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# The importance of chosen attributes of a digital postal service in shaping its quality in the opinion of customers at the age of 18-30

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## Abstract

The purpose of the article is to present the importance of the chosen digital postal service's attributes in shaping its quality in the opinion of young customers at the age of 18-30. The first part contains the theoretical framework of service quality, digital services, postal market and digital competences. Afterwards, the results of anonymous survey have been presented. The study has been conducted among fifty respondents at the indicated age and it consisted of assessing the meaning of nine chosen quality factors on a Likert scale of 1-5. The results contributed to the formulations of conclusions on the validity of chosen determinants of the digital postal service quality for customers at the age of 18-30.

**Key words:** digital service; postal service; service quality

## **1. INTRODUCTION**

The service sector is referred to as the driving force of the Polish economy [1]. This causes constant interest in services in various fields of science. The perception of services is strongly influenced by their quality. There is a problem because the literature lacks universal definitions of both the concept of services and quality [2].

What is the quality of service? The most popular characteristics generally indicate that it can be defined as a set of service features that meet customer needs [3]. In relation to the characteristics of services (diversity, immateriality, service enterprise-customer interaction), the needs and expectations of customers are a key aspect of service quality [4]. In view of the information provided, improving the quality of services that will allow to meet the changing needs of customers is a prerequisite and basis for enabling service enterprises to operate in a competitive market [5].

The literature distinguishes a number of different classifications of service quality criteria. Worth mentioning is the classification of the Servqual (research instrument of measuring service quality) which groups quality factors into five sets: features of tangibles, reliability, assurance, responsiveness and empathy [6].

Many modern classifications derive from the definition of Gronroos, according to which the quality of services can have a technical dimension (tech-quality)- concern the effect of the service process and functional (touch-quality)- concern the course of the service provision process [7].

## **2. DIGITIZATION OF POSTAL SERVICES**

Postal service may be defined as the provision by the postal operator of the transmission of the subject of a postal service (correspondence, goods, monetary value) by collecting, segregating, moving and delivering. Postal operators are organizations present in the register of postal operators that have the right to provide postal services [8]. There is a designated operator (until 2013 public operator) that provides universal postal services (transmission and delivery of letters and parcels five days a week at affordable prices) and alternative operators [9].

The postal services market is the overall relationship between postal service providers and purchasers of these services. The postal services market is an example of a structure that was initially transformed from a competitive market into a monopoly, then subjected to liberalization processes, leading to a gradual departure from monopolistic solutions and the transition to a fully open postal market [10].

According to the report of the Postal Institute, the value of individual postal markets is closely related to the population and popularity of individual postal services. In addition, national post offices are financially supported by the state. Most often, surcharges include compensation for the provision of universal services, maintenance of post offices or the need to maintain offers relevant to the public (e.g. press or financial services in rural branches).

In Europe, the three largest postal operators are Germany (Deutsche Post DHL Group), Great Britain (Royal Mail) and France (La Poste). Particularly noteworthy among postal operators is Deutsche Post, which employs about half a million employees and currently has twenty-four thousand post offices. Deutsche Post- currently a joint-stock company, whose shares are held by 68% institutional investors and 32% by private investors, also has

a majority stake in the European courier company DHL and operates on the British-foreign market, as part of UK Mail and also in America and Asia. In relation with dominance on the German market (90% share in the volume of letters and over 50% in the KEP volume - courier, express and parcel shipments) in Germany, the competition for the designated operator was abandoned.

La Poste, or French Post, is totally state dependent. The current situation on the postal market has caused a posting by French post on revenue diversification. As part of international operations, there is the GeoPost / DPD Group division responsible for courier shipments and being the main enterprise on the courier shipment market in Poland, Spain and Lithuania. The domestic activity of French post is expanded by the offer of conducting written driving license exams, recycling activities and installation of home appliances and electronics.

Royal Mail - British mail has been privatized, with the exception of post offices separated to an enterprise called Post Office. Due to the high competition, Royal Mail relies mainly on a subsidiary company handling courier items - GLS, very popular in Germany, France and Italy [11].

The postal services market is referred to as the dynamic change market. National trends coincide with those of global postal markets. In recent years, the number of traditionally sent letter items has dropped regularly (in 2017 a decrease by 2.4% compared to the previous year was recorded) with a simultaneous increase in the number of parcels (increase by 9.9%).

In addition, there is an increase in the importance of courier items in postal services and an increase in the number of parcels sent abroad. After a period of stagnation, observed in 2010-2016, in 2017 the value of the Polish postal market increased. In 2017, Poczta Polska had a 83.8% share in the total volume, which allowed it to obtain a share in the revenues of the postal market at 57.1%. The increase in revenues from postal services is mainly due to the increase in the value of parcels and courier parcels from electronic commerce. In Poland, the e-commerce market, currently estimated at around PLN 40 billion, is considered to be a market with great potential for further growth. The offer of trading based on the electronic channel assumes four basic transaction stages: searching, ordering, payment and delivery. The last stage includes the offer of postal operators, which is a wide range of services whose purpose is to stand out from the competition. In addition, the concept of e-commerce and its stages also translate directly into the activities of postal operators, changing the structure of services and stimulating the conduct of business also under other channels [12].

The literature also indicates that three basic types of changes can be identified in the postal sector environment:

- legal regulations- liberalization of this market sets the legal framework for universal service obligations by public operators;
- development of technology- leads to unavoidable changes in the scope of postal activities and its restructuring, and also sets a new place and tasks for public postal operators, indicating which of the traditional services will form the basis for their further development;
- market and competition- globalization processes combined with the existence of infrastructural obstacles to open the market to competition cause its service and geographical segmentation, which in turn leads to the inevitable intensification of changes in the entire area of postal activity [13].

Digitization, understood as the adaptation and increase in the use of digital technologies by organizations, sectors, and countries, is largely responsible for the process of these changes. It involves the process of transforming company's resources into new sources of revenue that add value to the company using the opportunities offered by digital technologies [14]

Digital competences are closely related to the issue of digitization. They can be understood in two approaches (catalog or traditional and relational). The first describes that it is a catalog of information and skills that the user should know. According to the European Commission, these are the skills to use digital technology freely in various aspects of life (work, study, communication, free time). The relational approach extends these definitions. It indicates that digital competences are an integral part of these areas of life and are characterized by simplifying operations, giving a choice in using them as needed. Digital competences include the ability to search, understand, evaluate and use information, creating digital content and using electronic devices as well as software and applications for this purpose [15].

Young people give themselves a high rating for their own digital competences. Research surveys often include questions about computer and internet skills [16]. This effect is due to many factors. It depends primarily on the technological and social changes that have caused that now even small children already have certain skills in this area.

The use of digital competences and the current lifestyle translates into growing e-commerce [17]. The last stage of electronic commerce, i.e. delivery, includes the offer of postal operators. For several years, research has been conducted on the determinants of using the offers of companies offering e-commerce. The most frequently mentioned purchase factors are: price, safety, refund, credibility of the offer, personal data protection, ease of making transactions and opinions of others [18].

### **3. THE IMPORTANCE OF CHOSEN ATTRIBUTES OF A DIGITAL POSTAL SERVICE IN SHAPING ITS QUALITY IN THE OPINION OF CUSTOMERS AT THE AGE OF 18-30**

For the purposes of the study, an anonymous survey among customers of digital postal services aged 18-30 was conducted electronically. Its purpose was to assess the significance of chosen determinants in shaping the quality of the digital postal service. Fifty respondents took part in the survey. The structure of the group is presented in Table 1.

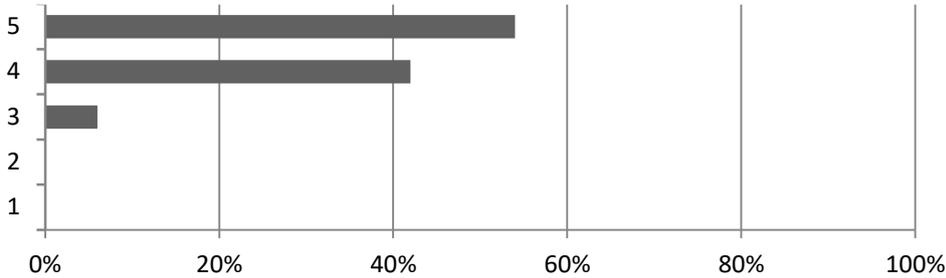
*Tab. 1. Structure of respondents*

Age	Males		Females		Total	
	N	%	N	%	N	%
<b>18-30</b>	25	50	25	50	50	100

The anonymous survey sheet consisted of a metric and ten determinants, rated by respondents using a scale of importance based on the assumptions: 5- very high impact on quality; 1- very low impact.

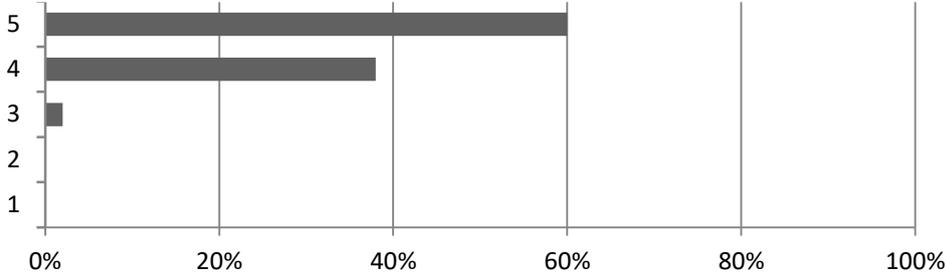
The first factor that appears in many studies is price (fig. 1). Price is an important quality feature of both products and services. Customers also pay attention to this in the case of

digital postal services. According to the above-mentioned literature, in the case of postal services the price is losing importance, but it still plays a very important role among young recipients. 54% of respondents, including 32% of females and 22% of males consider the importance to be very high, 40% of them (16% of females and 24% of males- high) and 6%-medium.



**Fig. 1. Price in the opinion of respondents**

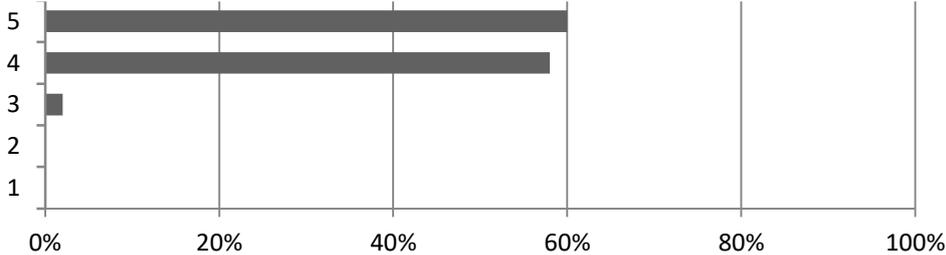
Then, the respondents assessed service delivery time as a determinant of quality (fig. 2).



**Fig. 2. Service delivery time in the opinion of respondents**

In this case, the number of 5 ratings is slightly higher (60% of respondents). 38% of them admitted 4, and only 2% - 3. This means that the delivery of the digital service has a strong impact on the perception of its quality by young recipients.

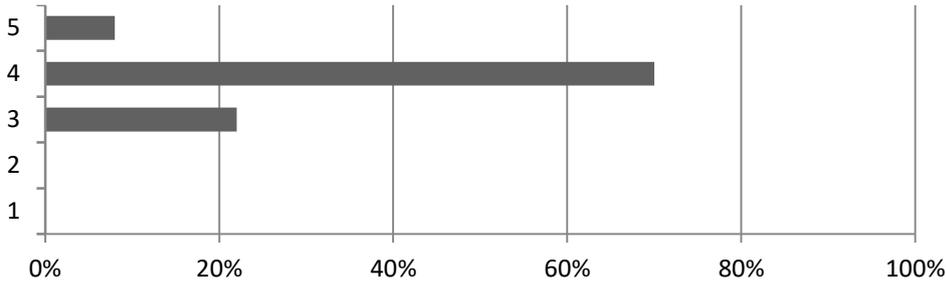
The assessment of the significance of the scope of digitization of services is presented in figure 3.



**Fig. 3. Scope of service digitization in the opinion of respondents**

Postal services can be traditional, hybrid (e.g. electronic parcel sending, which must be delivered to a collection point) and completely digital (e.g. registered electronic letter). Respondents were asked how important this range is in quality. According to the data, this is an important quality determinant. 58% of respondents indicated a very high impact, 40% - high and 2% - medium.

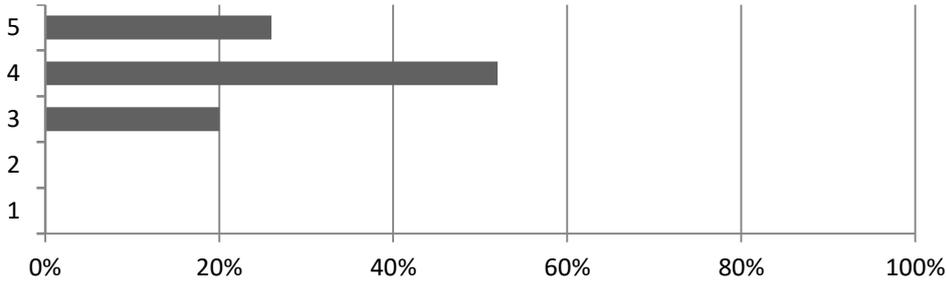
Multichannel is also associated with the scope. Multichannel of postal services is another determinant in the study (fig. 4).



**Fig. 4. Multichannel in the opinion of respondents**

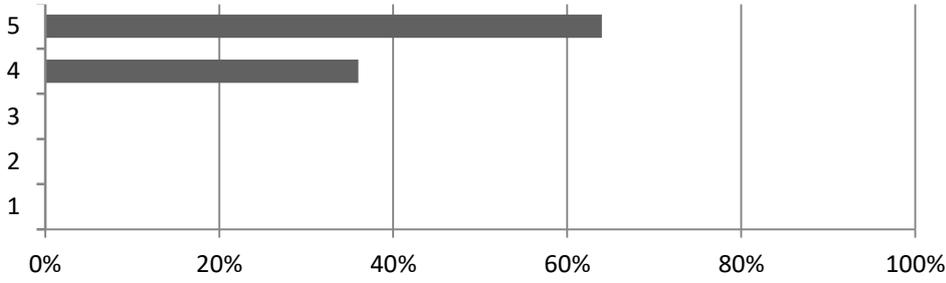
The presented results differ significantly from the previous ones. Only 8% of respondents give the highest rating on a scale, 70% of them assess it as high, and 22% as medium. It may mean that the respondents do not know the concept and features of multi-channeling, they do not have an opinion on this topic or it does not have such a great importance in quality. These results are worth further consideration.

Research indicates that each year more and more people have access to the Internet, use it more often and to an increasing extent. Digital competences depend on many factors, including age. Therefore, young people have been asked how important the quality determinant is the ease of using a website, platform, and application of digital postal services (fig. 5).



**Fig. 5. Ease of use in the opinion of respondents**

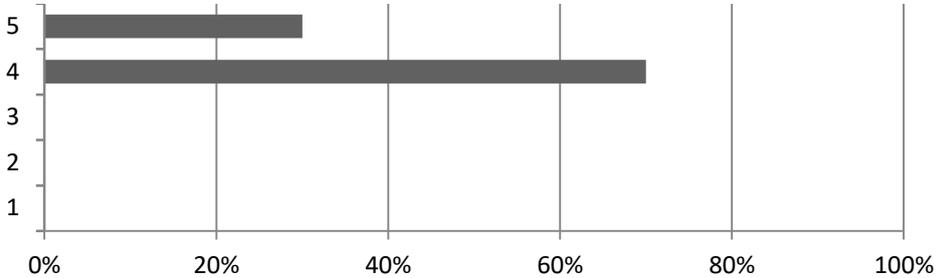
The location/availability of posting/pickup points is another factor assessed. As most postal services have a material aspect (usually a parcel), the author's intention has been to check the meaning of this determinant.



**Fig. 6. Location in the opinion of respondents**

The presented figure shows that the location of points is a very important determinant of the digital postal services quality. As many as 64% of respondents (34% females and 30% males) indicate the impact of this factor as very high and 36% as high.

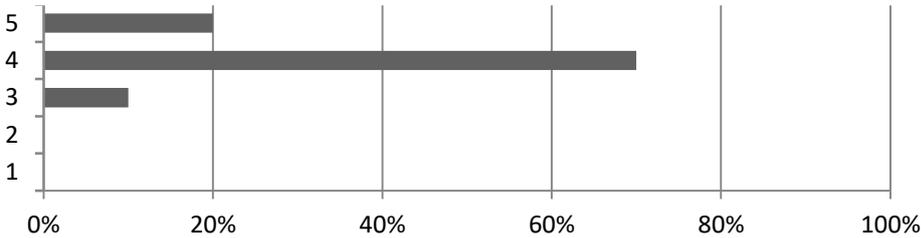
Then, customers using digital postal services have been asked about the importance of additional services. Examples of such services include parcel machines, home posting, applications and many more (fig. 7).



**Fig. 7. Additional services in the opinion of respondents**

The data indicates that additional services are important factor of digital services quality. 30% of respondents rates the meaning of this factor as 4 (high) and 70% of them as very high (5). In conclusion, additional services strongly affects digital postal service quality.

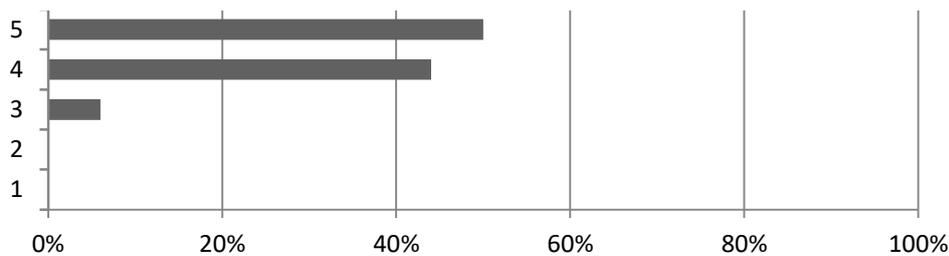
Service quality literature points that interaction between an enterprise and customer is an valuable aspect of quality. In relation to this information, the respondents have assessed the meaning of contact with the postal operator (fig. 8).



**Fig. 8. Contact in the opinion of respondents**

In this case contact may be understood in many ways. For completely digital services it most often takes the form of a chat with a consultant, e-mails or telephone conversation. Hybrid postal services may also consist of talking to a courier or customer service representative. The concept of contact itself may concern content, waiting time, knowledge, empathy etc. In terms of this survey on the Likert scale, most respondents rated the impact of this factors at 4 (70%, including 36% of females and 34% of males) and 20% of them at 5 (very high). Worth mentioning is that every tenth marked the average grade This determinant may be an element of interest for more specific research.

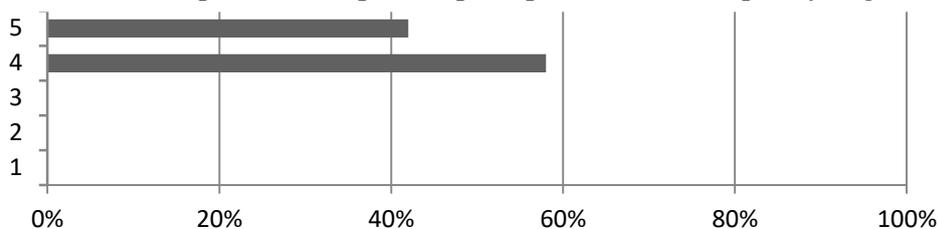
The last two determinant relate to the subjective feelings of customers. The first of these is the enterprise's image. According to the previous research, the opinion of other customers about the enterprise strongly affects the perception of the quality of its products or services (fig. 9).



**Fig. 9. Postal operator's image in the opinion of respondents**

The perception of the operator is an important factor shaping the quality of digital services according to respondents. Half of them has given it the highest impact rating, 44% assess this impact as high and 6% as medium. An interesting phenomenon is the percentage distribution by gender. Of the 50% highest marks, as many as 40% are females, and among the high impact males are the most (34%). The data obtained means that opinion is an important factor of digital postal services quality, especially among young women.

The last factor is previous experience. Many customers of the indicated age have already used the offer of digital postal services of various operators. The author's intention has been to check how experience shapes the perception of service quality (fig. 10).



**Fig. 10. Experience in the opinion of respondents**

Over half of the respondents (58%) perceives the impact of previous experience with a particular operator on the quality of the digital postal service as high, and 42% as very high. Along with the image, these data can be a guide for operators, underlining the great importance of shaping the image and caring for the quality of services.

## SUMMARY

To summarize, the quality of digital postal services is a complex issue in scientific terms. This is due to the multidimensionality of the concept of quality, the characteristics of services and the intense, diverse changes taking place on the postal services market.

For the purposes of this study ten determinants of the quality of digital postal services have been selected for assessment and the study group has been narrowed to people under 30 years of age. The rating have been similar, so it has been decided to calculate the arithmetic average of the impact of each factor.

The results indicate that the most important factor is the scope of services (4.56), then the delivery time (4.5) and price (4.48). Slightly less important, but still noteworthy are the enterprise's image (4.44) and previous experience (4.42). The lowest results in the study have been achieved by multi-channel (3.86), ease of use (4.06) and contact with the company (4.1). This study also has allowed to draw a number of additional conclusions, disclosed under presented figures. This information can be expanded in subsequent studies, and the article may be the basis for further reflection on the determinants of the quality of digital postal services.

## REFERENCES

1. Chraćhol U., Peszko K. Jakość usług i metody jej pomiaru [Quality of services and methods of its measurement]. *Zeszyty Naukowe Uniwersytetu Szczecińskiego. Problemy Zarządzania, Finansów i Marketingu*. 2015; 37(850); 33-43. Polish.
2. Kowalik K., Klimecka-Tatar D. The process approach to service quality management. *Production Engineering Archives*. 2018; 18; 31-34. DOI: 10.30657/pea.2018.18.05. Polish.
3. Urban W. Jakość usług współtworzona z klientem- koncepcja i wyniki badań jakościowych [Quality of service co-created with the client - concept and results of qualitative research]. *Polityki Europejskie. Finanse i Marketing*. 2013; 9(58); 577-587. Polish.
4. Bielawa A. Przegląd najważniejszych modeli zarządzania jakością usług [Review of the most important models of service quality management]. *Studia i Prace Wydziału Nauk Ekonomicznych i Zarządzania*. 2011; 24; 7-23. Polish.
5. Dziadkowiec J. Model zarządzania jakością usług [Service quality management model]. *Problemy Jakości*. 2007;8; 21-25. Polish.
6. Ingaldi M. Overview of the main methods of service quality analysis. *Production Engineering Archives*. 2018; 54-59. DOI: 10.30657/pea.2018.18.10. Polish.
7. Kowalik K., Klimecka-Tatar D. Wpływ procesu obsługi klienta na kształtowanie funkcjonalnej jakości usług [Impact of the customer service process on shaping the functional quality of services]. W: Ulewicz R., Sygut P. (red.). *Instrumenty doskonalenia w zarządzaniu*. Częstochowa: Oficyna Wydawnicza SMJiP. 2016; 46-57.
8. Stolarczyk A. Rynek usług pocztowych- zarys problemów [Postal services market - an outline of problems]. *Telekomunikacja i techniki informacyjne*. 2004; 3-4; 24-46. Polish.
9. Janowski M. Charakterystyka podaży na polskim rynku usług pocztowych po jego liberalizacji [Characteristics of supply on the Polish postal services market after its liberalization]. *Zeszyty Naukowe Uniwersytetu Ekonomicznego w Katowicach. Studia Ekonomiczne*. 2018; 347; 155-166. Polish.

10. Toszewska W. Ocena procesu usługowego przez klientów Poczty-Polskiej S.A. [Assessment of the service process by the customers of Poczta-Polska S.A.]. Zeszyty Naukowe Uniwersytetu Szczecińskiego 723. Ekonomiczne Problemy Usług. 2012; 96;533-545.
11. Instytut Poczty. Sytuacja na rynku pocztowym w Europie. Wyzwania i szanse dla operatorów. 2018. <http://instytutpoczty.pl/index.php/2018/12/10/sed-nimis-multa/>.
12. Urząd Komunikacji Elektronicznej. Raport o stanie rynku pocztowego w 2017 roku. Warszawa. 2018.
13. Stolarczyk A. Wpływ rozwoju technik komunikacji elektronicznej na rynek usług pocztowych w dobie tworzenia społeczeństwa informacyjnego [The impact of the development of electronic communication techniques on the postal services market in the era of creating the information society]. Telekomunikacja i techniki informacyjne. 2006; 3-4; 61-71. Polish.
14. Łobejko S. Strategie cyfryzacji przedsiębiorstw. W: Knosala R. (red.) Innowacje w zarządzaniu i inżynierii produkcji. Opole: Oficyna Wydawnicza Polskiego Towarzystwa Zarządzania Produkcją. 2018; 641-652.
15. Siadak G. Kompetencje cyfrowe polskich uczniów i nauczycieli- kierunek zmian [Digital competences of Polish students and teachers - a direction of change]. Ogrody Nauk i Sztuk. 2016; 6; 368-381. Polish
16. Jasiewicz J., Kisilowska M., Jupowicz-Ginalska A., Waszkiewicz-Raviv A. Młodzież a cyfrowe kompetencje operacyjne- na podstawie modelu dostępu do nowych mediów Jana van Dijka [Youth and digital operational competences - based on the Jan van Dijk access to new media model]. Kultura-Media-Teologia. 2018; 32; 8-24.
17. Gregor B., Kalińska-Kula M. Rozwój handlu internetowego i jego uwarunkowania- perspektywa oferenta i nabywcy [The development of e-commerce and its conditions - the prospect of the bidder and buyer]. Handel wewnętrzny. 2018; 4(375); 110-120. Polish.
18. Szopiński T. Czynniki determinujące korzystanie z handlu elektronicznego przez konsumentów [Factors determining the use of e-commerce by consumers]. Handel Wewnętrzny. 2013; 6(347); 32-42. Polish.