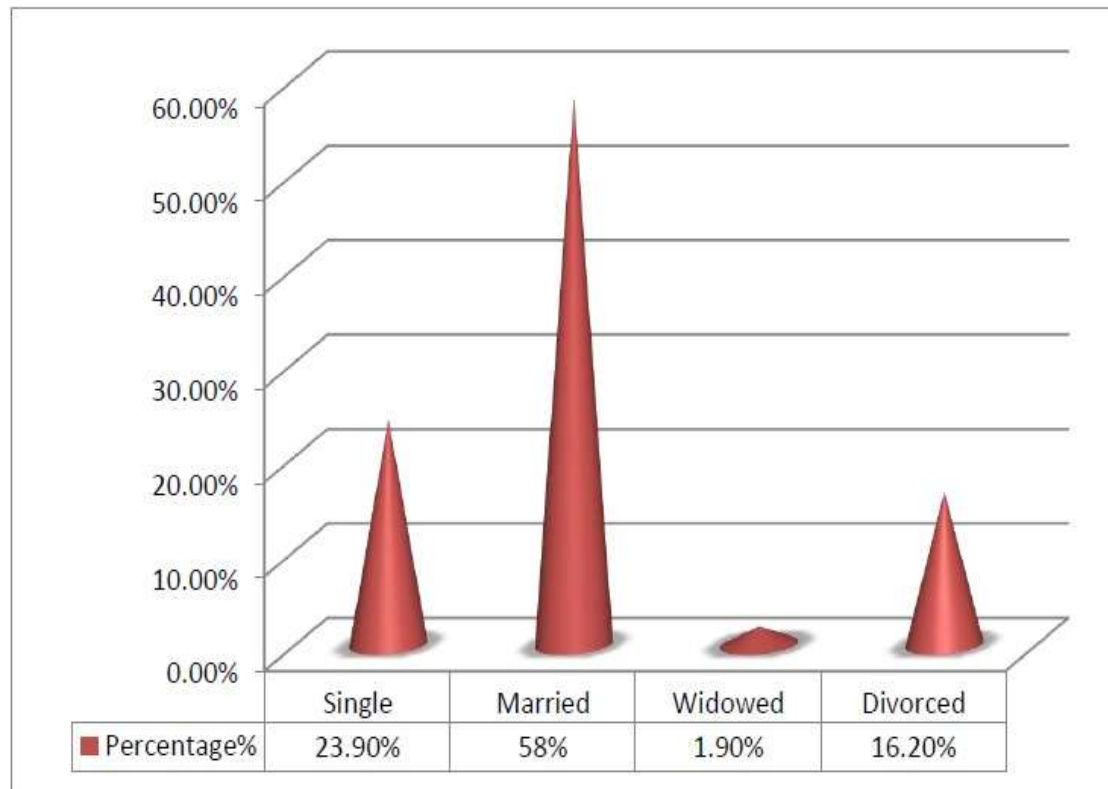


Figure 4: Demographic characteristics of the research sample according to social status

5. Results

Smart PLS3 was used to test the research hypotheses.

Descriptive analysis

Table 2 summarizes the results of the descriptive analysis.

Table 2: Descriptive analysis

Constructs	Mean	SD	Skewness	Kurtosis	Cronbach's Alpha
NR	3.35	0.682	-0.042	-0.233	0.783
EV	3.33	0.763	-0.358	-0.079	0.781
AN	3.48	0.713	-0.276	0.126	0.767
CS	3.29	0.808	-0.207	-0.467	0.800
OP	3.81	0.695	-1.158	1.500	0.749
CNE	3.87	0.730	-0.332	-0.542	0.832
CB	3.12	0.728	0.157	-0.261	0.764

Note: NR= Neuroticism; AN= Agreeableness; EV= Extraversion; CS= Conscientiousness; OP= Openness to Experience; CNE= Consumer Negative Emotions; CB= Compulsive Buying.

As shown in table 2, the results indicate that all constructs' Cronbach's Alpha values exceeded 0.70. According to (Ketchen & Bergh, 2006) Cronbach's Alpha for all constructs should reach 0.70 to be acceptable. Therefore, the internal consistency for all constructs is accepted. Moreover, all the Skewness and Kurtosis values for all constructs ranged between ± 1.5 , which means that all constructs fulfill the requirements of univariate normality according to the criteria of (Kline, 2011).

Convergent Validity

Table 3 indicates the results of convergent validity for all constructs.

Table 3: convergent validity

Constructs	Mean	SD	CR	AVE
NR	3.35	0.682	0.755	0.517
EV	3.33	0.763	0.748	0.522
AN	3.48	0.713	0.838	0.514
CS	3.29	0.808	0.857	0.546
OP	3.81	0.695	0.834	0.512
CNE	3.87	0.730	0.874	0.536
CB	3.12	0.728	0.833	0.521

Note: NR= Neuroticism; AN= Agreeableness; EV= Extraversion; CS= Conscientiousness; OP= Openness to Experience; CNE= Consumer Negative Emotions; CB= Compulsive Buying.

To evaluate the internal consistency, Cronbach's alpha coefficients (α) and Composite reliability coefficients (CR) have been adopted in the current research. As well as (Ketchen & Bergh, 2006) stated that in SEM CR represents the internal consistency. Therefore, it can be used in the reliability estimation besides α is a good estimator for the internal consistency reliability of measurement scale. According to (De Vaus, 2002), α and CR should be equal or more than 0.70 to be acceptable and have good reliability for the research variables. The findings indicate that all constructs' CR values reached 0.70 and higher. Besides, all constructs' Average Variance Extracted (AVE) values were higher than 0.50. Therefore, these values were accepted according to (Ketchen & Bergh, 2006; Fornell and Larcker, 1981). Thus, all constructs convergent validity was acceptable.

Discriminant Validity

According to (Hair et al., 2016), Discriminant validity refers to the extent to which each variable is distinct from other variables. Thus, the square root of AVE is used to measure discriminant validity. The value of each variable AVE square root should be greater than its' correlation with other variables. Table 4 shows the results related to discriminant validity for all constructs.

Table 4: convergent validity

Constructs	NR	EV	AN	CS	OP	CNE	CB
NR	0.795						
EV	-0.399	0.806					
AN	0.212	0.619	0.847				
CS	-0.285	0.597	0.733	0.860			
OP	-0.442	0.508	0.563	0.535	0.846		
CNE	0.310	-0.237	-0.221	-0.290	0.473	0.856	
CB	0.514	-0.432	-0.396	-0.572	0.305	0.767	0.806

Note: NR= Neuroticism; AN= Agreeableness; EV= Extraversion; CS= Conscientiousness; OP= Openness to Experience; CNE= Consumer Negative Emotions; CB= Compulsive Buying.

According to (Hair et al., 2016), discriminant validity refers to the extent to which each variable is distinct from other variables. The results presented in Table 4 indicating that the square root of AVE values depicted diagonally are greater than the rest of the values which are square of each pair of

correlation. This confirms that all the constructs used in the study are unique and distinctive. Thus, convergent validity for all constructs is acceptable according to (Fornell and Larcker, 1981) criteria.

Results of Hypotheses testing

In this study, 4 hypotheses have been tested. 3 of these hypotheses were direct and the fourth hypothesis was indirect. The results summary is presented in table 5.

As shown in table 5, H3 is supported. While H1, H2, and H4 are partially supported because only the sub- hypotheses H1a, H1b, H1d, H2d, H2e, H4a, H4b, H4d, and H4e were supported. Moreover, for the direct effects, the results indicated that neuroticism has a significant positive effect on compulsive buying ($\beta = 0.300$, $P = 0.001$). Thus, H1a was supported. Also, the results found that extraversion has a significant negative effect on compulsive buying ($\beta = -0.103$, $P = 0.037$). Thus, H1b was supported. As for H1d, Conscientiousness affected compulsive buying significantly and negatively ($\beta = -0.330$, $P = 0.001$). Thus, H1d was supported. While The results indicated that agreeableness and openness to experience haven't any significant effect on compulsive buying. Therefore, H1c and H1e were not supported. Likewise, the results found that neuroticism, conscientiousness, and openness to experience have a significant effect on consumer negative emotions. Conscientiousness affected compulsive buying negatively ($\beta = -0.250$, $P = 0.005$). While neuroticism and openness to experience affected consumer negative emotions positively ($\beta = 0.205$, $P = 0.039$), ($\beta = 0.293$, $P = 0.012$) respectively. Thus, H2a, H2d, and H2e were supported. In contrast, the results showed that extraversion and agreeableness haven't any significant effect on consumer negative emotions. Therefore, H2b and H2c were not supported. As for H3, the results indicated that it is supported, whereas consumer negative emotions affected compulsive buying significantly and positively ($\beta = 0.549$, $P = 0.0001$).

For the indirect effect, H4 was tested and the results found that it is partially supported. As for H4a, H4b, H4d, and H4e, they were supported. While H4c was not supported. H4a represented the mediating role of consumer negative emotions in the relationship between neuroticism and compulsive buying. The results showed that consumer negative emotions have a partial mediation in this relationship. Also, consumer negative emotions have a partial mediation in the relationship between extraversion and compulsive buying. Also, consumer negative emotions have a partial mediation in the relationship between conscientiousness and compulsive buying. Thus, H4a, H4b, H4d were supported. While consumer negative emotions had a full mediation in the relationship between openness to experience and compulsive buying. Thus, H4e was supported. Finally, As for H4c which represented the mediating effect of consumer negative emotions in the relationship between agreeableness and compulsive buying. Also, the results found that consumer negative emotions have no mediation in this relationship. Thus, H4c was not supported.

Table 5: Hypotheses testing results.

H	Path Coeff. (β)	P-value	Results
Direct Effect			
H1 BFF -> CB			partially supported
H1a	0.300**	0.001	supported
NR -> CB			
H1b	-0.103*	0.037	supported
EV -> CB			
H1c	0.087	0.388	Not supported
AN -> CB			
H1d	-0.330**	0.001	supported
CS -> CB			

H1e OP -> CB	0.057	0.714	Not supported
H2 BFF -> CNE			partially supported
H2a NR -> CNE	0.205*	0.039	Supported
H2b EV -> CNE	-0.191	0.299	Not supported
H2c AN -> CNE	-0.029	0.723	Not supported
H2d CS -> CNE	-0.250**	0.005	Supported
H2e OP -> CNE	0.293*	0.012	Supported
H3 CNE -> CB	0.549***	0.0001	Supported
Indirect Effect			
H4 BFF -> CNE -> CB			partially Supported
H4a NR -> CNE -> CB	0.149*	0.046	Supported Partial mediation
H4b EV -> CNE -> CB	-0.134*	0.029	Supported Partial mediation
H4c AN -> CNE -> CB	-0.027	0.233	Not supported No Mediation
H4d CS-> CNE -> CB	-0.230*	0.014	Supported Partial mediation
H4e OP -> CNE -> CB	0.212*	0.037	Supported Full mediation

*significant at < 0.05, **significant at < 0.01, ***significant at < 0.001

These results can be shown graphically represented by the following figures 5,6,7,8.

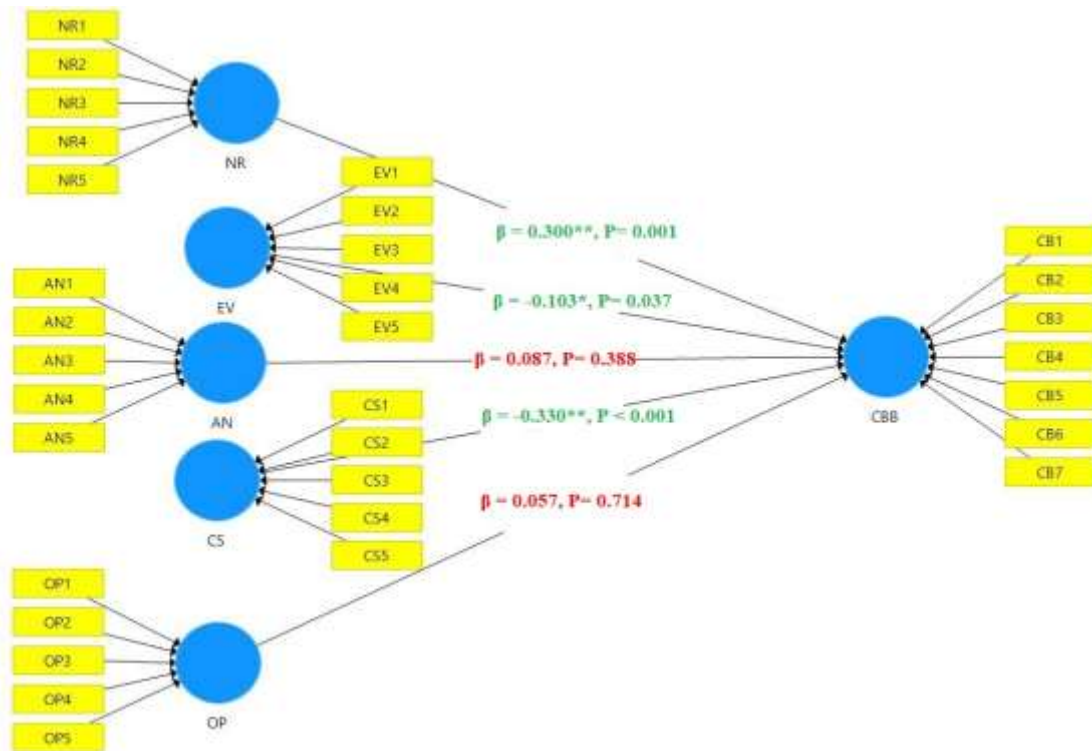


Figure 5: Representing H1 testing results graphically

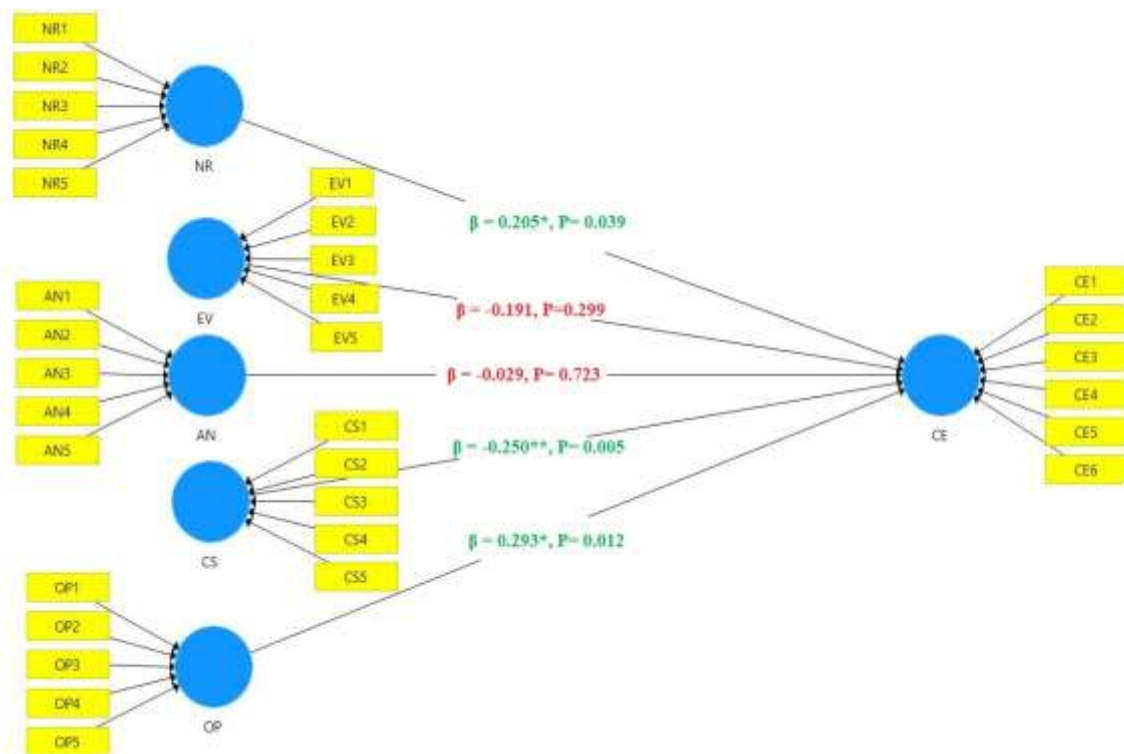


Figure 6: Representing H2 testing results graphically

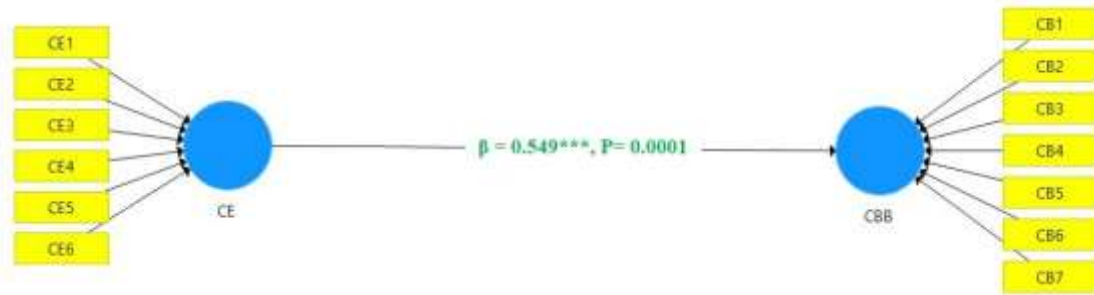


Figure 7: Representing H3 testing results graphically

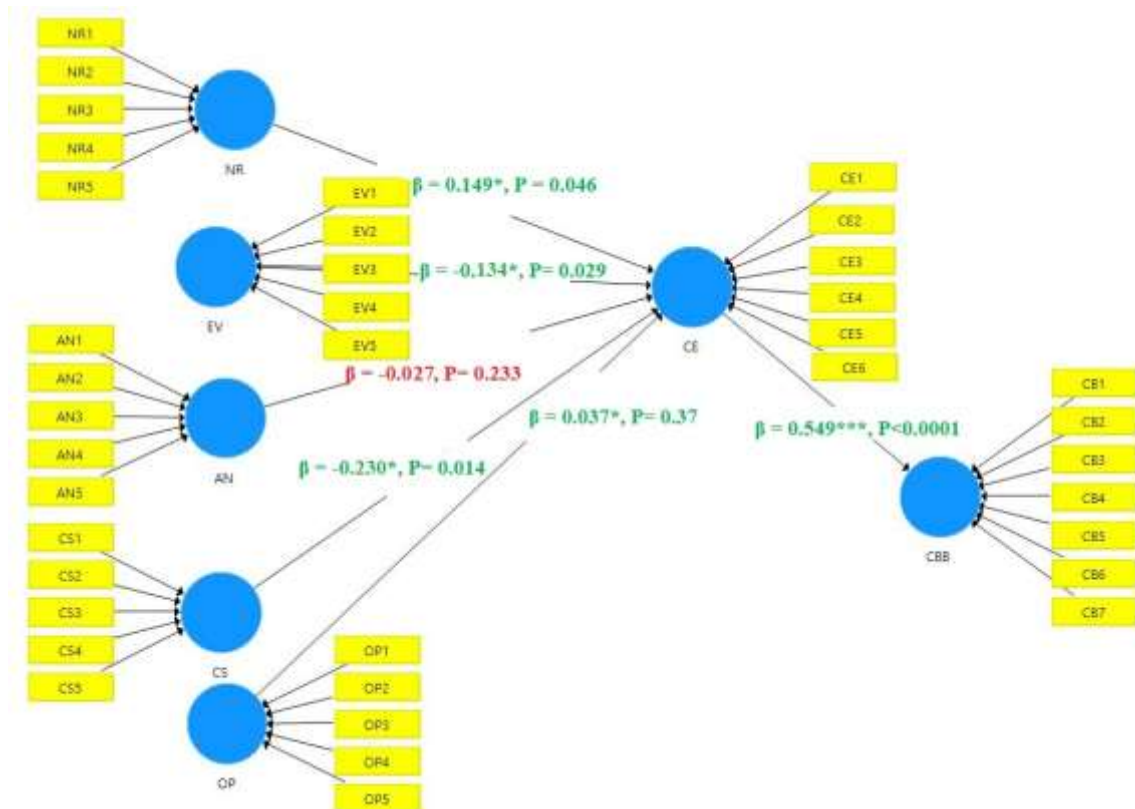


Figure 8: Representing H4 testing results graphically

6. Discussion

Based on the Conceptual background, the authors proposed 4 main hypotheses. Out of 4 hypotheses, 3 hypotheses were partially supported, and 1 hypothesis was fully supported. The relevance of the results with earlier studies follows:

Hypothesis number 1 (H1) was partially supported as H1a, H1b, and H1d were supported, but H1c and H1e were not supported. These results were not with agreement with previous studies. The authors justified this differentiation due to the research population and sample are not identical between the current research and previous studies, in addition to the different applied environment.

As for H2, it was partially supported. H2a, H2d, and H2e were supported, while H2b and H2c were not supported. These results supported the results extracted from (Tan et al., 2003; Matzler et al., 2005) which

found that neuroticism has a negative effect on consumers' positive emotions and even leads to displaying negative emotions.

In addition, H3 was supported. This result agreed with the results extracted from (Sneath et al., 2009; Moon & Attiq, 2018). This agreement shows that negative emotions push the consumer towards compulsive buying to moderate his mood and feelings.

Besides, H4 was partially supported. H4a, H4b, H4d, and H4e were supported. While H4c was not supported. H4a, H4b, and H4d showed that consumer negative emotions have a partial mediation which means that neuroticism, extraversion, and conscientiousness have a significant effect on compulsive buying even if consumer negative emotions do not exist. In another word, consumer negative emotions are not important for neuroticism, extraversion, and conscientiousness to affect compulsive buying (Partial mediation). While for H4e, the existence of consumer negative emotions is very important for openness to experience to affect compulsive buying (Full mediation). Previous studies like (Sneath et al., 2009) and (Moon & Attiq, 2018) stated that negative emotions are the core of pushing the consumer towards compulsive buying.

7. Conclusion

The results indicate that the personality traits of the consumer affect his attitude towards compulsive buying behavior. Also, the results confirmed that consumers belonging to neuroticism tend to compulsive buying behavior, while consumers who belong to the extraversion and conscientiousness don't engage in compulsive buying behaviors.

In addition, the influence of the personality traits of the consumer on his negative emotions. The results show that neuroticism and openness to experience are positively related to consumer's negative emotions. Also, conscientiousness is negatively related to consumer's negative emotions. While agreeableness and extraversion have no correlation with consumer's negative emotions. Furthermore, the negative emotions of the consumer pushing him towards engaging in compulsive buying behaviors in the belief that this behavior will alter his general mood.

Also, the results confirmed that consumer negative emotions partly mediate the relationship between (extraversion, neuroticism, and conscientiousness) and compulsive buying. While consumer negative emotions fully mediated the relationship between openness to experience and compulsive buying. Furthermore, consumer negative emotions didn't mediate the relationship between agreeableness and compulsive buying.

8. Implications

8.1. Theoretical Implications

The current study sought to highlight compulsive buying behavior and the most important factors that lead the consumer to engage in this behavior as addictive behavior that causes many problems at the individual and society level (Spinella et al., 2013), especially by applying the research to shopping malls because they contain a huge group of products and services that contribute to consumer involvement in compulsive buying behavior. This study provides empirical evidence for the relationship between the big five factors of personality and compulsive buying with reliance on consumer negative emotions by studying the direct and indirect effects of mediating consumer negative emotions. As some previous studies examined the direct relationship between the big five factors of personality and compulsive buying, and this relationship was also studied in the current study to complement the previous studies, but in the current study this relationship was also tested indirectly by mediating the consumer negative emotions that was not tested in previous studies according to the authors' knowledge. This study enriches the current literature on compulsive buying, especially in Egypt, which many researchers have not

mentioned. In addition, the results of the current study confirmed that compulsive buying is a problem that many consumers suffer from.

8.2. Practical Implications

Compulsive buying is harmful behavior and has serious consequences that have been proven by previous studies (Rapp, 2012; Moon & Attiq, 2018) at the individual and group levels. On the individual level, compulsive buying leads to depression, stress, low self-esteem, feelings of shame, financial difficulties, and troubled personal relationships. On the collective level, compulsive buying leads to excessive use of natural resources and high-interest rates. Therefore, this behavior must be the focus of attention in many areas, not just the marketing field since it is classified as an addictive behavior from which the consumer must be warned and work to find solutions to this behavior. Also, the results of this study supported that compulsive buying is an addictive behavior as an agreement with the previous studies.

Understanding the antecedents and consequences of compulsive buying enables the development of strategies to interfere in the treatment of consumers who suffer from compulsive buying. Fostering careful spending attitude can be applied as a preventive measure for compulsive buying. Accordingly, develop treatment programs that contribute to the treatment of the consumer gradually. The results of the current study indicated that the applied environment resulted in the presence of compulsive buyers as well as the personal factors of the consumer and his negative emotions had a noticeable role in his attitude towards compulsive buying behavior. Therefore, the consumer must be aware of the reasons for moving towards compulsive buying behavior to avoid engaging in it and bear its dire consequences.

9. Limitations and suggestions for Future Research

This study has few limitations, as data were collected only from the famous shopping malls in North Delta which include Damietta and Mansoura in Egypt. Future studies can extend to the use of other demographic variables not included in the current study, such as the number of weekly shopping times and the identification of centers of malls' favorite names for each customer. The concept of compulsive buying is very complex and has a large set of factors that lead to this behavior. Therefore, future studies may take a holistic approach by combining other variables not included in the current study model such as hedonic values, money attitudes, credit card, depression and self-esteem taking into consideration building a comprehensive model that includes mediator and moderator variables.

References:

- [1] Babin, B. J., Griffin, M., Borges, A., & Boles, J. S. (2013). Negative emotions, value and relationships: differences between women and men. **Journal of Retailing and Consumer Services**, 20(5), 471-478.
- [2] Biolcati, R. (2017). The role of self-esteem and Fear of negative evaluation in compulsive Buying. **Frontiers in psychiatry**, 8(74), 1-8.
- [3] Bivens, J. R., Gore, J. S., & Claycomb, S. (2013). The relationship between personality traits and compulsive buying. **Undergraduate Research Journal for the Human Sciences**, 12(1).
- [4] De Vaus, D. (2002). Analyzing social science data: 50 key problems in data analysis. **Sage publications**.
- [5] Fornell, C. and Larcker, D.F., 1981. Structural equation models with unobservable variables and measurement error: Algebra and statistics. **Journal of marketing research**, pp.382-388.

- [6] Foroughi, B., Nikbin, D., Hyun, S. S., & Iranmanesh, M. (2016). Impact of core product quality on sport fans' emotions and behavioral intentions. **International Journal of Sports Marketing and Sponsorship**, 17(2), 110-129.
- [7] Hair, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2016). A primer on partial least squares structural equation modeling (PLS-SEM). **Sage publications**.
- [8] Harnish, R. J., Bridges, K. R., & Karelitz, J. L. (2017). Compulsive buying: prevalence, irrational beliefs and purchasing. **International Journal of Mental Health and Addiction**, 15(5), 993-1007.
- [9] Horváth, C., & Adıgüzel, F. (2018). Shopping enjoyment to the extreme: Hedonic shopping motivations and compulsive buying in developed and emerging markets. **Journal of Business Research**, 86, 300-310.
- [10] Iqbal, N., & Aslam, N. (2016). Materialism, Depression, and Compulsive Buying among University Students. **The International Journal of Indian Psychology**, 3(6), Issue 2, 91-102.
- [11] Isaac, R. K., & Çakmak, E. (2016). Understanding the motivations and emotions of visitors at Tuol Sleng genocide prison museum (S-21) in Phnom Penh, **Cambodia**. **International Journal of Tourism Cities**, 2(3), 232-247.
- [12] Jani, D., & Han, H. (2013). Personality, social comparison, consumption emotions, satisfaction, and behavioral intentions: How do these and other factors relate in a hotel setting? **International Journal of Contemporary Hospitality Management**, 25(7), 970-993.
- [13] Johnson, T., & Attmann, J. (2009). Compulsive buying in a product specific context: clothing. **Journal of Fashion Marketing and Management: An International Journal**, 13(3), 394-405.
- [14] Ketchen Jr, D. J., & Bergh, D. D. (Eds.). (2006). Research methodology in strategy and management. **Emerald Group Publishing**.
- [15] Kline, Rex B. (2011), "Principles and Practice of Structural Equation Modeling", **3rd ed.**, (New York: The Guilford Press).
- [16] Koshkaki, E. (2014). The role of product and brand emotion in purchase behavior, a study in Iranian home appliance context. **Journal of Asia Business Studies**, 8(3), 233-248.
- [17] Kude, T., Hoehle, H., & Sykes, T. A. (2017). Big data breaches and customer compensation strategies: Personality traits and social influence as antecedents of perceived compensation. **International Journal of Operations & Production Management**, 37(1), 56-74.
- [18] Laros, F. J., & Steenkamp, J. B. E. (2005). Emotions in consumer behavior: a hierarchical approach. **Journal of business Research**, 58(10), 1437-1445.
- [19] Lee, S. H., & Workman, J. E. (2015). Compulsive buying and branding phenomena. **Journal of Open Innovation: Technology, Market, and Complexity**, 1(1), 1-12.
- [20] Luo, S., Gu, B., Wang, X., & Zhou, Z. (2018). Online Compulsive Buying Behavior: The Mediating Role of Self-control and Negative Emotions. **In Proceedings of the 2018 International Conference on Internet and e-Business** (pp. 65-69).
- [21] Ma, J., Campos, A. C., Li, S., Gardiner, S., & Scott, N. (2016). Attention, emotion and hedonic service experiences: Managing and delivering services in the Asian Century. **Worldwide Hospitality and Tourism Themes**, 8(1), 53-60.
- [22] Matzler, K., Faullant, R., Renzl, B., & Leiter, V. (2005). The relationship between personality traits

- (extraversion and neuroticism), emotions and customer self-satisfaction. **Innovative Marketing**, 1(2), 32-39.
- [23] Mikołajczak-Degrauwe, K., Brengman, M., Wauters, B., & Rossi, G. (2012). Does personality affect compulsive buying? An application of the big five personality model. In **Psychology-Selected Papers**. InTech.
- [24] Moon, M. A., & Attiq, S. (2018). Compulsive buying behavior: Antecedents, consequences and prevalence in shopping mall consumers of an emerging economy. **Pakistan Journal of Commerce and Social Sciences (PJCSS)**, 12(2), 548-570.
- [25] Mueller, A., Claes, L., Mitchell, J. E., Wonderlich, S. A., Crosby, R. D., & De Zwaan, M. (2010). Personality prototypes in individuals with compulsive buying based on the Big Five Model. **Behaviour Research and Therapy**, 48(9), 930-935.
- [26] Otero-López, J. M., Pol, E. V., & Bolaño, C. C. (2017). Beyond the Big Five: The role of extrinsic life aspirations in compulsive buying. **Psicothema**, 29(4), 440-445.
- [27] Ramanathan, S., & Williams, P. (2007). Immediate and delayed emotional consequences of indulgence: The moderating influence of personality type on mixed emotions. **Journal of Consumer Research**, 34(2), 212-223.
- [28] Rapp, J. M. (2012). What brings you pleasure? The role of desire within the development of compulsive purchasing. (**Doctoral dissertation**, The University of Nebraska-Lincoln).
- [29] Ridgway, N. M., Kukar-Kinney, M., & Monroe, K. B. (2008). An expanded conceptualization and a new measure of compulsive buying. **Journal of consumer Research**, 35(4), 622-639.
- [30] Roberts, J. A., & Roberts, C. (2012). Stress, gender and compulsive buying among early adolescents. **Young Consumers**, 13(2), 113-123.
- [31] Rose, P., & Segrist, D. J. (2014). Negative and positive urgency may both be risk factors for compulsive buying. **Journal of behavioral addictions**, 3(2), 128-132.
- [32] Saran, R., Roy, S., & Sethuraman, R. (2016). Personality and fashion consumption: a conceptual framework in the Indian context. **Journal of Fashion Marketing and Management**, 20(2), 157-176.
- [33] Saraneva, A., & Sääksjärvi, M. (2008). Young compulsive buyers and the emotional roller-coaster in shopping. **Young Consumers**, 9(2), 75-89.
- [34] Shahjehan, A., Zeb, F., & Saifullah, K. (2012). The effect of personality on impulsive and compulsive buying behaviors. **African Journal of Business Management**, 6(6), 2187-2194.
- [35] Shehzadi, K., Ahmad-ur-Rehman, M., Cheema, A. M., & Ahkam, A. (2016). Impact of personality traits on compulsive buying behavior: Mediating role of impulsive buying. **Journal of Service Science and Management**, 9(05), 416.
- [36] Singh, R., & Nayak, J. K. (2016). Effect of family environment on adolescent compulsive buying: mediating role of self-esteem. **Asia Pacific Journal of Marketing and Logistics**, 28(3), 396-419.
- [37] Sneath, J. Z., Lacey, R., & Kennett-Hensel, P. A. (2009). Coping with a natural disaster: Losses, emotions, and impulsive and compulsive buying. **Marketing Letters**, 20(1), 45-60.
- [38] Spinella, M., Martino, S., & Ferri, C. (2013). Mindfulness and addictive behaviors. **Journal of Behavioral Health**, 2(1), 1-7.

- [39]Sun, T., Wu, G., & Youn, S. (2004). Psychological antecedents of impulsive and compulsive buying: A hierarchical perspective. **In The proceedings of the society for consumer psychology 2004 winter conference** (pp. 168-174).
- [40]Tan, H. H., Foo, M. D., Chong, C. L., & Ng, R. (2003). Situational and dispositional predictors of displays of positive emotions. **Journal of Organizational Behavior**, 24(8), 961-978.
- [41]Wang, C. C., & Yang, H. W. (2008). Passion for online shopping: The influence of personality and compulsive buying. **Social Behavior and Personality: an international journal**, 36(5), 693-706.
- [42]Williams, A. D., & Grisham, J. R. (2012). Impulsivity, emotion regulation, and mindful attentional focus in compulsive buying. **Cognitive Therapy and Research**, 36(5), 451-457.
- [43]Yoo, K. H., & Gretzel, U. (2011). Influence of personality on travel-related consumer-generated media creation. **Computers in Human Behavior**, 27(2), 609-621.
- [44]Yoon, C. H., & Lim, D. S. (2018). The Effect of the Big Five and the MBTI on Impulsive and Compulsive Buying Behaviors: An Integrated Analysis in Online Shopping. **Journal of International Trade & Commerce**, 14(3), 101-117.