

PSYCHOLOGICAL AND TECHNOLOGICAL DETERMINANTS OF ONLINE PURCHASING BEHAVIOR: A COMPARATIVE ANALYSIS

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Abstract: The decision to buy online is influenced by a multitude of factors specific to the virtual environment, which differ significantly from those that determine consumer behavior in traditional commerce. In a digital environment characterized by a lack of direct physical interaction, products are evaluated based on information available on online platforms, reviews from other consumers, brand reputation, or payment process security. In addition, emotional, psychological, and social factors play an increasingly important role in online purchasing decisions, influencing consumer behavior in a subtle but decisive way. E-commerce, an essential component of the digital economy, has gone from being a convenient alternative to an integral part of everyday life, radically changing not only commercial processes but also consumer behavior. In this context, understanding the factors that influence online purchasing decisions is a necessary and timely endeavour for both academic research and the business environment. The research methods used in this context are analysis, comparison, synthesis, and deduction. The results of the research allowed us to conclude that promotion through social networks in Moldova should be intensified, as customers are influenced by attractive videos; collaboration with influencers can help attract new customers; the information on the website must always be up to date, clear, and accurate; the product return process must be clearly explained, organized simply, and without creating major inconveniences for the customer, trends that are also valid internationally. Thus, online consumer behavior is influenced equally by technical factors, such as ease of navigation on the website, the process of placing an order and payment, along with psychological factors—trust in the brand, attractiveness through product style, quality, and reviews from other customers.

Keywords: E-commerce, online purchasing behavior, psychological and technological determinants / factors.

JEL Classification: M31, D87, L81

Introduction

Technological transformations over the past two decades have profoundly reshaped the way consumers relate to the market, with products and services becoming accessible at the click of a button. E-commerce, an essential component of the digital economy, has gone from being a convenient alternative to an integral part of everyday life, radically changing not only commercial processes but also consumer behaviour. In this context, understanding the factors that influence online purchasing decisions is a necessary and timely endeavour for both academic research and the business environment.

If we were to define e-commerce, we could analyse several opinions expressed by researchers in recent years.

Thus, according to A. Ts Choyzhalsanova and E. V. Bazarova, "E-commerce is an area of the economy that encompasses sales transactions and financial operations carried out through Internet technologies and automated information systems" (Choyzhalsanova, Bazarova 2021).

Annual International Scientific Conference
“Competitiveness and Innovation in the Knowledge Economy”
September 26-27, 2025
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Zhaochun Ren and Xiangnan He say that "Electronic commerce, or e-commerce, is the buying and selling of goods and services, or the transmitting of funds or data online." (Zhaochun Ren, Xiangnan He, Dawei Yin, Maarten de Rijke 2024).

Researchers believe that electronic transactions offer important new opportunities for business: companies can adopt innovative and improved working methods, reduce costs, access new markets, and become more efficient in the management decision-making process. In other words, it suggests that we view e-commerce as an entrepreneurial activity dedicated to the sale of products and services, with the aim of making a profit through the use of digital information technologies.

In the simplest terms, leading online marketing expert M. Salvador says that "Online or electronic commerce is a commercial transaction carried out using electronic devices, in which goods, services, or information are exchanged (M. Salvador, 2013). From a broader perspective, Professor Gunasekaran emphasizes the role of e-commerce as "a key factor for the success of companies, used for negotiating, selling, and purchasing products or services through various platforms between multiple entities in order to achieve organizational goals (A. Gunasekaran, H.B. Marri, R.E. McGaughey, M.D. Nebhwani, M. D.2002)

These definitions of e-commerce show us that there are no major differences between online and offline transactions. The biggest difference, however, lies in technology and information management, which are fundamental to business success today. In the online environment, companies must follow traditional techniques to influence decision-making, adapt the most appropriate marketing strategies, create unique experiences, and develop products and services that are tailored and attractive to target customers. Therefore, the Internet has become a powerful ally of the consumer, as it is a tool that allows the collection of various information about the purchasing process in an accessible way, even for those less familiar with the use of IT tools and devices.

According to the authors of generational theory (Twenge, J. M.2023, 2017), consumer behaviour differs greatly depending on age. The following figure shows the widely accepted generational model.

Table 1. The widely accepted generational model

Generation	Period	Current age
Silent Generation	1928 - 1945	80 – 97 ani
Baby-boomers Generation	1946 - 1964	61 – 79 ani
X Generation	1965 - 1980	45 – 60 ani
Y Generation	1981 - 1996	29 – 44 ani
Z Generation	1997 - 2012	13 – 28 ani
Alpha Generation	2013 - present	12 ani

Source: conceived by the author according Twenge, J. M. 2023, 2017.

In international literature, there is a broad understanding of the existence of five distinct generations, but the boundaries between them are not always clear, given the difficulty of establishing precise limits. Of these, the most recent generations, Y and, especially, Z and Alpha, assume particularly relevant behaviour in e-commerce, as they are the categories of consumers who are born and raised "connected to the Internet." In particular, natives of Generations Z and Alpha find it very difficult to conceive of a world without permanent and ubiquitous access to digital networks, a reality they have never known. Also known as "screen addicts," homo sapiens digitalis, and post-millennials, this generation was born under the influence and emergence of new technologies, smartphones, tablets, Wi-Fi, online games, and social networks, with major differences between this generation and previous generations, especially the Baby Boomers. It is a generation characterized by mastery of new technologies, innovative capacity, enthusiasm, and entrepreneurial spirit. But they are also defenders of high ethical and professional standards, as

well as staunch advocates of environmental causes and sustainability. They use the internet to share information, express opinions, and share their consumer desires.

In this context, young generations of consumers represent a major opportunity for companies, not only because of their financial power and influence in the purchasing process, but also because they will eventually replace the older generations, which are still predominant. Therefore, it is essential for companies to adopt appropriate communication strategies to reach this target group, which will become the main consumer segment in the coming years. Given their familiarity with technology and the internet, digital marketing must be well adapted to this reality, and online commerce will become a particularly important sales channel for these consumers.

Online shopping is the process by which customers purchase products directly from sellers, without intermediaries, or engage in buying and selling transactions over the internet. These platforms offer customers a wide range of products and services, allowing them to compare offers and choose the most advantageous option for their needs.

According to the international statistics portal The Statistics Portal (Figure 1), the global digital population in February 2025 is nearly 5.57 billion people who are active internet users, and 5.24 billion are social media users. In terms of internet usage, China, India, and the US lead the way.

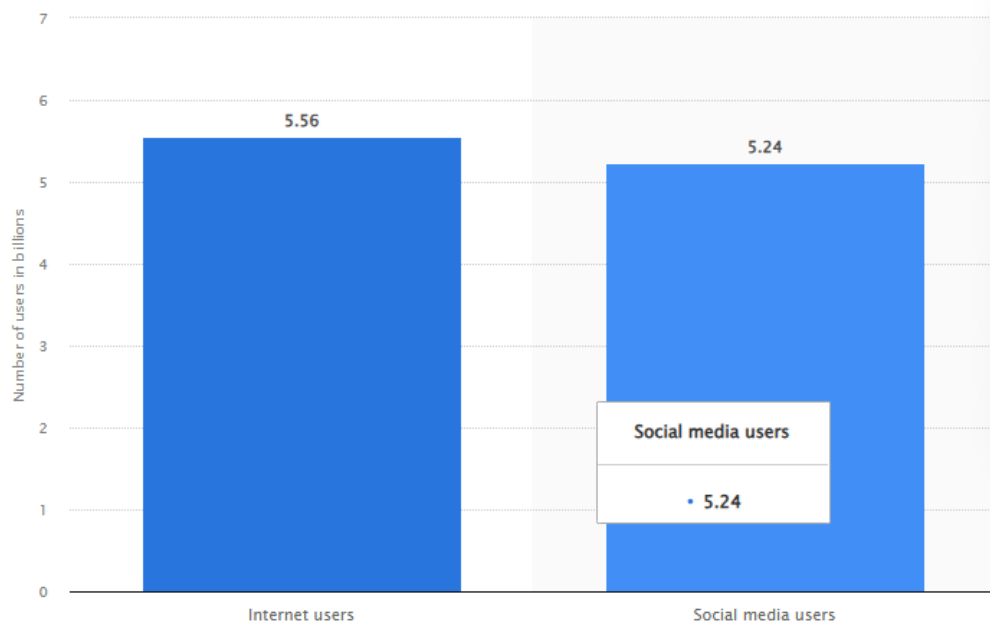


Figure 1. Number of internet and social media users worldwide, February 2025

Source: <https://www.statista.com/statistics/617136/digital-population-worldwide/> accessed 10 October 2025

The increased number of digital consumers is largely due to convenience, attractive app interfaces, and the speed of online shopping, which is just a click away. In addition, busy lifestyles and long working hours make online shopping a convenient solution that also saves time compared to traditional shopping.

Despite the numerous advantages, there are some customers who perceive online shopping as risky and less trustworthy. Studies in this field have shown that there is a close link between trust and loyalty, and consumers often have more confidence in well-known brands than in the retailers who sell their products (A. Bilgihan, 2016). An important aspect of online shopping is the lack of direct interaction between seller and buyer, which makes it difficult to establish a social relationship and, in many cases, the buyer fails to develop the necessary trust (O.J. George, A.O. Ogunkova, J.O. Lasisi, 2025).

Trust plays an essential role in online commerce, being the key factor that transforms a potential customer into a loyal customer. Although the internet offers a wide range of products and services, this diversity comes with perceived risks in terms of the security of digital purchases, such as purchases via mobile applications, orders from online catalogues, or by mail.

Figure 2 lists the internal and external factors that influence consumer behaviour in the case of a traditional purchase. These remain important and have an impact regardless of the form of purchase, in which context we understand that the digital consumer is influenced by even more factors. Thus, understanding user behaviour in the online environment has become a strategic priority for companies operating in the digital space.

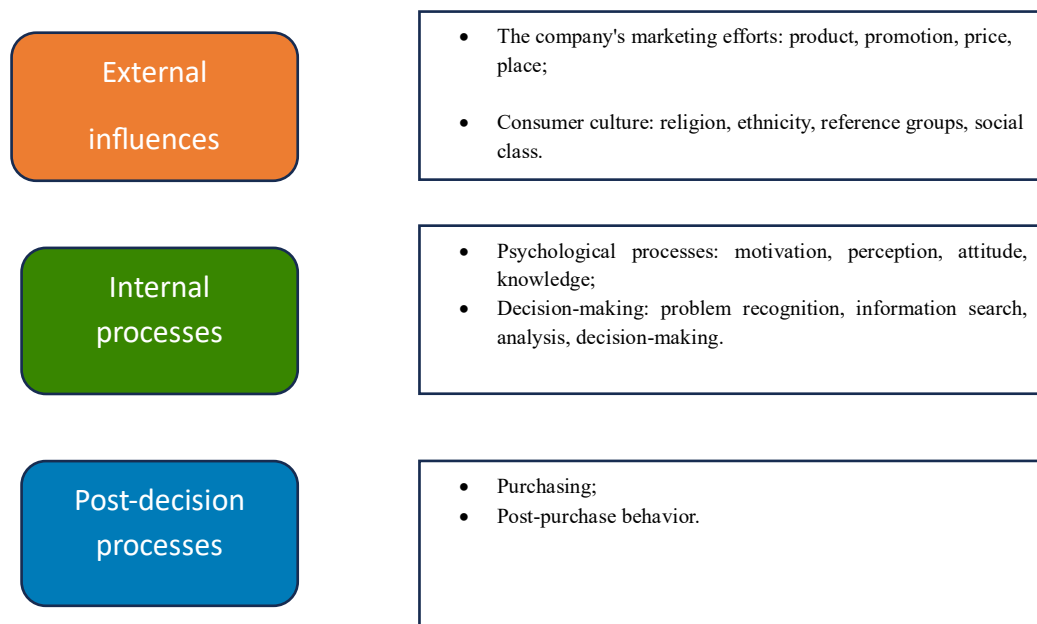


Figure 2. Factors that influence consumer behaviour

Source: Hayden Noel, *Marketing Essentials: Consumer Behaviour*, Bloomsbury Publishing, 2009, p. 67

According to recent research, a detailed analysis of the variables that influence user interactions on online platforms contributes significantly to identifying the determining factors in the purchasing decision-making process (Kotler, P., Kartajaya, H., & Setiawan, I., *Marketing, Technologies for Humanity*, 2021). These factors include browsing experience, content quality, social influences (reviews, comments, recommendations), but also personalization of offers and remarketing strategies.

Chaffey and Ellis-Chadwick emphasize that the digital environment provides companies with access to a considerable amount of behavioural data, which facilitates advanced audience segmentation and the delivery of messages tailored to individual preferences (Chaffey, D., & Ellis-Chadwick, F., 2019). Thus, knowledge of these mechanisms not only supports the development of more effective marketing campaigns, but also contributes to strengthening the brand-consumer relationship by increasing satisfaction and loyalty. Consequently, analysing online behaviour is no longer just a competitive advantage, but a necessity in the sustainable development of digital marketing strategies.

When defining their digital presence—whether through their own online store or through marketplace platforms—sellers must consider the key performance indicators (KPIs) they want to achieve, while also keeping in mind the essential elements that contribute to their success. (KPIs) they aim to achieve, while also keeping in mind the essential elements that contribute to the success of the online purchasing process. Specialized literature in the field of e-commerce highlights a set of determining factors that act as explanatory variables for online purchasing behaviour. Thus, we

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identify ten main factors that influence consumer behaviour in the digital environment: the availability of products and services online, the quality of the website, trust, the level of comfort offered, price, overall digital experience, social media platforms, other consumers' reviews, word-of-mouth (WOM) recommendations, and electronic word-of-mouth (eWOM) recommendations (Vieira, V. A., Araujo Guerra, P. H., 2020). These elements are detailed below.

Online products and services: Tech advances and internet access have made consumers less loyal to brands and more picky about the products and services they use, since they can now easily compare their experiences with those of other customers. Living in an era of informed consumers who are more aware of their purchasing decisions, the range of products and services tends to be more varied and valued, making use of the resources offered by internet technology, namely the global availability of offers on digital platforms. As a result, consumers see a wide range of offers, thus encouraging consumption and the purchase of goods and services online.

Website quality: websites must be well-designed, easy to use, intuitive, and rich in information necessary for the online shopping process. When interacting with an e-commerce platform, consumers want to complete the purchase process with the least amount of effort, in the shortest amount of time, and with the greatest confidence in the entire purchasing process. Online shopping platforms must provide clear and easy-to-understand information and be very easy for consumers to use. There is a positive and significant relationship between the ease of use of online shopping platforms and purchase intentions.

Trust: this determining factor is fundamental, as no consumer will buy if there is no trust in the entire purchasing process. However, there is no evidence of opportunistic behaviour on e-commerce platforms (Chen, J., Zhang, C., Yuan, Y., and Huang, L., 2007). Trust is generated by clear return policies, secure payment methods, transparency regarding prices and product information, as well as the seller's overall reputation.

Reviews from other consumers: Ratings and comments posted by other customers on e-commerce sites provide authentic and credible information, having a considerable impact on the purchase decision. When consumers share their online shopping experience, they form their opinion and assign a certain value to the experience.

Word-of-Mouth (WOM) and Electronic-Word-of-Mouth (EWOM) recommendations: these factors have a huge impact on companies' performance in terms of their reputation. This relevance is due to the use of social networks, where consumers often share their experiences, whether positive or negative. WOM can be defined as traditional sources of information, involving family and friends, to gather information and opinions about a particular product or service, using informal communication (Caro, A., Mazzon, J. A., Kammerer, B., and Wessling, M., Innovation, Involvement, Attitude, and Online Shopping Experience (2011), p. 127). EWOM is similar, changing only the means used to share opinions, in this case using online media and platforms, with particular relevance to social networks, blogs, and specialized forums.

In addition to illustrating and characterizing external, internal, and post-purchase factors, a series of variables play an essential role in understanding consumer behaviour in the online environment, including demographic parameters, psychographic aspects, and preferences regarding online communication channels.

➤ **Demographic** data is a starting point in segmenting the target audience. Information such as age, gender, geographic location, or income level can directly influence consumer purchasing behaviour. These variables allow companies to more accurately identify relevant market segments and formulate advertising messages tailored to the characteristics of each customer group (Kotler, P., & Keller, K. L. 2016).

➤ The consumer's **psychographic profile** provides a deeper insight into their preferences and motivations. Analysing personality traits, personal values, interests, and lifestyle allows brands

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to personalize the experience offered to users, develop more relevant products and offers, and create marketing campaigns that resonate with consumers' identities. Thus, instead of a generalist approach, companies can adopt a more empathetic and customer-oriented communication (Solomon, M. R. 2018).

➤ **Preferences for online channels** are another important factor in designing a consistent digital experience. Users differ in how they interact with brands—some prefer to use desktop websites, while others are more active on mobile apps or social media platforms. Understanding these choices allows companies to deliver consistent and effective content and services across all digital touchpoints, contributing to increased customer satisfaction and retention (Chaffey, D., & Ellis-Chadwick, F. 2019).

Thus, we can mention that logistics, distribution, and transportation activities, along with efficient and secure payment methods, are fundamental components for the long-term success of e-commerce platforms. Companies that manage these aspects effectively can create a satisfying shopping experience for users and gain a significant competitive advantage in the global digital marketplace.

In the field of e-commerce, platforms such as Amazon and Temu illustrate the complexity of the factors that influence consumer behaviour. For example, the large volume of reviews and ratings available on Amazon contributes to consumers' informal decision-making process, while Temu's strategy of emphasizing affordable prices tends to attract a different, more cost-sensitive audience (M. Holma and A. Junstrand, 2024). Analysing consumer behaviour based on the specifics of the geographic market is crucial. Even though the population of the United States shares a common language and many cultural traits, differences in consumer behaviour are visible and influenced by factors such as economic conditions, social norms, and the degree of adoption of digital technologies.

Since its founding in 1994, Amazon has dominated the e-commerce market, evolving from an online bookstore to a colossal global marketplace (Markus Hesse, 2018). Its customer-centric approach, extensive product range, and fast delivery options have established it as the benchmark for e-commerce in the US and beyond. Furthermore, the Amazon Prime subscription program has significantly influenced customer loyalty by offering numerous benefits that encourage repeat purchases (M. Rashaduzzaman, 2020).

Today, Amazon is considered an essential resource that consumers increasingly rely on at every stage of the purchasing process, from searching for new products and checking prices to scanning product reviews and ultimately making a purchase.

In contrast, Temu is a relatively new player in global e-commerce, launching in 2022 as a platform for affordable goods, focusing primarily on the Chinese market before expanding to the US and other countries. Temu distinguishes itself by offering a wide range of products at competitive prices, leveraging low-cost manufacturing and direct-to-consumer sales to attract price-sensitive consumers (Nim N., Pedada K., and Hewett K., 2024).

Temu acts as an intermediary between sellers—mostly from China—and buyers, without owning or managing its own inventory of products. A distinctive element of its growth strategy is promotion through social recommendations: users are encouraged to attract other customers in order to benefit from discounts. The app uses gamification mechanisms to stimulate user interaction and offers free delivery, bypassing customs duties.

Over the last decade, consumer behaviour in the Republic of Moldova has undergone significant changes, driven by rapid digitalization and wider access to the internet and smart devices. The emergence of e-commerce platforms, the development of digital infrastructure, and changes in lifestyle, accentuated by the COVID-19 pandemic, have led to the formation of a new type of buyer – the digital consumer.

According to recent data provided by ANRCEI, the National Agency for Regulation in Electronic Communications and Information Technology of the Republic of Moldova, and other market studies, over 75% of Moldova's population has access to the internet, and a significant percentage of users (especially those aged between 18 and 35) have made at least one online purchase in the last 6 months (https://anrceti.md/files/filefield/Raport%20statistic%20tr.II_2024.pdf accessed April 2025). Digital users in the Republic of Moldova shop online regularly, at least once a month, sometimes even weekly. Among the most purchased product categories are:

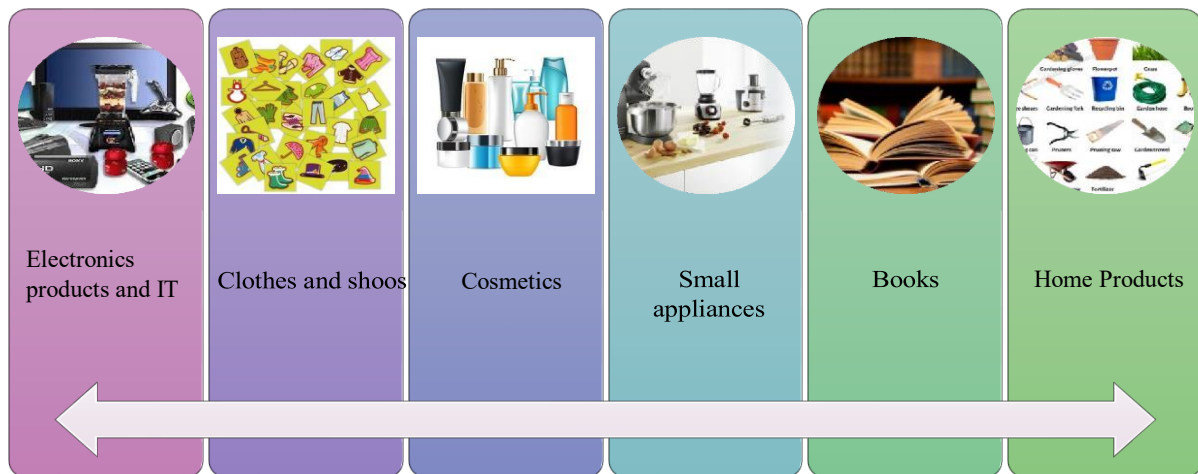


Figure 3. The most purchased product categories by digital consumers in the Republic of Moldova

Source: conceived by the author according https://anrceti.md/files/filefield/Raport%20statistic%20tr.II_2024.pdf accessed April 2025

Online consumers in the Republic of Moldova are characterized by proactive and well-informed behavior. Before finalizing a purchase, they go through a series of steps frequently described in the common actions (Figure 4).

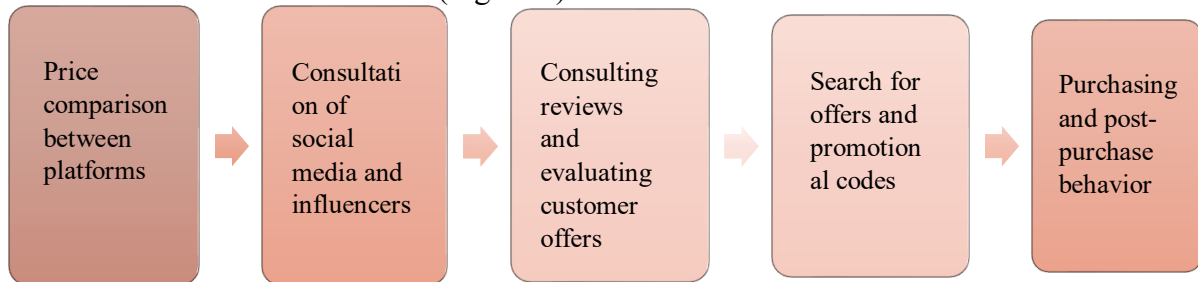


Figure 4. Steps taken by the online consumer

Source: conceived by the author

The active presence of brands in the digital environment thus becomes an essential condition for creating a relationship of trust with the target audience. Consumers expect transparent dialogue, authentic communication, and rapid response from companies, which significantly contributes to strengthening brand loyalty.

In order to understand how economic actors (online stores, service providers, local brands) adapt their strategies to respond to market needs and trends, SWOT analysis comes in handy, allowing us to identify the strengths, weaknesses, opportunities, and threats in the field.

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Strengths	Weaknesses
<ol style="list-style-type: none"> 1. High internet penetration rate – over 75% of the population has access to the internet, with coverage continuing to expand in rural areas. 2. Active use of social networks – platforms such as Facebook, Instagram, and TikTok influence purchasing decisions. 3. High level of digitization among young people – consumers aged 18–35 are open to online commerce and digital payments. 4. Diversification of local and international platforms – a wide range of online stores accessible to Moldovan consumers. 5. Increased adaptability – digital behaviour has developed rapidly, especially during the pandemic, when consumers were forced to migrate online. 	<ol style="list-style-type: none"> 1. Low level of trust in online payments and remote deliveries – many consumers prefer cash on delivery. 2. Limited digital literacy among the adult and elderly population – this reduces the adoption rate of e-commerce in certain segments. 3. Unevenly developed logistics infrastructure – deliveries to rural areas can be slow or unreliable. 4. Difficult or confusing returns – the return policy of many stores is unclear or difficult to apply, which affects trust. 5. The digital offering of some local brands is underdeveloped – many companies do not have functional websites or modern mobile applications.
Opportunities	Dangers
<ol style="list-style-type: none"> 1. The continuous development of e-commerce – more and more businesses are going digital, which increases competition and service quality. 2. Integration of new technologies – augmented reality, artificial intelligence in recommendations, chatbots, etc. 3. Increased use of payment apps and digital banking – facilitating fast and secure transactions. 4. Increased interest in local products – the trend of "supporting local producers" can be leveraged by businesses in Moldova. 5. Possibility of regional expansion – local brands can target the Moldovan diaspora through digital platforms and targeted campaigns. 	<ol style="list-style-type: none"> 1. Strong competition from major international platforms – eMAG, TEMU, Amazon, AliExpress – offering competitive prices and efficient logistics. 2. Vulnerabilities in personal data security – the lack of effective protection measures can reduce confidence in online shopping. 3. Legislative or fiscal changes – customs duties and regulations on e-commerce can influence consumer behaviour. 4. Slow development of after-sales support services – lack of effective communication after purchase affects customer loyalty. 5. Fake news and false reviews – can negatively influence the perception of digital consumers regarding certain products or brands.

Figure 5. SWOT analysing of online Purchasing

Source: conceived by the author

Conclusion

Moldovan digital consumers are increasingly informed, connected, and demanding. Despite certain reservations regarding payment and delivery security, the trend is clearly moving toward accelerated digitization. Brands that know how to offer transparency, an intuitive digital experience, and fast services will win the loyalty of this new wave of consumers. There are multiple factors that influence purchases, and psychological and social factors can be significantly influenced by the technical aspects of e-commerce platforms, which will ultimately lead to purchases and loyalty or the exclusion of certain offers from the search circle.

Thus, the behaviour of digital consumers in the Republic of Moldova reflects a market that is developing, dynamic, and eager for innovation, but still marked by some structural barriers and reluctance. The main actors involved must demonstrate flexibility, follow local/international

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trends, and contribute to consumer education and the transparency of online purchases with a view to overcoming the dangers and barriers to market development.

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