


Neuropsychological and Personality Profile of Individuals with High Online Spending Behaviour

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<https://doi.org/10.55041/ijstmt.v2i5.367>

Cite this Article: Sneha, & Sharma, S. (2026). Neuropsychological and Personality Profile of Individuals with High Online Spending Behaviour. *International Journal of Science, Strategic Management and Technology*, 02(05). <https://doi.org/10.55041/ijstmt.v2i5.367>

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Abstract

The rise of online shopping platforms and digital payment methods has significantly influenced consumer behavior by making online purchasing more convenient and accessible. However, this convenience has also contributed to increased overspending, as many people engage in impulsive purchases without considering the financial consequences. Such behavior is often linked with psychological and cognitive factors and, in certain cases, may be considered as behavioural addiction. The current study explores the neuropsychological and personality traits of people with high online spending habits, with special focus on the role of cognitive abilities and personality characteristics in impulsive online purchasing behavior. Cognitive functions involved in executive functioning, attention, memory, and decision-making are essential for impulse control and evaluating consequences, and deficiencies in these abilities may contribute to excessive spending. In addition, people with high levels of impulsivity and neuroticism, along with low conscientiousness, may be more likely to engage in excessive online spending. The study used a comparative cross-sectional design and involved adult people who frequently engage in online shopping. High online spenders were compared with individuals who showed moderate or low spending habits. Moreover, the research examined personality traits, impulsivity, self-control, executive functioning, memory, and decision-making abilities measured using standardised psychological tools. The results of the study may show that people who frequently participate in online shopping tend to show high impulsivity and poor executive control. This may indicate the interaction between neuropsychological factors and personality traits plays a strong influence in online shopping behavior.

Keywords: Online Spending Behavior, Neuropsychological Profile, Personality Traits, Impulsivity, Executive functioning, Decision- Making

Introduction

Due to the widespread availability of the internet and the rapid advancement of technology, global consumer behavior has undergone significant transformation. In recent years, online shopping has become one of the most common and useful methods for consumers to purchase goods and services. Thanks to digital payment methods, mobile shopping apps, and e-commerce platforms, consumers may now shop whenever and wherever they want. These platforms offer a wide range of products, reasonable prices, and personalized recommendations, making online shopping interesting and efficient for modern consumers. Because young individuals and working professionals frequently utilize cellphones and internet-based services, online shopping has consequently become an indispensable part of daily life.

Although online shopping provides many advantages, the growing popularity of digital purchasing has raised concerns regarding careless and excessive spending. The term “high online spending behavior” refers to people who are likely to make impulsive purchases through digital platforms without considering their financial condition or the long-term consequences of their actions. Online shopping platforms often promote such behavior through flash sales, limited-time discounts, personalised advertisements, and easy payment methods such as digital wallets and one-click purchasing options. These make transactions quicker and easier encouraging impulsive spending habits.

After making purchases, those who spent a lot of money online usually experience happiness or emotional fulfilment. However, this transient joy may be followed by unfavorable consequences like stress, regret, remorse, or financial strain. Impulsive buying might develop into a difficult-to-control habit over time. An increasing number of academics have suggested that excessive online spending may share characteristics with behavioral addictions, in which individuals continue a behavior despite its detrimental effects. Like other behavioral addictions like gambling or internet addiction, compulsive online spending can result in loss of control, emotional dependence, and difficulty managing cravings.

Understanding high online spending behavior means looking at the basic psychological reasons that influence people's purchasing decisions. One main area of research is mental functioning, or neuropsychological processes that control human behavior.

Neuropsychological processes include cognitive flexibility, working memory, inhibition, attention, and decision-making. These cognitive abilities are part of executive functioning are important for self-regulation and goal based behaviour. Individuals with executive functions are able to make thoughtful decisions, to find out potential outcomes, and restrain their emotions.

People may find it more difficult to resist sudden pleasures or postpone enjoyment if these cognitive processes weakened. For example, someone with worse impulse control or decision-making skills may be more likely to make impulsive purchases when presented with attractive online advertisements or promotional offers. Similarly, it may be difficult for those who struggle with planning or cognitive flexibility to regulate their financial conduct.

Individuals with impaired executive control may be more prone to excessive spending in digital environments where purchases are simple and quick rewards are readily available.

Another key factor affecting online spending pattern is personality traits. The term “personality” refers to an individual's continuous thoughts, feeling, and behavioural patterns. These traits influence how people react to, emotional experiences, and surroundings. Psychological research shows that certain personality factors are associated with a higher likelihood of compulsive or impulsive buying behavior. People who are highly impulsive, for instance, often make snap decisions without properly considering the consequences of their actions. This tendency raises the possibility of impulsive online purchases.

Similarly, those who score highly on neuroticism may experience higher levels of stress, anxiety, or emotional instability. These individuals may use shopping as a coping strategy to manage their feelings or improve their mood. Online shopping may provide momentary emotional relief, excitement, or delight, which could encourage repeat purchases and strengthen the pattern. Additionally, traits like reward sensitivity and sensation seeking may lead people to browse and purchase new products online in an attempt to find excitement.

On the other hand, psychological traits like self-control and conscientiousness are usually associated with more prudent financial behavior. People with high conscientiousness scores are usually well-managed, well-organized, and cautious when making choices. They are more likely to plan their purchases, create a budget, and decide whether a product is truly important before making a decision. Therefore, personality differences have a big influence on how people manage their internet buying habits.

The rising use of digital technologies and online shopping platforms has made it more important to study consumer behavior in the digital setting. Whereas traditional research has studied compulsive buying in actual shopping

locations, somewhat few studies have particularly looked at the psychological components behind online spending behavior.

Furthermore, a great deal of prior study has focused only on personality traits or cognitive abilities. However, human behavior is complex and often shaped by the interaction of various psychological factors.

This research focuses on the relationship between personality traits and neuropsychological functioning in people with excessive online spending behavior, especially in impulsive purchasing tendencies. By examining these factor together, the study aims to provide a better understanding of the psychological mechanisms underlying impulsive and excessive online buying behavior. Understanding these factors may also help researchers and mental health professionals understand why certain people are more vulnerable to unhealthy spending habits.

Understanding the personality and cognitive characteristics of people with high online spending habits can be beneficial. The study results may help financial educators, counsellors, and psychologists create practical approaches to promote responsible internet usage and better money management. Interventions that could help people better control their spending patterns include financial awareness and training to control impulses, cognitive-behavioural techniques, and digital self-regulation tools.

In addition to neuropsychological functioning and personality traits, social and environmental factors have a strong impact on high online spending behavior. Online environment is made to keep users engaged through persuasive design techniques like algorithm-driven recommendations, social evidence (such as reviews and ratings), and influencer marketing.

Constant exposure to perfect-looking lifestyles on social media can increase expectations and create a constant need for new products, thereby increasing the urge to spend money. Young individuals may be influenced by peer pressure to follow current trends or maintain a certain social image, making them engage in excessive buying behavior. Additionally, rising influence of online shopping into modern culture has made overspending appear more socially accepted and less emotionally concerning. When these outside factors interact with individual psychological vulnerabilities, they may create conditions that contribute to impulsive buying behavior. Therefore, it is important to study both internal cognitive and psychological factors, along with wider online social environment in which online spending behaviour occurs.

Another key aspect to consider is the influence of emotional regulation in excessive online spending behavior. For instance, individuals experiencing stress, loneliness, boredom, or depression may use online shopping as way of coping. Browsing shopping websites or making purchases offer short-term relief, control, or distraction from negative emotions. This emotional dependence on shopping may contribute to impulsive purchasing whenever individual experience emotional distress. As a result, the connection between mood and spending behavior strengthen over time. Furthermore, when individuals repeatedly rely on online shopping to regulate their emotions while the root cause of their distress remain unresolved, this pattern may develop into unhealthy coping strategy.

The concept of online compulsive buying may be linked with delayed gratification. The continuous availability of instant rewards on digital platforms make it more difficult for individuals to resist immediate pleasure or prioritise long term- benefits. In addition, digital payment methods, “buy now, pay later” options, and easy access to credit reduce the psychological barriers related to spending money. As a result, individuals may fail to fully consider the potential long-term financial consequences of their shopping behavior. When people choose short- term happiness over long-term financial security, delaying gratification is often linked to lack of self-controlled can result in cycle of repeated impulsive purchases.

In general, online shopping is a useful part to modern life. However, excessive involvement in online shopping in the digital age may lead to various psychological problems. The present study aimed to study the relationship between personality traits and neuropsychological performance in order to understand factors linked with excessive online spending behavior.

Understanding these factors may help in creating helpful preventive measures and interventions that promote healthy and balanced use.

Rationale

Online shopping has become a normal activity of everyday life due to the rapid growth of e-commerce platforms and digital payment methods. Although online shopping makes shopping easier as they have wide range of products, it may lead to excessive spending, where individuals make impulsive buying while ignoring the financial consequences. Previous research suggests that personality traits like impulsivity, neuroticism, and poor self-control, as well as cognitive components including impairments in executive functioning, attention, and decision-making, may influence such behavior.

However, because many research have examined these problems separately, a complete understanding of the psychological underpinnings underlying excessive online spending is lacking. Therefore, the current study aims to explore the relationship between neuropsychological performance and personality features in individuals who spend a lot of money online. Understanding this correlation may facilitate the identification of those who are more prone to impulsive online spending and help develop effective strategies to promote more responsible and healthful online financial behavior.

Review of Literature

Dittmar (2005) analyzed the psychological underpinnings of compulsive buying and found that people often shop excessively to improve their sense of self and regulate their negative emotions. The study demonstrated that personality qualities like materialism and emotional fragility have a substantial impact on compulsive buying behaviors.

Black (2007) found that excessive, uncontrollable shopping is a behavioral addiction associated with obsessive purchasing disorder. The findings demonstrated that compulsive buyers often have high levels of impulsivity, poor self-control, and emotional distress, which can lead to both financial and psychological problems.

Billieux et al. (2008) studied the role of impulsivity in compulsive buying. Their results showed that impulsive personality traits and sensitivity to rewards are linked with excessive spending. The author also stated that individuals with poor impulse control are more likely to make quick purchasing decisions without properly thinking about future consequences.

Ridgway, Kukar-Kinney, and Monroe (2008) studied the behavioural patterns of compulsive consumers and developed a measures to assess compulsive purchasing. Their findings showed that compulsive buyers often lose control over their spending and use shopping as a way to cope with emotional difficulties.

Mueller et al. (2010) studied compulsive buying behavior in clinical populations and found that people showing compulsive buying habits often show difficulties in cognitive control and decision-making abilities. The study further revealed that cognitive functioning plays an important role in controlling an individual's spending behavior.

Billieux et al. (2012) explained that impulsivity, emotional instability, and poor decision-making are major factors associated with compulsive shopping behavior. The author also found that individuals with impulsive personality traits are more likely to engage in excessive buying.

Rose and Dhandayudham (2014) studied online shopping addiction among young consumers. Their study showed that simple internet browsing, easy access to products and fast payment methods are major factors contributing to impulsive online shopping.

Duroy, Gorse, and Lejoyeux (2014) found that individuals with higher levels of neuroticism and impulsiveness are more likely to engage in excessive shopping as a way of coping with stress and emotional problems.

Andreassen et al. (2015) studied the effect of personality traits on addictive tendencies. The study found that compulsive purchasing was associated with lower levels conscientiousness and positively related to neuroticism and extraversion.

Müller et al. (2015) studied the clinical features of compulsive buying disorder and found that impulsive personality traits and poor self-control are major contributors to excessive purchasing behaviour.

Maraz, Griffiths, and Demetrovics (2016) studied compulsive buying behavior and found that impulsive personality traits and difficulties in emotional regulation are two major factors linked with impulsive buying.

Duroy et al. (2017) further investigated compulsive buying behavior and found that emotionally unstable individuals with low impulse control are more likely to engage in compulsive spending.

LaRose and Eastin's (2018) studied online consumer behaviour and found that impulsiveness and low self-control strongly influence online buying behaviour.

Sun and Wu (2019) studied the psychological effects of online shopping addiction. Their results showed that excessive spending behavior is more common among individuals with low self-control and poor decision-making abilities.

Müller, Mitchell, and de Zwaan (2021) studied compulsive buying disorder and found that impulsivity, reward sensitivity, and deficits in executive functioning reduce decision-making skills and lead to uncontrolled spending.

Sharma, Kaur, and Bansal (2022) studied young adults in India and observed that personality traits such as neuroticism and low conscientiousness are linked with compulsive online shopping.

Billieux et al. (2022) studied digital behavioural addictions and found that emotional dysregulation and poor impulse control are major psychological factors contributing to risky online behaviours such as compulsive buying.

Tang and Lee (2023) studied the connection between executive dysfunction and consumer impulsivity. Their results showed that difficulties in planning, inhibition, and cognitive control are linked with impulsive spending decisions.

Mehta and Kapoor (2024) studied decision making and impulsivity among young adults in relation to internet shopping addiction. The study found that individuals with poor self control and difficulty delaying gratification are more likely to spend excessive time online.

Recent studies conducted in 2025 continue to focus on the role of personality factors such as impulsivity and neuroticism, along with neuropsychological components including executive functioning, attention, and decision-making, in predicting high online spending behavior.

These studies also emphasise the need to understand cognitive and psychological factors in explaining patterns of overusing the internet.

Research Methodology

1. Aim: The aim of this research is to examine the neuropsychological and personality traits of individuals with high online spending behaviour and to understand how cognitive functions and personality traits influence excessive or impulsive online purchasing.

2. Research Design: The study uses a comparative cross-sectional research design to examine differences in neuropsychological functioning and personality traits between individuals with high online spending behavior and those with moderate or low spending behavior.

Objectives

1. To assess the neuropsychological profile (executive functions, attention, memory, and decision-making) of individuals with high online spending behaviour compared to individuals with low or moderate online spending behaviour.
2. To evaluate personality traits (Big Five traits, impulsivity, and self-control) associated with high online spending behaviour.
3. To examine the relationship between neuropsychological functions and personality traits in predicting online spending behaviour.
4. To determine whether neuropsychological deficits and personality traits jointly predict high online spending behaviour.

4. Hypothesis

H1: Individuals with high online spending behaviour will show significantly lower executive functioning (e.g., inhibition, cognitive flexibility, and working memory) compared to individuals with low or moderate online spending behaviour.

H2: Individuals with high online spending behaviour will report higher levels of impulsivity and neuroticism and lower levels of conscientiousness compared to individuals with low or moderate online spending behaviour.

H3: Neuropsychological deficits and personality traits will significantly predict online spending behaviour among individuals.

H4: Neuropsychological functioning (TMT, PGI Memory), impulsivity, self-control, and personality traits (neuroticism and conscientiousness) will significantly predict online shopping behaviour among individuals.

5. Participants

Sample Size: Approximately 100 participants (young adults aged 20–40 years).

Sampling Technique: Purposive sampling will be used to select individuals who frequently engage in online shopping and digital payment platforms.

Inclusion Criteria:

1. Age between 20–40 years.
2. Regular internet and smartphone users.
3. Individuals who engage in online shopping at least once per week through platforms such as Amazon, Flipkart, Myntra, etc.
4. Participants familiar with digital payment methods (UPI, debit/credit cards, online wallets).

Exclusion Criteria:

1. Individuals with diagnosed neurological or psychiatric disorders (e.g., schizophrenia, bipolar disorder, dementia).
2. Individuals with substance use disorders or current dependence.
3. Participants taking medications that may affect cognitive functioning or neuropsychological performance.

6. Tools and Measures

• Informed consent:

The participants to be informed about the key elements and purpose of the study and the participants can withdraw at any point of the research. The data will remain confidential. The participant voluntarily gave the consent to be a part of this study.

• Demographic Data Sheet

The socio-demographic details include Age, gender, educational background, and socio-economic status

• Online Shopping Addiction Scale :

This scale will be used to assess the level of online shopping behaviour and tendencies toward compulsive or excessive online spending among participants.

• Big Five Inventory (BFI-44)

The Big Five Inventory developed by John, Donahue, and Kentle (1991) will be used to measure personality traits including openness, conscientiousness, extraversion, agreeableness, and neuroticism.

• Barratt Impulsiveness Scale (BIS-11)

The BIS-11 will be used to assess different aspects of impulsivity such as attentional impulsiveness, motor

impulsiveness, and non-planning impulsiveness.

- **Self Control Scale:**

This scale will measure the individual's ability to regulate behaviour, emotions, and impulses, which is important in understanding financial decision-making and spending habits.

- **Trail Making Test:**

The Trail Making Test will measure cognitive flexibility, processing speed, and visual attention, which are key aspects of neuropsychological functioning.

- **PGI Memory Scale:**

The PGI Memory scale will be administered to assess different components of memory functioning, such as immediate recall, delayed recall, and recognition.

7. Procedure

- **Recruitment and Screening:** online ads and posts from the community will be used to determine participants. First screening will verify the requirements for inclusion.
- **Informed Consent:** TAO ensure confidentiality and voluntary participation, written informed consent will be asked before participation.
- **Administration:** Individual neuropsychological tests will be given in a calm environment after participants have completed personality questionnaires.
- **Data Collection:** Each participant will need between 60 to 75 minutes to complete the process.
- **Data Entry and Cleaning:** After being coded, responses will be imported into Excel or SPSS for analysis.

8. Data Analysis

- **Descriptive Statistics:** Test scores and demographic factors means, standard deviations, and frequencies.
- **Group Comparisons:** To compare high and poor spenders on personality and neuropsychological factors, use MANOVA or independent sample t-tests.
- **Correlation Analysis:** Impulsivity, executive functioning, and internet spending scores are analysed using Pearson correlation.
- **Regression / Structural Equation Modeling (SEM):** To identify how well neuropsychological variables and personality traits influence online spending behaviour.

9. Ethical Consideration

- Informed consent will be collected, and participation is entirely voluntary.
- Information will be kept privately and used only for scholarly investigation.
- After the study, participants will receive a debriefing and, if necessary, psychological support contacts.

Results

Table 1: Socio-demographic details of the participants

SOCIODEMOGRAPHIC			
Variable	Category	Frequency (n)	Percentage (%)
Age Group	20–25 years	38	38%
	26–30 years	32	32%
	31–35 years	18	18%
	36–40 years	12	12%

Gender	Male	46	46%
	Female	54	54%
Educational Level	Undergraduate	40	40%
	Postgraduate	45	45%
	Others	15	15%
Occupation	Student	35	35%
	Employed	50	50%
	Self-employed	15	15%
Socioeconomic Status	Lower	20	20%
	Middle	55	55%
	Upper	25	25%
Online Shopping Frequency	Once a week	28	28%
	2-3 times/week	40	40%
	4+ times/week	32	32%
Preferred Payment Mode	UPI	45	45%
	Debit/Credit Card	35	35%
	Digital Wallets	20	20%

Table 2: Descriptive Statistics (Group-wise)

Variable	Low/Moderate (n = 50) M (SD)
Trail Making Test – A (sec)	35.20 (6.10)
Trail Making Test – B (sec)	80.45 (12.35)
PGI Memory Score	85.75 (8.30)
BIS-11 (Impulsivity)	60.30 (7.42)
Self-Control	35.60 (5.05)
Neuroticism (BFI)	27.10 (5.60)
Conscientiousness (BFI)	34.20 (5.30)
Online Shopping Addiction Score	42.80 (8.75)

Table 3: Independent Samples t- test

Variable	t-value	p-value
TMT-A	4.25	.000**
TMT-B	5.12	.000**
PGI Memory	-4.1	.000**
BIS-11	7.2	.000**
Self-Control	-6.35	.000**
Neuroticism	4.6	.000**
Conscientiousness	-6.1	.000**

Table 4: Correlation Matrix

Variable	1	2	3	4
1. Online Shopping Score	—			
2. TMT-B	.48	—		
3. PGI Memory	.42	.50	—	
4. BIS-11	.65	.40	-.45	—
5. Self-Control	.58	.35	.38	-.60

Table 5: Multiple Regression Analysis

Dependent Variable: Online Shopping Addiction Score					
Predictor	B	SE	β	t	p
(Constant)	18.6	5.1	—	3.64	0.001
TMT-B	0.38	0.08	0.29	3.75	0
PGI Memory	-0.41	0.11	-.27	-3.45	0.001
BIS-11	0.79	0.09	0.5	7.1	0
Self-Control	-0.53	0.13	-.35	-4.2	0
Neuroticism	0.28	0.1	0.2	2.8	0.006
Conscientiousness	-0.48	0.12	-0.3	-4	0
Model Summary:					
R ² = .62, F(6, 93) = 25.48, p < .001					

Discussion

The current study examined the neuropsychological and personality correlates of young adults' online purchasing behavior in order to gain a better understanding of how cognitive functioning and personality factors lead to excessive or impulsive online spending. Using a comparative cross-sectional methodology, the study examined group differences, relationships between variables, and predicted characteristics associated with internet shopping addiction. The study's findings show the complexity of excessive online spending behavior and provide strong evidence in favor of each of the proposed theories.

Neuropsychological Differences (H1)

People who shopped excessively online appeared to have significantly inferior cognitive functioning, as evidenced by longer completion times on the Trail Making Test (TMT-A and TMT-B) and lower scores on the PGI Memory Scale. These findings support H1 and indicate deficiencies in the attention, processing speed, cognitive flexibility, and memory of heavy spenders.

Interestingly, the TMT-B, which assesses executive functioning and cognitive flexibility, showed a greater impact. This implies that individuals who spend excessive amounts of money online may find it difficult to concentrate, control their impulses, and balance the advantages and disadvantages of their choices—all of which are essential for making wise judgments. Poor memory performance reflects underlying difficulties in the retention and manipulation of information, which can, in turn, impair an individual's ability to effectively manage financial planning and maintain awareness of past spending behaviours. Such cognitive limitations may contribute to poor budgeting decisions and reduced control over expenditure patterns.

The results are consistent with the neurophysiological theories that focus on the role of executive control deficits in impulsive and addictive behaviours. People with executive dysfunction are more inclined to respond to instant rewards at the expense of their long-term objectives, which can result in their excessive internet purchasing. [15]

Personality and Impulsivity (H2)

There were significant differences in behavioral patterns and personality traits as well

For example, online buyers presented higher levels of neuroticism and impulsiveness, as well as lower levels of self-control and conscientiousness which validates H2. Impulsiveness, or the predisposition to react instantly without evaluating the consequences, was one of the main traits of spenders.

The higher neuroticism level points to a higher degree of emotional instability, along with worry, tension, and mood swings.

Some individuals might resort to online shopping to change their mood or for emotional regulation as they might be using their buying actions to reduce negative feelings.

In addition, diminished levels of self-control and conscientiousness naturally refer to a lesser-capability to plan, regulate one's behaviour, and postpone pleasure.

These personal qualities are important in holding back financially and their lack can make negative spending behaviors a lot worse.

Relationships Among Variables (H3)

The correlational study found significant relationships between neuropsychological performance, personality attributes and online purchasing behaviour. H3 was supported, online shopping addiction scores were positively correlated with impulsivity, neuroticism and executive dysfunction (TMT scores) and negatively correlated with memory performance, self-control and conscientiousness [15]. The results show that personality traits and cognitive deficits are strongly linked. For instance, difficulties in executive functioning was linked with higher impulsivity, showed that individuals who experience difficulties in inhibitory control are more likely to act impulsively. The negative relationship between impulsivity and self-control further highlights the important role of self-control in controlling desires and regulating behaviour.

Furthermore, the relationship between cognitive impairments and online shopping behaviour suggests that impulsive tendencies are influenced not only by an individual's internal psychological state but also by cognitive difficulties, especially problems in executive functioning.

Predictive Role of Variables (H4)

The regression analysis showed that impulsivity, self-control, cognitive functioning, and personality traits are linked together in explaining online buying behaviour of consumers, which supports Hypothesis 4 (H4). The model explained a large amount of variation ($R=0.62$), indicating that these variables together strongly affect on online buying behaviour. The next strongest predictors were impulsivity, self-control, conscientiousness, and executive functioning

(TMT-B). Neuroticism also had a significant effect, but to a lesser extent.

People who have trouble controlling their impulses are more likely to make compulsive purchases, as evidenced by the prevalence of impulsivity and its significant involvement in excessive online spending. The negative influence of self-control and conscientiousness emphasizes the significance of self-regulatory processes in reducing unhealthy spending behaviour. Executive functioning, especially cognitive inflexibility and poor decision-making abilities, strongly influence online spending behaviour.

These results indicate that individuals with cognitive difficulties may difficulty considering choices, predict outcomes, and control their behaviour properly.

Theoretical Implications

A behavioral dual- process model that assumes the interaction between:

- An impulsive system driven by emotions and instant gratification, and
- A reflecting system governed by executive power and reason. Deficits in executive functioning and self-control impede the reflecting system, while excessive online spending appears to favour the impulsive system. As a result of this mismatch, consumers may easily influenced by external triggers such as discounts, attractive online advertisements, and easy shopping options.

Practical Implications

The study also provides ways for prevention and management:

Cognitive Training: Improving cognitive abilities, such as attention and mindful spending, may help individuals make better decisions.

Impulse Control Strategies: Techniques such as mindful spending, self-monitoring, and learning to resist urges may help control unnecessary behaviour.

Psychological Interventions: Dealing with emotional issues related to neuroticism, including stress and anxiety management, may reduce the tendency to use shopping as a way of handling stress.

Financial Literacy Programs: Developing budgeting and financial planning skills promote better money management.

Digital Interventions: Online platforms may introduce features such as delayed purchase options or spending alerts to encourage self-control.

Major Findings

- Individuals who shopped a lot online demonstrated worse neuropsychological performance, including deficiencies in memory, attention, and cognitive flexibility. People who shopped online were more impulsive and neurotic, and they were less conscientious and self-controlled. There was a positive correlation between online purchasing behavior and Impulsivity or Neuroticism. Dysfunction of the executive There was a negative correlation between online buying behavior and Performance of memory. Self-discipline and diligence. The best indicator of online shopping behavior was impulsivity. Online shopping behavior was also significantly predicted by self-control, neuroticism, executive functioning, and conscientiousness. A significant amount of variance was explained by the regression model ($R^2 = .62$), demonstrating strong combined effects of the variables. All of the suggested hypotheses (H1–H4) are supported by the results.

Summary

The current study was aimed at identifying the cognitive and personality correlates of excessive or impulsive online spending. It examined the neuropsychological and personality correlates of young adults' online buying behavior. A comparative cross-sectional study design was conducted to study differences between groups, relationships among variables, and influencing factors.

The results indicated that individuals engaged in online shopping scored significantly lower on psychological

assessments of attention, processing speed, cognitive flexibility, and memory. They also showed increased impulsivity and neuroticism, along with lower levels of self-control and conscientiousness.

Moreover, correlational and regression analyses further confirmed the joint effect of personality traits and cognitive impairments in explaining compulsive online shopping. Overall, the study suggested that internet shopping addiction issue caused by multiple factors influenced by both cognitive and personality characteristics.

Limitations of the study

When evaluating the results, it is important to take into account the many limitations of the current study. First, because data were gathered at a particular point in time, the use of a cross-sectional research design limits the capacity to determine causal links between variables. Furthermore, the study made extensive use of self-report measures, which could introduce response bias because of things like social desirability or false self-perception.

Because the sample might not fairly represent the larger population, the use of purposive sampling further restricts how broadly the results can be applied. Additionally, the study's relevance to other age groups is limited because it was limited to young adults.

Another limitation is that only a few instruments were used in the neuropsychological test,

e.g. the Trail Making Test (TMT) and the PGI Memory Scale, which might have limited the comprehensiveness of the cognitive evaluation. Furthermore, the research has not taken into account several important variables that may have a major effect on online buying behavior such as situational factors including peer pressure and the effect of marketing. Also, important psychological factors such as depression and anxiety were not considered, and these could have affected the findings. Finally, the study relied on stated preferences rather than actual online behavior or usage patterns, which may not fully capture real-world behavior.

Conclusion

In summary, this research highlights that excessive online shopping is complex psychological issue that develops through the interaction of cognitive functioning and personality traits. The findings suggest that individuals who frequently overspends online often shows weaker executive functioning, poorer memory performance, higher impulsivity and neurotic tendencies, along with lower levels of self control and conscientiousness. These factors collectively reflects difficulties in emotional regulation, decision making and impulse control. The study further found a strong relationship between cognitive difficulties, personality characteristics, and online shopping addiction, with impulsivity emerging as one of the major contributors to compulsive spending behaviour. In addition, the convenience of digital platforms, sensory gratification, and emotional dependence on online shopping may further intensify addictive buying tendencies. Overall this research provides insight into the psychological mechanisms behind uncontrolled online purchasing and emphasize the importance of developing strategies that strengthen cognitive control, emotional regulation, self-discipline and responsible financial habits in order to encourage healthier online consumption in today's digital era.

Reference

- Andreassen, C. S., Griffiths, M. D., Pallesen, S., Bilder, R. M., Torsheim, T., & Aboujaoude, E. (2015). The Bergen Shopping Addiction Scale: Reliability and validity of a brief screening test. *Frontiers in Psychology*, 6, 1374.
- 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.
- Billieux, J., Rochat, L., & Van der Linden, M. (2012). Problematic buying behavior: A theoretical model. *Journal of Behavioral Addictions*, 1(1), 10–18.
- Billieux, J., et al. (2022). Problematic use of digital technologies: A conceptual framework. *Current Opinion in Psychology*, 45, 101–112.
- Black, D. W. (2007). Compulsive buying disorder: Definition, assessment, epidemiology, and clinical management. *CNS Drugs*, 21(8), 629–642.
- Dittmar, H. (2005). Compulsive buying—A growing concern? An examination of gender, age, and endorsement of materialistic values as predictors. *British Journal of Psychology*, 96(4), 467–491.
- Duroy, D., Gorse, P., & Lejoyeux, M. (2014). Characteristics of online compulsive buying in Parisian students. *Addictive Behaviors*, 39(12), 1827–1830.
- Duroy, D., et al. (2017). Compulsive buying disorder: Clinical and psychopathological aspects. *Current Addiction Reports*, 4(2), 175–182.
- LaRose, R., & Eastin, M. S. (2018). A social cognitive theory of internet uses and gratifications: Toward a new model of media attendance. *Journal of Broadcasting & Electronic Media*, 62(3), 1–20.
- Maraz, A., Griffiths, M. D., & Demetrovics, Z. (2016). The prevalence of compulsive buying: A meta-analysis. *Addiction*, 111(3), 408–419.
- Mehta, S., & Kapoor, N. (2024). Impulsivity and decision-making in online shopping addiction among young adults. *Journal of Consumer Behaviour*, 23(1), 45–60.
- Müller, A., Mitchell, J. E., Crosby, R. D., Cao, L., Claes, L., & de Zwaan, M. (2010). Mood states preceding and following compulsive buying episodes: An ecological momentary assessment study. *Psychiatry Research*, 178(2), 348–353.
- Müller, A., Mitchell, J. E., & de Zwaan, M. (2015). Compulsive buying. *American Journal on Addictions*, 24(2), 132–137.
- Müller, A., Mitchell, J. E., & de Zwaan, M. (2021). Compulsive buying disorder: Clinical features and treatment. *Current Opinion in Psychology*, 36, 102–107.



Recent studies (2025). Emerging research on neuropsychological and personality predictors of online spending behavior emphasizes executive functioning, impulsivity, and emotional regulation.

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.

Rose, S., & Dhandayudham, A. (2014). Towards an understanding of internet-based problem shopping behavior: The concept of online shopping addiction and its proposed predictors. *Journal of Behavioral Addictions*, 3(2), 83–89.

Sharma, R., Kaur, H., & Bansal, P. (2022). Personality traits and compulsive online shopping behavior among young adults in India. *International Journal of Indian Psychology*, 10(3), 1–10.

Sun, T., & Wu, G. (2019). Trait predictors of online impulse buying tendency: A hierarchical approach. *Journal of Marketing Theory and Practice*, 27(2), 1–15.

Tang, Y., & Lee, S. (2023). Executive dysfunction and impulsive financial behavior in online environments. *Journal of Behavioral Decision Making*, 36(2), 210–225.