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Analysis of Customers' Tendency to Accept the Solutions Offered by the Stores of the Future on the Example of the Clothing Industry

Keywords: clothing industry; customer analysis; customer readiness; stores of the future; new technologies

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Abstract

Theoretical background: The logistics sector is developing rapidly, offering new concepts in the form of stores of the future. They are aimed at streamlining, simplifying, and accelerating the purchasing process for consumers. This work is devoted to the analysis of Polish consumers' attitudes toward innovations offered by the stores of the future. The authors have attempted to identify factors influencing the willingness of customers to adopt and use new technologies in the clothing industry. The subject of the work also reflects the changes in the contemporary clothing industry. Its future seems to be closely related to the technological progress in the logistics, and commerce.

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Purpose of the article: The work aims to analyze the consumers' readiness to accept solutions offered by the stores of the future on the example of the clothing industry and to identify the main barriers to their implementation and use.
Research methods: We explored data collected from research participants (N = 172). We used the computer-assisted web interview (CAWI) technique. The online questionnaire was prepared in Google Forms.
Main findings: The data collected during the research work became the basis for the following conclusions: consumers are interested in innovation in clothing stores but do not know much about them; comfort, convenience, flexibility, and speed have the greatest impact on consumers' attitudes towards the purchasing process; customers want to experience various emotions and deepen the consumer experience without having to worry about new forms of clothing purchases.

Introduction

The essence of the stores of the future

The subject of this paper is the innovation offered by the shops of the future. This issue is very relevant for several reasons. First, the logistics sector is developing rapidly, offering new concepts in the form of shops of the future. They aim to streamline, simplify and speed up the shopping process for consumers. The topic also reflects the changes in today's clothing industry that are closely linked to technological advances in the logistics industry. The paper aims to analyze consumers' readiness and willingness to accept solutions offered by shops of the future, and to identify the main barriers to their implementation and usage.

The e-commerce model of the future is a combination of enhanced aspects of the sales process to deliver an engaging consumer experience. One of the leading values in this industry is information, its transformation, and its correct application to increase the efficiency of the whole system. In a century of the internet, e-commerce has grown rapidly. This is partly because shoppers are getting increasingly tech-savvy (Zhitomirsky-Geffet & Blau, 2016).

Today's consumers expect an innovative and advanced approach to the service process from their favourite brands. Shops aim to collect as much data as possible about their customers to personalize the shopping experience. This is possible, for example, through loyalty systems that contain private information. By knowing about consumer preferences, the shops of the future can modernize the communication process. Moreover, the client's desires strongly influence the further development of the range of services and products. The concept of the shop of the future involves the evolutionary automation of basic activities. The areas of application of artificial intelligence mechanisms are expanding. However, the sales process still needs employees who can better understand the consumer thanks to their competencies. Automation is also needed for predicting demand in dynamically changing conditions. This will speed up and optimize the customer service process.

Some shop chains have decided to move to a two-channel sales model. They are launching online sites, leaving the stationary showrooms as a point for getting to

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know the product range. From the consumer's point of view, the parallel operation of these two purchasing channels allows the perceived advantages of each to be exploited and the disadvantages of the channel considered less desirable to be limited (Mącik, 2015). The shop of the future is an intelligent system that can adequately collect, analyze and use data in its operations. The effective use of developments in artificial intelligence, optimal replenishment, and fast customer service are also important features of tomorrow's commerce. The emerging challenges of the shops of the future are directly linked to changes in global trade. The customer, which is the centre of sales activity, increasingly expresses a desire to shop online. E-commerce offers shoppers a fast and easy-to-understand transaction process, bonuses and discounts, and convenient delivery terms and fees. In this reality, retail outlets are losing ground while looking for ways to combine online and offline sales channels.

Challenges of the stores of the future

Innovation involves all sorts of goods, services, and ideas novel to someone (Kotler, 1999). To strengthen the connection with the client, stationery shops are making changes that automate basic processes and offer a new approach to traditional commerce. Retail stores are aiming for an internal layout where it is possible to control stock in realtime. This is needed to quickly serve a customer looking for a specific item. Furthermore, shops are using the capabilities of artificial intelligence as a key to personalizing the consumer experience and encouraging repeat purchases.

The future of commerce lies in building and developing a personalized approach. Collecting and analyzing data about a shopper's past purchases, desires, and attitudes helps to tailor the goods or services on offer to actual preferences. Brands are launching mobile apps, loyalty programs, chatbots, and other solutions that significantly speed up and simplify the sales chain. Everything is happening to remove the perceived difference for the customer between shopping online and in stationery stores.

Consumers develop their competencies every day, deepen their shopping experience, and search for more convenient ways to shop. They look forward to innovative retail solutions that balance their level of practicality with the e-commerce industry. What is more, future clients want to become a significant part of the design process of the services and products they buy. They expect two-way communication and exchange of experiences with companies (Marciniak, 2013). For this reason, the shops of the future are striving to solve the challenges that arise while at the same time looking for new attractive ways to serve the customer.

Trends in clothing shops of the future

The customer is the person who pays for the goods or services a company purchases (Janasz et al., 2010). His decisions and preferences are critical determinants in the development of the clothing industry, as they strongly influence the forma-

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tion of demand and sales. Polish consumers' needs align with the current priorities of the textile and clothing industry, suggesting a need for user/consumer-driven innovations in the industry (Koszewska, 2012). Today's clothing sector begins to profit from increased productivity, speed, quality, and flexibility through increased investment in research and development projects. This new era not only enhances current operations – but also transforms decision-making processes along with the changing requirements of its clients (Nouinou et al., 2023). The landscape of marketing communication has been revolutionized by the advent of the Internet, enabling companies to engage directly with their target audience. A rising multitude of clothing brands are recognizing the value of social media, harnessing its diverse functionalities and tools for their marketing endeavors. The proliferation of social media platforms, coupled with the ongoing digitalization of Polish society, underscores the escalating significance of these platforms as pivotal sources of information in consumers' decision-making processes. Indeed, social media now form an inseparable component of consumer purchasing decisions and overall shopping encounters (Stachowiak-Krzyżan & Ankiel, 2019). Social media are also pivotal in the marketing evolution of the Polish clothing industry, bolstering competitiveness and driving intricate, multifaceted developments (Sułkowski & Kaczorowska-Spychalska, 2016). Under the existing conditions, representatives of the clothing industry are trying to find a balance between adjusting the main aspects of their business to consumer expectations and optimizing their costs.

The idea of a circular economic model strongly influences cutting-edge tendencies that will affect the clothing industry in the nearest future. That includes the computerization of goods and all the processes connected with their design, creation, and distribution to the client; resource sustainability, circularity, and efficiency. Innovative business and consumption patterns involving also the sharing of production facilities and end goods, pay-per-use or subscription models (Koszewska, 2018; Ellen MacArthur Foundation, 2017).

Based on the speed of response to customer needs, the modern clothing industry can be divided into low-fashion and fast-fashion. The low-fashion segment refers to companies that operate in the classic two-season mode – spring/summer and autumn/winter. This segment is characterized by reducing production costs to implement new solutions. The fast-fashion industry relies on trends from fashion shows, which companies try to transfer to their showrooms as quickly as possible while at the same time lowering the final price of the product. Companies in this segment aim to meet fluctuating demand, releasing collections much more frequently than once a season. Accelerating the flow of information between the links in the supply chain and fast-fashion companies is ensured by the use of logistics concepts such as Just-in-time and Quick Responses.

Logistics aspects play a significant role in the development of today's clothing industry. Their main objective is to reduce various costs by correctly anticipating demand. This is a complicated matter due to the volatility of demand, trends, and

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customer preferences. Fast-fashion was born under these conditions (Ciszewska-Kulwińska, 2016). Distribution channels are the way in which a manufacturer makes the product available and sells it to the final buyer (Sławińska, 2008). Fashion companies try to reach customers through stationary and online distribution channels, which need a detailed approach. For example, stationery shops only accept deliveries during business hours, while in e-stores the emphasis is on a properly functioning order-picking and delivery system. Clothing companies can gain an advantage by quickly meeting consumer needs through various distribution channels (Ciszewska-Kulwińska, 2016).

The ongoing changes in the clothing industry are also linked to environmental and ecological issues. The rapid growth of the clothing industry is not only associated with success but also with negative consequences. Data from the KPMG report *Fashion Market in Poland* (Palmowska & Karasek, 2019) proclaims that the value of clothing sold in Poland in 2017 was around EUR 630 billion. As for the global clothing turnover – it amounts to EUR 1.5 trillion per year. This industry's global reach and volatility make it a threat to the planet. The huge volume of waste and excessive water consumption is destroying the global ecology. According to a report by the Ellen MacArthur Foundation, the clothing industry generates greenhouse gas emissions of 1.2 billion tons per year by producing clothes. Due to the rise of environmental awareness, a significant amount of research on sustainable practices and consumption have been conducted and shared in recent years over the last years. As for Polish consumers, they prioritize aesthetic, functional, and financial benefits when choosing sustainable fashion (Rahman & Koszewska, 2020). Other authors' research indicates that Polish customers do not pay attention to sustainability in the clothing industry, negatively assessing their country's approach to sustainability in the clothing industry (Popowska & Sinkiewicz, 2021).

This paper is structured as follows: introduction, literature review, research method, results, discussions, conclusions, and references. In the introduction, the authors characterize the subject of the work structure of the paper, and formulate the aim. The literature review outlines examples of articles dedicated to the problem of the clothing industry. In the methodological part, the authors describe the research method and the sample. The next parts of the paper present data collected from the research, its discussion, and interpretation. In discussions, the authors compare their findings to the findings of other researchers. In the conclusions, the authors present a summary of the research, final opinions derived from the core content of the paper, and recommendations for clothing stores.

Literature review

The technological revolution is one of modern society's most influential driving forces. The development of innovations is progressing rapidly, as is the expansion of products and services resulting from them (Cruz-Cárdenas et al., 2021). Modern con-

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sumers do not always willingly adopt new technologies because they cause changes. Customer reluctance to cutting-edge solutions is one of the significant factors why numerous innovations are slow to take off (Ju & Lee, 2020). But adoption is driven not just by how shoppers think about innovations, but also by how they feel about them (Valor et al., 2022). The elevated failure ratio of new goods and services should not be astonishing. New technologies require customers to accept price and design changes, forcing them to change their routines. Innovative solutions are rejected because of the barriers and fears buyers associate with their adoption. There may be problems relating to use, value, and risk that clients may attach to a new product or service (Claudy et al., 2015). The increasing pervasiveness of consumer-facing innovations in stores is likely to be welcomed by some buyers, but others tend to react negatively. Tech-ready shoppers are more prepared to overlook the downsides and accept the option to contact the technology infusion. Such innovation readiness is anticipated to make customers more receptive to the convenience advantages, enhancing their capacity to vibrantly feel the product experience (Grewal et al., 2020).

Moreover, a technological revolution is having a significant impact on consumer purchasing behaviour. Companies are exploring and implementing innovations to make the client loyal to the brand and to help them better (Agarwal, 2019). Digital change boosts marketers to embrace cutting-edge in-store improvements. New solutions contribute to enhanced consumer experience and shopping channel inclusion, constantly transforming retail business patterns and consumer habits. In particular, fashion retailers are increasingly adopting advanced technologies in their stores to improve clients' shopping experiences and create a competitive edge (Bonetti et al., 2019). Today, marketers are making massive investments in innovations but face multiple challenges. Investigating how customers consider modern technologies and whether they will adopt them is vital to the effectiveness of new retail solutions (Wu & Kim, 2022). When shoppers are exposed to innovations, they may exhibit different response rates and cutting-edge improvement acceptance. This can be defined as technological readiness, which means an individual's tendency to accept, adopt and use innovations. Optimism and novelty are drivers that encourage the use of modern solutions, while discomfort serves as a factor that impedes their use (Yang et al., 2022).

Customer attitudes change drastically with the advancement of new technologies. The modern shopper requires speed, interactive experiences, diverse shopping channels, a high level of personalization, and bonuses for their allegiance (Harba, 2019). To respond to technological advances, detailers have to break away from legacy service patterns. To incentivize consumers to keep using innovation, sellers need to ensure that it offers unique benefits and value (Huang & Liao, 2015). Shoppers embrace new technologies when they believe they have clear advantages, such as usability and pleasure, and when such improvements have low complexity compared to what they presently use (Kim et al., 2017). Retailers experimenting with innovations enhancing the customer experience are likely to be more successful. Fashion

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marketers, in particular, are acknowledged for their novel approach to technology by the number of innovations they bring into stores (Alexander & Kent, 2022).

The clothing industry is mainly fueled by consumer habits, knowledge, values, and perceptions (Peters & Simaens, 2020). It is characterized by a wide diversity of goods, difficulty in forecasting, and international sourcing. The modern customer expects to find a variety of clothes for a low price, which puts pressure on fashion businesses to cut costs and shorten the delivery time (Księżak, 2017). Moreover, today's buyers use numerous platforms to communicate and link with their favourite brands. They expect a reliable service experience across multiple channels. Meeting increasing customer demands for a personalized purchase journey requires the integration of online and offline retail channels (Alexander & Kent, 2022). The fashion sector is no longer just about e-commerce versus physical stores. It is a mix of them both, delivering in-store advantages and the simplicity of online shopping.

These days, brands are more concerned with individual client behaviours and attitudes. It informs businesses about how shoppers feel, thinks, reacts, and selects products and services (Kunwar, 2018). The success of any company relies on customer contentment. Clients have varying demands and requirements in terms of how they would like to be treated. To manage positive consumer relations, the brand should consider every client individually. Cutting-edge solutions available to fashion companies also support the personalized treatment of customers. Relationship design demands a buyer-centered approach (Khadka & Maharjan, 2017).

During the literature research, the authors identified the research gap. No surveys in the industry are dedicated to consumer attitudes toward particular innovations offered by online and offline clothing stores. Also, there is a lack of studies on the impact of different modern solutions on customer behaviour, experience, and preferences. Therefore, in the next part of the article, the authors attempted to explore, identify and explain key shoppers' reactions to introducing new technologies in the clothing purchasing process.

Research method

The research procedure and questions

A research process was designed to achieve the goals of the paper. The chosen research method is survey research. The main aim of the research framework is to determine the tendency of consumers of different ages, statuses, and places of residence to accept innovative solutions offered by modern clothing stores. It is assumed that the survey results will allow for assessing the novelty, practicality, and innovation potential in the clothing industry.

The research framework has been divided into several stages (Figure 1). First, the authors analyzed the available literature and internet sources, which made it

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possible to deepen the knowledge about the innovations offered by the clothing industry and formulate the research questions. On this basis, a questionnaire was prepared. Finally, the authors gathered and analyzed the data, made conclusions, and discussed future work.

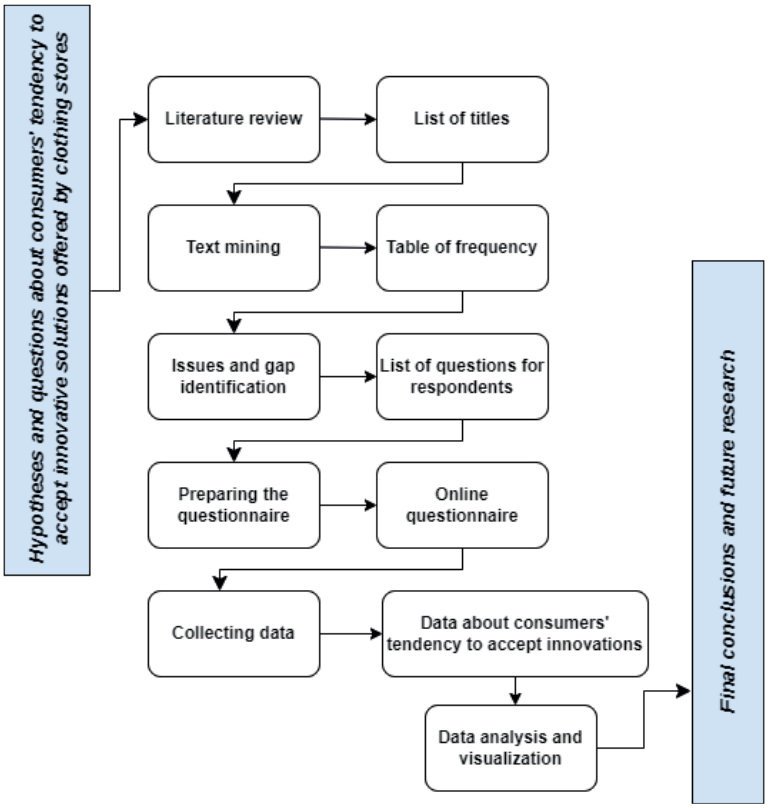


Figure 1. The research on the tendency of consumers to accept innovations

Source: Authors' own study.

The literature and internet sources research allowed to develop the following research questions:

Q1: What are the consumers' expectations about the purchasing process?

Q2: What is the knowledge of innovations offered in the clothing industry by consumers?

Q3: What factors influence consumers' willingness to buy from clothing stores?

Q4: What are the negative/positive consumers' attitudes towards innovations?

Q5: What is the consumers' tendency to accept innovations offered in clothing stores?

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The study was conducted using the computer-assisted web interview (CAWI) technique. To answer the research questions, an online questionnaire was prepared. The questionnaire consisted of 19 questions regarding:

– identification of expectations and preferences about the purchasing process,

– assessment of knowledge and acceptance of innovations in the clothing industry,

– analysis of the influence of various factors on the desire to buy in clothing stores,

– identification of the most practical and relevant innovations in the clothing industry,

– identification of negative and positive attitudes towards innovations in clothing stores.

The questionnaire was prepared in Google Forms. The link to the survey was posted on social networks so that potential study participants could complete it. The research was carried out in the period from March 29 to May 29, 2022. The analysis of the responses collected from the survey group was described in the "Data analysis and the results" section.

The characteristics of the respondents

The online survey on "The consumers' tendency to accept innovative solutions used in clothing stores" was completed by 172 people who were selected according to different age ranges. The characteristics of the respondents was shown in Table 1.

Table 1. The characteristics of the respondents

Characteristics (n = 172)		Frequency	Percentage
Gender	female	97	56.4%
	male	75	43.6%
Age	<20 years	32	19.1%
	20–35 years	110	63.6%
	36–50 years	16	9.2%
	51–65 years	11	6.4%
	>65 years	3	1.7%
Status	pupil/student	107	62.2%
	employed	51	29.7%
	unemployed	10	5.8%
	on pension	4	2.3%
Place of residence	village	47	27.7%
	town >50,000	17	9.8%
	town 50–150,000	12	6.9%
	town 150–500,000	27	15.6%
	town <500,000	69	39.9%

Source: Authors' own study.

Among 172 respondents, slightly over 56.4% were female, and most (63.6%) were between the ages of 20–35. They were mostly pupils and students (62.2%). Most live in towns with more than 500,000 inhabitants (39.9%).

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Results

Identification of expectations and preferences about the purchasing process

This part of the article contains an analysis of the results of the survey on "The consumers' tendency to accept innovative solutions used in clothing stores". For each question from the questionnaire was developed a graph showing the proportion of the respondents' answers (Figure 2). These graphs were commented on based on the authors' opinions concerning the phenomena studied.

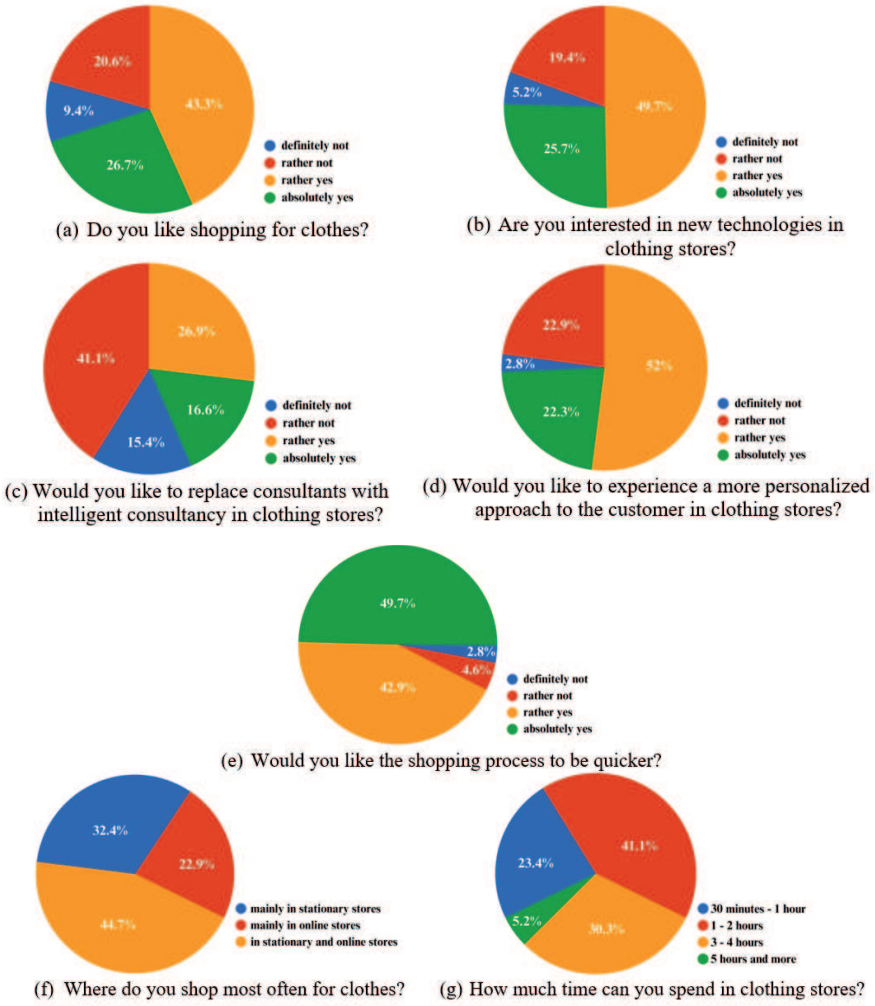


Figure 2. Preferences and expectations about clothing shopping

Source: Authors' own study.

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At the beginning of the questionnaire, the respondents were asked if they like shopping in clothing stores (Figure 2a). Most respondents (70%) have a positive attitude toward the shopping process in clothing stores, while 30% do not like shopping for clothes. The obtained proportion of answers may be related primarily to the age, gender, and status of the study participants. The survey participants' opinions may also be influenced by their previous experiences associated with shopping in clothing stores.

The respondents' preferences regarding clothing purchases are presented in Figure 2f. According to the collected answers, 44.7% of the respondents prefer to combine offline and online forms of clothing shopping. In contrast, 32.4% choose stationery stores, and only 22.9% prefer online shopping. The result shows that consumers are inclined to choose the traditional course of the shopping process in physical stores. Probably, stationary clothing stores are more popular than online ones among the study participants due to the lack of knowledge about online platforms and distrust of them.

The respondents also were asked about the time they could spend on one-time clothing purchases. The results are shown in Figure 2g. The opinions of the study participants were divided between four options: "1–2 hours", "3–4 hours", "30 minutes – 1 hour" and "5 hours and more". The proportion of the responses shows that the dominant part of the survey group (71.4%) is ready to spend from 1 to 4 hours on one-time clothing purchases. Besides, 23.4% of the study participants declared they could spend 30 minutes – 1 hour in a clothing store. Only 5.2% of the respondents can spend 5 hours or more on clothing shopping. Analyzing the above results, we can assume that such reactions can be caused by the research participants' reluctance to spend too much time choosing and buying clothing.

The survey participants also expressed their general opinion about introducing new technologies in the process of clothes shopping (Figure 2b). Many respondents (75.4%) expressed a huge interest in innovative solutions in clothing shops. However, 24.6% of survey participants were pessimistic about new technologies. It can be assumed that this part of the respondents associates innovations with fear of the unknown and difficulties in using them, therefore, they do not want to learn how to use them.

Next, the survey participants were asked to show their reactions to the potential implementation of new elements in the traditional shopping process. The resondents' answers to the question about replacing consultants with intelligent consultancy in clothing stores are presented in Figure 2c. The study participants' opinions were almost equally divided: 43.5% voted for implementing intelligent consultancy in clothing stores, while 56.5% did not want to. It can be assumed that the first part of the survey group is more interested in innovative solutions within the purchasing process than the second. In addition, a significant proportion of the respondents are probably used to traditional clothing purchases with consultants and do not want to change this.

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Then the study participants were asked if they would like to experience a more personalized approach to the customer in the clothing shops (Figure 2d). A significant proportion of those surveyed (74.3%) are in favour of a more personalized approach to the customer in clothing shops. Besides, 25.7% of the respondents are not interested in a more customized shopping process. The result can be explained by the fact that a large percentage of the survey participants probably face difficulties choosing clothes. Possibly, they expect the shop staff to advise them and take care of all shopping issues. It can also be assumed that consumers expect more personal bonuses, loyalty programs, discounts, and offers.

Another question posed to survey participants was whether they would like the shopping process to be quicker in a clothing shop (Figure 2e). A total of 92.6% of the respondents agreed to reduce the duration of the shopping process in clothing stores. Only 7.4% of the study participants did not accept the potential acceleration of clothing purchases. A large percentage of positive answers to this question show that increasing or shortening the duration of the shopping process in clothing stores has a significant impact on the impressions and emotions of potential consumers.

Identification of negative and positive attitudes toward innovations in clothing stores

In the second part of the questionnaire, the respondents were asked to express their general views on innovations and the major changes they are bringing to the clothing shopping experience.

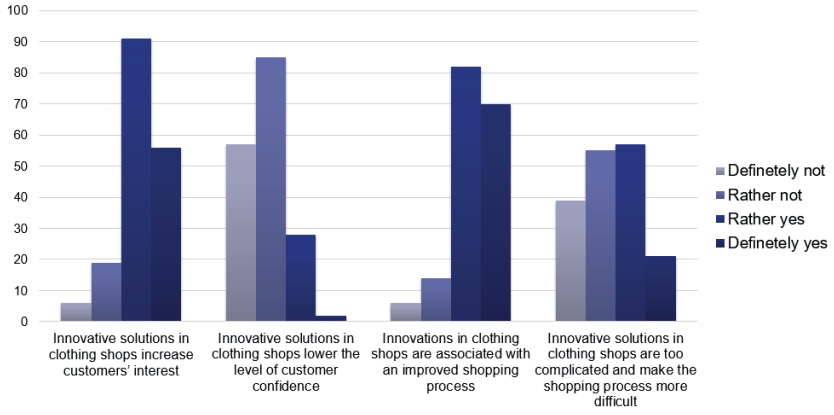


Figure 3. Attitudes toward innovations in clothing stores

Source: Authors' own study.

Firstly, they characterized the level of acceptance of new technologies (Figure 3). The statement "Innovative solutions in clothing shops increase customers' interest" was agreed by 147 people and 25 disagreed. Based on the responses, it can be assumed that modern technologies mostly attract consumers and encourage them to shop more

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often for clothes. Besides, 30 people agreed with the statement "Innovative solutions in clothing shops lower the level of customer confidence", while 142 disagreed. The opinions of the majority of respondents show that innovations probably do not hurt shoppers' attitudes toward clothes shopping. The following statement, "Innovations in clothing shops are associated with an improved shopping process" was agreed by 152 people, while 20 disagreed. The answers of the research participants indicate that from the consumers' point of view, modern technologies have a positive impact on the shopping process in clothing stores. With the statement, "Innovative solutions in clothing shops are too complicated and make the shopping process more difficult" 78 people agreed while 94 disagreed. In this case, the positive and negative opinions of the respondents were divided almost equally. This may mean that for some customers, innovation hinders clothing shopping, while for others, it is a change for the better.

Assessment of clothing innovations knowledge and their main advantages and disadvantages

In the next part of the questionnaire, the respondents presented their level of clothing innovations knowledge. Also, they recognized the main pros and cons of introducing new solutions in the traditional shopping process.

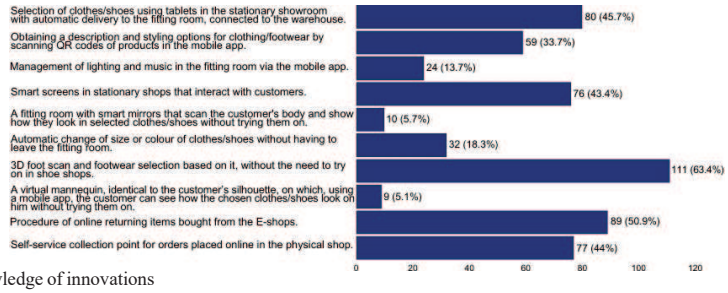
The study participants were asked to indicate innovations in the clothing industry they had heard about (Figure 4a). The respondents could choose more than one option from the list. The most recognized modern solution among survey participants is "3D foot scan and footwear selection based on it, without the need to try on in shoe shops" – 111 votes (63.4%). Eighty-nine people (50.9%) had heard about the innovation "Procedure of online returning items bought from the E-shops". Slightly fewer, but 80 respondents know about the "Selection of clothes/shoes using tablets in the stationary showroom with automatic delivery to the fitting room, connected to the warehouse". Only 9 votes (5.1%) were received by the innovation "A virtual mannequin, identical to the customer's silhouette, on which, using a mobile app, the customer can see how the chosen clothes/shoes look on him without trying them on". The other cutting-edge solutions received between 10 and 77 votes, indicating that they are poorly or moderately known by the respondents.

Furthermore, the study participants were asked about the most significant benefits of implementing innovations in the clothing industry (Figure 4b). The respondents could choose more than one option from the list. As the main advantages resulting from the implementation of innovations in the clothing industry, the respondents mainly identified four options: "Speeding up the shopping process" – 98 people (56%), "Increasing the convenience of the shopping process for the customers" – 76 people (43.4%), "Automation of the purchasing process" – 60 people (34.3%) and "Better and easier selection of clothes/shoes type and size" – 60 people (34.3%). For modern consumers the primary value is comfort, convenience, flexibility, and speed of the purchasing process. Customers want to experience various emotions

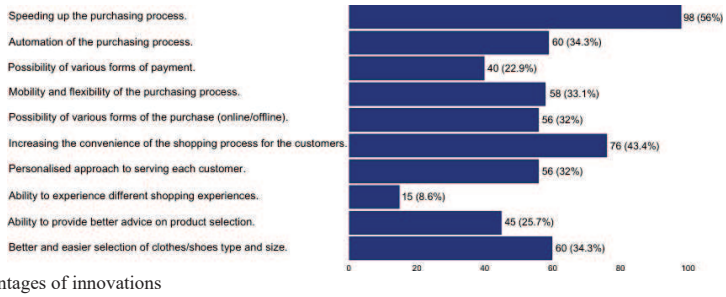
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about the way and conditions of shopping. If innovations meet the above criteria, they will enjoy demand and interest among potential consumers.

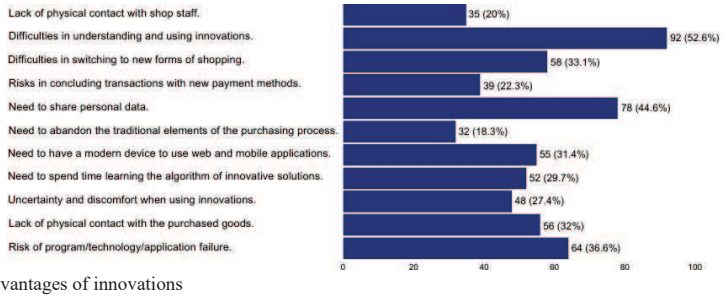
Also, the respondents identified the main disadvantages of implementing innovative solutions in the clothing industry (Figure 4c). They could choose more than one option from the list. As the main disadvantages resulting from the innovations' introduction, respondents chose mainly three options: "Difficulties in understanding and using innovations" – 92 people (52.6%), "Need to share personal data" – 78 people (44.6%), and "Risk of program/technology/application failure" – 64 people (36.6%). Consumers have doubts and fears, and feel uncertainty and discomfort about the transition to new forms of clothing shopping. Probably, they do not want to learn and actively use modern solutions because they consider them too complicated, incomprehensible, risky, and time-consuming.



(a) knowledge of innovations



(b) advantages of innovations



(c) disadvantages of innovations

Figure 4. Knowledge of clothing innovations and their main pros and cons

Source: Authors' own study.

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Identification of the most practical and relevant innovations in the clothing industry

In the final part of the questionnaire, the research participants were asked to perform their ambition to use innovations from the list of suggested technologies. On a scale from 1 – *no desire* to 5 – *big desire*, they characterized their interest in cutting-edge solutions offered by the clothing industry (Figure 5). It can be assumed that respondents would most like to benefit from the following innovations: automatically changing the

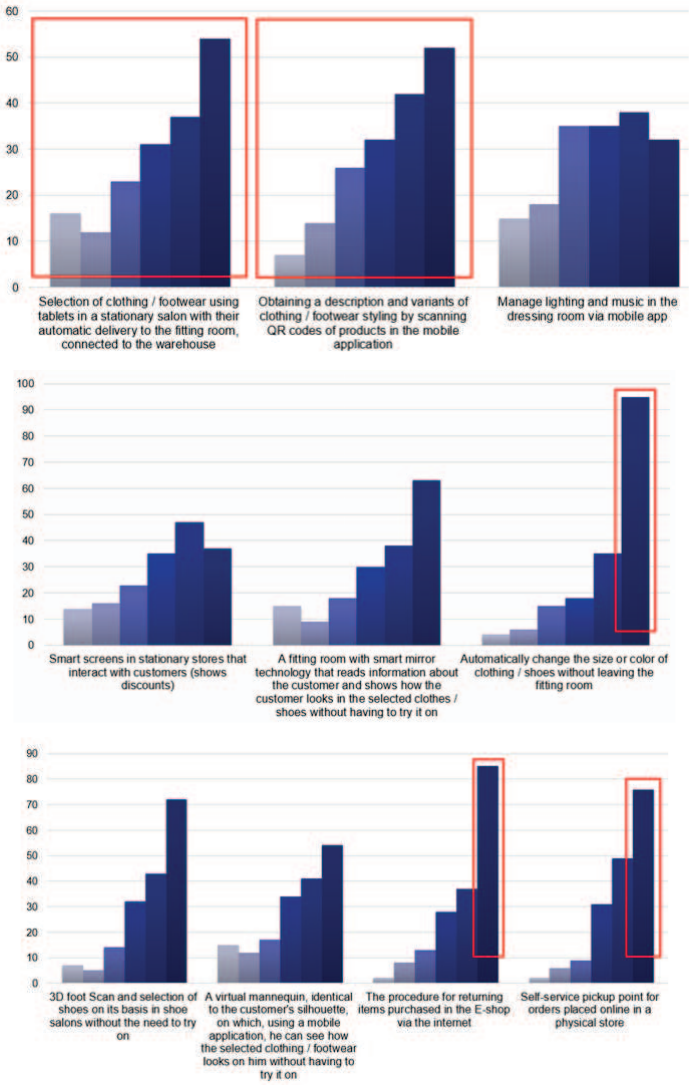


Figure 5. Willingness to use innovations in clothing stores

Source: Authors' own study.

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size or color of clothing/shoes without leaving the fitting room, procedure of online returning items bought from the e-shops and self-service pickup point for orders placed online in a physical store. The survey participants singled out these three solutions probably because they are aimed at significantly speeding up and simplifying the process of choosing and buying clothes. Thanks to such innovations, part of the purchasing process is automatic. The consumer takes fewer actions, thus, spending less effort and energy. It can be concluded that modern customers strive for the most comfortable and fast purchases and are ready to accept new solutions contributing to this.

At the end of the questionnaire, the respondents could leave comments to complete their responses. Some of them are shown below.

– "Innovative solutions are good, but in moderation",

– "Stationary shopping allows direct contact with a product that cannot be replaced by virtual substitutes",

– "It is great that in stores you are slowly moving away from approaching the customer and you do not need to contact anyone",

– "These innovations should be available in more stores",

– "In today's age of the internet and technology, I think young consumers would be inclined to modern innovations, while older people would have big problems",

– "The store staff should help learn how to use the innovations introduced in the store",

– "The option to manage lighting and music in the dressing room via a mobile app can further lengthen the shopping process and probably not be used by many people".

Most of the comments were positive. Respondents addressed mainly the positive impact of technology on commerce processes, and that young people want to and know how to use it, however, older less digitally skilled customers would probably need some help.

Conclusions

This paper aimed to analyze the consumers' tendency to accept cutting-edge solutions offered by the future stores. Using the example of the clothing industry, the authors tried to identify the main barriers of IT solutions implementation and use in commerce.

The survey allowed the authors to analyze consumers' attitudes of different ages, status, and place of residence towards the new technologies offered by innovative clothing stores. Based on the results of the completed research work, the validity, practicality, and potential of modern technologies in the clothing industry were assessed.

Respondents' answers show they expect comfort, convenience, flexibility, and speed in shopping. They want to experience a variety of emotions and deepen the consumer experience without fear and uncertainty about modern forms of purchase (Q1).

The majority of respondents have a positive opinion on IT solutions in commerce. They show their interest in new technologies offered by clothing and footwear stores.

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The innovations from the clothing industry mentioned in the questionnaire appeared to be moderately familiar among the surveyed people (Q2).

The speed of the process most influences the research participants' willingness to buy from clothing shops. Respondents expect clothing and footwear selection to be quick, efficient, and simple. They also paid particular attention to the level of personalization in modern clothing stores. Consumers opted for a more personalized approach to the client during shopping (Q3).

Respondents consider the most practical and applicable innovations in the clothing industry to be automatically changing the size or colour of clothing/shoes without leaving the fitting room, procedure of online returning items bought from the e-shops and self-service pickup point for orders placed online in a physical store. Such a trend indicates that modern consumers are interested in innovations that streamline the shopping process and are simple, accessible, and understandable for everyone.

Besides, new technologies offered by the clothing industry arouse both positive and negative emotions among respondents. As the main benefits of implementing innovations, respondents highlighted speeding up the shopping process, increasing the convenience of the shopping process for the customers, automation of the purchasing process and better and easier selection of clothes/shoes type and size. On the other hand, difficulties in understanding and using innovations, need to share personal data, and risk of program/technology/application failure were singled out as the main disadvantages (Q4).

Consumers do not seek to understand and actively use new solutions, because they consider them to be too complicated, incomprehensible, and time-consuming (Q5).

Based on the results of the research work, the authors also developed recommendations for modern clothing shops. It is recommended to switch to a two-channel sales system (online and offline), provide the possibility of various forms of payment, work on a more individual approach to each client. Shop owners sholud not to be afraid to implement innovative solutions, pay special attention to technologies that will significantly speed up and simplify the shopping process, to promote the implemented innovations and encourage consumers to learn about them. The authors also found that innovations offered by the clothing industry are likely to be in demand among consumers if they meet their needs regarding the purchasing process: accessibility, clarity, and simplicity of use.

According to other authors researching and describing the clothing industry, modern consumers are very sensitive to the shopping process's speed, efficiency, and quality. Innovation is a phenomenon that aims to enhance and deepen the customer experience. Despite this, new solutions in clothing stores are a barrier for the major part of shoppers, as they induce significant and noticeable changes to the traditional shopping process. Fear, a sense of risk, a lack of trust and knowledge towards innovative technologies are the main factors that influence the speed of cutting-edge solutions adoption rate. The literature review also confirmed that customers who are aware of new technologies are more ready to accept and use them. A sense of optimism, safety, ease of use, and modernity arouses clients' interest and encourages them to adopt innovations.

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Limitations

The authors' research was based on a sample of people of different ages, statuses, and places of residence. Most of the survey participants were between the age of 20–35, with "pupil/student" or "employed" status. Moreover, many of those surveyed live in a city with more than 500,000 inhabitants. It is important to note that opinions were mainly collected from respondents living in Poland, which may limit the generalization of the results. The authors' conclusions and recommendations were based on collected information about the clothing industry development in Poland – quantitive research. The solutions used in different countries may be based on other assumptions. Many of the leading companies of the fashion industry leaders use also the qualitative methods and further research could be extended to include such research. Therefore, to create more precise and universal suggestions for the stores of the future in the clothing industry, a more international, comparative research is needed.

Future research

The revised literature and internet sources allow to conclude that the implementation of innovations in today's retail is an integral part of its development. The backbone of growth in any industry, especially in clothing, is integrally linked to the customer and his responsiveness to changing environment. The research was limited to the opinions of the dominant group of respondents, who mainly live in Poland and are aged between 20 and 35. Thus, future research should provide more detailed data on the attitudes of each considered group of respondents towards new technologies offered by clothing stores. During future research, the authors would like to carry out larger-scale studies comparing consumers' approaches to purchasing from countries with different levels of digital society development.

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