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Adam Rudzewicz[1], Anna Strychalska-Rudzewicz[2]
University of Warmia and Mazury in Olsztyn
[1]ORCID ID: https://orcid.org/0000-0002-7807-9375
[2]ORCID ID: https://orcid.org/0000-0002-4999-6772

EVOLUTION OF POLISH E-CONSUMER BEHAVIOUR

Introduction

E-commerce is one of the fastest-growing and most innovative forms of retail. The number of online shops is increasing, as is the value of all e-commerce (Rudzewicz 2016, p. 245). In the 21st century, online consumer behaviour has become one of the most important research topics.

Modifying economic, demographic, cultural, social, political, and technological factors influence changes in consumer behaviour. It creates different consumption paths (trends) that buyers follow (Bartosik-Purgat 2017, p. 31). Knowledge of digital consumer behaviour is highly relevant to the marketing activities of companies that sell products and services online.

The article aims to identify the fundamental changes in the profile and behaviour of Polish e-consumers between 2016 and 2021. The profiling analytical process focuses on demographic elements such as gender, age, education, place of residence, and the material situation of e-consumers. The second research aspect addressed is the online behaviour of e-consumers. The main focus was on online activities, factors motivating online shopping, e-consumers' opinions about online shopping, and the range of products purchased in e-shops.

The research period is 2016-2021, and particular attention will be paid to 2021, followed by 2016 as the base year. It will allow a reasonably accurate description of the contemporary e-consumer against the e-consumer of 5 years ago. In addition, the analytical process adopted will demonstrate market trends and any changes in online shoppers' profiles and market behaviour. The observed changes are presented in relative terms according to the formula: (Variable X2021 - Variable X2016) / Variable X2016 * 100%.

The research was conducted based on the annual 'E-Commerce in Poland' reports prepared by the international research and technology company Gemius for the years 2016-2021. Gemius is the official provider of data that is the standard for measuring online audiences in more than a dozen European countries, including Poland. It provides information on the preferences and behaviour of Polish internet users online. The research is carried out using CAWI (Computer-

Assisted Web Interview) surveys. The interviews come from over 1,500 internet users aged 15 and over. The structure of the sample corresponds to that of Polish Internet users. The sample takes into account socio-demographic and broad lifestyle variables.

E-commerce and the determinants of digital consumer behaviour

In the literature, the digital consumer is often called the contemporary consumer, the new age consumer, and the new 24/7 consumer (Tarczydło 2016, pp. 16-17). In addition to making decisions and purchases online, this type of consumer desires to personalise everything and create something out of the box. Thus, several characteristics of the modern consumer can be distinguished, i.e., courage, awareness of oneself and one's needs, curiosity for novelty, high demands, and simplifying decisions. Thanks to available technologies, the digital consumer builds a network of contacts with other consumers, is willing to share opinions on goods and services, and trusts other buyers' opinions. Thus, it can be said that the e-consumer is very comfortable in the virtual world and increasingly uses it for online shopping (Tarczydło 2016, pp. 16-17). The new 24/7 consumer is constantly active online by receiving content on mobile devices (Zalega 2016, p. 213).

The new-age consumer is authentic, engaged in online shopping, willing to seek information, and has high consumer awareness (Malysa- Kaleta 2016, pp. 145-146). Modern consumers are curious about change and product innovations and know where, when, and how to find information. They are aware of their purchasing decisions, and their purchases are thoughtful (Linkiewicz 2017, pp. 16-17). So-called 'smart shopping' is a trend directly derived from the virtualisation of consumer life. The direction consists of buying goods in a sensible, relatively fast, safe, and cheap way (Sobczyk, 2018, p. 178). The development of this direction has given buyers new opportunities to act on the consumer goods market, and buyers can find a vast database of information about available offers on the Internet (Pacut, 2016, p. 325). In a way, the virtual consumer forces entrepreneurs to create more and more new solutions to guarantee better communication with the customer.

E-consumers are a strong and extensive group in society. It is particularly evidenced by the year-on-year increase in households with Internet access at home (Table 1).

Table 1 . Share of households with Internet access

Specification	Years				
	2016	2017	2018	2019	2020
Participation	80,4%	81,9 %	84,2%	86,7%	90,4%

Source: own work based on *Information Society in Poland in 2020*. Central Statistical Office, Warsaw, Szczecin, p.132 .

Technology has contributed to the virtualisation of consumption and, therefore, to e-commerce. The importance and use of mobile devices have increased turnover in e-commerce markets. Table 2 shows the share of devices used for online shopping purposes. Shopping online requires additional devices besides the Internet, such as a computer, laptop, smartphone, or tablet.

Table 2. Devices used when shopping online

Specification	Years		
	2018	2019	2020
PC/Desktop	75%	74%	78%
Laptop	**80%**	83%	**85%**
Smartphone	**76%**	78%	**85%**
Tablet	68%	60%	65%
Smartwatch	50%	55%	58%
Smart TV	47%	37%	51%

Source: own compilation based on *Omni-commerce. I shop conveniently.* Report of the Chamber of Economy of Electronics, prepared by the Mobile Institute. 2020, s. 14.

Many factors influence the development of the e-commerce market. Determinants of e-commerce development include the ubiquity of information and the continuous improvement of modern technologies. Also important is the more significant security guaranteed to consumers during the process of ordering goods (e.g., encoding the debit card number, identifying the seller) and the development of innovative forms of collecting information about the needs of potential buyers (Skurpel 2019, p. 47). All these factors determine the dynamics of e-commerce market development.

It can be thought that the online trading sector is in a period of rapid development and growth. Figure 1 shows the gross value of online goods sales in Poland. In 2026, the gross value of the e-commerce market in Poland is expected to reach 162 billion PLN, almost double that of 2020, when the gross value of the e-commerce market was recorded at 83 billion PLN.

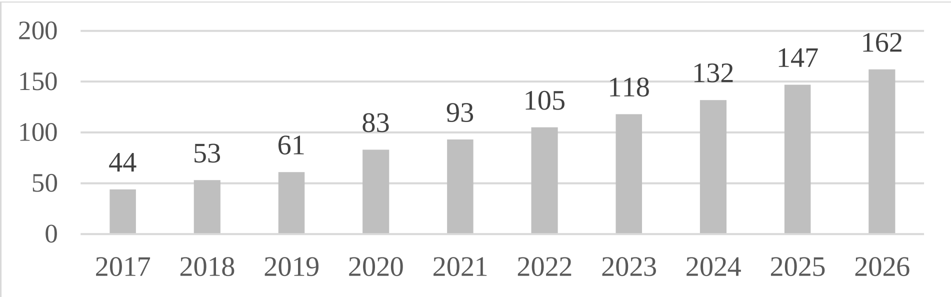

Fig. 1. Gross value from online goods sales in Poland between 2017 and 2026 (PLN billion)
Source: own compilation based on: Development prospects of the e-commerce market in Poland 2021-2026, 2021, p. 2.

Profile of e-consumers

When analysing the demographic characteristics of e-consumers, it should be noted that the number of female and male shoppers is similar, with a minimal advantage for women (Table 3).

Table 3 . Gender structure of online shoppers

Specification	Years						Dynamics 2021/2016
	2016	2017	2018	2019	2020	2021	
Women	52%	53%	54%	50%	51%	53%	2%
Men	48%	47%	46%	50%	49%	47%	- 2%

Source: own compilation based on *E-commerce in Poland* reports for 2016-2021

During the period under review, the number of women among online shoppers increased by 2% in relative terms from 52% to 53%, while the number of men decreased by 2%.

Considering the age structure of internet users, in 2016, the largest group of people who purchased goods/services online were young people aged up to 24 (30%) and people in the 35-49 age bracket - another 30% (Table 4). There were at least half as many online shoppers aged 50+ (14%) compared to younger people. Two thousand sixteen young people under 24 accounted for 56% of total buyers. In 2021, however, older people aged 35+ are the majority (62%).

Table 4 . Age structure of online shoppers

Specification	Years						Dynamics 2021/2016
	2016	2017	2018	2019	2020	2021	
15-24 years	**30%**	29%	31%	20%	17%	16%	**- 47%**
25-34 years	26%	29%	33%	22%	22%	22%	- 15%
35-49 years	**30%**	30%	25%	32%	32%	**34%**	13%
50+ years	14%	13%	12%	26%	28%	**28%**	**100%**

Source: own compilation based on *E-commerce in Poland* reports for 2016-2021

From 2019 onwards, the sharp increase in older people (50+) buying online is worth noting. In 2021, they already accounted for 28% of all buyers, resulting in an increase of 100% compared to 2016. At the same time, the number of people aged up to 24 saw a relative decrease of 47% in the overall structure of online shoppers.

Most online shoppers live in cities with up to 200,000 inhabitants (Table 5). In the structure of online buyers, they occupy between 40 and 48%. In the analysed period, they are the primary purchasers of goods on the Internet and, in addition, the most dynamically developing (growth of 20%). Rural residents are the minor numerous buyers by place of residence. Moreover, they are characterised by a decreasing trend in the structure of buyers (by 20%) over the last 5 years.

Table 5. Structure of online shoppers by place of residence

Specification	Years						Dynamics 2021/2016
	2016	2017	2018	2019	2020	2021	
Village	25%	25%	29%	24%	25%	20%	**- 20%**
A city of up to 200,000 inhabitants	**40%**	44%	37%	45%	45%	**48%**	**20%**
A city of over 200,000 inhabitants	35%	30%	34%	32%	30%	32%	- 9%

Source: own compilation based on *E-commerce in Poland* reports for 2016-2021

Over the six years under study, most online shoppers had secondary and tertiary education (Table 6). The number of internet users with a secondary education accounted for 42% in 2016, while the % of those with a university education was 35%. In 2021, these groups swapped orders. The share of those with tertiary education has increased significantly (17%). Currently, consumers with a tertiary education are the largest group of buyers (41% of the total). The share of those with a secondary education has fallen by the same amount, and they now account for 35%.

Table 6. Structure of online shoppers by education

Specification	Years						Dynamics 2021/2016
	2016	2017	2018	2019	2020	2021	
Below average	23%	22%	24%	28%	28%	24%	4%
Medium	**42%**	47%	44%	38%	40%	35%	**- 17%**
Higher	35%	30%	31%	34%	33%	**41%**	**17%**

Source: own compilation based on *E-commerce in Poland* reports for 2016-2021

Online shoppers are generally well or moderately financially well-off (Table 7). In 2016, they accounted for 92% of all shoppers. In 2021, they were 94%. In the structure shown, the share of people with an average level of wealth is increasing (up 22%). There has also been a 17% decrease in those described as well-off and a concomitant decrease in those with a poor material situation (by 25%).

Table 7. Online shoppers - breakdown by household financial situation

Specification	Years						Dynamics 2021/2016
	2016	2017	2018	2019	2020	2021	
Good	**46%**	51%	54%	42%	40%	38%	- 17%
Average	**46%**	41%	40%	52%	54%	**56%**	**22%**
Bad	8%	8%	6%	7%	7%	6%	**- 25%**

Source: own compilation based on *E-commerce in Poland* reports for 2016-2021

In 2016, the most common Polish e-consumer was a woman aged 15-24 or 35-49, living in a small or medium-sized city (up to 200,000 inhabitants), with a medium level of education, with a good or average household material situation. In contrast, the characteristics of the Polish e-consumer have changed slightly in 2021. It is currently as follows: predominantly female, aged over 35, still living in a city with up to 200,000 inhabitants, with a higher education, with an average household material situation.

Comparing 2021 with 2016, the most noticeable difference in the characteristics of the average e-consumer is the level of education, wealth, and age. A high school education characterised the e-consumer in 2016, whereas in 2021, most buyers have a university degree. It is also an older person, often over 50, whereas, in 2016, it was dominated by those under 35. Another difference that cannot be overlooked is the material situation of households. In 2016, people who were moderately or well-off dominated. In 2021, the material situation of online shoppers has slightly deteriorated. Nowadays, the most numerous group in the structure of the total number of online shoppers are the moderately well-off.

Basic online buying behaviour

E-consumers perform a variety of activities online (Table 8). The most popular activities in 2021 are using Facebook and paying bills. Internet users use the web for entertainment and to maintain social relationships (ability to follow friends), which Facebook provides.

Table 8. Online activities

Specification	**Years**						**Dynamics 2021/2016**
	2016	2017	2018	2019	2020	2021	
I use Facebook	**62%**	59%	67%	74%	81%	**80%**	**29%**
I pay my bills online	51%	51%	53%	65%	74%	**75%**	**47%**
I compare product	**60%**	59%	67%	65%	74%	**73%**	**22%**
I am looking for products I	**60%**	62%	72%	65%	73%	**71%**	18%
I browse the online press	56%	55%	50%	53%	59%	57%	2%
Looking for shops I want	45%	47%	45%	50%	49%	54%	20%
I use blogs	20%	18%	19%	21%	21%	23%	15%
I use other social media	31%	28%	31%	19%	21%	27%	**- 13%**

Source: own compilation based on *E-commerce in Poland* reports for 2016-2021

Another activity is responsible shopping by gathering product information and looking for the most attractive prices. It was already noticeable in 2016 and has now intensified even further. In 2016, fewer people used the Internet to pay their bills. It has become more prevalent in subsequent years.

Comparing the range of online activities from 2021 to 2016, it is clear that the most significant increase was in paying bills online (up 47%). E-consumers are becoming more willing to use Facebook (up 29%) and are increasingly using the Internet to search for price information on products they want to buy (up 22%). A noticeable phenomenon is that e-consumers are less and less interested in using social media other than Facebook (down 13%). More than half of internet users use press reviews.

The most motivating factor for purchasing goods online is their 24/7 availability, the lack of need to travel to the shop, and the prices' attractiveness compared to stationary shops (Table 9). These are stable motivators, both today and 5 years ago.

Table 9. Motivating factors for online shopping

Specification	Years						Dynamics 2021/2016
	2016	2017	2018	2019	2020	2021	
24-hour availability	**84%**	82%	87%	75%	82%	**76%**	- 10%
No need to travel to the shop	**79%**	77%	84%	72%	78%	**73%**	- 8%
More attractive prices than in stationery shops	**75%**	69%	70%	65%	71%	**65%**	**- 13%**
Possibility to return purchased goods within 14 days without stating a reason	39%	39%	41%	43%	44%	40%	**3%**
Multiple delivery/pick-up methods are available	55%	54%	58%	49%	53%	48%	**- 13%**
Ease of comparing offers	68%	68%	73%	63%	69%	61%	- 10%
Possibility of collecting points for purchases	14%	12%	13%	30%	33%	24%	**71%**
Various forms of payment are	55%	49%	55%	56%	57%	53%	- 4%
More product information	48%	44%	52%	42%	44%	40%	**- 17%**

Source: own compilation based on *E-commerce in Poland* reports for 2016-2021

However, these are so obvious that they lose some importance over the years (a few or several percent). It should be noted that, in dynamic terms, elements such as the possibility of collecting points for purchases are gaining importance (71% increase). E-consumers show loyalty attitudes towards online shops and expect attractive loyalty programmes. Indeed, an attractive feature of online shopping is the possibility to return purchased goods within 14 days without giving a reason.

The 2021 data show that online shopping is easy (59%), convenient (69%), takes very little time (54%), and is cheap (44%), especially compared to shopping in stationary shops (Table 10). The same opinions were also prevalent in 2016. The security of these purchases is increasingly increasing (by 150%). Such a dynamic increase in security is the impetus for further growth in the e-commerce sector. According to e-consumers, this trend is followed by the ease (up 69%) and convenience (up 51%) of shopping.

The implication is that bidders are constantly working on the usability of sales applications. It is followed by less and less concern about perceived risk (down 71%) or the difficulty or inconvenience of shopping (78%).

Table 10. Consumers' opinion of online shopping

Specification	**Years**						**Dynamics 2021/2016**
	2016	2017	2018	2019	2020	2021	
Risky	21%	20%	10%	5%	6%	6%	**- 71%**
Safe	12%	14%	26%	24%	26%	30%	**150%**
Difficult	9%	7%	5%	3%	2%	2%	**- 78%**
Easy	**35%**	41%	49%	52%	57%	**59%**	**69%**
Nuisance	9%	7%	4%	2%	1%	2%	**- 78%**
Comfortable	**45%**	44%	52%	58%	66%	**68%**	**51%**
More expensive than shopping in a stationary shop	9%	8%	7%	3%	2%	3%	- 67%
Cheaper than shopping in a stationary shop	**35%**	33%	42%	44%	42%	**44%**	26%
They take longer than shopping in a stationary shop	11%	10%	5%	3%	4%	4%	- 64%
They take less time than shopping in a stationary shop	**39%**	39%	46%	47%	52%	**54%**	38%

Source: own compilation based on *E-commerce in Poland* reports for 2016-2021

In 2021, internet users were most likely to buy clothing, footwear, and cosmetics (Table 11). In 2016, clothing, books, records, smartphones, and GSM accessories were used. When juxtaposing the most frequently purchased products in 2021 and 2016, it is clear that the most significant increases were in pharmaceuticals, food, and insurance (up 52-55%). It was also interesting to note the high interest of internet users in purchasing building and finishing materials (up 47%). On the other hand, interest in products such as tickets (cinema, theatre), travel, computer hardware, and smartphones declined during the analysed period. The ongoing COVID-19 pandemic may have caused these phenomena.

Table 11. Purchased products in Polish e-shops

Specification	Years						Dynamics 2021/2016
	2016	2017	2018	2019	2020	2021	
Clothing, accessories	**72%**	73%	64%	69%	69%	**73%**	1%
Books, records, films	**68%**	70%	54%	54%	56%	**56%**	- 18%
Smartphones, GSM accessories	**56%**	55%	32%	43%	42%	41%	**- 27%**
Consumer electronics/appliances	**55%**	58%	37%	49%	48%	**50%**	- 9%
Cinema/theatre tickets	**54%**	53%	51%	49%	51%	25%	**- 54%**
Cosmetics/Perfumes	**51%**	52%	43%	52%	57%	**57%**	12%
Footwear	49%	53%	44%	55%	58%	**61%**	24%
Computer hardware	48%	51%	29%	33%	34%	34%	**- 29%**
Sportswear	46%	49%	36%	46%	46%	47%	2%
Travel, booking	42%	44%	37%	40%	38%	28%	**-33%**
Children's items/toys	41%	46%	29%	40%	43%	41%	0%
Furniture and interior design	37%	39%	25%	36%	35%	39%	5%
Multimedia (apps, e-books)	35%	36%	29%	30%	33%	30%	- 14%
Jewellery	35%	34%	21%	33%	29%	30%	- 14%
Pharmaceutical products	31%	34%	24%	44%	47%	48%	**55%**
Food products	23%	22%	19%	30%	30%	35%	**52%**
Insurance	20%	21%	17%	26%	29%	31%	**55%**
Building and finishing materials	19%	21%	16%	24%	24%	28%	**47%**

Source: own compilation based on *E-commerce in Poland* reports for 2016-2021

Conclusions

The research material presented has made it possible to identify critical changes in the profile of the Polish e-consumer over the six years studied (2016 - 2021). Both women and men are online customers. However, a minimal predominance of women is noticeable. In the structure of online buyers, the number of young people under 34 is decreasing, while the number of older people (over 35) is increasing. Online shoppers reside in medium-sized cities (up to 200,000 inhabitants) with a clear upward trend. The changes in the Polish e-consumer profile also concern their education level. Previously dominated by people with secondary education, it is now people with higher education. Despite the increase in the level of education, there has been a deterioration in the material situation declared by buyers. Previously, e-consumers were characterised by a sound or average level of wealth. Now, there is a definite predominance of those with an average material situation.

In addition to the demographic characteristics of the e-consumer, an analysis was made of their online behaviour. Buyers value the opportunities provided by the Internet. They increasingly use it to observe a global social platform such as Facebook, pay bills, and compare prices of products available online. On the other hand, they spend less and less time on other social media. The factors motivating e-consumers to shop online are generally known and unchanged. As a rule, these are attractive prices, 24-hour availability of the offer, and no need to travel to the shop. However, there is a dynamic increase in interest in the possibility of collecting points for shopping in a frequently visited e-shop. The opinions shoppers have about purchasing goods over the Internet are very positive. Online shopping has become safer, easier, and more convenient in recent years. The range of products being purchased is also changing. There is an apparent increase in the sale of products such as insurance, food, and pharmaceuticals.

The development of the e-commerce market is constantly increasing. New technologies with exciting features and the adaptation of sales offers to customer expectations by entrepreneurs have a positive impact on the expansion of e-commerce. The increasing interest of shoppers in online shopping also conditions the growth of the e-commerce market.

E-consumer behaviour in the e-commerce market will continue to evolve. It is most influenced by the increasing needs and expectations of buyers and the advances in modern technology.

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Abstract

The article aims to identify critical changes in the profile and behaviour of Polish e-consumer between 2016 and 2021. In terms of profiling, the focus was on gender, age, education, place of residence, and material situation of e-consumers. When analysing e-consumer behaviour, particular attention was paid to online activity, factors motivating online shopping, consumers' opinions on online shopping, and the range of products purchased in e-shops.

E-Commerce in Poland reports, based on representative surveys of online customers, were used for the analysis.

The analysis carried out showed that the profile of the e-consumer has evolved somewhat. When comparing the profile of the 2021 e-consumer with that of 2016, the most noticeable difference is the level of education, wealth, and age. The e-consumer 2016 was more likely to be characterised by a high school education, while in 2021, most respondents had a university degree. The e-consumer in 2021 is no longer a young person, under 34, but over 35 (often over 50). His/her material situation is slightly worse compared to 2016.

The e-consumer is increasingly using the Internet to observe a global social networking platform such as Facebook, pay bills, and compare prices of products available online. The factors motivating e-consumers to shop online are generally known and relatively unchanged. However, there is a dynamic growth of interest in collecting points for frequent e-shopping. Online shopping is becoming safer, easier, and more convenient. The range of products being purchased is also changing. There is an apparent increase in insurance, food, and pharmaceutical products sales.

Keywords: e-consumers, e-consumer, Polish e-consumer

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