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DEVELOPMENT OF THE CLOTHING INDUSTRY IN THE RETAIL MARKET AGAINST NEW CONSUMER CHALLENGES

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Abstract: In 2016, in 56% of shops with clothing and footwear, the percentage of returns was at the level of 10-25%. One of the main reasons for returns is the mismatch of product size to the customer's size. Although there are standardized clothing sizes on the market, the same marks are often characterized by other parameters depending on the manufacturer's brand. The aim of this study is to identify the scale of the problem concerning various sizes of clothing products in the opinion of customers. Almost half (46%) of respondents indicated that the right selection of clothing size is a problem for them. In this aspect, sex is not important, i.e. both for a group of women and men – every second respondent indicates this inconvenience. 26% of the surveyed women do not get angry at all when trying on clothing products, and only 16% of men showed the same feature.

Keywords: behaviors of consumers, clothing industry, Polish clothing market, innovations.

ROZWÓJ BRANŻY ODZIEŻOWEJ NA RYNKU DETALICZNYM WOBEC NOWYCH WYZWAŃ KONSUMENCKICH

Streszczenie: Jednym z istotnych problemów rynku odzieżowego jest duży odsetek zwrotów produktów, aż w 56% sklepów z odzieżą i obuwiem procent zwrotów kształtował się, w 2016 roku, na poziomie 10–25%. Jednym z głównych przyczyn zwrotów jest niedopasowanie wielkości produktu do wymiarów klienta. Mimo, iż na rynku funkcjonują znormalizowane oznaczenia wymiarów odzieży to bardzo często, te same oznaczenia charakteryzują się innymi parametrami w zależności od marki producenta. Celem niniejszego opracowania jest identyfikacja skali problemu różnych wymiarów produktów odzieżowych w opinii klientów w zależności od płci i wieku. Prawie połowa (46%) ankietowanych wykazała, że właściwy dobór rozmiaru odzieży jest dla nich problemem, w tym 16% potwierdziła to zdecydowanie. W tym aspekcie nie ma znaczenia płeć, czyli zarówno dla grupy kobiet i mężczyzn co drugi respondent zauważa tą niedogodność. Jednak determinanta w postaci czasu spędzanego w przymierzalni bez irytacji stanowi istotną statystycznie zależność od płci. 26% ankietowanych kobiet w ogóle nie irytuje się podczas przymierzania odzieży, gdzie jedynie 16% mężczyzn wykazało tą samą cechę.

Słowa kluczowe: zachowania konsumenckie, branża odzieżowa, rynek odzieżowy w Polsce, innowacje.

1. Introduction

Nowadays, the competition in the clothing market is very big. The development of the Internet and technology has contributed to this situation. Furthermore, a large variability of business conditions for the existence of enterprises determines the constant pursuit of customers' behaviors and expectations. One of the significant problems of the clothing market is a high percentage of product returns. In 2016, in 56% of shops with clothing and footwear, the percentage of returns was at the level of 10-25%. In clothing e-shops, in accordance with the statutory regulations, there is a possibility to return the goods or exchange them. This option applies to products without any traces of use and products that are returned within 30 days from the purchase date. This factor causes that logistics processes in the analyzed market must be more advanced and effectively managed. In the process of handling returns, the stages concerning the preparation for the shipment, including ironing, refreshing and packaging of clothing and its quality control, are realized again. One of the main reasons for returns is the mismatch of product size to the customer's size. Although there are standardized clothing sizes on the market, the same marks are often characterized by other parameters depending on the manufacturer's brand. The aim of this study is to identify the scale of the problem concerning various sizes of clothing products in the opinion of customers (depending on sex and age). Due to the social opinion that women are more likely than men to try on clothes, the following hypothesis was proposed: definitely more women than men do not get annoyed when they try on clothing before the purchase.

2. Development of the Polish clothing market

According to CSO data from 2016, the „textiles, clothing and footwear" group, among the analyzed industry groups in Poland, achieved the highest increase in retail sales. The dynamics of this increase amounted to approx. 20% compared to the previous year (GUS, 21.08.2017). The dynamics was not only maintained in the next quarter of 2017, but it was increased to about 26,9% (GUS, 22.08.2017). The rapid development of trade and the growing activity of foreign networks foster the development of the Polish clothing market, which becomes incredibly competitive (Mróz-Gorgoń, 2015, p. 216). The textile and clothing sectors are inseparably connected with each other, so the analysis of a broader perspective is often performed. However, for the purposes of this publication, the clothing market will be relevant in relation to the determined aim. Both textile and clothing companies should systematically analyze and change their business models in order to search higher profits. Global markets and rising labor costs reduce the attractiveness of industrial production in Poland, and companies must identify and use their capabilities concerning the implementation of new products on the market or change of their business models, by focusing on design and marketing (Pomykalski, 2013, p. 18). Another important aspect in the context of the market difficulties is also the diminishing number of Polish clothing companies. This is connected with the inflow of clothing from Asia.

Polish customers generally (60%) purchase clothing in branded clothing shops located in shopping malls, and less often in unbranded shops (26%), markets and bazaars (19%) or via the Internet (19%). Every tenth respondent purchases in shops with used clothing and discount shops, such as Lidl or Biedronka.

Only 2% of the respondents buy in outlets and other entities by making a purchase via phone. Respondents presented that they usually purchase clothing in the following clothing shops: H&M (21%) and Reserved (17%), and only one in ten respondents buy clothes in Zara (10%) and House (9%) (Szot, 21.08.2017).

3. Challenges posed by modern consumers

A contemporary consumer in the clothing market is no longer a passive recipient of products. His or her opinion, preferences and fashion considerations are an important factor in shaping of trends and behaviors of entrepreneurs. A decade ago, the most important sources of information, influencing the decisions related to the purchase of clothing, were informal factors such as the opinion of the environment (friends, family, online forums and discussion groups) (Goldsmith, and Clark, 2008, p. 308-322). Currently, an increasingly valuable factor for consumers is the individual adaptation of the product to the needs, as well as innovative design and functionality (Caban-Piaskowska, 2016, p. 61). Technological progress has contributed to the implementation of many innovations in the clothing sector, so-called intelligent, also known as smart and interactive textiles. Intelligent textiles can be divided into two basic types: changing their properties due to certain stimuli and electro-conductive and integrated with electronics. Innovative solutions in recent years include the following textiles: electro-conductive, with shape memory (SMM – Shape Memory Materials), integrated with micro-electronic systems and Phase Change Materials (PCM). PCMs are used in textiles applied in health care, e.g. in order to keep the patient at an appropriate constant temperature (Barktowiak, 2010, p. 18-22). The greater the degree of implemented innovation, the better the perception of innovation among potential customers (as more valuable) (Barańska-Fischer et al., 2016, p. 77). The clothing sales market depends on a number of determinants, including political, economic, social (immigration, population growth, minimum wage) and technological (increase in e-commerce popularity, social networks) and other such as proper supply chain management, climate changes and recycling (Thompson, and McLarney, 2017, p. 234-264). Important (from the business point of view) purchasing behavior among Polish clients on the clothing market is the sensitivity to environmental and social factors. This group constitutes approx. 16% of all customers – most of them live in cities, have relatively high incomes and usually have higher education (Koszewska, 2013, p. 519).

An important (and something the most important) factor that affects the purchasing decisions in the clothing industry is fashion, existing trends and brand of a product (Zeb at al., 2011). The impact of the brand is particularly noticeable among young people (18-24 years old) (Fernandez, 2009), (Mróz-Gorgoń, 2015). On the other hand, the fashion is correlated with seasonality, where there are many sub-seasons of the clothing market (Table 1). Fluctuations in demand on the clothing market are mainly determined by climatic conditions (season) and fashion.

Table 1.
Seasonality in the clothing industry

Sub-season	Months
early spring	January/February
spring	February/March
early summer	April/May
summer	May/June
summer sale	June
late summer	June/July
autumn transitional collection	July/August
school	August
autumn	September/October
exit collection	November
Christmas gifts	December
winter sale	December/January

Source: Hines, Bruce, 2007, p. 174.

Nowadays, the knowledge and opinions of consumers are increasingly used in the process concerning the design of clothing products. Such an active consumer, who is not only a passive market entity, but he or she can and wants to be involved in the process of creating a product, is called a prosumer. G. Bednash claims that the prosumption has its limitations. Active consumers cannot be the primary source of ideas for new products. Their commitment and knowledge should be a guideline for managers of enterprises, who should establish and maintain active relationships with prosumers or a certain brand (Bednash, 2000, p. 985). All the described determinants are designed to increase the customer satisfaction. For consumers, important factors that affect their satisfaction are quality of the product, price and service. One of the service elements in the clothing industry is to adjust sizes of products to the sizes of customers. Anthropometry is a science that deals with the shaping and acquisition of information about (inter alia) spatial human sizes.

The obtained data is used in the design and dimensioning of clothing products. Essential factors are age, sex and also nationality of consumers. These elements differentiate average dimensions of the individual of a certain group. Changes in human body proportions with age result from the process of limb growth and the formation of muscles. The most intense period for the growth of lower limbs occurs in the age of 12-14 years. In this age, young people are characterized by long limbs and a relatively small trunk. On the other hand, the weight of the newborn's muscles constitutes as much as 22% of the body weight, among children in pre-school age – approx. 27%, while in adults approx. 36-44%, depending on physical activity and gender (Nowak, 2003, p. 12-13). Apart from age and sex, the nationality of a reception group has a great importance in the design and dimensioning of clothing. According to researches, Poles are one of the highest nations in the world and one of the slimmest people in Europe. In 2013, a man in Poland had an average height of 178 cm, and the average BMI (Body Mass Index) of a Pole is 24,8 (Jarosz, 2003, p. 23). Taking into consideration the fact that Poles significantly differ from other nations, even European nations, and the lack of periodical representative anthropometric researches forces manufacturers to use their own markings or foreign mismatched to the dimensions of an average Pole.

For example, the C&A uses the works of the Size GERMANY committee to match clothes to body proportions. In 2008, this committee measures in Germany approx. 13 thousand men, women and children. LPP, a producer of (inter alia) the Reserved brand, bases on the data from the Institute of Knitting Techniques and Technology TRICOTEXTIL of 1997, updating them on their own. Therefore, today size 38 can mean a lat. For example, in H&M size 38 measures 88/72/96 cm (bust/waist/hips) and is labeled as S, while in Reserved size 38 is M and has the following dimensions 92/72/98. In contrast, size 38 in Zara is 90/70/98 (Manthey, 07.09.2017).

Apart from the indicated factors influencing the diversity of clothing sizes, there is also a phenomenon called vanity sizing. It is connected with the lowering of sizes by manufacturers in order to keep well-being of buyers. Clothing companies consciously lowering sizes, because they know that customers often do not want to buy L or XL products. Following the satisfaction and expectations of clients in the field of size diversity, enterprises in the clothing market should tailor their offers depending on the garget group. Due to large disparities in customer dimensions (resulting from age, sex, place of residence, and even the size of income), the uniformity of clothing sizes seems to be impossible. Despite the implementation of European standard PN-EN 13402-3:2006 (for the determination of clothing sizes and body dimensions for use in the determination of normalized sizes of products for babies, men, boys, women and girls, its usefulness is small.

A big problem for the majority of customers of clothing products is to try on many products in order to choose the right size. This factor is even more important when shopping at electronic shops, where there is a possibility to return the goods within 14 days without the need to give a reason. Customers often order several similar sizes of the same product and then return mismatched products. The number of returns in the clothing industry in the e-commerce sector is currently about 15-20%. Costs of return shipment are usually borne by the seller. In order to identify the scale of this problem, a pilot survey was conducted on the group of Polish customers of the retail clothing market.

4. Men in the fitting room for a short period of time – test results

The survey was based on the internet survey method, because of its main advantages: data collection speed, simple distribution method, low costs and the possibility of use in the analyzed area. According to CSO data, 80.1% of Polish households had at least one computer at home in 2016. 80,4% of households had Internet access, including 75,7% – broadband (GUS, 09.09.2017).

Therefore, the selection of a web survey seems to be the best way to find people, who have recently purchased a clothing product. The research tool was a questionnaire placed on Google Forms, and a link to this questionnaire was placed on selected social media profiles. The study was conducted in June and July 2017 on a research sample of 343 people, who purchased a clothing product in the last month. The research included 70% of women and 30% of men. This large disproportion in the number of respondents (sex) does not allow to threat the obtained results as representative information.

Table 2.
Time, after which customers start to get annoyed when trying on clothes

Period	Average	Sex		Age				
		women	men	below 18	18-24	25-33	34-42	over 42
After 5 minutes	**12,32%**	9,92%	18,37%	16,67%	11,18%	11,70%	18,37%	40,91%
From 5 to 10 min.	**21,70%**	19,01%	28,57%	33,33%	19,25%	22,34%	26,53%	4,55%
From 11 to 20 min.	**16,72%**	16,53%	17,35%	20,83%	16,77%	15,96%	16,33%	9,09%
Over 20 minutes	**25,51%**	28,10%	19,39%	12,50%	26,09%	27,66%	22,45%	22,73%
He or she is not annoyed (trying on)	**23,75%**	**26,45%**	**16,33%**	16,67%	26,71%	22,34%	16,33%	22,73%
Parameters of statistical tests for α = 0,05	-	Chi square = 12,09; p < 0,016656 Cramer's V = 0,19		Chi square = 23,78; p < 0,094395				

Source: own study based on the conducted research.

By analyzing the results (Table 2) that reflect the time, after which customers of clothing products start to irritate in the fitting room, it can be pointed out that almost every fourth respondent is not stressed while trying on next clothes, and 25% of respondents start to get nervous after 20 minutes. The correlation between sex and irritation time ($p < \alpha$) was statistically demonstrated. However, the Cramer's V factor (informing about the strength of the compound) obtained a small value of 0.19 – this means a very poor correlation. On the other hand, significant differences in behaviors can be identified. Definitely fewer men (by 10 percentage points) are not irritated by trying on and almost twice more than women are upset after only 5 minutes in the fitting room. Considering the results according to the age of the respondents, the largest group of calm clients includes people between 18 and 24 years old, and also 25-33 years old. However, the youngest respondents (under the age of 18) are the most irritated.

Table 3.
Results of the answer to the following question: Is the right selection of the clothing size a problem?

Do you have a problem with the choice of the right size of clothes?	**average percent age**	**Sex**		**Age**				
		women	**men**	**below 18**	**18-24**	**25-33**	**34-42**	**over 42**
Definitely yes	**16,13%**	16,94%	14,14%	12,50%	13,66%	12,77%	32,65%	15,38%
Rather yes	**30,21%**	30,17%	30,30%	33,33%	26,71%	29,79%	36,73%	46,15%
Rather not	**48,97%**	49,17%	48,48%	45,83%	54,04%	53,19%	30,61%	30,77%
Definitely not	**4,69%**	**3,72%**	**7,07%**	8,33%	5,59%	4,26%	0,00%	7,69%
Parameters of statistical tests for α = 0,05	-	Chi square = 2,03; p < 0,565983		Chi square = 21,3096; p <0,046027 Cramer's V = 0,144328				

Source: own study based on the conducted research.

Another analyzed factor was the problem of choosing the right clothing size. Thanks to the use of the Likert scale, the information concerning the range of this problem was obtained. The largest group of people (almost 70%) have problem with the selection of the right clothing size, in the age group between 34 and 42 years old (Figure 1), 32% of them indicated the answer "definitely yes" (Table 3). Moreover, a large group of people (over 61%), in which difficulties with the selection of clothing were identified, consists of the oldest respondents (over 42 years old). Younger people (under 33 years old) have the least problems. Almost 9% of respondents under the age of 18 showed that finding the right size is definitely not a problem for them. Analysis of the Chi square test results demonstrated the lack of relation between sex and the degree of the problem with matching clothing. However, the identified correlation between age and degree of the problem is characterized by a very low impact force (Cramer's V = 0.14).

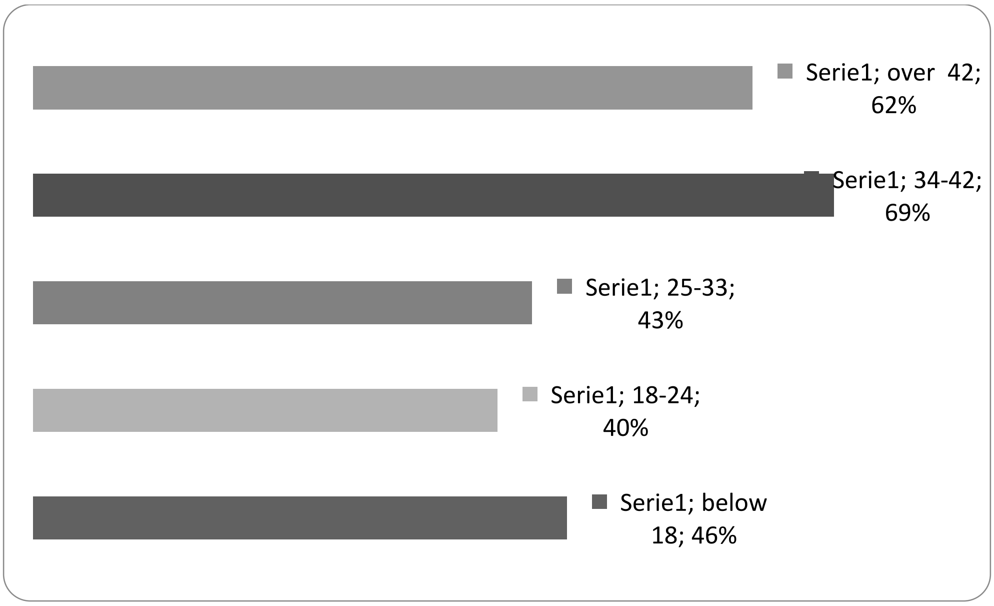

Figure 1. Percentage of respondents, who have problems with the selection of the right clothing size, division into age groups. Source: own study based on the conducted research.

5. Summary

Manufacturers in the fashion market (following fashion and trends) implement more and more advanced innovative solutions. However, the lack of uniform clothing sizes and their size unification is still a significant problem. Almost half (46%) of respondents indicated that the right selection of clothing size is a problem for them, including 16% of respondents confirmed it strongly. In this aspect, sex is not important, i.e. both for a group of women and men – every second respondent indicates this inconvenience. However, the determinant related to the time spent in a fitting room without irritation is a statistically important relation in sexes. 26% of the surveyed women do not get angry at all when trying on clothing products, and only 16% of men showed the same feature – this confirms the hypothesis formulated in the introduction. The demonstrated differences in behaviors of women and men, as consumers in the clothing market, are also confirmed by other studies (Grębosz, and Wrońska, 2013, p. 11). A disadvantage of the performed researched is the use of a questionnaire method that is characterized by declarative results. Moreover, the choice of the Internet as a medium for distribution of a questionnaire determines the group of recipients and limits this group to people, who use the Internet. The drawn conclusions can only point to further research directions, which should be deepened especially in the aspect of more and more popular devices for automatic human dimensioning.

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