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REQUIREMENTS OF DIGITAL CONSUMERS AS A SOURCE OF INNOVATIVE SOLUTIONS FOR CONTEMPORARY ENTERPRISES

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Purpose: Progressing digitization of the economy leads to the emergence of a new type of consumer, called digital consumer, who has specific needs and requirements for offers. The enterprises are forced to look for new solutions that meet the specific expectations. The objective of the paper is to identify the specific requirements of digital consumers as potential inspirations for innovative marketing solutions.
Design/methodology/approach: The following research question was formulated: what requirements of digital consumers are the source of innovative products offered by modern enterprises? Review of the literature on the subject, analysis of research results on the specifics of digital consumers and their requirements for bidders, review of innovative offers of enterprises that meet the expectations of digital consumers are methods that have been used in the paper.
Findings: The main expectations of digital consumers relate to personalization as well as fast and efficient service. Digital consumers are impatient, they expect an immediate and effective response to their individual needs.
Practical implications: These studies could relate to assessing the degree of preparation of enterprises to service digital consumers and meeting their specific expectations, as well as the level of satisfaction of digital consumers with innovative solutions**.**
Originality/value: Specific requirements of digital consumers have been identified as potential sources of innovative marketing solutions for enterprises.

Keywords: digital consumers, marketing innovations, mobile technologies.

Category of the paper: Conceptual paper.

1. Introduction

The development of the Internet and mobile technologies leads to progressive digitization of almost all areas of life. Mobile devices, such as a smartphone, laptop or tablet, enabling access to the network in almost any place and time, allow obtaining necessary information, communicating with many recipients, and settling various matters. The use of these devices is

becoming increasingly popular and common, especially amongst the representatives of the youngest generation. The latest estimates show that almost 30 million people have access to the Internet in Poland (Polak staje się coraz bardziej cyfrowy, 2018). The amount of time that Poles spend surfing the Internet is increasing every year too. According to the McKinsey report (Cyfrowi Polacy – przyspieszenie e-rewolucji, 2018) from 2018, a Polish internet user is connected to the network 11 hours a day (5 hours more than in 2016). He most often uses a computer (96%), then a smartphone (94%), a laptop (87%) and a tablet (51%), while smartphone use is growing rapidly (from 78% in 2016 to 94% in 2018), while the use of other devices tends to decrease. For 44% of respondents, the Internet is an important part of their lives, while in 2016 this percentage was 35%. Mobile devices are most frequently used in the sphere of shopping. According to research by the Chamber of Electronic Economy and Mobile Institute (Raport Interaktywnie.com: e-Commerce, 2018) conducted in 2015-2018, half of the Internet users make purchases using mobile devices. The percentage of mobile buyers is steadily growing: in 2015 it was 32%, in 2016 – 49%, and in 2018 – 68%. In addition, two out of three respondents consider it important whether a brand or store is available mobile.

Successful competition in the contemporary global market requires the development and implementation of innovative solutions in many areas, including in the sphere of marketing. Enterprises introduce innovations based on projects generated by their own research cells or teams of employees, as well as by seeking inspiration outside: in research centers, in cooperation with universities, industry institutes, consumer organizations, etc. A very important source of new ideas in the area of marketing are consumer needs, expectations and preferences that change under the influence of many different factors. One of them is the process of digitization encompassing more and more spheres of life. Digitization and mobile technologies affect not only changes in consumers' shopping methods and habits, but also their value system and lifestyle. A new type of consumer is created, with a different way of thinking, mentality, sensitivity, which is referred to as the digital consumer. The digital consumer also has new, specific requirements and expectations regarding the company's offer.

The objective of the paper is to identify the specific requirements of digital consumers as potential inspirations for innovative marketing solutions. For the purpose of the paper, the following research question was formulated: what requirements of digital consumers are the source of innovative products offered by modern enterprises? The research methodology includes the use of such methods as: review of the literature, analysis of research results on the specificity of digital consumers and their requirements for bidders, review of innovative offers of enterprises that meet the expectations of digital consumers.

2. Digital consumer profile – market behavior and personality features

Along with the development of the Internet and information technologies, market behavior and consumer shopping habits are changing. They are increasingly making purchasing decisions and carrying out transactions using the network, which is why they are referred to as e-consumers. E-consumers use the network every day, look for information about products and services, compare prices and delivery conditions, value lower prices on the network and constant access to the offer. They also use information resources to learn and work, for entertainment (listening to music, watching movies, using computer games, etc.) and to make contacts with others (Jaciow, Wolny, Stolecka-Makowska, 2013, pp. 158-159). E-consumers not only interact with other users, but also co-create virtual communities, exchange opinions about goods, edit and create content on the web (Dejnaka, 2013, p. 17).

The digitization and development of mobile technologies leads to further changes in purchasing habits and the shaping of the digital consumer. A digital consumer is one who makes decisions and makes purchases online, using for this purpose mobile devices such as: smartphone, laptop, palmtop, tablet, etc. In this meaning, s/he can be called an e-consumer. However, the digital consumer is characterized by wider and deeper changes in market habits and behavior that are the subject of a lot of research. Table 1 presents the results of selected studies and analyses in this area.

Table 1.
Market behavior of digital consumers in the light of research results

Research	Market features and behavior
E. Wojciechowska, Klient 2020: 3 trendy konsumenckie, które zmienią oblicze e-commerce, 2018	• well informed, more aware and independent • impatient • seeking convenience
M. Badenhorst, Badania Media Vision Interactive, October 2015	• having access to information • using multi-channel communication • communicated with other consumers • shaping standards • with a lower tolerance for errors and mistakes of the bidder • with lower loyalty • with lower confidence in traditional media
M. Gieracz, Badania ShoppingShow 2014	• high awareness • great impatience • convenience, intuitiveness, comfort • repeatability • openness, pragmatism, curiosity • susceptibility to trends and fashion, changeability of preferences

Source: Own work based on: Wojciechowska. E. (2018); Gieracz, M. (2014); Badenhorst, M. (2015).

In the light of the research results presented, the digital consumer is above all a well-informed person, aware of his/her needs and rights, and more independent in making decisions. These features are the result of not only the possibility of wide access to information in real time using mobile devices, but also the use of digital products (e.g. smart watches, footwear, clothing and other products equipped with sensors) that allow the collection and processing of many data. As a result, consumers are often better informed about the features of the offer than the seller himself. Meerman (2015) states that "today, in a world where consumers have the opportunity to collect data themselves, they are often better educated than sales representatives with whom they do business."

The digital consumer is characterized by impatience, the pursuit of convenience and comfort. S/he seeks to minimize the time and effort associated with the purchase process. Therefore, s/he expects quick access to information, learning all the details of the offer, comparison with other offers, clear and simple procedures for concluding transactions, making payment and receiving the product. If, in the consumer's opinion, the application is too complicated, time-consuming, the page loads slowly, and the content and procedures are unclear or incomprehensible, such a customer quickly gets irritated and gives up the purchase. Therefore, the digital consumer willingly uses the same, proven websites, e-shops or applications – s/he is characterized by repetitive behavior.

The digital consumer is curious, open and pragmatic. S/he is looks for new ways to improve the convenience and comfort of shopping, follows technical innovations, tests new applications. Striving to improve comfort and convenience, s/he compares not only the offers of direct competitors, but also selected aspects of the service from various bidders, regardless of the product or industry. For example, if a clothing company offers the possibility of individual product design, the digital consumer will also expect this from the furniture or jewelry manufacturer. Digital consumers, comparing the offers of various products and industries, become the creators of new quality and service standards.

Due to the expectations of high quality and service standards, in the face of multitude of competitive offers, digital consumers are becoming less forgiving and tolerant for the bidders. Not only dishonest acts or overt frauds, but also minor errors or mistakes are immediately noticed and disseminated on online forums and social media.

Digital consumers are also very susceptible to fashion and new emerging trends. They want to test and try new solutions, applications, products. This leads to a decrease in the level of loyalty to the brand, manufacturer or store.

Wide access to information and ability to communicate through many different channels results in a decrease in trust in the traditional media and classic advertising. Digital consumers show greater confidence in the opinions and suggestions of other buyers, placed on various portals, online forums and social media.

As digital consumers' shopping habits and behaviors change, their thinking, value system, and lifestyle change. A new personality type is being developed with specific traits and mentality. The digital consumer, as a buyer well-informed and aware of his/her needs, is a determined, independent, self-confident, demanding and more critical person. S/he is brave in his/her activities, curious about new products, open to changes, striving for convenience and simplification of decisions (Persaud, Azhar, 2012). S/he is also an active and creative person, engaging in interesting projects, willingly responding to various initiatives in search for new, attractive experiences (Kotarbiński, 2015). The digital consumer is an independent individualist, who strives to express his/her otherness through unique things (personalizing everything), wants to create something unique on his/her own (Wódkowski et al., 2014). S/he looks for and creates his/her own, unique style and way of life that will allow him/her to meet his/her individual needs and create e-habits (Fisk, 2014; Mróz, 2013)

3. Specific requirements of digital consumers

Changing the system of values, lifestyle and thinking of a new type of consumer affect the change of his/her expectations and requirements for the company and its offer. The specific requirements of digital consumers were identified on the basis of an analysis of the results of consumer opinion surveys carried out in 2018 by the consulting company KPMG ([Cyfrowy] klient nasz pan, 2019). The research used the Six Pillars ™ Customer Experience method[1], which identified six key factors determining the propensity of consumers to recommend a given brand: credibility, problem solving, expectations, time and effort, personalization and empathy. The task of the surveyed consumers was to identify the pillars that, in their opinion, have a decisive impact on recommending a given brand. According to the results of research conducted in the second quarter of 2018 among the digital consumers from Poland and 20 countries from four continents, two pillars were identified as the most important: personalization and credibility (Fig. 1).

[1] The survey among Polish consumers was carried out using the CAWI (Computer-Assisted Web Interview) method on a sample of over 5000 respondents, representative for residents of Poland over the age of 16. The research concerned the brands of 192 companies from 9 sectors (leisure and entertainment, electricity and gas suppliers, gastronomy, logistics, media and telecommunications, travel, food retail, non-food retail, financial services).

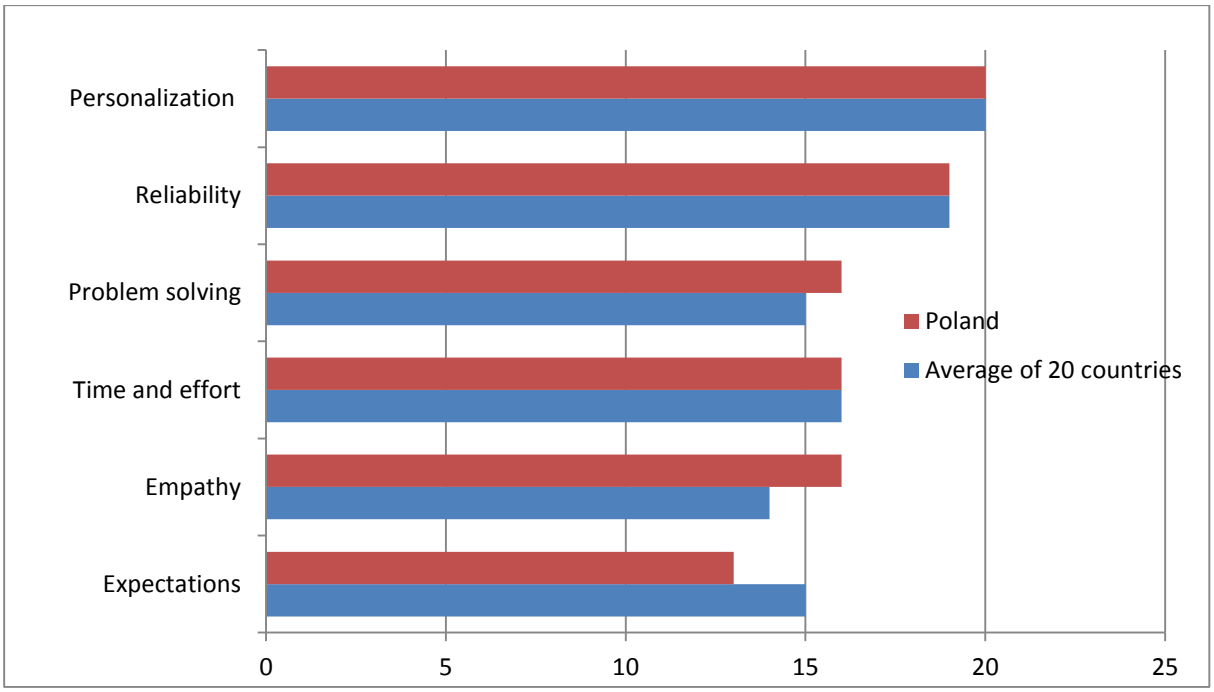

Figure 1. The importance of six pillars for Polish and foreign digital consumers. Source: own work based on: [Cyfrowy] klient nasz pan (2019).

As can be seen in Figure 1, the largest differences in the grades between the respondents from Poland and other surveyed countries concerned expectations and empathy. For Polish consumers, empathy was more important when assessing the brand, and expectations were much lower.

Compared to the 2017 survey results, the importance of the pillars: personalization and credibility in relation to Polish digital consumers increased, with a larger increase related to credibility. The importance attributed to the other pillars increased slightly (time and effort, empathy) or remained unchanged (problem solving), only in case of expectations it decreased.

When analyzing the system of consumer preferences and requirements identified in the cited surveys regarding the brand (and therefore also the company and its offer), it can be said that it is largely the result of digitization. Expectations related to personalization mean that the company will prepare and deliver an offer ideally suited to the individual needs and preferences of the consumer. This approach of the consumer is based on the belief that a company can get to know his/her specific needs and expectations, as well as establish direct, personal contact with him/her. Thanks to digitization, enterprises can obtain a lot of detailed information about customers, not only personal ones (i.e. age, gender, address, occupation, etc.), but also about their interests, preferences, purchases, etc. traces left by consumers in the digital world, e.g. in the form of cookies or data placed on social networks. Due to possessing such information, the company is able to identify consumer needs, shopping motives, selection criteria, financial possibilities, preferred communication channels, payment methods, etc. better, so that it can prepare an appropriate, individual offer.

In turn, expectations regarding credibility result from the following premises, determined by digitization. First of all, digital consumers, as well-informed people aware of their rights, do not trust companies that provide incomplete and unclear information about the offer, that are misleading, hide unfavorable elements of the contract (e.g. additional fees, small print clauses, etc.). They are also better educated ecologically and more sensitive to pro-social activities and activity of the company in the field of environmental protection. Secondly, digitization enables consumer communication with a company through many channels. Digital consumers expect the same information and level of service in all channels - if the company's message through different channels is not consistent, the customer loses confidence in it. Thirdly, digital consumers, freely moving in the virtual world, check the reliability of the message in various sources, consult friends on online forums and social media, and they generally trust them more. Finally, fourthly, digital buyers pay more attention to the protection of personal data, especially after implementing the GDPR (General Data Protection Regulation). Any abuse of the company in this regard is negatively perceived and reduces the level of confidence of digital consumers.

Further important requirements of digital consumers are associated with their impatience in purchasing processes. Modern consumers value time, comfort and convenience as buyers. Therefore, they expect the company to provide unlimited access to reliable information about the offer in real time, immediate and comprehensive response to inquiries, quick and efficient service, instant response to comments and complaints.

New, specific requirements of digital consumers are noticed by enterprises and included in their development plans. Over 60% of the surveyed companies (in Poland and in the world) have declared that they intend to invest in artificial intelligence solutions in the near future, whose primary goal will be to create additional value for clients and provide them with personalized experiences. Such conclusions com from, among others, the Accenture Technology Vision 2019 report, published annually, regarding forecasts of key technological trends that will dominate corporate investments in the next three years. The following five trends were identified in the 2019 edition of the report (Accenture Technology Vision, 2019):

- Trend 1: DARQ Power: Understanding the DNA of DARQ;
- Trend 2: Get to know me: Unlock unique consumers and unique opportunities;
- Trend 3: Human+ Worker: Change the workplace or hinder the workforce;
- Trend 4: Secure US to Secure ME: Enterprises are not victims, they’re vectors;
- Trend 5: MyMarkets: Meet consumers’ needs at the speed of now.

As one can see, two of them: the second and the fifth, concern digital consumers. Trend 2 is about building a company's relationship with digital consumers based on personalization and trust. New technologies make it possible to learn about the individual needs of consumers and establish direct relationships and interactions with them. Thanks to this, enterprises can prepare personalized offers and build the market of one, gaining satisfaction and increasing the level of customer loyalty. Over 83% of managers both in Poland and in the world

said that understanding what technologies would be used by their clients and to what extent would help them meet the unsatisfied needs and increase customer loyalty.

Trend 5 refers to the so-called moment market that requires accurate recognition of consumers' needs and expectations and their immediate fulfillment here and now. Digital consumers are impatient, they expect a quick and effective response to their needs. In California, customers can order food through the Starship app, and then indicate any place where they want to get a meal, e.g. their office, home, park or wherever they are (Burgess, 2018). Over 85% of surveyed managers in Poland and in the world expressed the opinion that the key advantage will be gained by those companies that will be able to offer products individually selected to customer needs, and at the same time available immediately.

4. Innovative offers for digital consumers – selected examples

As the analysis shows, the key requirements and expectations of digital consumers are focused around personalization and a quick and efficient response to changing needs. These requirements become an inspiration for enterprises in searching for innovative products and innovative solutions. The expectations of digital consumers regarding personalization are a source of ideas for creating innovative offers in many industries, primarily in the footwear, clothing, automotive and food industries.

One of the most spectacular examples of an innovative proposal for digital consumers in the footwear industry is the Adidas SpeedFactory project. SpeedFactory is an innovative, fully automated factory, located in Ansbach (Germany) that allows testing, testing and creating shoes along with athletes. Thanks to the use of modern digital technologies and production automation, individual solutions can be implemented at an extremely fast pace and on a huge scale (Speedfactory. Adidas restores production "Made in Germany", 2016). The innovative project consisted of releasing six models of AM4 running shoes dedicated to six major metropolises: London (AM4LDN), Paris (AM4PAR), Los Angeles (AM4LA), New York (AM4NYC), Tokyo (AM4TKY) and Shanghai (AM4SHA) (Adidas SPEEDFACTORY. The future of creation, 2017). Each of the models was designed together with the athletes invited to the project in such a way that it was ideally suited to the conditions prevailing in the place. The project was implemented in cooperation with Siemens – a world leader in the field of digital automation solutions and simulation of production processes (Adidas and Siemens will cooperate in the digital production of sporting goods, 2017). The production of individual sporting goods requires production flexibility and rapid integration of new technologies. Siemens, thanks to simulation and testing of production processes in the virtual world, enables optimization of production, increasing its flexibility and efficiency as well as shortening the time to launch the product on the market. Modern technologies used in this way allow to meet

digital requirements, i.e. create personalized products and offer them quickly and efficiently, providing comfort and convenience.

Examples from the clothing industry can be the offers of Burberry or Bivolinio. Burberry is famous for its elegant, classic English-style clothing. The company has made available the application "The Scarf Bar" to its customers, thanks to which they can design their own scarf with a monogram. In turn, the Belgian company Bivolinio, producing men's shirts, offers the customers the so-called shirt configurator that matches the shirt based on data such as: collar circumference, age, height, weight. In addition, the customer can choose the type of fabric, the color of the collar border, and add own initials on the cuff or pocket (https://www.best.net.pl/ blog/personalizacja...).

Personalization in the automotive industry has long been used by almost all brands, offering the possibility of choosing the color, accessories or additional equipment of own car. This trend has been increasing in recent years. For example, BMW offers Mini Cooper customers the opportunity to design a roof using 3D technology, FIAT offers interior design of the Fiat 500 model via internet communication.

There are many examples from the food industry. They relate to the possibility of not only creating own labels (e.g. Coca-Cola, Nutella), but also composing own meals or flavors. MyMuessli allows customers to compose their own breakfast cereal blend with 120 basic ingredients, and additionally design a box with their own name.

It should be noted, however, that building personalized offers must be accompanied by trust and responsibility. The problem here is the thin line between personalization and privacy. Exceeding it is a threat with serious consequences in the form of violation of privacy and loss of consumer confidence. Every fifth American consumer reports that s/he would switch to another brand and talk about his/her disappointment with other people if the personalization experience were negative (Newman, 2018). At the same time, almost half of consumers say that after receiving a personalized offer from the company, they bought a product that they had not planned to purchase (Pandolph, 2017). This limit is an individual matter, it depends on the personality and sensitivity of consumers. It is also largely determined by the industry and type of offer. The following two examples can be cited. The first concerns the Ikea offer from the furniture industry, which gives the customer the opportunity to individually tailor the furniture to the interior of his/her own home. To this end, Ikea has built an augmented reality application that enables customers to browse the catalog and place three-dimensional furniture directly in their physical environment. People can now make purchasing decisions using their own home as a catalog background - and thanks to the purchase of the TaskRabbit work platform, they can also easily recruit help to assemble a new item on site (Marr, 2018). This is a personalized offer, however, it does not interfere too much with the customer's privacy. The second example concerns the insurance policy proposed by North American Life Insurance Company John Hancock. The company offers interactive life insurance policies that are based on customer health and health data obtained through wearable devices. The John Hancock "Vitality"

program entitles the insured to discounts when they achieve certain exercise goals; they can also get personalized contributions and rewards for their activities (Barlyn, 2018). Although the policy buyers have been found, for many others the offer may be considered too much interfering with personal, even intimate spheres of life.

An example of innovative solutions inspired by the requirements of digital consumers regarding the speed and flexibility of response to their needs can be the development of new business models such as FinTech. FinTech (Financial Technology) are companies (start-ups) creating innovative solutions in the field of finance and banking based on modern technologies, and above all modern forms of communication. FinTech is also referred to as a new financial industry that uses modern technologies to improve the efficiency and availability of financial services (Schueffel, 2016). Digital consumers know what they want and want it immediately, here and now. They do not want to waste valuable time standing by the window or filling out paper forms. FinTech companies solve these problems using modern mobile technologies. Start-ups choose a specific service offered by traditional financial institutions (e.g. account maintenance, payments, transfers, loans) on which they focus their activities and in which they specialize. The service is offered using the simplest applications possible installed on mobile devices, which the client can use in a convenient place and time. The process of establishing such companies is referred to as unbundling banking. FinTech market leaders in the world are: PayPal and AliPay (they offer online payments), and in Poland: PayU (internet transfers) and BlueMedia (electronic transactions). In recent years, Ant Financial has come to the forefront – a Chinese holding company that has grown out of the Alipay online payment system launched in 2004. It was established in 2014 as part of the Chinese e-commerce giant Alibaba Group. Ant Financial has built a wide package of financial services around the mobile portfolio, including insurance - from health to property protection. Currently, its value is estimated at USD 150 billion (Fintech Alibaba Ant Financial is worth USD 150 billion, 2018). Ant Financial serves 620 million customers in China and 870 million customers worldwide. The pressure from banking sector regulators means that the holding announces a change in the business model, focusing on providing modern technological solutions for the financial sector. Ant Financial has its own Sesame Credit scoring system, tested by China, and in September 2017 developed a face detection system to be used by Alipay (Ant Financial – fintech zbyt duży, by upaść, 2018).

Compared to traditional banks, the FinTech banks (Szpringer, *Czym różni się FinTech od banku?,* 2017):

- offer simple, easily and quickly available products,
- operate on cloud data from many sources,
- are more flexible, can react faster to changes in the needs and requirements of customers,
- provide comfort and convenience to clients (without leaving home, standing in a queue, filling out paper documents, etc.),

- they incur low operating costs (they don't employ thousands of employees, they don't have expensive infrastructure),
- they often have more knowledge about clients (they are not subject to rigid regulations, such as banking law, long decision authorization processes, etc.).

The natural addressees of the services offered by FinTech are consumers from the Y and Z generations, who expect innovative solutions in the field of financial services using remote electronic channels, mainly via the Internet in mobile devices. People from Generation Y, who are growing up in the era of popularizing the Internet and digital technologies, are now a large group of customers actively using the innovative solutions offered by FinTech. However, the demand for future innovations will definitely determine the Z generation, which since childhood has been operating in the mobile Internet environment and easily uses portable devices. They are future clients of the financial sector and their preferences will determine the demand for financial services in the coming years, and already today they are referred to as "drivers of change" in the financial sector (Fin-Tech jako źródło innowacji finansowych, 2017).

Observing the dynamic development of the FinTech sector, it is worth asking the question whether it can pose a threat and strong competition to traditional banks that also use the Internet and mobile technologies. In this context, the words spoken by Bill Gates as early as the 1990s say that "the world needs banking services, but does not necessarily need banks" ("Bye, bye banks". Banks will not be needed?, 2016). However, banks will have a long-term advantage over FinTech companies in the form of greater sense of security and trust of customers, better reputation and brand image, greater experience in risk management and empowerment in legal regulations (Szpringer, 2017; Nicoletti, 2017).

5. Conclusions

The development of the Internet and digital technologies, which causes changes and transformations in all spheres of life, leads to the formation of a new type of consumer, which is called digital consumers. Digital consumers are characterized not only by different shopping behaviors and habits, but also by new, specific personality traits, value system, lifestyle and way of thinking. The digital consumer, as a buyer, is well-informed, independent, impatient, looking for comfort and convenience, s/he is characterized by variability of tastes, lower loyalty to the brand or bidder, greater skepticism and less tolerance to mistakes and errors of the seller. His/her main personality traits are: awareness of his/her needs, rights and values, self-confidence, determination, high activity and creativity, openness to new products, greater criticism. The digital consumer values his/her own independence, is a brave individualist, strives to learn about new things and experience interesting experiences, likes challenges, wants to create something unique and his/her own.

Along with changes in the value system, lifestyle and way of thinking, the requirements and expectations of digital consumers regarding the company and its offer also change. The main expectations of digital consumers relate to personalization as well as fast and efficient service. As part of personalization, the consumer expects the company to prepare an offer ideally suited to his/her individual needs and preferences. The expectation of quick and efficient service concerns accurate recognition of needs and preferences and their immediate fulfillment here and now. Digital consumers are impatient, they expect an immediate and effective response to their needs.

The new requirements and expectations of digital consumers are a source and inspiration for the development of innovative solutions and offers in many industries. Personalization is commonly used to create interesting, innovative products or services in many industries, such as the footwear, clothing, automotive and food industries. The most spectacular example is the Adidas SpeedFactory project, offering individually tailored sports footwear manufactured using the latest technologies and raw materials. In turn, the expectation related to the speed of response to new needs of buyers and the efficiency of satisfying them is an inspiration to create new business models. A good example is the dynamically developing FinTech sector, offering financial services in a fast and simple way, using modern mobile technologies.

Due to the great importance and developmental nature of the problem raised in the paper, it is worth pointing out the need for further research in this area. These studies could relate to assessing the degree of preparation of enterprises to service digital consumers and meeting their specific expectations, as well as the level of satisfaction of digital consumers with innovative solutions. An interesting research direction may also be the problem of scale and effectiveness of innovations inspired by the requirements of digital consumers.

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