

Abstract: Online shopping addiction can lead to compulsive buying behavior; self-control plays a crucial role in managing these behaviors. The study focused on exploring the relationship between online shopping addiction and compulsive buying behavior among young adults, with self-control acting as a mediator. Online Shopping Addiction Scale was used to measure online shopping addiction (Zhao et al., 2017). The compulsive Buying Behavior Scale was used to measure the severity of compulsive buying tendencies (Valence et al., 1988). The Brief Self-Control Scale (BSCS) was utilized to assess self-control (Tangney et al., 2004). The crosssectional correlational research design was used in the current study. The sample consisted of (N=300) young adults with an age range of 18-39 years. In correlation analysis, a significant positive relationship was found between online shopping addiction and compulsive buying behavior; also, findings revealed that both online shopping addiction and compulsive buying behavior, and self-control. Significant mean differences in online shopping addiction, compulsive buying behavior, and self-control were found across genders in relation to the study variable. The mediation analysis showed that self-control had a significant mediating impact on the relationship between online shopping addiction and compulsive buying behavior.

Key Words: Online Shopping Addiction, Compulsive Buying Behavior, Self-Control, Young Adults

Introduction

Online shopping addiction is the inability to resist the urge to buy purchases online, even when doing so has negative consequences on one's physical, mental, and financial health (Suresh & Biswas, 2020). An uncontrollable and excessive dependence on online shopping is an indicator of online shopping addiction, a behavioral disorder that frequently results in serious negative effects on one's finances and personal life (Jiang et al., 2017). The current study aims to investigate how self-control mediates the relationship between young adults' compulsive buying behavior and their addiction to online shopping. The advent of mobile applications showcasing fashion designers' creations has significantly simplified online shopping. This convenience has turned browsing and purchasing from online platforms into a preferred leisure activity for many individuals (Baytar et al., 2020). For some, this behavior has escalated to the level of addiction, as noted in various studies (Sharma et al., 2024).

Addictive behavior refers to excessive and compulsive engagement in certain actions, often leading to adverse effects. Clinicians commonly define addiction as a disorder marked by an intense obsession with a behavior, resulting in significant physiological changes, particularly in the brain (Muela et al., 2022). It is characterized by a lack of self-control, ultimately causing detrimental impacts on an individual's physical, psychological, and social well-being (Rose, 2014). Online shopping addiction, characterized by an

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irresistible urge to continue buying goods online despite adverse outcomes, has features similar to recognized problems of addiction, such as the emergence of obsessive behaviors, stress on finances, and mental suffering (Suresh & Biswas, <u>2020</u>). Researchers have studied the impact of consumer attitudes on shopping, materialism, hedonism, and other viewpoints on irrational purchasing behaviors. Irrational purchasing behavior, particularly online shopping addiction, is manifestly inadequate in the context of online shopping (Jiang al., <u>2021</u>).

From the Greek words onios for sale and mania insanity, oniomania, also known as compulsive buying disorder (CBD), is a behavior that has detrimental effects because of shopping and purchasing habits. Compulsive buying is described as an uncontrollable and insatiable urge to spend excessive time and money on shopping, often driven by negative emotions. This behavior can lead to various personal, social, or financial challenges (Kellett & Bolton, 2009). It encompasses obsessive shopping tendencies, repeated impulsive purchases, and a persistent desire to acquire material goods, all of which can negatively impact an individual's life and result in a loss of self-control (Singh & Nayak, 2016; Iqbal & Aslam, 2016). In the development of Compulsive Buying Behavior (CBB), both psychological and socio-cultural factors play a crucial role. Compulsive buyers often suffer from negative psychological states, such as tension, anxiety, depression, and low self-esteem (De Pasquale et al., 2022)., identity fragmentation, the pursuit of perfection, temporary happiness, and more. According to (Tangney et al., 2004), self-control is the capacity to restrain or change one's internal responses and to stop unwanted behavioral tendencies before acting upon them.

Baumeister and Nadal (2017) state that any conscious and purposeful behavior, such as resisting instinctive behaviors, routines, or desires, is considered self-control. Often stated, crucial self-control ability is delaying instant gratification (Dreves et al., 2020). The ability to align behavior with individually valued standards and goals in the context of specific motivational conflicts is known as self-control (Amaya, 2020). Research indicates that developing self-control enhances general well-being and health (Wenzel et al., 2021). Nudelman and Otto (2021) link self-control to conscientiousness, a character attribute that includes responsibility, diligence, and organization. Additionally, self-control is associated with qualities like fortitude, discipline, and tenacity. Although self-control can be acquired with practice, research suggests that hereditary factors may also influence self-control (Willems et al., 2019).

According to Lerman et al. (2022), online shopping addiction and compulsive buying have a positive association, the idea that increased online shopping can worsen compulsive buying tendencies. According to research by Muller et al. (2022), Time-consuming internet searches for consumer items and excessive online purchases of items without using them for their intended uses once purchased are characteristics of OCBSD. Previous research, as Wang and Yang (2008) found a positive association between compulsive buying behavior and online shopping addiction.

However, the earlier study's findings indicate a negative relationship between people's online shopping addiction and their degree of self-control. Jiang et al. (2017) found a negative relationship between an addiction to online shopping and self-control. Conversely, Sümer and Büttner (2022) discovered that self-control was a powerful predictor of online shopping addiction, whereas Trotzke et al. (2020) noted that a lack of self-control is a contributing factor to shopping addiction. According to Erzincanli et al. (2024), the primary reason for shopping addiction is a person's incapacity to exercise self-control. According to Ridgway et al. (2008), people can typically go shopping every day, and when they do, they typically behave impulsively and without self-control.

Previous research indicated a decrease in self-control among compulsive shoppers; however, these studies primarily utilized general trait measures of self-control rather than examining how individuals attempt to manage their purchasing behavior (Moser, 2020). Research has shown that individuals' need for fulfillment can override their capacity for self-control, leading them to make impulsive purchasing decisions (Achtziger et al., 2015). Additionally, another study found that both self-impairing impulsive behavior and obsessive-compulsive traits contribute to obsessive-compulsive buying (Maccarrone & Schofield, 2017).

Vijay and Kumar (2020) found that Buyers are less likely to buy the goods when willpower triumphs out over desire. Achtziger et al. (2015) investigated the connections between compulsive buying and self-

control. The findings showed that Low self-control causes obsessive shopping. Prior research has also demonstrated that a person's strong self-control can help to manage compulsive buying disorder.

Xu and his colleagues (2022) claim that because compulsive buying behavior and online shopping addiction are strongly correlated, the earlier is an accurate predictor. According to Hoffmann et al. (2016), self-control plays a critical mediating role in reducing the negative effects of addictive behaviors on compulsive buying. This suggests that those with higher levels of self-control are superior in controlling the obsessive buying habits associated with an internet shopping addiction.

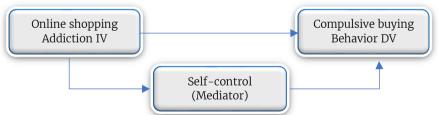
In this modern world, individuals are involved in using more social media, that's why online shopping addiction has become more prevalent, especially among young adults balancing their busy lifestyles. Young adults are busy in their lives, that's why they prefer the convenience of online shopping. However, social media and societal pressure, such as the latest fashion trends and meeting societal expectations, contributed more to online shopping. Individuals are more involved in online shopping because of excessive use of social media, which has become a social addiction. Young adults can spend a lot of hours scrolling through different online websites and searching for the latest trends, as well as comparing the prices of different products with those of other websites. Online shopping addiction can lead to compulsive buying behavior, and self-control plays a crucial role in it. Because of insufficient self-control, many young adults are addicted to online shopping addiction and compulsive purchasing. Our study specifically focuses on young adults because of their high social media usage and because of the latest fashion trends, which make them more prone to online shopping addiction.

Theoretical Framework

Addiction Theory (Kuss & Griffiths, 2011), Impulse Buying Theory (Hausman, 2000), and Self-Determination Theory (Deci & Ryan, 2000) all highlight how important self-control is in controlling behavior. When the fundamental demands for autonomy, competence, and relatedness are met, SDT emphasizes that motivation for healthy activities is facilitated. SDT focuses on the degree to which common motivational orientations influence behavior in a particular setting. Impulse Buying Theory is an ordinary approach that helps consumers decide something to buy. Similarly, Addiction Theory links diminished self-control to susceptibility to compulsive behaviors, such as online shopping addiction, while strong self-control mitigates such risks. Together, these theories underline self-control as central to managing impulses and preventing maladaptive behaviors.

Figure 1

Conceptual Framework of the Present Study



Objectives

- To demonstrate the relationship between online shopping addiction and compulsive buying behavior among young adults.
- To explore the mediating role of self-control in the relationship between online shopping addiction and compulsive buying behavior among young adults.
- To investigate the mean differences across various demographic variables in the experience of online shopping addiction, compulsive buying behavior, and self-control.

Hypotheses

• Online shopping addiction is positively correlated with compulsive buying behavior among young adults.



- Self-control is negatively correlated with online shopping addiction and compulsive buying behavior among young adults.
- Self-control mediates the relationship between online shopping addiction and compulsive buying behavior among young adults.
- To investigate the mean difference across gender in relation to online shopping addiction and compulsive buying behavior.

Material and Method

A cross-sectional correlational research design was used for the current study. The present study was conducted using the survey method. A convenience sampling technique was used for data collection. The current study sample was comprised of young adults (N = 300). The age sample ranges between 18 to 39 years. The survey-based questionnaires were distributed among participants from private universities that were easily accessible.

Measures

Online shopping addiction scale

The Online Shopping Addiction Scale (OSAS) was developed by Zhao et al. (2017) to assess online shopping addiction. The scale consists of 18 items rated on a 5-point Likert scale, where 1 represents (completely disagree), and 5 represents (completely agree). The OSAS consisted of six subscales, each corresponding to one of the six core addiction criteria based on components of addiction (Griffiths, 2005). Internal consistency, measured by Cronbach's alpha, was reported as .95 for the validation sample, indicating strong reliability. The total score on the OSAS ranges from 18 to 90, with higher scores indicating a greater prone of addiction to online shopping and a lower score indicating a lesser prone of addiction to online shopping.

Compulsive buying scale

The compulsive buying behavior was formed by Valance et al. (1988), including 16 items, and was used to measure the compulsive buying behavior. The items are related on 5-point Likert Scale, where 1 (strongly disagree) and 5 (strongly agree). The reliability coefficient (Cronbach's alpha) for the CBS is .84, which indicates good consistency over time. According to the guidelines of the scale, a total score of 42 or higher suggests a tendency toward compulsive buying behavior.

Brief Self-Control Scale

Self-control was measured using the 13-item Brief Self-Control Scale (BSCS), which was created by Tangney et al. (2004). A 5-point rating system is used to score the objects, with 1 denoting "not at all like me" and 5 denoting "very much like me." Tangney et al. (2004) found that the BSCS had strong internal consistency, with reliability coefficients (Cronbach's alpha) of.83 and.85 in their first and second samples, respectively. According to the BSCS, people with high scores demonstrated a great degree of self-control, whilst those with low scores demonstrated a low degree of self-control.

Procedure

The researcher explained the procedure to each participant and gave informed consent. Then, after signing the consent form, the participants were given a questionnaire and asked to complete it to ensure the confidentiality of their responses. Each participant was provided a questionnaire

that included three scales that were used to measure one variable, i.e., online shopping addiction, compulsive buying behavior, and Self-control. OSAS scales were used to measure online shopping addiction, the CBS instrument was used to assess compulsive buying behavior, and the BSCS scale was used to measure Self- Control among University students

Results

As the data collection was completed, the data from 300 participants were entered into SPSS 26 (Statistical

Package for Social Sciences), a computer program for quantitative analysis. At first, the reliability of all study variables was estimated through Cronbach alpha. After that, descriptive statistics of all variables (mean, standard deviation, range, skewness, and kurtosis) were assessed.

Table 1

Demographics Characteristics of the Participants (N=300)

Groups	Categories	f	%
Gender			
	Male	130	43.3
	Female	170	56.7
Age			
	18-24	234	78
	25-40	66	22
Education			
	Bachelor's Degree	248	82.7
	Master's Degree	52	17.3
Working Status			
	Working	102	34
	Non- Working	198	66
Family Monthly Income			
	37000-50,000	172	57
	51,000-10,0000	90	30
	Above 10,0000	38	12
Average amounts spend for online shopping mon	thly		
	<5000	66	22
	5000-10000	202	67.3
	>10000	32	10.7
Marital Status			
	Married	48	16
	Unmarried	282	84

Table 1 shows the demographic characteristics of the studied sample.

Table 2

Mean, Standard Deviation, Range, Skewness, and Kurtosis of Online Shopping Addiction and its Subscales, Compulsive Buying Behavior, and Self-control (N=300)

Variables	No. of items				Score	Score Range		Kurtosis
	NO. OI Itellis	М	SD	α	Potential	Actual		
OSA	18	49.10	17.90	.82	18-90	18-90	31	-1.03
SL	03	8.27	3.17	.63	3-15	3-15	29	98
ТО	03	8.19	3.29	.66	3-15	3-15	14	95
MM	03	8.66	3.60	.70	3-15	3-15	24	-1.26
WD	03	8.28	3.36	.85	3-15	3-15	12	-1.02
RE	03	7.90	3.21	.77	3-15	3-15	18	-1.15
CO	03	7.78	3.54	.69	3-15	3-15	.10	-1.19
CBB	16	37.78	11.27	.80	16-80	16-65	48	74
SC	13	39.52	8.39	.79	13-65	19-57	29	65

Note: OSA=Online Shopping Addiction; SL=Silence; TO=Tolerance; MM=Mood Modification; WD=Withdrawal; RE=Relapse; CO=Conflict; CBB=Compulsive Buying Behavior; SC=Self-Control

Table 2 presents the psychometric properties and descriptive statistics of all study variables. The internal consistency for online shopping addiction is .82, and compulsive buying behavior is .80, indicating good internal consistency, while the subscales of online shopping addiction show a reliability between .63 and .85, reflecting good internal consistency. The alpha reliability for self-control is .79, indicating acceptable



internal consistency. The means and standard deviations indicate average participant scores, while skewness values reveal that online shopping addiction and its subscales are negatively skewed, whereas compulsive buying behavior and self-control are positively skewed. An absolute skewness value between -1 and +1 suggests a normal distribution suitable for parametric testing (ORCAN, 2020), and the data for mean, standard deviation, skewness, and kurtosis further confirms normality.

Table 3

Pearson Correlation between Online Shopping Addiction and its Subscales, Compulsive buying Behavior and Selfcontrol (N=300)

	Variables	1	2	3	4	5	6	7	8	9
1.	OSA	-								
2.	SI	.85**	-							
3.	ТО	.90**	.81**	-						
4.	MM	.87**	.72**	.74**	-					
5.	WD	.87**	.65**	.72**	.71**	-				
6.	RE	.90**	.68**	.79**	.76**	.74**	-			
7.	CO	.90**	.66**	.76**	.71**	.81**	.82**	-		
8.	CBB	.84**	.72**	·75 ^{**}	.73**	·73**	.76**	.76**	-	
9.	BSC	27**	17*	19*	20*	32**	19*	33**	32**	-

Note: OSD= Online Shopping Addiction; SI= Silence; TO= Tolerance; MM= Mood Modification; WD= Withdrawal; RE= Relapse; CO= Conflict; CBB= Compulsive Buying Behavior; SC= Self-Control **p<.01; *p<.05

Table 3 demonstrates that online shopping addiction and compulsive buying behavior were positively correlated with each other, and self-control is negatively correlated with both variables. Additionally, the current study findings revealed a strong inverse relationship between online shopping addiction, compulsive buying, and self-control.

Table 4

The Regression Coefficient of Online Shopping Addiction, Compulsive Buying Behavior (N=300)

Variables	В	S.E
Constant		1.51
OSA	.84***	.02
R^2	.70	

***p<.00

Table 4 examined the impact of online shopping addiction and compulsive buying behavior. The results of the current research revealed that online shopping addiction positively predicts compulsive buying behavior.

The R^2 value of .70 indicates that the predictor variable explains 70% of the variance in the outcome variable (compulsive buying behavior), with (*F*=358.8, p<.000).

Table 5

Means, Standard Deviations, and t-values of Online shopping addiction and its subscales, Compulsive buying behavior, and Self-control across genders (N=300)

Variables	Female		Male						
(n=170)			(n=130)				95%	CI	
Μ		SD	M	SD	t(298)	р	LL	UL	Cohen's d
OSD	59.60	16.23	41.07	14.73	7.30	.00	13.51	23.54	.59
SI	9.60	2.94	7.25	2.97	4.79	.00	1.37	3.30	.79
ТО	10.03	3.07	6.78	2.72	6.83	.00	2.30	4.18	.56
MM	10.23	3.23	7.47	3.43	5.00	.00	1.66	3.85	.82
WD	9.93	2.86	7.01	3.16	5.84	.00	1.93	3.91	.96

Variables	Female		Male						
(n=170)			(n=130)				95%	CI	
Μ		SD	М	SD	t(298)	р	LL	UL	Cohen's d
RE	9.66	2.89	6.55	2.77	6.67	.00	2.18	4.02	.54
CO	10.13	3.22	5.98	2.61	8.69	.00	3.20	5.09	.71
CBB	43.00	10.22	33.79	10.41	5.41	.00	5.84	12.57	.44
SC	37.52	9.83	41.05	6.77	-2.59	.01	-6.20	84	.41

Note: OSA=Online Shopping Addiction; SL=Silence; TO=Tolerance; MM=Mood Modification; WD=Withdrawal; RE=Relapse; CO=Conflict; CBB=Compulsive Buying Behavior; SC=Self-Control

Table 5 displays the significant mean differences between males and females in all study variables. Male participants scored higher in online shopping addiction and compulsive buying behavior, while female participants scored higher in self-control. The values for online shopping addiction and its subscales, as well

Table 6

The direct and indirect Effects of Self –control on Online shopping addiction and Compulsive buying behavior								
Effect	В	S.E		CI 95%				
			LL	UL				
Total	.54	.02	.49	.60				
Direct	.52	.02	.47	.58				
Indirect	.01	.00	.00	.03				

The findings, which take self-control into account as a mediator, show how compulsive purchase behavior is impacted by an addiction to online shopping. With a reported total effect of.54, compulsive buying behavior and internet shopping addiction are strongly positively correlated. With a direct effect of.52, it is clear that compulsive buying inclinations are significantly influenced by internet shopping addiction. Conversely, the indirect effect is negligible at.01, indicating that self-control's function as a mediator in this relationship is restricted.

Discussion

The purpose of the current study was to find out the relationship between online shopping addiction, compulsive buying behavior, and self-control among young adults. The present study also determines that self-control mediates the relationship between online shopping addiction and compulsive buying behavior.

In the present study, data analysis was carried out by using SPSS-27, and the present study was conducted on young adults (*N*=300). Reliability analysis of the Alpha Coefficient was computed for all study variables and their subscales. Pearson Correlation analysis was used to check out the association between online shopping addiction and its subscales, as well as compulsive buying behavior and self-control. Independent sample t-test and mean analysis were calculated for demographic variables. A t-test was used to determine the role of study variables across genders.

Moreover, three instruments were utilized to measure study variables, such as the online shopping addiction scale, which was used to measure online shopping addiction. Also, the reliability for (OSA) came out as .82, and the reliability of their subscales ranges between .63 and .85, which is considered good reliability. The reliability of compulsive buying behavior (CBB) came out to be .80, which is considered reliable, and the compulsive buying behavior scale was used to assess the tendencies of compulsive purchasing. Moreover, the self-control scale was used to measure an individual's tendencies to control their impulse. The reliability for self-control (BSC) is 0.79, which is considered reliable.

For categorical variables, percentages and frequencies have been computed. The demographic variables include gender, age, education, working status, family monthly income, and average amount spent on online shopping. The mean and standard deviation of demographic variables were computed.



In correlation analysis, there is a significantly positive association found between online shopping addiction and compulsive buying behavior, as online shopping addiction increases compulsive behavior. The findings of the current study were consistent with the result of previous research conducted by (Basit et al., 2024), showing a statistically significant result of the relationship between online shopping addiction and compulsive buying behavior. Moreover, the findings of the present study demonstrated that self-control negatively corresponds with online shopping addiction; individuals with low self-control are more prone to online shopping addiction, so our hypothesis is accepted and consistent with the result of the previous study conducted by (Jiang et al., 2017) that also demonstrate a negative relationship between online shopping addiction and self-control.

According to the current findings, a negative relationship between compulsive buying behavior and self-control was found as compulsive buying behavior increases; there is a decrease in self-control which was already discussed by (Kaur & Singh, 2018), showing statistically significant results of the relationship between self-control and compulsive buying behavior, as self-control was negatively correlated with compulsive buying behavior. According to the findings of the current study, female participants show a higher level of online shopping addiction (M = 59.60, SD = 16.23) as compared to their male counterparts (M = 41.07, SD = 14.73), and female participants are more prone to compulsive buying behavior as compared to male participants with less self-control in female participants as compared to male participants. The findings of the current study were in line with the findings of another study conducted by (Basit et al., 2024); the findings of the previous study also revealed that female participants show a higher level of online shopping addiction as compared to their male counterparts.

Regression analysis was demonstrated to find out the impact of online shopping addiction on compulsive buying behavior. According to the result of regression analysis, online shopping addiction significantly predicts compulsive buying behavior; findings are consistent with the result of the previous research which was conducted by (Durrani et al., 2023), which also revealed online shopping addiction showed a strong impact on compulsive buying behavior.

Mediation Analysis was conducted by using the Hayes process macro to demonstrate how self-control mediates the relationship between online shopping addiction and compulsive buying behavior. According to the findings of the present study, self-control significantly mediated the relationship between online shopping addiction and compulsive buying behavior. The present study findings were in line with the findings of prior research conducted by (Luo et al., 2018; and Erzincanlı, 2024).

Limitations and Suggestions

As for this study, data was gathered through convenience sampling technique, and the sample size was small; it was collected from the participants belonging from Rawalpindi and Islamabad, which might affect the result of the current study and also limit the generalizability of the result so, in future increase in sample size should be taken, and individual from the different cultural background will be selected to get more insight. The quantitative method was used in the current study. However, qualitative techniques like focus group discussions and interviews provide more in-depth information related to online shopping addiction, compulsive buying behavior, and self-control.

Cross-sectional correlational design was used in the current study; however, in the future, the longitudinal design will be better for determining changes over a period of time in the association between online shopping addiction, compulsive buying behavior, and self-control. Longitudinal design helps researchers to find out the behavior patterns change over time, whether online shopping addiction and compulsive purchasing behavior improve over time, and whether self-control and other fashion trends change. The current study was limited to young adults; findings could not be generalized to other populations with different cultural backgrounds, so in the future, participants were selected from different cultural backgrounds to improve generalizability.

Implications

The study has several implications that are beneficial to young adults and society. Education programs that involve conferences and workshops should be conducted for young adults to create awareness about the negative consequences of online shopping addiction, which leads to compulsive buying behavior. Also, we

learn self-control strategies and how to control ourselves when behavior increases toward online shopping. Additionally, these insights can be used by policymakers to create rules that protect customers in online marketplaces. Overall, the results show how critical it is to address self-control to encourage young adults to engage in more effective purchasing behaviors.

Conclusion

The current study has been designed to demonstrate the relationship between online shopping addiction and compulsive buying and also determine how self-control acts as a mediator among young adults. The findings of the current study are mostly the same as the results of prior research, but not much research was combined on these variables. The findings of the current study revealed that online shopping addiction and compulsive buying behavior are positively related to each other, and self-control is negatively correlated with both online shopping addiction and compulsive buying behavior. Moreover, self-control significantly mediated the correspondence between online shopping addiction and compulsive buying behavior among young adults. In addition, significant mean differences were found across male and female participants in relation to the study variables. Female participants are more prone to online shopping addiction with less self-control as compared to their male counterparts.

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