

The Relationship Between Compulsive-Impulsive Behavior and Online Shopping Among Medical Students

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ABSTRACT

Compulsive and impulsive buying behaviors have become increasingly prevalent in modern society, particularly among medical students who have easy access to online shopping. This study aims to explore the relationship between compulsive and impulsive buying tendencies and online shopping behaviors among students from the Faculty of Medicine at Universitas Prima Indonesia, specifically the Class of 2023. Using an analytical survey method and a cross-sectional approach, data were collected from a purposive sample of 100 students. Questionnaires were administered to assess the levels of compulsive and impulsive buying. The results indicated a significant moderate positive correlation between compulsive and impulsive buying behaviors and online shopping, with a correlation coefficient of $r=0.445$ ($p<0.001$). This research aims to enhance the understanding of shopping behavior in the digital era and to assist in developing strategies to prevent unhealthy shopping habits.

Keywords: compulsive-impulsive, buying, behavior, online shopping

INTRODUCTION

Shopping is one of the activities carried out to meet daily needs such as groceries, clothes, household supplies, and other daily needs. In modern times, shopping is a trend and habit as well as needed. Most people usually do the shopping for recreation, stress relief, or personal reasons. However, impulsive or unplanned purchases made solely to satisfy personal desires turn shopping activities unnatural. Individuals who make impulse purchases will buy goods or. Impulse buying involves making sudden, quick, and unplanned purchases. Modern markets, such as supermarkets, hypermarkets, and convenience stores, are prime locations for impulse purchases. Advancements in science and technology have enabled to shop online, making the process more effective, efficient, and convenient without the need for face-to-face interactions, and bargaining, and allowing for quick and cost-effective transactions for both buyers and sellers (Muhtadi, 2023; Widiyawati et al., 2022).

Most teenagers spend more than 8 hours a day on social media, which can reduce face-to-face interactions. Addiction to social media and online shopping can have significant psychosocial and financial impacts. Psychological and mental health issues may include depression,

isolation, agitation, boredom, and procrastination. Online shopping is one of the most prevalent activities during internet use, significantly influenced by mood and external factors. Shopping not only serves to fulfill needs but also acts as a means of self-appreciation. However, when it becomes excessive, uncontrolled, and addictive, it reflects psychological distress that may arise from depression. Excessive shopping for pleasure is classified as impulsive buying, while addiction to shopping is categorized as compulsive buying behavior/oniomania (Bhargava & Hasija, 2019).

Compulsive behavior refers to behavior that is contrary to a person's conscious desires. An irresistible impulse then drives the behavior, which has a detrimental impact on the individual. Compulsive *buying* is also driven by psychological factors such as low levels of *self-esteem* and negative emotions, but it can also cause financial problems that can also be related to the psychological pressure of the perpetrator (Duh & Thorsten, 2019). Two criteria must be met before classifying behavior as compulsive behavior, such as the behavior that must be repeated and uncontrolled. The compulsive buyer initially appears to provide instant relief from anxiety, emotional stress, and life problems, but the satisfaction obtained is fleeting (Lisan et al., 2018).

Lack of individual self-control when making certain purchases can cause individuals to have impulsive purchasing tendencies. Correctly motivated consumers are more likely to exhibit compulsive behaviors. When consumers are motivated to buy a product, they not only emphasize the benefits but also focus on the consumer's enjoyment of it, whether intrinsically or emotionally. We live in a materialistic culture, which is a major factor often attributed to the increase in the number of compulsive purchasers. Individuals in this culture have a desire to consume goods or services that give status and power, then show them to society as a way to satisfy their own needs in the form of pleasure.

Medically, impulsive purchase disorder is defined as impulse control disorder, a mental disorder characterized by an inability to resist the urge to perform harmful or heartless behaviors to avoid negative emotions such as depression, anxiety, and loneliness (Aprilia & Nio, 2019; Hikmah et al., 2020). (Aprilia & Nio, 2019)The purpose of this study is to find out the relationship between compulsive impulse buying with shopping online to FK UNPRI students Class of 2023 with the compulsive tendency and impulsive buying scale.

METHODS

Research Design

This study employs an analytical survey with a cross-sectional approach. Cross-sectional research is a type of research that studies the dynamics of the relationship between risk factors and effects by using approaches, observations, or data collection simultaneously. The research was conducted after obtaining an ethical clearance letter no: 042/KEPK/UNPRI/2025. In other words, each research subject is only seen once. The collected data were assessed for reliability (Cronbach alpha), normality (Kolmogorov Smirnov), and the relationship between age, gender, and obsessive-compulsive buying behavior (Pearson correlation coefficient).

Research Population and Sample

Population includes all the characteristics and traits possessed by the object being studied, not just the number of individuals. Population includes all the features and properties of the object. In this study, the population is students of the Faculty of Medicine, Prima Indonesia University, Class of 2023. As for the sample, it is a part of the population with the same characteristics that can be considered representative or representative of all the populations studied. The sample in this study was taken by the purposive sampling method with the Slovin formula, total sample 100 student who sign informed consent. Inclusion criteria: medical students who shop online and are willing to participate as respondents in the research. Exclusion criteria: respondents who neither shopped online nor completed the survey.

How Data is Collected

The data collected in this study consists of a questionnaire assessing the levels of compulsive and impulsive buying among FK UNPRI students from the Class of 2023. Prior to conducting the research, the researcher developed a measuring tool to obtain accurate results. This study employed psychological scales to evaluate both compulsive tendencies and impulsive buying behavior.

RESULTS

Reliability test can be seen below

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	n of Items
0.820	0.896	34

The Cronbach's Alpha value of 0.820 indicates that the instrument is reliable for measuring compulsive and impulsive buying.

Normality test can be seen below:

Table 2. Normality Test

	Tests of Normality			
	Kolmogorov-Smirnov		Shapiro-Wilk	
	Statistic	df	Sig.	Statistic
Compulsive	0.079	100	0.122	0.979
Impulsive	0.113	100	0.053	0.974

Using the Kolmogorov-Smirnov test, p-values for compulsive (0.122) and impulsive (0.053) buying were greater than 0.05, indicating that the data followed a normal distribution.

Table 3. Compulsive – Impulsive Buying Interpretation

Frequency	Percent		Valid Percent		Cumulative Percent	
	Compulsive	Impulsive	Compulsive	Impulsive	Compulsive	Impulsive
Normal	-	7.0	-	7.0	-	7.0
Mild	8.0	41.0	8.0	41.0	8.0	48.0
Moderate	81.0	40.0	81.0	40.0	89.0	88.0
Severe	11.0	12.0	11.0	12.0	100.0	100.0
Total		100.0		100.0		100.0

The majority of respondents were aged 19 years (60%), with a predominantly female population (82%). For compulsive buying, most respondents fell into the moderate category (81%), followed by severe (11%) and mild (8%). For impulsive buying, respondents were primarily in the mild category (41%), followed by moderate (40%), severe (12%), and normal (7%).

Pearson Bivariate Analysis

**Table 4. Bivariate Analysis
Compulsive Buying Interpretation**

	Normal	Mild	Moderate	Severe	r	P
Age (Year)						
18	-	1	5	0	0.445	0.000
19	-	6	48	6		
20	-	1	23	4		
21	-	0	2	1		
22	-	0	1	0		
25	-	0	2	0		
Total	-	8	81	11		
Gender						
Man	-	6	11	1		
Woman	-	2	70	10		
Total	-	8	81	11		

Impulsive Buying Interpretation				
	Normal	Mild	Moderate	Severe
Age (Year)				
18	1	4	1	0
19	5	22	24	9
20	1	12	14	1
21	-	2	0	1
22	-	-	0	1
25	-	1	1	0
Total	7	41	40	12
Gender				
Man	5	8	5	0
Woman	2	33	35	12
Total	7	41	40	12

The *Pearson* bivariate analysis showed a positive moderate correlation between compulsive and impulsive buying with online shopping ($r = 0.445$, $p < 0.001$).

DISCUSSION

Compulsive buying behavior in young adults, particularly among women, is classified as a specific mental health impulse control disorder according to the International Statistical Classification of Diseases and Related Health Problems (ICD-11) (Grant & Chamberlain, 2024). Impulsive or hedonically motivated buying behavior is associated with pleasure, fun, and enjoyment, often influenced by external factors such as the online sales environment. In contrast, compulsive buying behavior can be classified as an obsessive-compulsive disorder and an addiction, driven by internal factors like urges and a pressure to shop (Olsen et al., 2022).

These two categories often overlap due to neurocognitive issues and dopamine release disorders in the ventral striatum, which is the area responsible for decision-making. The etiology of Compulsive-impulsive buying disorder involves neurobiological and neurotransmitter factors, including dopamine, serotonin, and opioids. Additionally, genetic factors play a role, particularly DNA polymorphisms related to serotonin transporter dysfunction and abnormalities in the dopamine receptor (D2) gene. The factors contributing to compulsive-impulsive buying disorder include excessive self-esteem, low prices of items, and easy access to shopping. These elements can lead to a decrease in control and an increased urgency in purchasing decisions, as purchases are often driven by emotional impulses (joy and satisfaction) rather than the true satisfaction or utility of the items bought (Montemarano et al., 2024).

Compulsive-impulsive buying disorder can cause mental health issues such as depression, anxiety, and eating disorders, which may worsen due to increased debt (Kalyana, 2020; Rachubińska et al., 2024). Compulsive-impulsive buying disorder can be treated with both medications and therapy. Medications like clomipramine and sertraline, which are Serotonin Reuptake Inhibitors (SSRIs), can increase serotonin levels, while antidepressants and antipsychotics may help reduce compulsive buying behaviors. Therapeutic approaches often combine Cognitive Behavioral Therapy (CBT) and psychotherapy to address negative thoughts and behaviors. (Soares et al., 2016). Meditation is recommended for addressing the mental health impacts of Compulsive-impulsive buying disorder. It can help reduce anxiety and improve emotional regulation (Suandy et al., 2024).

Young people are spending more time on social media. The increasing busyness of modern life leads to quicker, more practical, and more efficient purchasing through social media platforms (Shabbir et al., 2024) Social media and online shopping platforms provide easy access and are cheaper than conventional markets, significantly increasing the frequency of unplanned purchases. These platforms have become a prominent medium for facilitating consumerist behaviors, especially in the modern era (Widiyawati et al., 2022). Several factors influence medical students purchasing habits online, including convenience, effectiveness, trust in vendors, and time efficiency, which make these shopping platforms a preferred choice. (Ahmad, 2018).

CONCLUSION

There is a positive, moderate, and significant relationship between compulsive and impulsive buying behaviors and online shopping ($r = 0.445$, $p < 0.001$). Neurobiological disorders and DNA polymorphisms can disrupt dopamine release, leading to compulsive-impulsive buying disorder. This condition, often seen in students who spend a lot of time on social media, is characterized by cognitive and emotional dominance, as social media makes shopping convenient and vendors appear trustworthy. A combination of medication, cognitive behavioral therapy, and psychotherapy can effectively manage emotional aspects and self-control.

LIMITATION

The short duration of the study, the limited scale of the questionnaire, and the small sample population are weaknesses of this research, which could be considered for future studies.

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