

UDC 658.8.012.12:339.138

**Bilovodska Olena,**  
Dr. in Economics, Professor,  
Taras Shevchenko National University of Kyiv,  
Department of Marketing and Business-Administration,  
Kyiv, ORCID ID 0000-0003-3707-0734  
e-mail: o.bilovodska@knu.ua

**Poretskova Mariia,**  
Erasmus University Rotterdam,  
Erasmus School of Economics, MSc Behavioural Economics,  
Rotterdam, e-mail: masha@poretskov.com

<https://doi.org/10.29038/2786-4618-2023-02-102-112>

## **BARRIERS TO ONLINE PURCHASE: CASE STUDY CONSUMER BEHAVIOUR IN FASHION INDUSTRY E-COMMERCE**

**Abstract.** The fashion industry e-commerce has witnessed a remarkable increase in market, leading to significant changes in online consumer behaviour. Consequently, research in the field of consumer online behaviour in the fashion industry has become highly relevant for marketers and online retailers. It is essential for fashion-industry e-commerce businesses to gain a deeper understanding of the barriers that hinder customers from making online purchases, comprehend the mechanisms of these barriers, and their role in making purchase decisions. This study aims to provide an overview and analysis of the barriers to online purchase in the fashion industry e-commerce, classify these barriers and determine the role that each barrier plays in making a purchase decision. The research methodology involves both qualitative and quantitative research methods, including the collection of secondary and primary descriptive data. The research approach included empirical and theoretical research levels with the application of abstraction, analysis, synthesis, deduction methods, and consumer surveys. The study identified five main groups of barriers to online purchase in the fashion industry e-commerce, which are technological barriers, privacy and financial risk barriers, barriers related to the limitations of the online shopping process, delivery-related barriers, and barriers linked to difficulties in returning goods. After surveying 147 respondents, mean values, median, standard deviation, skewness, and variance were calculated for each barrier. Additionally, a two-dimensional bar chart was designed to display the barriers and their mean values, organized in the order from the ones with the most negative impact on purchase decisions to the least. The findings revealed that the most significant and common barriers to online purchase in the fashion industry e-commerce are difficulty in searching for products, trial inconvenience, long delivery times, payment difficulties, and delivery costs. This knowledge is useful for e-shops to provide high-quality customer experience and service, predict changes in behaviour and trends, develop marketing tools and strategies to overcome barriers to purchase, and ultimately increase loyalty and sales.

**Keywords:** trade, consumer, risk, digital retailer, limitations of online shopping, fashion.

**Біловодська Олена,**  
доктор економічних наук, професор,  
Київський національний університет імені Тараса Шевченка,  
кафедра маркетингу і бізнес-адміністрування,  
Київ

**Порецькова Марія,**  
Роттердамський університет Еразма,  
кафедра економіки, магістратура з поведінкової економіки,  
Роттердам

## **БАР'ЄРИ ДО ОНЛАЙН ПОКУПОК: ДОСЛІДЖЕННЯ СПОЖИВЧОЇ ПОВЕДІНКИ Е-КОМЕРЦІЇ ІНДУСТРІЇ МОДИ**

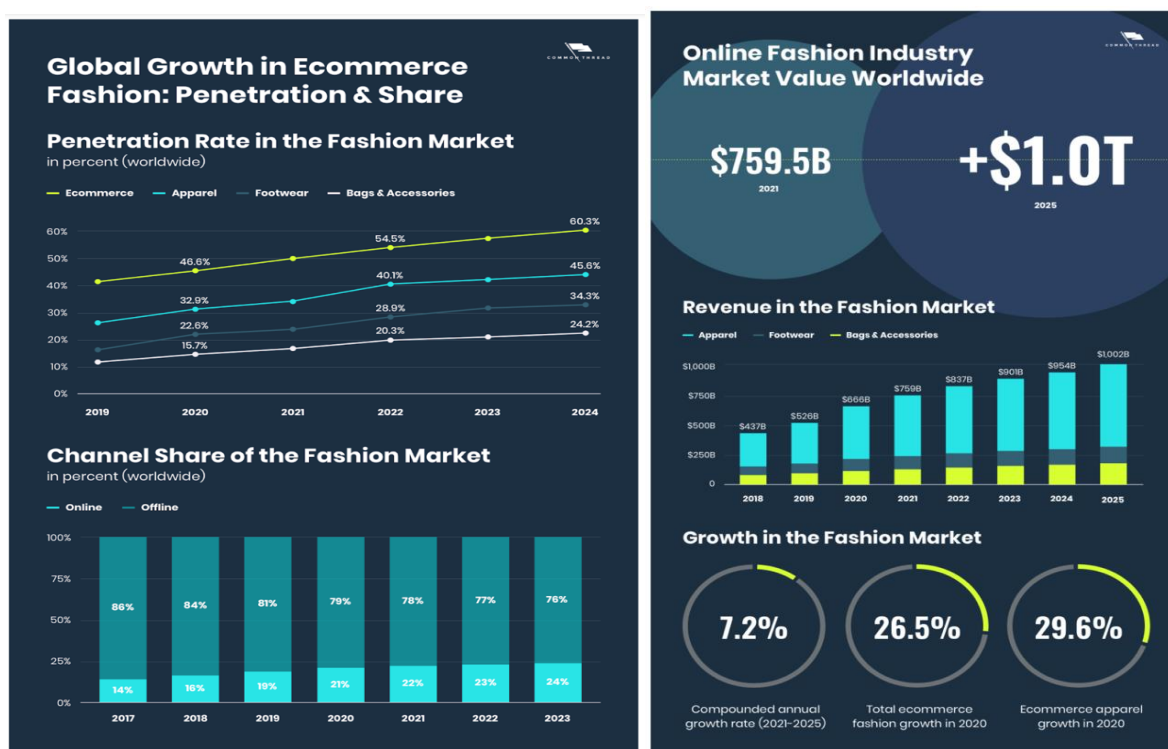
**Анотація.** Зростаючий розмір ринку електронної комерції в індустрії моди та швидкі зміни в поведінці

споживачів в Інтернеті роблять дослідження в області поведінки споживачів в індустрії моди актуальними для маркетологів і онлайн-ритейлерів. Крім того, для електронної комерції індустрії моди важливо глибше розуміти бар'єри, які заважають клієнтам купувати онлайн, їх механізми і роль, яку вони відіграють у прийнятті рішення про покупку. Ця робота має на меті здійснити аналіз бар'єрів для онлайн-покупок в електронній комерції індустрії моди, класифікувати їх і визначити роль, яку відіграє кожен бар'єр для прийняття рішення про покупку. Дослідження ґрунтується на якісному та кількісному методах дослідження, використанні вторинних та первинних описових даних. На емпіричному та теоретичному рівнях дослідження застосовано методи абстракції, аналізу, синтезу та дедукції, опитування споживачів. Ці знання дозволяють онлайн-ритейлерам забезпечувати високоякісний досвід і обслуговування споживачів, передбачати зміни в поведінці та тенденціях, розробляти маркетингові інструменти та стратегії для подолання бар'єрів для купівлі, і, як наслідок, збільшують лояльність та продажі.

**Ключові слова:** торгівля, споживач, онлайн-ритейлер, обмеження процесу покупок онлайн, мода.

**Problem statement and its significance.** The fashion industry e-commerce market has experienced significant growth and change in recent years. In 2018, the market was valued at approximately \$439 billion [1]. It is expected to grow at a rate of 9.1% per year and reach a total market size of US\$1.164,7 billion by 2025 [2, 3]. The digital innovations, changes in trends, and the impact of COVID-19 on the retail industry have resulted in more changes and unpredictability in consumer behaviour in the fashion industry e-commerce than ever before.

Two factors fuel the growth of fashion e-commerce: the penetration rate (the share of active paying customers) and e-commerce's share of retail fashion. According to [4, 5], the overall increase in e-commerce penetration is expected to be from 46.6% in 2018 to 60.32% by 2024, applied to the three major fashion segments: apparel (+12.7%), footwear (+11.6%), bags & accessories (+8.5%). In 2021, the online channel share accounted for 22% of the fashion market sales worldwide, and this number is expected to grow by 1% in 2022 [6]. Fig. 1 [4] represents the channel share of the fashion market, penetration rate, and market value.



**Fig. 1.** Global expansion of e-commerce fashion: penetration and market share in the online fashion industry worldwide

Source: [4]

The growth of e-commerce is undeniable, but despite this growth, many customers abandon their purchases during the buying process, and some consumer segments continue to stick with offline shopping. To increase sales and business profit, it is crucial to understand the factors that lead to these behaviours and the barriers of online shopping that marketers must overcome. Moreover, it is equally important to estimate the significance of each barrier and understand how it affects the online buying process. This understanding will help e-commerce businesses prioritize and invest in the overcoming of the barriers that have the greatest impact on consumer behaviour.

**Analysis of recent research and publications.** Classification and analysis of the barriers to online purchase in e-commerce were presented by [7-10].

Besides, logistics company DPD Group [11] has developed “E-shopper barometer” tool for determining the barriers to online shopping and analysing consumer behaviour in e-commerce based on the survey of their customers. The tool allows to see the difference in online shopping behaviour of various customer segments: one can choose to see the responses of customers who differ by their country, age, gender, lifestyle and other characteristics.

This work is also based on the research of online consumer behaviour in the fashion industry. Such researchers as [4], [12], [13] have contributed to the field.

According to [7], consumers' barriers to online shopping can be classified into three categories: limitations of the online shopping experience, delivery uncertainty, and difficulties in returning goods. The first group includes such barriers as “insufficient testing of products”, “unable to touch products”, “prefer to buy at the store when I’m in town”, “lack of advice”. Delivery-related barriers group includes “high delivery costs”, “inconvenience of delivery”, “uncertainty of delivery times”. Returns-related barriers are “expensive return policy”, “inconvenience of returns” and “uncertainty of returns”. According to [7], barriers related to the limitations of online shopping are among the most critical, with consumers ranking them first, followed by high delivery costs.

Also the barriers to online shopping can be divided into six groups: consumer-related barriers, perceived risks associated with online shopping, inconvenience barriers, product category-related barriers, shopping channel (internet)-related barriers, and service-related barriers provided by online retailers [8].

Additionally, E. Datsko has focused on barriers such as “complicated return processes” and “paying return fees”. Her research [9] found that 76% of e-shoppers surveyed would not make an online purchase if the return process is complicated, and 75% would not buy a product if they have to pay return fees.

Perceived risks during online shopping were studied in [12]. According to E. Masoud some consumers continue to be window shoppers on the Internet and buy products offline due to the perceived privacy and security risk. Also, E. Masoud considers perceived financial and privacy risk as a fundamental concern of decision-making process during online shopping. According to [8] among various risks, “financial risk was demonstrated to be the main discriminator between people buying online and people not buying online”.

Perceived risks during online shopping were studied in [12], which found that “some consumers continue to be window shoppers on the Internet and buy products offline due to concerns about privacy and security risks”. E. Masoud also regards perceived financial and privacy risks as significant considerations in the decision-making process when shopping online. Among various risks, “financial risk was demonstrated to be the primary discriminator between those who buy online and those who do not” according to [8].

“The innovation resistance theory to examine the barriers to positive purchase intentions toward online travel agencies” were extended in [14].

“The classic Innovation Resistance Theory barriers to the food delivery apps by identifying three key barriers (economic, efficiency, and experience) and offered empirical evidence to support the negative association of barriers with trust and paradoxical recommendation behaviour by analysing data collected” were investigated by [15].

“Trust barriers to online shopping from the relevant literature and prioritize them in an intuitionistic fuzzy environment” were studied in [16].

N. Fortes, P. Rita analysed “how privacy concerns about the Internet have an impact on the consumer’s intention to make online purchases. They developed establishing model that this impact takes place via the

connection of privacy concerns with the theories of trust and risk, the theory of planned behaviour and the technology acceptance model” [17].

M.S. Akram investigated “why the customers, in developing countries, do not prefer online shopping for apparel despite the several benefits such as convenience, control, variety and enjoyment being offered by this mode of shopping. Moreover, the study assesses the boundary conditions under which consumers’ perceived risk diminishes online shopping benefits” [18].

“The impact of different types of risks on trust and decision making with regard to online purchases” were gauged in [19].

**Purpose and tasks of the article.** The main purpose of this work is to analyse the barriers to online purchase in the fashion industry's e-commerce sector and determine the role each barrier plays in the purchase decision. The study’s tasks include making an overview of the literature about barriers to online purchase in e-commerce and about consumer online behaviour in fashion industry, analysing consumer behaviour while making online purchases in the fashion industry, outlining the main barriers to online purchase, analysing, and classifying the barriers and determining their significance.

This would allow deeper understanding of online consumer behaviour in fashion industry, allow business to predict and influence it, develop instruments and strategies for overcoming barriers to purchase and, consequently, create better customer experience, increase loyalty and sales. Based on the information provided, the authors of the research have conducted a study that focuses on the barriers to online purchasing specifically in the fashion industry e-commerce. The novelty of this research lies in the development of classification of barriers in this business sphere, which is based on a literature review and analysis of consumer online behaviour. In addition, the authors have determined the significance of these barriers by conducting a consumer survey. This approach provides valuable insights into the factors that hinder consumers from purchasing fashion products online, which can aid in the development of effective strategies for overcoming these barriers and promoting the growth of the e-commerce fashion industry.

**Results.** The present study employs a mixed-methods approach, combining both qualitative and quantitative research methods, as described in previous research [20, 21]. The qualitative component of the study involves observations of consumer online behaviour, while the quantitative component involves a survey of consumers to determine the significance of barriers to online purchases. In addition, empirical and theoretical research methods were employed, including abstraction, analysis and synthesis, and deduction methods.

Secondary descriptive data was utilized to classify barriers to purchasing in the fashion industry e-commerce sector, and to analyse the factors that influence purchase decisions. Primary data was collected through a survey of 147 respondents. The purpose of the survey was to determine the role that each barrier plays in influencing purchase decisions. Only respondents who considered themselves regular online shoppers and who were willing to complete the survey were selected. The dataset and respondent characteristics are presented in Table 1.

Table 1

Respondents’ characteristics

Data Set			
		Number of respondents	%
Respondents		147	100%
Gender	Female	89	60.54%
	Male	58	39.46%
Country of residence	Ukraine	83	56.46%
	Germany	40	27.21%
	Poland	24	16.33%
Age	18-34 y.o.	113	76.87%
	35-54 y.o.	29	19.73%
	55+ y.o.	5	3.40%

Source: formed based on a survey

The respondents were individuals of various ages, genders, and nationalities who frequently engage in online purchases of fashion industry products.

In this study, the evaluation of the significance of barriers to purchase was conducted by asking respondents to rate each barrier on a scale of 1 to 5, where 1 indicated that the barrier was not important and had no impact on their purchase decision, and 5 indicated that the barrier was important and prevented them from making a purchase online.

To analyse the survey data, various statistical measures including the mean value, median, standard deviation, variance, and skewness were calculated for each barrier. The calculations were performed using Microsoft Excel.

The formula (1) was used to calculate the standard deviation ( $\sigma$ ) [22]:

$$\sigma = \sqrt{\frac{\sum_{i=1}^n (x_i - \bar{x})^2}{n-1}} \quad (1)$$

$x_i$  – the  $i$ -th element in the sample;

$\bar{x}$  – sample average;

$i$  – index running from 1 to  $n$ ;

$n$  – the number of elements in the sample.

To compute the skewness ( $G_1$ ) of the data, we utilized the adjusted Fisher-Pearson standardized moment coefficient, which is a measure of the degree of asymmetry of the distribution. The following equation (2), proposed by Fisher and Pearson, was applied [23]:

$$G_1 = \frac{n}{(n-1)(n-2)} \sum_{i=1}^n \left( \frac{x_i - \bar{x}}{\sigma} \right)^3 \quad (2)$$

$\sigma$  – standard deviation;

$x_i$  – the  $i$ -th element in the sample;

$\bar{x}$  – sample average;

$i$  – index running from 1 to  $n$ ;

$n$  – the number of elements in the sample.

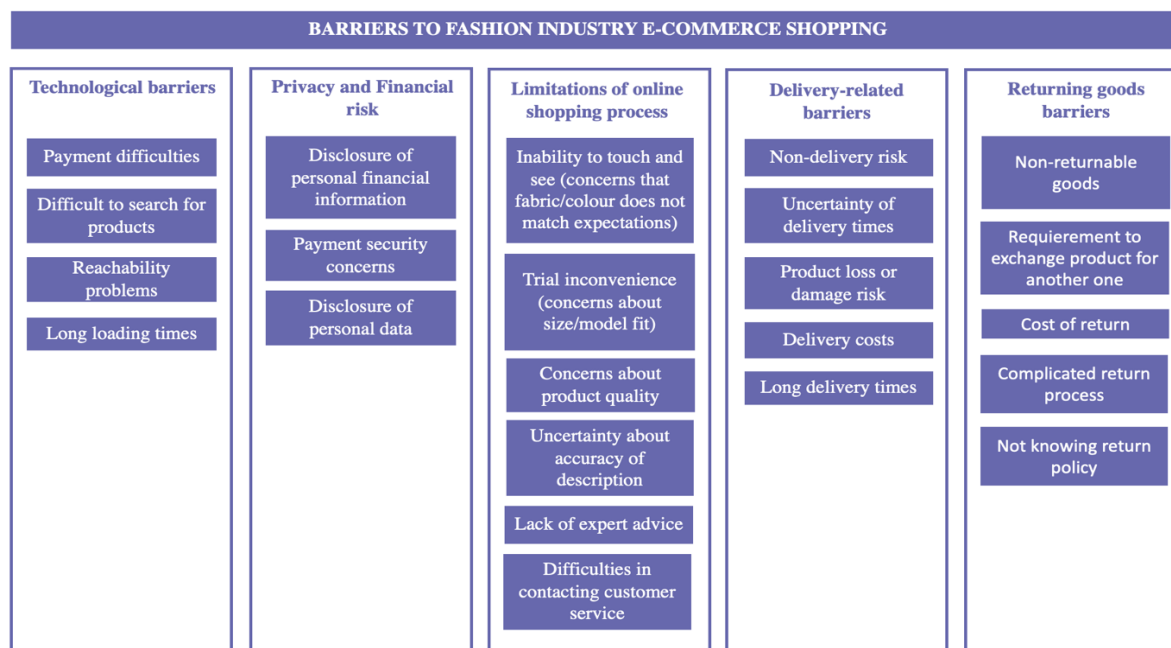
The study commenced with an analysis of consumer online shopping behaviour in the fashion industry. Based on these, identified 5 primary categories of barriers: technological barriers, privacy and financial risk barriers, barriers related to the limitations of online shopping process, delivery-related barriers, and barriers linked to the difficulties in returning goods. These groups and their constituent elements are graphically presented in Fig. 2.

### 1. Technological barriers

Technological barriers are a significant impediment to online shopping. These barriers include difficulties encountered during the payment process, navigating websites that are poorly designed or difficult to navigate, slow network speed, long loading times, and websites that are not optimized for certain devices. Also, technological barriers that may discourage online shopping include poor website quality and design, slow loading of images, and the use of small fonts that impede readability. Additionally, consumers with inadequate knowledge of, or confidence in, information technology may be hesitant to make online purchases, particularly older individuals.

### 2. Privacy and financial risk

Online shopping poses a variety of risks to consumers, including the potential loss of money through malfunctioning products, damaged or lost deliveries, and fraudulent activities. Consumers may be hesitant to provide their credit or debit card information to online retailers, for fear of financial fraud. Moreover, privacy and security risks associated with the unauthorized collection and misuse of personal information further compound consumers' reluctance to shop online.



**Fig. 2.** Barriers of e-commerce shopping in fashion industry

Source: developed by authors based on [7-10]

Senior consumers, in particular, tend to be more concerned with financial fraud risks than millennials. A 2020 survey by the DPD Group of online buyers in European countries found that 30% of respondents identified insufficient security checks for payments as a factor that could prevent them from making online purchases [11]. Among senior buyers aged 55 and above, this was the most significant barrier, with 34% of respondents indicating that it prevented them from shopping online. By contrast, for the 18-34 age group, this number was 6% lower.

The invasion of privacy is defined as the unauthorized collection, disclosure, or use of personal information as a direct result of e-commerce transactions [24]. As a result of the aforementioned risks, some consumers choose to browse products online but make purchases offline [8].

### 3. Limitations of online shopping process

The limitations of the online shopping experience in the fashion industry can be attributed to several factors, such as the inability to physically touch and see the product, inconvenience in product trials, lack of expert advice, uncertainty about the accuracy of product descriptions, and concerns about potential defects. These limitations can deter some consumers from making a purchase due to worries that the product's fabric, colour, or quality may not meet their expectations. Moreover, the colours of products displayed on computer screens and cameras may vary from their actual appearance due to differences in regulations. Additionally, the quality of products from unfamiliar brands can be a significant concern for consumers. The inability to return an item can also play a crucial role in consumers' decision-making process.

Another significant barrier in the fashion industry e-commerce is trial inconvenience. Consumers may worry that the size or model of an item of clothing or shoes may not fit them correctly due to the inability to try it on, increasing their doubts about making the purchase online. This issue is particularly prominent for shoe shoppers, as sizes can differ between models and brands. Furthermore, some consumers may require expert advice, which can be more challenging to obtain during online shopping unless the business provides accessible online customer service.

Uncertainty regarding the accuracy of product descriptions is another significant barrier in fashion industry e-commerce. Since buyers cannot physically examine a product and must rely on digital representations, the seller has an opportunity to manipulate the buyer's expectations by presenting inaccurate descriptions, photos, or videos. Therefore, it is essential for e-commerce businesses to provide accurate



descriptions of goods, as well as the ability to zoom in on product photos to provide consumers with adequate information about a product's quality and characteristics.

Time inconvenience is also a prevalent barrier in e-commerce shopping. It may manifest as time loss due to complex navigation and ordering processes, inadequate website design, or delays in receiving goods [8]. According to [13], women may experience more significant inconveniences in the online shopping process than men.

#### 4. *Delivery-related barriers*

Delivery-related barriers to online shopping can include the risk of non-delivery, uncertainty regarding delivery times, product loss or damage during delivery, and high delivery costs. These barriers can result in consumers feeling apprehensive about not receiving their purchased items, or receiving them later than expected. To mitigate this risk, businesses should provide accurate updates on the delivery process and estimated delivery dates, and ensure proper management of shipping and logistics.

In some cases, items may not arrive within the expected timeframe due to delays in the shipping process. According to a 2020 survey conducted by the DPD group, 28% of European online shoppers reported that long delivery times could prevent them from making a purchase. Another important factor that can influence purchase decisions is the need to pay for delivery fees, with 27% of respondents indicating that this could prevent them from shopping online [11].

#### 5. *Returning goods barriers*

This set of barriers pertains to consumers' uncertainty about ordering an item that may not be suitable for them, and their concerns about the return process if the purchased item is unsatisfactory. When an e-commerce business does not offer a fair return policy or disallows returns altogether, consumers may choose not to purchase the item at all. Even if shoppers have already bought a product, which they are unhappy with and cannot return, they are unlikely to make a second purchase.

There are various reasons for returning goods, such as the wrong size or product, incorrect product description, received goods not meeting expectations, or the product being delivered damaged. Additionally, goods purchased as gifts during the holiday season are returned more often [9].

Barriers related to returning goods include concerns about unreturnable goods or having to exchange the product for another one from the e-shop in case of return, high cost of return, complicated return process, and lack of knowledge of the return policy.

The following section presents the results obtained from a consumer survey on the significance of barriers to online purchasing. Table 2 presents the mean value, median, standard deviation, variance, and skewness for each barrier.

Table 2

**Descriptive statistics of online purchase barriers in fashion industry**

Descriptive Statistics							
Type of barrier	Barrier	n	Mean value	Median	Std. Dev.	Variance	Skewness
Technological barrier	Payment difficulties (no convenient payment method/have to enter card number twice)	147	3.32	4	1.36	1.84	-0.54
	Difficult to search for products / poor website navigation	147	3.97	4	1.24	1.54	-1.29
	Reachability problems / Sites are not designed for mobile	147	3.11	3	1.37	1.88	-0.27
	Long loading times	147	2.45	2	1.37	1.88	0.58
Privacy and financial	Disclosure of personal financial information	147	1.97	1	1.35	1.81	1.32
	Payment security concerns	147	2.39	2	1.35	1.81	0.62
	Disclosure of personal data	147	1.66	1	0.97	0.93	1.33

Limitations of online	Inability to touch and see the product (concerns that fabric/colour does not match expectations)	147	2.79	2	1.58	2.50	0.28
Limitations of online shopping process	Trial inconvenience (concerns about size/model fit)	147	3.68	4	1.21	1.47	-0.80
	Concerns about product quality	147	2.87	2	1.60	2.55	0.23
	Uncertainty about accuracy of description	147	1.66	1	0.97	0.93	1.33
	Lack of expert advice	147	1.53	1	0.80	0.63	1.43
	Difficulties in contacting customer service	147	2.00	2	1.07	1.14	0.71
Delivery-related barriers	Non-delivery risk	147	2.08	2	1.12	1.26	0.68
	Uncertainty of delivery times	147	2.24	2	1.24	1.54	0.87
	Product loss or damage risk	147	1.50	1	0.83	0.69	1.80
	Delivery costs	147	3.16	3	1.44	2.08	-0.18
	Long delivery times	147	3.84	4	1.20	1.43	-0.88
Difficulties in returning goods	Non-returnable goods	147	1.79	1	1.19	1.41	1.55
	Requirement to exchange product for another one	147	1.37	1	0.63	0.40	1.54
	Cost of return	147	1.42	1	0.79	0.63	2.16
	Complicated return process	147	1.63	1	0.79	0.62	0.77
	Not knowing return policy	147	1.58	1	0.89	0.79	1.45

Note: n – number of respondents; Std. Dev. – standard deviation

Source: formed based on consumer survey results

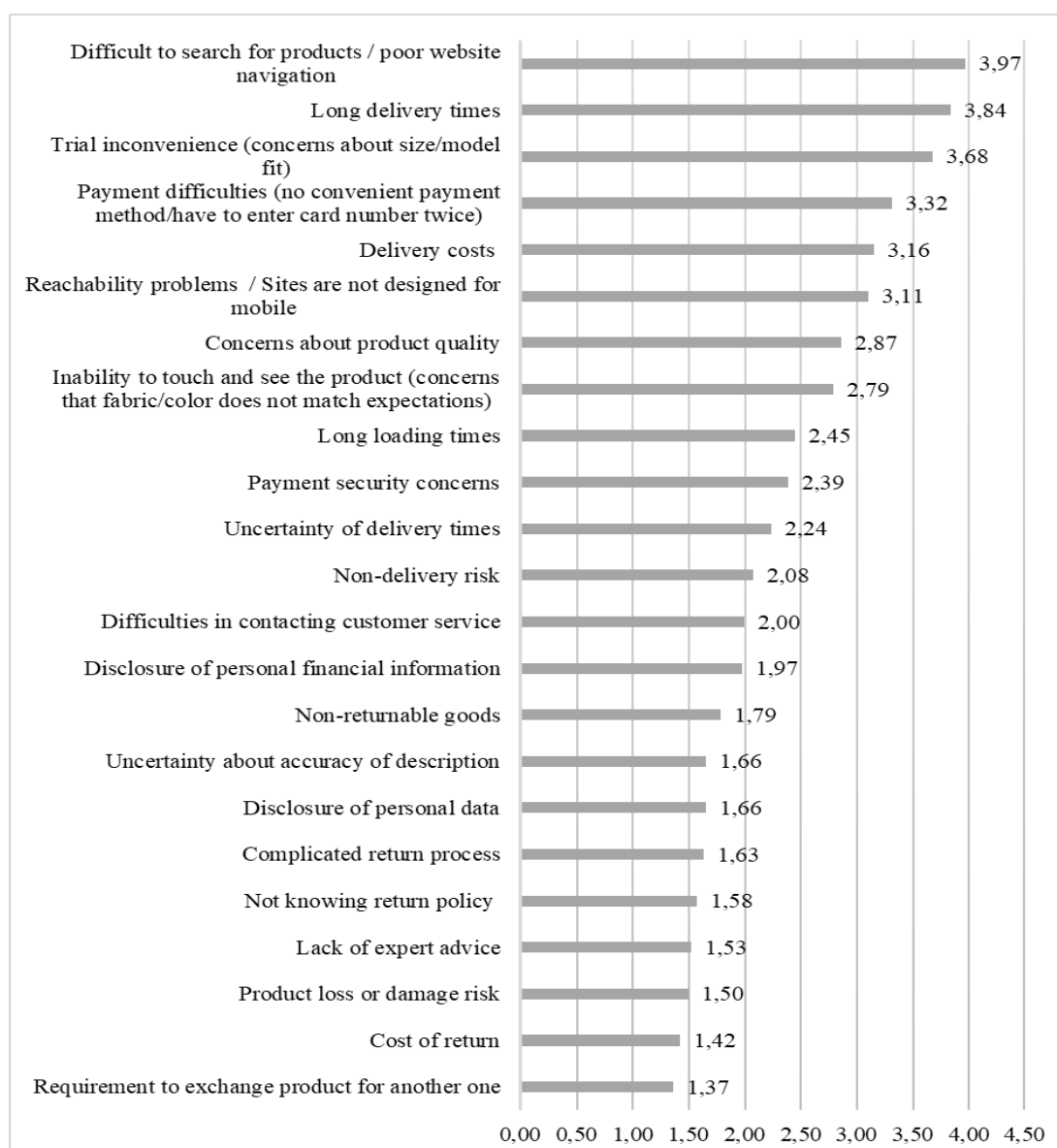
To facilitate ease of reference, a two-dimensional bar chart was created, as shown in Fig. 3, depicting the barriers along with their respective mean values. The barriers are arranged in descending order based on their degree of negative impact on the consumers' purchase decision.

Prior research has examined factors affecting online shopping adoption [8], [9], [10], online purchasing behaviour [10], [15], [17], and various risks in online trading [12], [19], [25].

Analysis in this work reveals that more than half of the reviewed studies employed or referred to behavioural theory from the domains of economics, risk management, or digital marketing. However, despite the growth of e-commerce and rapid changes in consumer behaviour online, these studies did not comprehensively consider marketing research results to identify motives for consumer behaviour or evaluate the role of each barrier in making a purchase decision. Furthermore, although many studies have analysed consumer behaviour in e-commerce with cultural, personal, psychological, social [26], [27], and economic [27] factors, limited research has been conducted to determine the importance of barriers to online consumption in the fashion industry. These research gaps formed the basis for the objectives of this study, which include designing a two-dimensional bar chart with barriers and their mean values.

**Conclusions and prospects for further research.** Based on the analysis, it can be observed that various barriers exist for online shopping in the fashion industry, and these barriers can be categorized into five groups. The first group consists of technological barriers, which include slow loading times, website errors, and difficulty in using the website. The second group is privacy and financial risk barriers, which refer to concerns about payment security and privacy breaches. The third group comprises barriers related to the limitations of online shopping process, such as inability to touch and feel the product or try it on, lack of personalized advice, and inability to see the product in person. The fourth group is delivery-related barriers, which include non-delivery risk, uncertainty of delivery times, product loss or damage risk, and high delivery costs. The final group is barriers linked to the difficulties in returning goods, which involve concerns about unreturnable goods, high cost of return, complicated return process, and not knowing return policy. The impact and significance of each barrier may vary depending on the consumer segment.





**Fig. 3.** Significance of online purchase barriers in fashion industry

Source: built by the authors (based on consumer survey)

According to the results of the survey and the bar chart, online shoppers highly value an easy and efficient search process when shopping online. Therefore, e-commerce businesses should focus on optimizing their website navigation and search functionality to make it easy for customers to find what they are looking for. On average this barrier was estimated to have 3.97 out of 5 points of significance for the purchase decision. This means, that consumers perceive this factor as highly important and difficulties in searching for goods on the website can prevent customers from buying products online. The second most significant barrier is long delivery times, which can discourage consumers from making a purchase. To address this, e-commerce businesses should provide accurate and timely updates on delivery times and manage their shipping and logistics effectively. Finally, the inconvenience of trying on and returning products due to concerns about size and fit is also an important factor for consumers. To overcome this barrier, e-commerce businesses can offer flexible return policies and provide clear sizing and fit information for their products.

In conclusion, understanding the barriers that consumers face when shopping online is crucial for businesses in the fashion industry to increase sales and improve the online shopping experience for their customers. The research results and overview of these barriers presented in this study can help fashion e-commerce businesses to identify and address the issues that their customers may be facing, ultimately leading to greater customer satisfaction and loyalty. Therefore, it is recommended that marketing experts and businesses in the fashion industry continue to study and analyse consumer behaviour and the barriers to consumption in order to develop effective strategies and solutions to overcome these obstacles.

Indeed, there are still many aspects that could be further explored in the area of barriers to online shopping in the fashion industry. Analysing the retailer factors that influence purchase decisions, such as the website design, product presentation, and customer service, could help businesses understand how to improve their online platforms to better meet the needs and preferences of their customers. Additionally, developing targeted recommendations, tools, and strategies to address specific barriers, such as offering better sizing information or improving return policies, could also be beneficial for both businesses and consumers. Further research in these areas could ultimately lead to increased sales and customer satisfaction in the online fashion industry.

### References

1. Fashion eCommerce report 2021 (n.d.). Retrieved from <https://de.statista.com/statistik/studie/id/38321/dokument/ecommerce-report-fashion/>.
2. Ecommerce site search best practices: How to sell more to the people who want to buy now (2018). Retrieved from <https://www.shopify.com/enterprise/ecommerce-site-search-best-practices>.
3. Knix's virtual warehouse sale hosted 35,000 shoppers in only 10 minutes (n.d.). Retrieved from <https://www.shopify.com/plus/customers/knix>.
4. Orendorff, A. (2022). 10 Trends styling 2022's ecommerce fashion industry: Growth + data in online apparel & accessories market. Retrieved from <https://commonthreadco.com/blogs/coachs-corner/fashion-ecommerce-industry-trends#fashion-ecommerce-trend-market>.
5. Orendorff, A., & Dopson, E. (2022). The state of the ecommerce fashion industry: Statistics, trends & strategies to use in 2022. Retrieved from <https://www.shopify.com/enterprise/ecommerce-fashion-industry>.
6. Smales, Ch. (2020). An industry analysis of Fashion eCommerce in 2021. Retrieved from <https://www.datafeedwatch.com/blog/fashion-industry-analysis>.
7. Bellaïche, J., Wolfgang, M., Bremer, K., Sharp, J., Sonneveld, S., & van Heel, B. (2013). Breaking through the barriers to online growth. Retrieved from <https://www.bcg.com/publications/2013/postal-parcel-sales-channel-transformation-breaking-through-the-barriers-to-online-growth>.
8. Jain, R., Kulhar, M. (2019). Barriers to online shopping. *International Journal of Business Information Systems*, 30, 31-50. doi: 10.1504/IJBIS.2019.10018103.
9. Datsko, E. (2019). *Successful factors and barriers for e-commerce business within the fashion industry* (Master's thesis, Polytechnical University of Valencia, Valencia, Spain).
10. Magar, A. (2017). Factors influencing online shopping behaviour of consumers. Retrieved from <https://www.searchfit.com/2017/05/01/factors-influencing-online-shopping-behavior-consumers/>.
11. Start comparing e-shoppers' behaviour (2020). Retrieved from <https://www.dpd.com/group/en/eshoppers-behaviour/>.
12. Masoud, E. (2013). The effect of perceived risk on online shopping in Jordan. *European Journal of Business and Management*, 5(6), 76-87.
13. Dittmar, H., Long, K., & Meek, R. (2004). Buying on the internet: gender differences in on-line and conventional buying motivations. *Sex Roles*, 50, 423-444.
14. Talwar, S., Dhir, A., Kaur, P., & Mäntymäki, M. (2020). Barriers toward purchasing from online travel agencies. *International Journal of Hospitality Management*, 89, 1-11. doi: 10.1016/j.ijhm.2020.102593.
15. Talwar, S., Dhir, A., Scuotto, V., & Kaur, P. (2021). Barriers and paradoxical recommendation behaviour in online to offline (O2O) services. A convergent mixed-method study. *Journal of Business Research*, 131, 25-39. doi: 10.1016/j.jbusres.2021.03.049.
16. Rasty, F., Mirghafoori, S.H., Ardekani, S.S., & Ajdari, P. (2020). Trust barriers to online shopping: Investigating and prioritizing trust barriers in an intuitionistic fuzzy environment. *International Journal of Consumer Studies*, 3, 1-38. doi: 10.1111/ijcs.12629.

17. Fortes, N., & Rita, P. (2016). Privacy concerns and online purchasing behaviour: Towards an integrated model. *European Research on Management and Business Economics*, 22(3), 167-176. doi: [10.1016/j.iedeen.2016.04.002](https://doi.org/10.1016/j.iedeen.2016.04.002)
18. Akram, M.S. (2018). Drivers and barriers to online shopping in a newly digitalized society. *TEM Journal*, 7(1), 118-127. doi: 10.18421/TEM71-14.
19. Bach, T.M., da Silva, W.V., Souza, A.M., [Kudlawicz-Franco, C.](#), & [da Veiga, C.P.](#) (2020). Online customer behavior: Perceptions regarding the types of risks incurred through online purchases. *Palgrave Communications*, 6, article number 13. doi: 10.1057/s41599-020-0389-4.
20. Bilovodska, O., Mykhalchyshyn, N., Komarynets, S., Seniv, L., Humeniuk, V., & Kantsir, I. (2021). Globalization impacts on the structure of Ukraine's Economy: Innovations challenges for management in digitalization, social and economic transformations. *Journal of Information Technology Management*, 13, 20-34. doi: 10.22059/jitm.2021.82600.
21. Bilovodska, O., Starostina, A., Vovk, V., Moroz, O., & Moroz, M. (2020). Environmental packaging in trade logistics and innovative entrepreneurship based on Internet marketing online research and communications. *Estudios de Economia Aplicada*, 38(4), 8-16. doi: [10.25115/eea.v38i4.3993](https://doi.org/10.25115/eea.v38i4.3993).
22. Calculating standard deviation step by step. (2022). Retrieved from <https://www.khanacademy.org/math/statistics-probability/summarizing-quantitative-data/variance-standard-deviation-population/a/calculating-standard-deviation-step-by-step>.
23. Doane, D.P., & Seward, L.E. (2011). Measuring skewness: A forgotten statistic? *Journal of Statistics Education*, 19(2), 1-18
24. Kiely, T. (1997). The internet: fear and shopping in cyberspace. *Harvard Business Review*, 75(4), 13-14.
25. Reile, W. (2017). Factors Influencing Online Shopping Behavior of Consumers. Retrieved from <https://www.searchfit.com/2017/05/01/factors-influencing-online-shopping-behavior-consumers/>.
26. Jisana, T.K. (2014). Consumer behaviour models: an overview. *Sai Om Journal of Commerce & Management*, 1, 34-43.
27. Popovic, A. (2020). Factors Behind Consumer Behaviour of Online Customers. Retrieved from <https://www.price2spy.com/blog/consumer-behavior-of-online-customers/>.
28. Ramya, N., Ali, M. (2016). Factors affecting consumer buying behaviour. *International Journal of Applied Research*, 2, 76-80.

Стаття надійшла до редакції 20.05.2023 р.