Analysis of the impact of consumer psychological characteristics on decision-making styles and compulsive online shopping – an opportunity or an obstacle for strategic management?

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Abstract

Background: Modern information and communication technologies, artificial intelligence, the Internet, and the process of globalization have led to the replacement of traditional consumer behavior patterns and decision-making styles with new ones, characteristic of life in the era of technological revolution. The exponential growth of online shopping indicates that contemporary consumers are willing to embrace innovations brought about by these processes. Moreover, it is evident that the affective, behavioral, and cognitive dimensions of consumer behavior are also changing under these new circumstances. Therefore, modern marketing research requires the obligatory analysis of psychological traits, especially of online consumers, in order to successfully manage customer relationships.

Purpose: The aim of this paper is to explore whether and how psychological traits—such as depression, anxiety, stress, extraversion, neuroticism, openness to experience, agreeableness, and conscientiousness—influence consumer decision-making styles and compulsive online buying. Furthermore, the authors seek to determine whether knowledge and understanding of decision-making styles represent an opportunity or a challenge for strategic management within organizations.

Study design/methodology/approach: A theoretical review of the available literature indicates a connection between psychological traits and consumer decision-making styles. Accordingly, an empirical study was conducted using a survey method on a randomly selected sample of 377 respondents. A specially designed questionnaire, comprising 14 questions divided into four thematic sections, was used for data collection. The empirical data were analyzed using descriptive statistics, cross-tabulation, Cronbach's alpha coefficient, multiple regression analysis, and Pearson's correlation coefficient.

Findings/conclusions: The results of the study show that psychological traits such as extraversion, neuroticism, innovativeness, conscientiousness, and openness to experience, as well as emotional disturbances (stress, anxiety, and depression), have a statistically significant impact on consumer decision-making styles.

Limitations/future research: The main limitation of this research lies in the absence of a universal model encompassing all relevant psychological factors that influence consumer behavior and that would allow for adequate quantification of such influences. Future research will focus on psychographic market segmentation and the application of nonlinear statistical models and machine learning methods.

Introduction

"Globalization means that we all live in the same village, and technology allows us to erase those borders."
Nikola Tesla

Life in the 21st century is characterized by rapid changes in both technology and human behavior. Globalization and modern information and communication technologies - such as artificial intelligence and the Internet - affect all spheres of life, transforming traditional behavioral patterns and consumer decision-making styles. Mishra et al. (2024, p. 1) emphasize that consumer behavior in a technological context is multidimensional and continuously evolving, with significant implications for business management. Smart devices, social media, and personalized offers enable consumers to take advantage of technological benefits, while the digitalization of shopping is growing exponentially. Online shopping has become a common practice, but also a potential source of compulsive behavior that can impact life satisfaction (Durrani et al., 2022; Shabbir et al., 2024). One example is the Temu app, which has created a "boom" in the Serbian market.

Although customers are often skeptical of innovations that companies implement to reduce costs (Vojvodić, 2019, p. 3), most consumers still embrace changes that influence buying behavior, as they use the Internet for information, purchasing, and decision-making. Since each consumer is an individual with a unique psychological profile, researching psychological characteristics poses a distinctive research challenge.

Companies aiming for success must closely follow technological innovations and changes in consumer behavior. Ahmad et al. (2020, p. 3206) highlight that business strategies must adapt to these changes, as they are essential for the integration of marketing approaches that align with consumer expectations. From the perspective of the 21st century, online shopping and decision-making represent a new trend, while psychological traits significantly influence behavior. Accordingly, the subject of this paper is the impact of psychological characteristics on behavioral styles and compulsive online buying.

The primary goal of this research is, on the one hand, to examine the relationship between psychological characteristics and online consumer decision-making styles, and on the other hand, to explore the connection between decision-making styles and strategic management. Specifically, the paper aims to explore whether and how psychological characteristics - such as depression, anxiety, stress, extraversion, neuroticism, openness to experience, agreeableness, and conscientiousness - influence decision-making styles and compulsive online shopping. The authors also seek to determine whether understanding consumer decision-making styles serves as an opportunity or challenge for strategic management.

Through this work, the authors aim to contribute to the understanding of consumer behavior while also highlighting its impact on strategic management. As Matanović and Markov (2020, p. 237) state, *"In today's highly competitive market, a company's growth and development directly depend on its understanding of consumers."*

1. Literature review

In today's business market, companies strive to achieve a competitive advantage through the conquest of new market segments, increased profitability, the introduction of innovations, technological development, and the creation of a loyal customer base. This process requires an in-depth examination of the behavior of key market actors - consumers, their needs, desires, motivations, and the factors that influence their purchasing decisions. On the other hand, individuals often exhibit a specific lifestyle characterized by excessive online shopping, unfavorable consumer habits, and/or a lack of self-control, which leads to a transformation of consumer patterns and decision-making styles (Shah Mohd Dali et al., 2023). The necessity and importance of consumer behavior research are best illustrated by the definition of this concept, which highlights its complexity. Hoyer et al. (2018, p. 5) define consumer behavior as *"the totality of consumer decisions regarding the acquisition, consumption, and disposal of goods, services,*

activities, experiences, people, and ideas by (human) decision-making units (over time)." Similarly, Solomon and Russell (2024, p. 25) emphasize the multidisciplinary nature of this field, describing it as "*the study of the processes involved when individuals or groups select, purchase, use, or dispose of products, services, ideas, or experiences in order to satisfy needs and desires and to define and express their identities.*" As a field gaining increasing attention from researchers across disciplines, consumer behavior research plays a crucial role in business strategy. The focus on purchasing decisions is not by accident, but by design, as understanding consumer behavior in different buying situations enables companies to make more rational and data-driven marketing decisions (Đukić & Stanković, 2021, p. 42). In this context, Guo and Wang (2023)

emphasize that, with increasing market competition and the growing importance of meeting customer needs through the provision of personalized services, an increasing number of companies are striving to understand the psychology of consumer behavior.

Although various decision-making models appear in the literature each consumer is unique, and purchasing decisions may be driven by different motivations. For example, a teenager may purchase an iPhone out of a desire for recognition and social status, while older individuals may make the same choice based on the perception of the brand's quality and durability. This diversity in decision-making is reflected in the different styles consumers exhibit - an issue explored in this research.

Table 1 Decision-making styles

Decision-making styles	Description
Perfectionism	Perfectionists in shopping seek the highest and best quality products. They are careful and systematic buyers who are not satisfied with a "good enough" product.
Value for money	They are highly conscious of low prices and aim to get the "best value for money." They prefer to buy at lower retail prices and make purchasing decisions carefully. However, they do not attach much importance to style and brand.
Brand awareness	Consumers characterized by this decision style are oriented towards purchasing the most expensive, well-known brands. They believe in the decision rule that the higher the price of a product, the better the quality. They prefer shopping at high-end department and specialty stores and have a certain level of fashion awareness.
Fashionable style	Consumers with this decision style are also called novelty seekers. They are aware of fads and fashion and feel pleasure and excitement when looking for new items. Sometimes, they make impulsive decisions and are often unaware of the price when it comes to high-style products.
Satisfying style	Other consumers do not enjoy shopping and do not see it as a form of entertainment. They are often called "satisfiers" because they are willing to sacrifice quality to save time or achieve convenience when shopping.
Confusing style	Some consumers feel confused about the market and the quality of different brands. They believe that brands differ very little from each other, and the abundance of information about them can be overwhelming. They need "support from others" and often seek advice from friends, who significantly influence their choices.

Source: the authors

"*The landscape of consumer behavior within the technological and management context is emerging as a highly multidimensional sphere that is constantly evolving and has a profound impact on various aspects of business management*" (Mishra et al., 2024, p. 1). The Internet, social networks, websites, platforms, applications, and virtual and augmented reality are integrated into almost all segments of human life, demonstrating "*the ever-closer integration of traditional industries and services with the Internet, which is changing the consumer behavior of the population*" (Yin, 2022, p. 498). For example, social networking sites enjoy enormous global popularity, as evidenced by the fact that more than

a billion and a half people use Facebook daily (Kotyśko & Michalak, 2020, p. 240). Additionally, according to the latest Eurostat reports, 58.06% of the European Union population shopped online in 2023, with projections indicating that this figure will rise to 60.21% by December 2024 (Eurostat, 2024). This data supports one of the most prominent trends today—the exponential growth of online shopping (Lima et al., 2016). Hamli and Sobaih (2023) argue that convenience has played a major role in shaping consumer purchasing patterns, leading most consumers to shift from physical to online shopping. Furthermore, technological advancements enable the efficient satisfaction of consumer needs even in online

shopping environments (Javaria et al., 2020). As a result, researching online consumer behavior is a challenge for companies striving to create unique value while navigating uncertainty and environmental risks (Davidaviciene, 2021). Similarly, Khan et al. (2022, p. 1) emphasize that modern social media tools and applications facilitate interactive communication and information exchange between consumers and companies through various platforms.

Regardless of whether purchases are made in a traditional manner - by visiting a store - or "from the armchair," consumer behavior and decision-making are influenced by various factors and motives. In this regard, researchers seek to identify and clarify the rational and irrational determinants that shape consumer choices (Leonov et al., 2023). Dirwan and Latief (2023) highlight that consumer behavior is a complex interplay of psychological and social factors, particularly the cognitive, affective, and behavioral dimensions of personality traits. Beyond social and environmental influences, Schoultz et al. (2022) underscore the significance of five psychological factors that underpin consumer behavior: motivation, decision-making, personality, perception, and social behavior. The examination of these factors becomes particularly important in the context of online shopping, as purchasing via the Internet has become an integral part of consumers' daily lives, significantly influencing the expectations, preferences, perceptions, and behaviors of market participants (Zhao & Jumamil, 2024). Consequently, studying online consumer decision-making styles also necessitates an analysis of personality traits. Nuradina and Bandung (2022) identify motivation, perception, decision-making, emotions, and attitude as significant psychological determinants of online consumer behavior. Based on the above, it becomes evident that consumer psychology is closely linked to different decision-making styles,

most often examined through specific personality traits. For example, Raj and Bhanu (2024) demonstrated that introversion and extraversion lead to systematically different consumer behavior patterns. Traits such as neuroticism, conscientiousness, innovativeness, openness to experience, and extraversion (the Big Five Model – *Table 2*) significantly influence how consumers make decisions. Emotions also play a central role in psychological research on consumers, as they have a profound impact on human actions and choices. Sharma et al. (2022) emphasize that emotions are strongly connected to consumer motivation and personality. When customer expectations are unmet, this may trigger negative emotions such as stress, resentment, anxiety, anger, and depression. Conversely, the fulfillment of desires can lead to positive emotional states such as happiness, enthusiasm, and a sense of fulfillment. Tsaras et al. (2018, p. 62) identify depression and anxiety as the most common mental health disorders in human life, influencing all aspects of consumer functioning. Yeshaw and Mossie (2017) believe that depression, anxiety, and stress have an impact on productivity, motivation to work, sleep behavior of the individual, and outcome of different chronic diseasesAccording to the World Health Organization (2022, p. 40), 970 million people globally are living with some form of mental disorder. In 2020 alone, 246 million people (3,153 cases per 100,000 population) suffered from depressive disorders, while 374 million (4,802 cases per 100,000 population) lived with anxiety disorders (World Health Organization, 2022, p. 42). To assess the levels of anxiety, stress, and depression, a wide range of scales, instruments, and questionnaires has been developed in the literature. The most widely used among them is the Depression Anxiety Stress Scale (DASS-21 – *Table 2*).

Table 2 Dimensions of the "Big 5" and DASS-21 scales

Dimensions	Description
"Big 5 (five)"	
Conscientiousness	A personality trait characterized by high self-discipline. Individuals with this trait make decisions competently, thoughtfully, thoroughly, and in an organized manner.
Innovativeness (acceptability)	A cognitive style that reflects a consumer's tendency to embrace innovations.
Extraversion	A personality trait associated with enterprising and ambitious individuals who have a strong desire for growth, are talkative, and attract attention.
Neuroticism	A personality trait linked to experiencing negative emotions such as fear, guilt, and depression. Individuals with high neuroticism often interpret minor events as threatening, have low self-esteem, and exhibit poor impulse control.
Openness to experience	A trait that signifies broad interests, intellectual curiosity, creativity, and sensitivity to beauty and art. Individuals with high openness tend to favor individualism and non-conformity.

DASS-21	
Depression	Characterized by a loss of interest or pleasure, feelings of sadness, guilt, or low self-worth, fatigue, poor concentration, and disturbed sleep.
Anxiety	A response to perceived threats, marked by tension, anxious thoughts, increased blood pressure, and rapid breathing.
Stress	Arises when an individual perceives that demands exceed their available resources.

Source: the authors

Zhao et al. (2017) argue that with the rise of "online living," online shopping addiction has emerged as a new form of addiction. Accordingly, compulsive consumer buying behavior has emerged as a relatively modern stereotypical disorder that disrupts consumers' daily lives and contributes to the development of mental health issues (Jain et al., 2023; Wasim et al., 2023; González-Fuente & Moral-Jiménez, 2024). According to Sathya et al. (2023, p. 1641), compulsive shopping "*refers to an irresistible desire to buy things, even when there is no real need or desire for them. The rise of e-commerce and online shopping platforms has made it easier for individuals to indulge in compulsive shopping behavior, resulting in an increasing number of cases of online shopping addiction*". Similarly, Jameel et al. (2024) describe compulsive shopping as a chronic behavior characterized by an excessive, uncontrolled, and persistent need to buy, regardless of potential consequences. On the one hand, the Internet enables global online transactions, but on the other hand, Chuah et al. (2018) argue that the growth of e-commerce has led to a dramatic increase in compulsive online shopping behavior. This is partly due to the illusion that online shopping does not involve actual spending. People who struggle with compulsive shopping addiction often experience anger, stress, depression, anxiety, adjustment problems, and changes in mood, eating, and sleeping patterns (Ghani, 2024). Many scholars studying compulsive behavior suggest that it is often used as a way to cope with negative emotions and psychological distress - functioning as a kind of "medicine" to improve one's mood (Rana & Malik, 2023). In this regard, Bighiu et al. (2015) highlight that compulsive shopping is often triggered by internal emotional states, such as anxiety, which may prompt a consumer to make a purchase in order to feel calmer, happier, or more in control. However, the same authors argue that once the purchase is completed, the initial positive feelings are often replaced by guilt, and in many cases, even depression. On the other hand, Olsen et al. (2022) suggest that compulsive buying should not always be associated with negative emotions during the act

of shopping. Similarly, Bajgiran et al. (2024) observed that compulsive buyers frequently attempt to conceal their behavior out of fear that others will label them as "shopaholics."

In accordance with all of the above and presented through a theoretical analysis of domestic and foreign literature relevant to the subject area, the authors pose the following hypotheses:

H_0: Psychological characteristics of consumers influence styles of making purchasing decisions and thus make a certain contribution to their prediction;

H_1: Women exhibit greater perfectionism when shopping than men;

H_2: Stress, anxiety, and depression influence consumer behavior when shopping;

H_3: Consumers who believe that price determines quality are less likely to accept innovations;

H_4: Psychological characteristics of consumers influence and, to a certain extent, statistically significantly predict compulsive behavior when shopping online;

H_5: Consumers who experience depression and anxiety are more likely to exhibit compulsive behavior when shopping online;

H_6: Consumer demographic characteristics impact how consumers make purchasing decisions and display compulsive behavior;

H_7: Decision-making styles and the factors that influence them are important aspects of strategic management.

Hermes et al. (2022) argue that although there are existing studies utilizing the Big Five model to analyze the characteristics of online shoppers, the influence of personality traits on consumers' willingness to shop online has not yet been sufficiently investigated.

Business strategies require answers to key questions about consumer behavior, as understanding these factors is essential for identifying what drives purchasing decisions. According to Tannirwar and Roy (2024, p. 854), the most important questions include:

1. What makes the company's product more attractive than competitors' products?
2. What is the consumer feedback on the new product?
3. How do consumers perceive purchasing the product?
4. What are the short-term and long-term perspectives on consumer purchasing behavior?

This is why information about consumer behavior is crucial for company management, as it forms the foundation for developing and implementing effective strategies to attract and retain customer. Strategic management is the process by which a company's or organization's top management formulates and implements business goals and initiatives on behalf of its owners, taking into account available resources and assessing both the internal and external environments in which the organization operates (Alharbi, 2024). Therefore, there is a significant connection between strategic management and the study of consumer decision-making styles and their psychological characteristics.

Companies' management teams require insights into consumer behavior, as such information forms the foundation for developing and implementing effective and efficient strategies aimed at attracting and retaining customers. In this regard, Lembhe and Dighe (2024) argue that understanding consumer psychology helps businesses tailor their marketing strategies, enhance product design, and improve customer experiences in order to meet the needs and desires of their target audience. This contributes to more efficient and ethical business practices, as well as to long-term customer satisfaction and loyalty.

Accordingly, it is evident that consumer behavior research provides strategic management with empirically grounded support, enabling the making of effective and efficient decisions in key strategic functions such as product positioning, market strategy development, demand forecasting, and brand management.

2. Methodology

The research in this paper, conducted with the aim of testing and proving the hypotheses, consists of two parts: theoretical analysis and empirical research. The first part includes a detailed theoretical analysis of relevant domestic and foreign literature in the subject area. For this purpose, the following scientific methods were used: analysis and synthesis, inductive-deductive methods, the descriptive method, as well as comparative analysis and the analogy method.

The second part of the research refers to empirical research conducted using a survey method, aimed at examining the relationship between psychological characteristics, decision-making styles, and compulsive consumer behavior in purchasing. The study employed a simple random sample consisting of randomly selected respondents (individuals of different genders, ages, education levels, marital statuses, and employment statuses) from municipalities across the territory of the Republic of Serbia. The survey was conducted from September 2024 to February 2025 and included a total of 377 respondents from 35 different municipalities. For the purposes of this research, a questionnaire was developed containing 14 questions, classified into four groups. The first group consists of nine questions regarding the basic demographic characteristics of consumers, including gender, age, level of education, marital status, employment status, average income, and number of household members. The second part of the questionnaire focuses on consumer decision-making styles. This section contains a single question presented in the form of the Six-Factor Model of Consumers' Decision-Making Style Traits scale (Sproles, 1985, pp. 82–83). This scale identifies six decision-making styles: perfectionism, value for money, brand awareness, fashion consciousness, satisfying style, and confused style. Respondents provided answers using a five-point Likert scale (1 – completely disagree, 5 – completely agree). The third group includes two questions based on the Social Networking Usage Scale (Khan et al., 2022, p. 5) and the Compulsive Online Shopping Scale (Chuah et al., 2018, p. 5), both measured using a five- point Likert scale (1-strongly disagree, 5-strongly agree). The first scale assesses social media usage through twenty items classified into six categories: socialization, information, entertainment, education, social causes, and shopping. Compulsive shopping behavior is evaluated through twenty-eight items divided into seven categories: relapse, withdrawal, conflict, tolerance, loss of control, and mood modification. The fourth and final section of the questionnaire consists of two questions related to the psychological characteristics of respondents. To measure depression, anxiety, and stress levels, the DASS-21 scale (Jovanović et al., 2011, p. 23) was used. It consists of statements describing various situations, with respondents indicating their

agreement on a four-point Likert scale, ranging from 0 (never) to 3 (often in the past week). Additionally, psychological characteristics were analyzed using the Big Five-44 scale (John & Srivastava, 1999), which includes 44 statements classified into five dimensions of personality traits: extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience. Responses were recorded on a five-point Likert scale.

The data collected through the survey were statistically processed using Statistics version 26 software, employing descriptive statistics, cross-tabulation, and Cronbach's coefficient. Relationships between the observed phenomena were analyzed using multiple regression analysis and Pearson's correlation coefficient.

3. Research results

The relationship between the psychological characteristics of the respondents and their decision-making styles was analyzed using four- and five-point Likert scales (0 – it has never happened to me, 4 – it has happened to me often; 1 – I completely disagree, 5 – I completely agree). Accordingly, the reliability of the scales was tested using Cronbach's coefficient α, which ranged from 0.821 to 0.981, indicating high reliability and internal consistency.

A total of 377 respondents participated in the survey, including 150 males (39.8%) and 227 females (60.2%). The research was conducted in the Republic of Serbia, specifically across 35 municipalities. The largest number of respondents came from Leposavić (11.9%), while a significant percentage also came from other municipalities in Kosovo and Metohija, including Zvečan (10.1%), Kosovska Mitrovica (9.3%), and Gračanica (6.6%). Additionally, notable participation was recorded from residents of Raška (7.7%), Novi Pazar (5.8%), Niš (6.4**%),** and Kraljevo (3.4%).

Table 3 Sample structure by age, education level and employment status

Variables		Number of respondents	
		N	**%**
Age	14-23	67	17.8
	24-33	165	43.8
	34-43	122	32.4
	44-53	21	5.6
	over 53 years old	2	0.5
Education Level	secondary education	47	12.5
	college/higher vocational school	120	31.8
	Bachelor's degree	158	41.9
	master's degree	51	13.5
	Doctorate/PhD	1	0.3
Employment Status	unemployed	64	17.0
	part-time employee	197	52.3
	Full- time employee	116	30.8
	entrepreneur	0	0
	retiree	0	0

Source: the authors

The sample structure shown in *Table 3* indicates that the majority of respondents were aged 24 to 43 (76.2%), followed by university graduates (41.9%) and temporary employees (52.3%). A cross-analysis of employment status and average income revealed that approximately equal numbers of respondents earned a monthly income ranging from 40,000 to 60,000 dinars (37.7%) and 60,000 to 80,000 dinars (31.8%). Meanwhile, 4.8% of respondents, who were students and not yet employed, reported having no monthly income. A significant and nearly equal proportion of respondents were either single (48.5%) or married (46.2%). Additionally, a notable number of participants came from large families, with 52.5% having 3–4 members and 35% having 5–6 members.

Statistically significant relationships were observed between demographic characteristics and statements reflecting different decision-making styles. A statistically significant relationship was found between the variable "gender" and the statement "I make a special effort to choose the best quality products" ($p = 0.000$), with a Pearson

correlation coefficient indicating a weak positive relationship ($\rho = 0.251$). This suggests that women are more likely to exhibit a perfectionistic decision-making style. A correlation was also identified between gender and the statement "Shopping in stores wastes my time" ($p = 0.018, \rho = 0.122$), where the Pearson correlation coefficient indicates that women, compared to men, are more inclined to shop online. A cross-sectional analysis revealed that these women were typically married, employed part-time, and lived in large families. This finding is not surprising, as family obligations may limit their time for in-store shopping, prompting them to opt for online shopping. This assumption is further supported by the statistically significant relationship between the variables "marital status" and "Shopping in stores wastes my time" ($p = 0.000, \rho = 0.222$), suggesting that married consumers view in-store shopping as time-consuming and therefore prefer online shopping.

The convenience of online shopping is further confirmed by the statistically significant relationship between "employment status" and "Shopping in stores wastes my time" ($p = 0.000, \rho = 0.222$). The Pearson correlation coefficient indicates a weak positive relationship, suggesting that employed consumers, whether on fixed-term or indefinite contracts, prefer online shopping over in-store shopping. Additionally, employed consumers, who frequently interact with colleagues, are more likely to consider their friends' recommendations when choosing a brand. This is reflected in the statistically significant relationship between "employment status" and "If a good friend recommended a brand to me, I would probably try it" ($p = 0.000, \rho = 0.207$). A statistically significant relationship was also found between employment status and the statements "I shop so much online that it has damaged my well-being" ($p = 0.001, \rho = 0.177$) and "I buy things online to reduce feelings of guilt, anxiety, helplessness, loneliness, and/or depression" ($p = 0.002, \rho = 0.160$). These findings indicate that employment status influences compulsive consumer behavior, likely as a coping mechanism for anxiety, stress, depression, guilt, and other psychological challenges.

A statistically significant relationship was identified between "age" and the statement "I buy things online to reduce feelings of guilt, anxiety, helplessness, loneliness, and/or depression" ($p = 0.014$), with a Pearson correlation coefficient indicating a slight positive relationship ($\rho = 0.126$). This suggests that older consumers may engage in online shopping as a means of alleviating loneliness, helplessness, and depression. Furthermore, a statistically significant relationship was observed between "education level" and "Buying something new encourages me" ($p = 0.005, \rho = -0.146$), as well as between "education level" and "I shop so much online that it has damaged my well-being" ($p = 0.002, \rho = 0.158$). The first correlation is negative but insignificant, indicating that consumers with higher levels of education do not necessarily find buying new items encouraging. However, the second correlation is positive, suggesting that respondents with higher education levels are more likely to exhibit compulsive online shopping behavior. A statistically significant relationship was also found between "average monthly income" and the following findings:

- "I look carefully to find the best "value for money"" ($p = 0.009, \rho = -0.135$). The negative Pearson correlation coefficient suggests that consumers with higher incomes do not always make careful and rational purchasing decisions and may instead engage in impulsive shopping;
- "expensive brands are usually the best" ($p = 0.036, \rho = 0.108$). The insignificant positive correlation suggests that consumers with higher incomes are more aware of brand differences and tend to associate price with quality;
- "I shop so much online that it is harming my well-being" ($p = 0.000, \rho = 0.200$). The weak positive Pearson correlation coefficient suggests that consumers with higher incomes are more likely to exhibit compulsive online shopping behavior. A cross-sectional analysis indicates that this consumer group primarily engages in compulsive shopping to cope with anxiety, depression, and stress.

The influence of psychological characteristics on decision-making styles was examined using multiple regression analysis, where decision-making styles (perfectionism, brand awareness, value for money, fashion orientation, confusion, and satisfaction) were considered as dependent variables. The dimensions of the DASS-21 scale (stress, anxiety, and depression) and the Big Five personality traits (extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience) were considered as independent variables. The results of the correlation analysis

confirm that, in all models, there is a statistically significant relationship, with the Pearson correlation coefficient demonstrating the connection between the dependent and independent variables.

Table 4 Multiple regression analysis: Psychological characteristics – stress, anxiety and depression as predictors of decision-making styles

Decision-making styles	Model summary	DEPRESSION		ANXIETY		STRESS	
		Standardized Coefficients Beta	Sig. p	Standardized Coefficients Beta	Sig. p	Standardized Coefficients Beta	Sig. p
PERFECTIONISM	R = 0.253 R^2 = 0.064 F = 8.479	0.027	0.784	-0.0.42	0.688	**-0.238**	**0.012**
VALUE FOR MONEY	R = 0.131 R^2 = 0.017 F =2.168	-0.133	0.186	0.107	0.320	0.127	0.188
BRAND AWARENESS	R = 0.431 R^2 = 0.186 F =28.411	0.000	0.997	**0.534**	**0.000**	-0.132	0.133
FASHIONABLE STYLE	R = 0.369 R^2 = 0.136 F = 19.644	-0.079	0.403	0.465	0.000	-0.040	0.658
SATISFYING STYLE	**R = 0.437 R^2 = 0.191 F =29.431**	**0.296**	**0.001**	0.026	0.790	0.139	0.114
CONFUSING STYLE	R = 0.357 R^2 = 0.128 F =18.172	0.153	0.105	0.012	0.905	**0.212**	**0.020**

decision-making styles - dependent variable
psychological characteristics - independent variables

Source: the authors

The results of the multiple regression analysis presented in *Table 4* indicate the following:

1. The model, which in this case consists of psychological characteristics—depression, anxiety, and stress—explains the largest percentage of the variance in the satisfactory decision-making style (**R² = 0.191**), accounting for **19.1% of the variance** in the dependent variable. Significant results were also obtained for the percentage of variance explained in the brand awareness decision-making style (R² = **0.186, i.e., 18.6% of the variance**), followed by fashion-oriented decision-making style (R² = **0.136, i.e., 13.6% of the variance)**, and confusing decision-making style (**R² = 0.128, i.e., 12.8% of the variance).**

2. The findings related to psychological characteristics as predictors of decision-making styles indicate that these variables contribute differently to each style. The following key results should be highlighted:
- In the case of perfectionism**, stress (β = -0.238, $p = 0.012$),** makes a significant unique contribution to explaining and predicting this decision-making style. The

negative correlation suggests that consumers who experience higher levels of stress exhibit fewer perfectionistic tendencies when making purchasing decisions.
- Although correlation analysis indicated a statistically significant relationship between anxiety and stress and the value-for-money decision-making style, as well as between all observed psychological characteristics and the fashion-oriented decision-making style, the regression analysis revealed that depression, anxiety, and stress do not significantly contribute to explaining these decision-making styles.
- Regarding the **brand awareness** decision-making style, **anxiety** has the strongest independent contribution to its prediction **(β = 0.534, $p = 0.000$**). This positive correlation suggests that consumers who experience higher levels of anxiety are more brand-conscious, differentiate between brands, and tend to believe that a higher price indicates better quality. Stress and depression are not statistically significant predictors of this decision-making style.

- **Depression** contributes the most to explaining and predicting **a satisfactory decision-making style ($\beta = 0.296$, $p = 0.001$)**, while other psychological characteristics do not show statistical significance. This positive correlation suggests that more depressed consumers are more likely to adopt a satisfactory decision-making style.

- **Stress** has the strongest statistical contribution to predicting a **confusing decision-making style ($\beta = 0.212$, $p = 0.020$)**. Correlation analysis shows statistical significance and a positive relationship, indicating that individuals exposed to higher levels of stress struggle to differentiate between brands and often seek external support when making purchasing decisions.

The results of the previously presented regression analysis further confirm the position of the group of authors Garg et al. (2023), who point out that emotions in most cases determine the consumer's purchasing intention, as well as the decision-making style.

Additionally, correlation analysis revealed a relationship between the dimensions of the Big Five personality traits (extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience) and various decision-making styles. The contribution of these psychological characteristics to predicting decision-making styles was further analyzed using multiple regression analysis, the results of which are presented below.

Table 5 Multiple regression analysis: Psychological characteristics—extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience—as predictors of decision-making styles.

Decision-making styles	Model summary	EXTRAVERSION		AGREEABLENESS		CONSCIENTIOUSNESS		NEUROTICISM		OPENNESS TO EXPERIENCE	
		Standardized Coefficients	Sig. p	Standardized Coefficients	Sig. p	Standardized Coefficients	Sig. p	Standardized Coefficients	Sig. p	Standardized Coefficients	Sig. p
PERFECTIONISM	**R = 0.485** **R² = 0.236** **F = 22.863**	0.033	0.585	0.117	0.059	**-0.639**	**0.000**	0.155	0.057	-0.041	0.567
VALUE FOR MONEY	**R = 0.358** **R² = 0.128** **F = 10.930**	0.046	0.475	**-0.266**	**0.000**	0.061	0.448	**0.484**	**0.000**	-0.143	0.064
BRAND AWARENESS	**R = 0.547** **R² = 0.299** **F = 31.645**	**0.143**	**0.013**	**-0.197**	**0.001**	0.125	0.081	**0.698**	**0.000**	**-0.417**	**0.000**
FASHIONABLE STYLE	**R = 0.571** **R² = 0.326** **F = 35.879**	-0.080	0.157	**-0.154**	**0.008**	**0.411**	**0.000**	**0.454**	**0.000**	**-0.281**	**0.000**
SATISFYING STYLE	**R = 0.564** **R² = 0.318** **F = 34.533**	0.037	0.520	0.057	0.331	**0.202**	**0.004**	**0.493**	**0.000**	**-0.294**	**0.000**
CONFUSING STYLE	**R = 0.574** **R² = 0.329** **F = 36.382**	**0.278**	**0.000**	-0.048	0.405	-0.024	0.734	**0.706**	**0.000**	**-0.438**	**0.000**

decision-making styles - dependent variable
psychological characteristics - independent variables

Source: the authors

The results of the regression analysis indicate that not all psychological characteristics contribute equally to predicting decision-making styles. The statistical significance confirms the necessity of separately isolating and analyzing the following results:

1. The model composed of the listed psychological characteristics explains a significant percentage of the variance in all observed decision-making styles, specifically:
- **32.9% of the variance in the confusing style;**
- **32.6% of the variance in the fashionable style;**
- **31.8% of the variance in the satisfying style;**
- **29.9% of the variance in the "brand awareness" style;**
- **23.6% of the variance in the "perfectionism" style;**
- **12.8% of the variance in the "value for money" style;**

2. **Conscientiousness (β = -0.639, $p = 0.000$)**, as a psychological characteristic, makes a statistically significant contribution to predicting a **perfectionistic decision-making style.** The negative correlation indicates that consumers with a higher level of conscientiousness are less likely to exhibit perfectionism when making purchase decisions;

3. The "**value for money**" decision-making style is statistically significantly predicted by two psychological characteristics: **neuroticism (β = 0.484, $p = 0.000$) and agreeableness (β = -0.266, $p = 0.000$)**, with neuroticism making a greater individual contribution. The positive correlation for neuroticism suggests that consumers exhibiting this trait are more likely to adopt a "value for money" decision-making style. Conversely, the negative correlation for agreeableness suggests that individuals who are more open to innovations and changes are less likely to adopt this style;

4. All psychological characteristics, except conscientiousness, make a statistically significant contribution to predicting the "**brand awareness**" decision-making style, with **neuroticism** making the largest independent contribution (β = 0.698, $p = 0.000$). **Agreeableness (β = -0.197, $p = 0.001$) and openness to experience (β = -0.417, $p = 0.000$)** exhibit negative correlations. This suggests that individuals who are less open to innovations and do not display creativity or intellectual curiosity are more likely to adopt the "brand

awareness" decision-making style. Positive correlations are observed for extraversion **β = 0.143, $p = 0.013$**). and neuroticism (**β = 0.698, $p = 0.000$**), indicating that individuals exhibiting these traits are more likely to identify with this decision-making style;

5. The following psychological characteristics make a statistically significant contribution to predicting the **fashion decision-making** style: **neuroticism (β = 0.454, $p = 0.000$)** followed by **conscientiousness (β = 0.411, $p = 0.000$), agreeableness (β = -0.154, $p = 0.008$) and openness to experience (β = -0.281, $p = 0.000$)**. The positive correlations indicate that consumers exhibiting conscientiousness and neuroticism tend to adopt a fashion-oriented decision-making style. Surprisingly, the negative correlations suggest that this group of consumers has lower levels of agreeableness and openness to experience;

6. **Neuroticism** contributes the most to predicting the **satisfying decision-making style (β = 0.493 $p = 0.000$)**, followed by **conscientiousness (β = 0.202, $p = 0.004$) and openness to experience (β = -0.294, $p = 0.000$)**. The positive correlations for neuroticism and conscientiousness suggest that consumers with these traits are more likely to adopt a satisfying decision-making style. The negative correlation for openness to experience indicates that consumers with this decision-making style are less open to new experiences;

7. **The confusing decision-making style** is significantly predicted by **neuroticism (β = 0.706, $p = 0.000$), followed by extraversion (β = 0.278, $p = 0.000$) and openness to experience (β = -0.438, $p = 0.000$)**. Positive correlations for neuroticism and extraversion suggest that consumers exhibiting these traits tend to adopt a confusing decision-making style. The negative correlation for openness to experience indicates that consumers with this style tend to be less open to new experiences.

The presented results confirm that, as Wahab et al. (2023) state, consumer decision-making styles have a strong psychological dimension and are a reflection of the influence of various psychological

factors and personality traits, in this case extraversion, agreeableness, neuroticism, conscientiousness, and openness to experience.

Using regression analysis, the authors also examined the relationship between three dimensions of compulsive online shopping-

relapse, withdrawal, and mood modification - and psychological characteristics. Each dimension of compulsive buying was considered an individual dependent variable, while psychological characteristics served as predictors.

Table 6 Multiple regression analysis: Psychological characteristics – stress, anxiety and depression as predictors of compulsive online shopping

Dimensions of compulsive online shopping	Model summary	DEPRESSION		ANXIETY		STRESS	
		Standardized Coefficients Beta	Sig. p	Standardized Coefficients Beta	Sig. p	Standardized Coefficients Beta	Sig. p
RELAPSE	R = 0.594 R^2 = 0.353 F = 67.948	**0.633**	**0.000**	**0.296**	**0.001**	**-0.417**	**0.000**
WITHDRAWAL	R = 0.701 R^2 = 0.491 F =119.847	**0.515**	**0.000**	**0.311**	**0.000**	-0.114	0.101
MOOD MODIFICATION	R = 0.666 R^2 = 0.444 F =99.107	0.066	0.380	0.478	0.000	0.151	0.039

*dimensions of compulsive buying - dependent variable
psychological characteristics - independent variables

Source: the authors

The results presented in *Table 6* show that the model, which includes three psychological characteristics - depression, anxiety, and stress - explains a significant percentage of the variance in the dependent variable, specifically the observed dimensions of compulsive online shopping. Specifically, it accounts for 35.3% of relapse, 49.1% of withdrawal, and 44.4% of mood modification.

Regarding the individual dimensions of compulsive online shopping, the results of the multiple regression analysis indicate the following:

- **relapse** (disorder) is statistically significantly predicted by all three psychological characteristics, with the strongest predictor being **depression (β = 0.633 $p = 0.000$),** followed by **anxiety (β = 0.296, $p = 0.000$)** and **stress (β = -0.417 $p = 0.000$).** The positive correlations observed for depression and anxiety suggest that consumers with these characteristics are more prone to compulsive online shopping. In contrast, the negative correlation with stress indicates that, in this case, compulsive online shoppers are either not exposed to stress or only minimally affected by it.

Similarly, Nuangjamnong (2022), in his research, observed that compulsive online shopping is most influenced by stress, depression, low self-esteem, and anxiety, while Manimegalai and Senthilkumar (2022), similarly to Jose (2023), believe that compulsive behavior is caused by emotional feelings – anxiety, stress, and urges;

- **withdrawa**l (feelings that arise when online shopping is inhibited) is significantly predicted by **depression (β = 0.515 $p = 0.000$)** and **anxiety (β = 0.311 $p = 0.000$)**, with depression making the greater independent contribution. In both cases, positive correlations suggest that consumers who experience depression and anxiety feel distress when they are unable to shop online;

- **mood modification**, which refers to shopping as a means of emotional regulation, is primarily predicted by **anxiety (β = 0.478 $p = 0.000$)**, followed by **stres**s β = **0.151 $p = 0.039$)**. The positive correlations indicate that anxious and stressed consumers tend to shop online to improve their mood, alleviate personal problems, and cope with feelings of loneliness and anxiety.

Table 7 Multiple Regression Analysis: Psychological Characteristics—Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to Experience as Predictors of Compulsive Online Shopping

Dimensions of compulsive online shopping	Model summary	EXTRAVERSION		AGREEABLENESS		CONSCIENTIOUSNESS		NEUROTICSISM		OPENNESS TO EXPERIENCE	
		Standardized Coefficients Beta	Sig. p	Standardized Coefficients Beta	Sig. p	Standardized Coefficients Beta	Sig. p	Standardized Coefficients Beta	Sig. p	Standardized Coefficients Beta	Sig. p
RELAPSE	R = 0.673 R² = 0.453 F = 61.475	**0.158**	**0.002**	**0.171**	**0.0**	**0.126**	**0.047**	**0.567**	**0.000**	**-0.862**	**0.000**
WITHDRAWAL	R = 0.600 R² = 0.361 F = 41.846	0.019	0.728	**0.256**	**0.000**	0.040	0.561	**0.538**	**0.000**	**-0.448**	**0.000**
MOOD MODIFICATION	R = 0.591 R² = 0.350 F = 39.919	**-0.156**	**0.005**	0.074	0.198	**0.267**	**0.000**	**0.464**	**0.000**	**-0.306**	**0.000**

*dimensions of compulsive buying - dependent variable
psychological characteristics - independent variables

Source: the authors

The results of the multiple regression analysis presented in *Table 7* indicate that the psychological characteristics measured by the BigFive44 scale, when used as a model, explain a significant portion of the variance in the dependent variable, specifically the dimension of compulsive online shopping. In percentage terms, the highest explained **variance** is observed in the case of relapse, accounting for as much as **45.3% of the variance.** Additionally, the model explains 36.1% of the variance in withdrawal and 35% of the variance in mood modification. When examining the individual dependent variables, the following results should be highlighted:

1. A statistically significant contribution to the prediction of relapse, i.e., the frequency of compulsive online shopping, is made by all observed psychological characteristics, in the following order of contribution:
   - **Neuroticism ($\beta = 0.567$ $p = 0.000$),**
   - **Agreeableness ($\beta = 0.171$ $p = 0.001$),**
   - **Extraversion ($\beta = 0.158$ $p = 0.002$),**
   - **Conscientiousness ($\beta = 0.126$ $p = 0.047$),**
   - **Openness to experience ($\beta = -0.448$ $p = 0.000$).**

   Positive correlations indicate that consumers who exhibit compulsive online shopping behavior tend to display neuroticism, agreeableness, extraversion, and conscientiousness as psychological characteristics. Conversely, this group of consumers is characterized by low openness to experience;

2. **Neuroticism ($\beta = 0.538$ $p = 0.000$),** contributes the most to predicting feelings caused by online shopping inhibition, followed by **agreeableness ($\beta = 0.256$ $p = 0.000$)** and **openness to experience $\beta = 0.448$ $p = 0.000$).** Positive correlations for neuroticism and agreeableness suggest that consumers with these psychological traits experience negative emotions when they are unable to shop online. Furthermore, the negative correlation with openness to experience indicates that consumers who feel bad when prevented from shopping online predominantly exhibit this psychological characteristic;

3. **Mood modification**, i.e., the reasons for compulsive behavior when shopping online, can be statistically significantly predicted by the following psychological characteristics: **Neuroticism $\beta = 0.464$ $p = 0.000$), Conscientiousness ($\beta = 0.267$ $p = 0.000$), Extraversion ($\beta = -0.156$ $p = 0.005$)** and **Openness to experience ($\beta = -0.306$ $p = 0.000$).** Among these, neuroticism has the largest independent contribution. Correlation analysis suggests that consumers with traits of neuroticism and conscientiousness engage in online

shopping to improve their mood and escape personal problems. On the other hand, negative correlations with extraversion and openness to experience indicate that consumers who exhibit compulsive online shopping behavior are less likely to possess these psychological characteristics.

4. Discussion

The previously presented results undoubtedly confirm that decision-making styles are influenced by the psychological characteristics of consumers. The fact that managers need information about which factors influence consumer behavior and to what extent (Kintler et al., 2022, p. 29) is also confirmed by the results of this research, as marketing, along with other business strategies, is based on knowledge of how consumers make purchasing decisions.

Based on the results of correlation analysis and multiple regression analysis, the characteristics of the observed decision-making styles can be identified. Specifically:

1. **perfectionism** – Consumers who are careful and systematic in their purchasing behavior, seeking the best and highest quality products (perfectionism), tend to exhibit lower levels of stress, strong self-discipline, and conscientiousness. This decision-making style is more commonly associated with women than with men. To effectively meet the expectations of this segment, companies can, within the framework of strategic management, develop quality-focused strategies and transparent communication approaches—emphasizing reliability, verified ingredients, and detailed product information;

2. **value for money** – This style characterizes consumers who seek low prices and a good price-to-quality ratio. They tend to exhibit lower levels of innovativeness and higher levels of neuroticism, which includes lower self-esteem and poor impulse control. This decision-making style is more prevalent among consumers with lower average incomes. Therefore, companies can implement price-flexible and promotional strategies to meet the needs of this segment and enhance their loyalty;

3. **brand awareness** – This style is found among consumers who prefer expensive and well-known national brands, believing that a higher price indicates better quality. These individuals tend to exhibit high levels of anxiety, neuroticism, and extraversion, along with low openness and agreeableness. They often respond impulsively, have low self-esteem, yet are simultaneously ambitious and status-oriented. They are generally less open to innovation, possess higher monthly incomes, and display stronger individualistic traits. These findings confirm the influence of personality and emotions on consumer behavior (Asri & Andadari, 2023). Therefore, companies can position premium brands through emotionally powerful campaigns and clear differentiation.

4. **fashion style** – This style characterizes consumers who follow trends and seek novelties but simultaneously exhibit neuroticism and conscientiousness, along with low agreeableness and openness to experience. They often experience negative emotions such as fear and guilt, which lead them to make thorough and organized decisions. Although they seek new things, they also show resistance to innovations, partially explained by fear of uncertainty and failure. "*It is widely recognized that consumption of fashion apparel is a major component of the consumer experience, aimed not only at satisfying individuals' desire to look good but also needs related to love and belonging, self-esteem, and a high level of self-actualization*" (Ferreira et al., 2024, p. 61). Analysis has shown that this style is more common among consumers with lower educational levels. Companies can direct emotionally tailored marketing messages and brand visual identity to build trust and foster a sense of belonging within this consumer segment.

5. **satisficing style** - describes consumers who do not experience shopping as a pleasure but rather as an obligation. They are willing to sacrifice quality for convenience and efficiency in purchasing. This style is characterized by higher levels of depression, neuroticism, and conscientiousness, combined with a lack of openness to experience. These consumers often have low self-esteem, show little interest in creativity and aesthetics, and make decisions thoughtfully and rationally. This style is more prevalent among women, employed individuals, and married persons.

Companies can apply strategic management approaches that simplify the purchasing process, offering a clear product structure and functionality that meets their need for efficiency;

6. **confusing style** – This style is present among consumers who believe that brands differ little and who have difficulty understanding the available information. They exhibit signs of stress, extraversion, and neuroticism, along with a lack of openness to experience. These consumers often have poor impulse control but strive for personal growth and seek to stand out in social situations. Their behavior reflects both individualism and nonconformity, and demographically, they belong to the group of employed consumers who rely on advice from their close social circle. "*The availability of product information at a given moment influences choice*" (Leonov et al., 2023, p. 1650). Accordingly, companies can address the needs of this segment by providing simplified and clearly structured messages, as well as interactive communication channels that promote quicker understanding and decision-making.

The results shown fully confirm the following hypotheses:

H$_0$: *Psychological characteristics of consumers influence purchasing decision styles and contribute to their prediction;*

H$_1$: *Women exhibit more perfectionist tendencies in shopping than men;*

H$_2$: *Stress, anxiety, and depression affect consumer behavior during shopping;*

H$_3$: *Consumers who believe that price reflects quality are less likely to accept innovations.*

The influence of psychological traits on the transformation of consumer behavior in the online environment is also confirmed by the results of this research, in line with the findings of Nuradina and Bandung (2022). It was observed that relapse as an indicator of compulsive buying stems from anxiety and depression, and such consumers are characterized by higher levels of neuroticism, extraversion, agreeableness, and conscientiousness, combined with low levels of stress and openness to experience. The analysis showed that women exhibit compulsive behavior more frequently than men, which aligns with the findings of Sathya et al. (2023), who emphasize that the accessibility and convenience of online

shopping encourage such behavior among women. Correlational analysis indicates that this behavior is more common among consumers with higher education and income levels. Ghani (2024, p. 169) also identified a positive correlation between anxiety and compulsive buying, supporting the thesis that shopping serves as a mechanism to alleviate negative emotions—such as guilt, anxiety, and helplessness—in individuals with higher levels of neuroticism and conscientiousness. Similarly, Erzincanlı et al. (2024) conclude that anxiety and depression statistically significantly influence the development of shopping addiction, whereas stress did not show a significant effect. This pattern most commonly occurs among older, employed consumers with higher monthly incomes.

The findings indicate that psychological and demographic characteristics significantly influence compulsive online shopping behavior, confirming the following hypotheses:

H$_4$: *Psychological characteristics of consumers influence and statistically predict compulsive online shopping behavior.*

H$_5$: *Consumers experiencing depression and anxiety are more likely to exhibit compulsive online shopping behavior.*

H$_6$: *Demographic characteristics impact purchasing decision-making styles and the manifestation of compulsive behavior among consumers.*

Given that consumer purchasing behavior is influenced by psychological characteristics and that business success is largely determined by consumer actions, the research confirms the final hypothesis: **H$_7$**: *Decision-making styles and their influencing factors are essential components of strategic management.*

Retailers must implement appropriate strategies tailored to the psychological factors that shape consumer purchasing behavior. It is crucial for companies to understand their consumers and assess whether market demands are being fully met (Schoultz et al., 2022).

Conclusion

Is the Analysis of Psychological Characteristics' Influence on Consumer Decision-Making Styles and Compulsive Behavior in Online Shopping an Opportunity or an Obstacle to Strategic Management?

Consumer satisfaction and loyalty are among the key objectives of businesses, and commercial outcomes increasingly depend on understanding

purchasing behavior. Psychological factors, as the most significant influence on decision-making, can also lead to phenomena such as compulsive buying. Therefore, strategic management must recognize the importance of analyzing consumers' psychological characteristics as an opportunity to create sustainable and effective business strategies.

The results of this research point to several practical opportunities for companies:

1. **Personalization of Offerings** – Understanding emotions, motivation, and perception enables tailoring products and marketing to specific consumer groups;
2. **Enhancement of Customer Experience** – A deeper understanding of consumers contributes to creating intuitive and satisfying interactions;
3. **Behavior Prediction** – Utilizing advanced technologies (Big Data, Machine Learning, etc.) allows for demand forecasting and real-time strategy adjustment.

In an era where consumers are increasingly informed and demanding, ignorance of their behavior poses a risk to competitiveness. Hence, knowledge of the psychological aspects of purchasing is not only marketing support but also the foundation of strategic decision-making and a successful business model.

A limitation of this study lies in the absence of a comprehensive and widely accepted model that integrates all relevant psychological factors influencing consumer behavior, as well as in the inability to precisely and quantitatively measure these influences. Accordingly, future research will focus on deeper psychographic market segmentation and the application of more advanced analytical techniques, including nonlinear statistical models and machine learning methods, to better understand the complex relationships between psychological traits and consumer behavior.

"*From a production point of view, without an audience, a theatrical performance is a waste of money*" Jukić (2018, p. 10).

Declarations

Availability of data and materials

The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

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