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Trust and Personal Innovativeness as the Prerequisites for Using Digital Lending Services Offered by FinTech Lenders

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Abstract

Theoretical background: Contemporary financial systems have been going through a period of dynamic changes since the beginning of this century. A special role in this process is played by technological innovations, especially the process of digitalization of financial systems, which resulted in the development of FinTech lenders. These entities are active in various segments of the financial services market, including the area of consumer loans (FinTech lenders). The conducted research confirms the dynamic development of FinTech lending activity worldwide and indicates the leading position of Poland among the countries of Central and Eastern Europe in terms of the volume of digital lending. A review of the source literature shows a small number of scientific studies devoted to identifying the reasons underlying the growing in-

terest of consumers in the offer of FinTech lenders. The perceived research gap became the motivation to undertake research addressing this topic in relation to the Polish market of non-banking digital loan services.
Purpose of the article: Determining the place and importance of trust and personal innovativeness for consumers' decisions to use digital loan services offered by FinTech lenders in Poland.
Research methods: Critical analysis of the source literature, descriptive and comparative analysis, diagnostic survey as well as simple statistical methods, i.e. analysis of the structure or Kendall's Tau correlation analysis. The empirical data were collected in May 2022 using the CAWI (computer-assisted web interview) method. The research sample was representative and included 1,000 representatives of Polish population.
Main findings: Among the factors determining the adoption decisions of FinTech lenders' clients, two groups of constructs can be distinguished. The first one consists of classic prerequisites (e.g. perceived ease of use [PEU], perceived usefulness [PU]), identified for a wide range of entities offering financial services based on information technologies. The second group consists of the factors attributed mainly to FinTech lenders, among which the leading position is taken by expressed trust (T) and personal innovativeness (PI). The analyzes carried out in the article confirmed that the expressed trust and personal innovativeness represent the statistically significant factors influencing the decisions made by Poles related to using digital loan services offered by FinTech lenders. The influence of these constructs on the adopted attitudes is a function of their mutual relationship, based on the reciprocal reinforcement of these factors. The conducted research also resulted in developing the economic and demographic profile of a person using the services of FinTech lenders. It is a man, aged 25–34, a university graduate earning an income exceeding PLN 5,000 and residing in a city populated by over 500,000 residents.

Introduction

The introductory part outlines shortly the objectives and motivation for writing the paper. The introduction should provide a theoretical context for the discussion in the body of the paper and point explicitly the purpose of the article. Contemporary financial systems have been going through a period of dynamic changes since the beginning of this century. A special role in this process is played by technological innovations, especially the process of digitalization of financial systems. The term "FinTech" is used in the source literature in this context. On the one hand, it defines the application of innovative technological solutions to provide financial services and, on the other, this concept is used in relation to the entities which develop and deliver these innovations (Zetsche et al., 2020). According to BIS (2018, p. 8), FinTech is "a technological financial innovation and results in new business models, applications, processes or products. They have a significant, material impact on the performance of financial markets and institutions and on the provision of financial services". In turn, Gomber et al. (2017) use the term "FinTech" in the context of the proposed concept of digital finance. It is based on the so-called digital cube in which, apart from two dimensions, i.e. business functions in the field of digital finance as well as technologies and technological concepts constituting their basis, there is a third dimension created by financial institutions providing financial digital services. This group of entities includes both traditional financial intermediaries, i.e. banks, insurance institutions, investment or asset management enterprises which have digitized their services and provide them using digital technologies, as well as FinTech companies operating as start-ups or BigTech – recognized IT firms entering the financial services market (Gołąb & Monkiewicz, 2020).

FinTech lenders are active in the key segments of financial services such as: payments and remittances, lending, crowdfunding, enterprise financial management, enterprise technologies for financial institutions, insurance, trading and capital markets, personal financial management, wealth management and digital banking (Murinde et al., 2022). The entities whose activities are focused on providing digital lending services are called "FinTech lenders" or "LendTech" (Agarwal & Chua, 2020). Berg et al. (2022) highlight the consumer-lender interaction, which is purely app-based or solely online, thus, such a lending process is faster, can reduce costs and improve the user's experience, it is particularly attractive to borrowers who value convenience over personal interaction and advice.

According to the report issued by the European Bank Authority (2022), in the years 2017–2020, a significant, i.e. 160%, increase in the volume of digital lending can be observed in the EU countries. At the end of 2020, this amount reached the level of EUR 6,214.96 million, including EUR 266.85 million for Poland, which ranked it at the eighth place among the EU Member States. These data also indicate that the Polish digital loan market and the entities operating there are the leaders among the countries of Central and Eastern Europe. In Poland, the market of short-term non-bank loans has been developing along with the banking market for over a quarter of a century. According to the Credit Reporting Agency (2022), at the end of November 2022, the value of granted consumer loans and credits amounted to PLN 133.7 billion, of which 6.21% were non-bank loans. This share increased by 2.24 percentage points compared to 2019, when loan companies extended loans in the amount of PLN 3.6 billion. It is also worth noting that online loans are gaining popularity among Poles. According to Statistics Poland (2022), the value of loans offered through this distribution channel amounted to 8.35% of all granted credits/loans, while in the case of non-bank loan companies it was as much as 30.04%. Twenty-four FinTech lenders are increasingly active on the Polish digital loan market, e.g. Wonga, Smartney, Vivus.pl, Kuki.pl (Polish Lendtech Map, 2021).

Ever since FinTech lenders appeared on the market of financial services, their activities have been attracting the interest of researchers. Tang (2019) seeks an answer to the question whether the loan offer by traditional lenders and FinTech lenders is complementary or substitutive. Other scientific articles provide analyzes of the reasons for the dynamic interest increase in digital loans among FinTech borrowers. Bao and Huang (2021) prove that the limited access to traditional brick-and-mortar bank branches caused by the COVID-19 pandemic gave rise to an increase in the number of loans granted by FinTech lenders. Among the reasons for the development of the discussed sector, other researchers mention less restrictive legal provisions allowing non-bank lenders to address their offer to the higher-risk segment of customers (cf. Di Maggio & Yao, 2021; Hamarat & Broby, 2022).

The source literature review conducted by the authors of this article shows that there are very few studies devoted to identifying the reasons underlying the growing interest in the offer of FinTech lenders. The identified research gap became

the motivation to undertake research covering this subject matter in relation to the Polish market of non-banking digital loan services. Bearing the above in mind, the main research goal of this study is to determine the place and importance of trust and personal innovativeness for consumers' decisions to use digital loan services offered by FinTech lenders in Poland.

Literature review

One of the research areas addressing the activities of FinTech lenders is the issue of acceptance and the use of services they provide. This problem becomes particularly important in a situation where such acceptance is perceived as a factor initiating and/or moderating the activities of elements of the ecosystem created by regulators, suppliers and consumers of innovative digital financial services offered by FinTech lenders. As indicated by Tapanainen (2020, p. 5), the adoption of the ecosystem concept as an identification pillar of FinTech stakeholders, along with the presented attitudes regarding their adoption, provides the opportunity for, e.g. broader and deeper recognition of the prerequisites and determinants of such decisions as well as their consequences. Each party to this ecosystem should be/is interested in the intensification of adoption processes, as they constitute the basis for the implementation of specific benefits, achieved not only by its individual elements, but also relating to the environment (social, cultural, economic or institutional) in which these goals are achieved.

Taking the perspective of a service provider (which may be, e.g. a traditional bank or a FinTech startup), two meta-conditions for offering and developing innovative digital financial services should be distinguished. These are: a) the requirements and aspects of competition (Boot, 2017; Mullan et al., 2017; Navaretti et al., 2017) and b) business strategies of traditional financial intermediaries (Lee & Shin, 2018; Zalan & Toufaily, 2017). The consequences of adoption activities in this case are, *inter alia*, the use of available resources (Tapanainen, 2020) and development potential, the emergence of modern financial services in line with the expectations and preferences of their consumers, or a technological leap corresponding to the challenges of the digital revolution.

In turn, considering the discussed adoption processes from the perspective of regulators is the area for searching and creating a compromise between (Bromberg et al., 2017; Chiu, 2017; Ryu, 2018; Tsai & Kuan-Jung, 2017):

– the scope and impact of relevant regulations on higher innovation of financial services and the quantitative and qualitative development of FinTech lenders, vs.

– consumer safety and the level of their trust in these products, their distribution methods as well as the entities offering them.

The depth and space of this compromise is an individualized effect of the determinants characterizing, *inter alia*, the development level of the financial market and its institutions, the innovation of the economy, the scope and level of business

environment development, and, finally, the level of digital and financial education presented by the society.

From the perspective of the subject matter covered by this study, the consumers of innovative, digital financial services and the reasons provided by these individuals underlying the decision to use them remain the most important element of the FinTech ecosystem. The source literature studies (cf. Aye, 2021; Balcázar & Rivas, 2021; Hu et al., 2019; Kułak et al., 2019; Putranto & Sobari, 2021; Setiawan et al., 2021; Tun-Pin et al., 2019) show that the identification and analysis of determinants responsible for the acceptance of new information technologies used in financial services, conducted from the point of view of their consumers, are based on a wide set of theories, models and conceptual frameworks, among which the Technology Acceptance Model deserves distinguishing due to the frequency of its use (Shaikh & Karjaluoto, 2015; Souiden et al., 2021). The application of these diverse tools also allowed the authors of this study to identify a wide set of motives guiding the behavior of consumers using the services provided by FinTech lenders (see Table 1).

The content of Table 1 shows that two groups of constructs play an important role in the research covering the collective factors determining the adoption decisions of FinTech clients. The first of them consists of classic reasons, identified for a wide spectrum of entities offering modern financial services based on information technologies. These constructs predominantly take the form of: perceived ease of use (PEU), perceived usefulness (PU) or adopted attitude (AT) towards the acceptance and use of such services (cf. Balcázar & Rivas, 2021; Jackson et al., 2013; Khan et al., 2021; Singh et al., 2020; Solarz & Adamek, 2021; Sunardi et al., 2022; Tiwari et al., 2021). The second group covers the factors attributed primarily to FinTech lenders among which the leading place is taken by: expressed trust (T) or personal innovativeness (PI) (cf. Ali et al., 2021; Aye, 2021; Hasan et al., 2021; Hu et al., 2019; Nathan et al., 2022; Putranto & Sobari, 2021; Ryu, 2018; Tiwari et al., 2021; Tun-Pin et al., 2019; Xia et al., 2022). They are approached as an important element which determines using the services provided by this type of entities. The discussion of problems related to these constructs is presented below.

Trust (T)

As Pavlou (2003) points out, trust becomes the feature characterizing the majority of economic and social interactions involving uncertainty. It can be adopted that in the transactions using modern information technologies (e.g. on-line transactions), this construct gains particular importance due to high level of uncertainty associated with electronic trading (Soleimani, 2022; Suh & Han, 2002). The concept of trust is interpreted in many ways, becoming a function of the perspective/dimension of its perception (e.g. institutional, interpersonal and technological perspective or social and public perspective). It includes, e.g.: a) a sense of security in a specific

Table 1. Reasons for the acceptance and use of FinTech services by their consumers – research overview

Source	Reasons																											
	FH	BI	PEU	PU	FL	AT	PI	GS	SI	FC	PV	PE	EE	PR	T	SN	PBC	PB	QS	RA	CO	BI	R	S	M	RD	CA	PEN	O
1.	X	X	X	X	X	X	X	X																					
2									X	X	X	X	X	X															
3		X	X	X		X	X	X						X	X	X	X												
4														X				X											
5			X	X										X	X				X	X	X								
6			X	X					X													X	X	X					
7		X	X	X		X	X	X						X	X										X				
8			X	X											X														
9			X	X			X		X							X	X				X					X			
10		X	X	X		X	X	X						X	X														
11			X	X										X	X												X		
12	X	X	X	X	X	X	X	X							X														
13			X	X			X		X															X					X
14			X	X										X	X									X					X
15														X	X			X											
16			X												X									X					X
17															X														
18									X	X		X	X									X							
19									X			X	X	X	X														
20														X				X											X
21					X		X		X	X		X	X																
22														X				X											
23			X	X		X								X	X														
24									X	X		X	X		X									X					X
25			X	X						X				X	X						X								X
26														X	X														X

1 – (Setiawan et al., 2021), 2 – (Xie et al., 2021), 3 – (Putranto & Sobari, 2021), 4 – (Ryu, 2018), 5 – (Sunardi et al., 2022), 6 – (Singh et al., 2020), 7 – (Balcázar & Rivas, 2021), 8 – (Khan et al., 2021), 9 – (Jackson et al., 2013), 10 – (Hu et al., 2019), 11 – (Tiwari et al., 2021), 12 – (Nathan et al., 2022), 13 – (Tun-Pin et al., 2019), 14 – (Hasan et al., 2021), 15 – (Ali et al., 2021), 16 – (Nangin et al., 2020), 17 – (Yang, 2021), 18 – (Slazus, 2022), 19 – (Chan, et al., 2022), 20 – (Abdul-Rahim et al., 2022), 21 – (Alkhwaldi et al., 2022), 22 – (Diana & Leon, 2020), 23 – (Meyliana & Fernando, 2019), 24 – (Phuong et al., 2022), 25 – (Aye, 2021), 26 – (Xia et al., 2022)

Financial Health (FH), Brand Image (BI), Perceived Ease to Use (PEU), Perceived Usefulness (PU), Financial Literacy (FL), Attitude (AT), Personal Innovativeness (PI), Government Support (GS), Social Influence (SI), Facilitating Conditions (FC), Perceived Value (PV), Performance Expectancy (PE), Effort Expectancy (EE), Perceived Risk (PR), Trust (T), Subjective Norm (SN), Perceived Behavioral Control (PBC), Perceived Benefit (PB), Quality of Service (QS), Relative Advantage (RA), Compatibility (CO), Behavior intention (BI), Responsiveness (R), Security (S), Mutuality (M), Result Demonstrability (RD), Consumer Awareness (CA), Perceived enjoyment (PEN), Other – promotion, perceived value earned/loss, COVID-19, uncertainty avoidance, perceived enjoyment, credibility, platform governance (O).

Source: Authors' own study.

environment resulting from structured processes, security measures or other systems functioning in it (Xia et al., 2022), b) individualized willingness to believe in the words and actions of service providers (Mayer et al., 1995), c) a category explaining an individual's belief in the reliability, certainty and credibility of a given person, process (Rempel et al., 1985), or d) expressed belief and trust in the usefulness, functionality and reliability of information technology (Pavlou & Gefen, 2004). As such, it is of interest to many scientific disciplines, including psychology, sociology, economics and management, which identify and analyze its essence, causes and effects. The expressed/perceived trust has also become an important factor identifying and creating the adoption attitudes towards innovative financial services offered by FinTech lenders. For example, Stewart and Jürjens (2018), when analyzing the variables determining the acceptance and use of FinTech services in Germany, point to the attributes of data security and privacy, transaction confidentiality or organizational reliability. According to these authors, such features influence trust in this type of entities, and, thus, determine the use of their services.

Singh et al. (2020), in turn, draw attention to the importance of transaction security and company reputation in shaping trust for the service provider operating on the FinTech market, at the same time stating that this factor is critical for the acceptance and use of its services. A similar conclusion is formulated by Hu et al. (2019). These researchers indicate that the importance of trust in the process of accepting and using FinTech services has been showing a growing tendency. Its role has been expressed by the increasing number and multidimensional content of information involved in such a service. This process implies research challenges, both regarding the impact of expressed trust on such decisions as identification and the analysis of factors determining its level.

Xia et al. (2022), when studying the influence of trust on the behavior of Chinese consumers using FinTech services, prove that the adopted perspectives of this category perception (interpersonal, organizational and technological perspective) characterize this perception in different ways: a) the risk of interaction with this type of service providers, b) their management method, or c) willingness to use their products. According to these researchers, this fact determines space and a specific catalogue of activities influencing the separate dimensions of trust and its relationships with the attitudes of consumers using digital financial services.

Summing up the presented considerations, it is worth noting that among practitioners and theoreticians addressing the issue of acceptance and use of FinTech services, there is a consensus regarding the critical importance of expressed trust for the so-called represented adoption attitudes. This situation is a consequence of both the essence and content of this construct as well as the characteristics attributed to electronic transactions, modern information technologies and entities operating on the market of services where they are used.

Personal innovativeness (PI)

According to the innovation diffusion theory (Rogers, 1995), high level of innovation presented by a human being is conducive to the cognitive process that identifies the attributes of innovation and becomes a factor supporting its acceptance and use. Agarwal and Prasad (1998) pointed out that this innovation symbolizes the risk-taking tendency of some individuals. According to these authors, it is an individualized feature assigned to a person, influencing behaviors illustrated by the implementation of technological innovations. Chang et al. (2005), when proving that this feature is related to the degree of openness of an individual to new ideas/concepts, at the same time indicate that it is a characteristic attributed to the personality of every individual, determining their attitudes and behaviors. Having transferred this perspective to the field of modern information technologies, Balcazar and Rivas (2021) adopt that this variable describes personal tendency to use a new technology, product or information system. According to Liébana-Cabanilas et al. (2018), it becomes a factor reducing the individual's resistance towards using an IT product and reduces their doubts expressed about new products.

Among the individuals identifying and analyzing the relationship between personal innovativeness and the use of digital financial services offered by FinTech lenders, there is an empirically verified consensus as to the manner and impact direction of the discussed construct. For example, Contreras Pinochet et al. (2019), Hu et al. (2019) and Tun-Pin et al. (2019), when testing the importance of this variable for the adoption of FinTech financial services, indicate its strong relationship and direct impact on the expressed adoption intentions presented by the representatives of the surveyed populations. In turn, e.g. the study by Shankar and Datta (2018) proves the absence of such a relationship, at the same time confirming that the factor discussed here shapes the perceived usefulness and ease of use of digital financial innovations, conditioning individualized intentions of their acceptance and application. Therefore, despite the fact that this impact may be direct or indirect, the presence of a positively correlated relationship between the level of personal innovativeness and the willingness to accept innovative information technologies in the world of finance is not undermined.

Research methods

The research purpose formulated in the introduction of the article is to be achieved by providing answers to the following research questions:

1. What factors identify openness to the use of digital loans offered by FinTech lenders, and what is the place of expressed trust and personal innovativeness in this set?
2. What kind of dependencies and relationships occur between the expressed trust and personal innovativeness and the use of digital lending services provided by FinTech lenders?

3. What is the demographic and economic profile of the individuals open to using digital loans offered by FinTech lenders from the perspective of expressed trust and personal innovativeness?
4. What activities in the area of supporting the development of digital loan services offered by FinTech lenders are implied by the identification and analysis of the impact exerted by expressed trust and personal innovativeness on the decisions about their use by consumers?

The applied research methods included: critical analysis of the source literature, descriptive and comparative analysis, diagnostic survey as well as simple statistical methods, i.e. the analysis of the structure or Kendall's Tau correlation analysis. The CAWI (computer-assisted web interview) method was used to collect empirical data, the advantage of which is the ability to reach the selected groups of respondents characterized by the strictly defined predispositions and properties. This technique allows for quick and cheaper research compared to PAPI (paper-and-pen personal interviewing) or CAPI (computer-assisted personal interviewing), and is also characterized by interactivity, which manifests itself in the possibility of modifying both the questions and their order depending on the provided answers (Kaczmarczyk, 2018). Unfortunately, the main disadvantage of CAWI is the possibility of sending the survey only to people having the Internet access, but the problem may also be the inability to check who actually fills in the form, and whether they understood the questions, and, thus, provided truthful answers.

The survey research allowing to collect the data necessary to conduct analyzes, the results of which are presented in this article, covered a nationwide sample and were conducted in May 2022 in cooperation with SW Research Market and Opinion Research Agency (*Agencja Badań Rynku i Opinii*). The research questionnaire prepared by the authors was sent to 4,905 people. Ultimately, the research sample, selected based on random stratification, consisted of 1,000 Poles. The swpanel.pl research panel, with over 200,000 active users aged 18+ was the sampling operator. The maximum statistical error for the entire sample was at the level of 3.1%. The established strata (40) were determined based on the total distribution of the selected population characteristics in the form of: gender, age and size class of the place of residence. On this basis, the adopted research sample corresponded to the structure of Poles in terms of the indicated socio-demographic variables.

Descriptive statistics characterizing the surveyed population of respondents are presented in Table 2. Women constituted almost 54% of this group. Average age of the analyzed population was 46, with more than 45% of people aged ≥50. Over 49% of the respondents had secondary education, and 37.5% were university graduates. Approx. 25% of the respondents stated their income range of PLN 3,001–5,000, almost one fifth of the respondents refused to answer the question about the amount of monthly net income. The respondents resided predominantly in villages (40.4%) and cities inhabited by up to 99,000 residents (32.7%).

Table 2. Respondents' characteristics

Gender (N = 1,000 – 100%)				
Women (n – 533)			Men (n – 467)	
53.3%			46.7%	
Age (N = 1,000 – 100%)				
≤ 24 (n – 121)	25–34 (n – 192)	35–49 (n – 244)	50–59 (n – 174)	≥60 (n – 279)
12.1%	19.2%	24.4%	17.4%	27.9%
Education (N = 1,000 – 100%)				
Elementary/vocational (n – 128)		Secondary (n – 497)		Higher (n – 375)
12.8%		49.7%		37.5%
Net income (PLN) (N = 1,000 – 100%)				
≤ 2,000 (n – 215)	2,001–3,000 (n – 220)	3,001–5,000 (n – 251)	≥5,000 (n – 105)	Refusal (n – 209)
21.5%	22.0%	25.1%	10.5%	20.9%
Place of residence (N = 1,000 – 100%)				
Village (n – 404)	City <20,000 (n – 104)	City 20–99,000 (n – 213)	City 100–199,000 (n – 87)	City 200–499,000 (n – 83)	City ≥500,000 (n – 109)
40.4%	11.4%	21.3%	8.7%	8.3%	10.9%

Source: Authors' own study.

It was the authors' intention that the adopted research methods allowed verifying the following research hypothesis formulated by them: Trust and personal innovativeness represent important stimulating factors influencing consumers' decisions related to using digital loan services offered by FinTech lenders in Poland.

Results

The scope of the presented results is subject to the requirement of providing answers to the adopted research questions. First, the factors identifying the expressed trust and personal innovativeness presented by the respondents were analyzed. To determine the characteristics indicated above, a questionnaire was used in which the participants of the study assessed the provided statements on a five-point Likert scale, in which 1 – means a definite rejection of a given statement, and 5 – its strong acceptance. Adopting this perspective allowed identifying individualized, subjective assessments regarding the identifiers of expressed trust and personal innovativeness, as well as indicating the basic descriptive statistics assigned to the analyzed determinants (see Table 3).

The content of the above list proves that in shaping and assessing trust in FinTech lenders, the highest average score was assigned to the statements about:

a) running a business in a responsible manner by such entities (3.34 points) and
b) security of mobile applications allowing the use of their services (3.19 points).

Table 3. Questions identifying personal innovativeness and trust towards FinTech lenders expressed by the respondents and their basic descriptive statistics

Construct variable	Code	Mean	Std. deviation
Trust (T)	T.1. I believe that the digital lending services offered by FinTech lenders are trustworthy	3.17	0.955
	T.2. I believe that mobile applications allowing the use of FinTech lenders digital lending services are safe	3.19	0.977
	T.3. I prefer to use financial services offered by well-known brands	3.07	0.965
	T.4. I believe that FinTech lenders providing digital lending services run their business in a responsible manner	3.34	0.892
Personal innovativeness (PI)	PI.1. Using technological innovations, including financial ones, is in line with my lifestyle	3.35	1.073
	PI.2. Among my friends, I am considered the first person to use new products and services, including the financial ones	2.97	1.141
	PI.3. I consider myself open to the use of innovative, digital financial products	3.36	1.100

Source: Authors' own study.

These opinions, according to the authors, stem from the respondents' belief that FinTech lenders stand for the entities with strong, durable foundations of their functioning based on legal, economic and social standards, which use safe innovative information technologies in their activities represented, *inter alia*, through their mobile apps. When focusing on the determinants of personal innovativeness, the respondents, to the highest extent, agreed with the statement indicating that they are open to the use of innovative digital financial products (3.36 points) and that using technological innovations remains in line with their lifestyle (3.35 points).

The broadened perspective for assessing the factors identifying personal innovativeness and expressed trust was based on the assessment of the percentage of answers confirming the importance of a given identifier (answer *yes*/*rather yes*) in the group of people: a) using, b) intending to use and c) not using the loans offered by FinTech lenders (see Table 4).

Table 4. The percentage of *yes*/*rather yes* answers to individual questions defining a given construct, in terms of the assessment referring to the use of digital loans offered by FinTech lenders

Personal innovativeness			
Group of respondents	Question PI.1	Question PI.2	Question PI.3
Users (n – 263)	185 (70.3%)	158 (60.0%)	192 (73.0%)
Nonusers – intending to use (n – 288)	190 (65.9%)	135 (46.8%)	194 (67.3%)
Nonusers – not intending to use (n – 449)	146 (32.5%)	67 (14.9%)	152 (33.8%)

Trust				
Group of respondents	Question T.1	Question T.2	Question T.3	Question T.4
Users (n – 263)	181 (68.8%)	173 (65.7%)	193 (73.3%)	183 (69.5%)
Nonusers – intending to use (n – 288)	149 (51.7%)	152 (52.7%)	205 (71.1%)	179 (62.1%)
Nonusers – not intending to use (n – 449)	53 (11.8%)	71 (15.8%)	232 (51.6%)	84 (18.7%)

Source: Authors' own study.

The data shown in Table 4. clearly indicate the differences in the assessment of the distinguished identifiers (codes). For example, almost 3/4 of those using digital loans offered by FinTech lenders consider themselves open to using innovative, digital financial products (Question PI.3). The same opinion is expressed only by every third person who does not use and does not intend to use these services. The representatives of the same group also do not consider themselves to be the leaders promoting the use of technological innovations among their friends (Question PI.2). Only 15% of people who do not use FinTech lenders services consider themselves such a person (vs. 60% in the population of users).

A similar diversity of opinions can be found in the area of expressed trust codes. For example, approx. 69% of users agree with the statement that FinTech lenders represent trustworthy institutions (Question T.1), and 70% of them state that these entities conduct their activities in a responsible manner (Question T.4). Such assessments can be contrasted with the opinions of people who do not use and do not intend to use digital loan services, among whom only about 12% trust the entities offering them, and almost 19% say that they conduct their business in a responsible way.

Another area of the conducted analyzes is the identification of the intensity level related to the analyzed reasons for using digital loan services in the selected groups of the surveyed population (Table 5). The intensity of a given feature was determined based on an algorithm, according to which the points awarded by the respondents to individual identifiers defining personal innovativeness and trust were summed up, and then the value determined in this way was divided between the adopted levels of a given feature intensity, according to the following principle: a) personal innovativeness – high (15–11 points), average (10–7 points), low/none (6–3 points), b) trust – high (20–15 points), average (14–10 points), low/none (9–4 points).

Table 5. The intensity level of the analyzed features in the selected groups of respondents

Group of respondents (N – 1,000)	Personal innovativeness		Trust	
Users (n – 263) (26.3%)	High	51.7%	High	64.6%
	Average	36.1%	Average	25.8%
	Low/none	12.2%	Low/none	9.6%
Nonusers – intending to use (n – 288) (28.8%)	High	39.9%	High	51.7%
	Average	49.3%	Average	45.1%
	Low/none	10.8%	Low/none	2.2%
Nonusers – not intending to use (n – 449) (44.9%)	High	12.2%	High	12.0%
	Average	50.5%	Average	71.7%
	Low/none	37.3%	Low/none	16.3%

Source: Authors' own study.

The intensity assessment of the discussed constructs, expressed both by the individual groups of respondents and carried out in the cross-section of isolated intensity levels, shows common relationships. Firstly, both in the population of users and those intending to use digital loan services, the percentage of people characterized

by a declining intensity of their personal innovativeness and expressed trust is decreasing. The opposite tendency can be observed in the group of people who do not intend to use these financial services. Secondly, a comparison of the same intensity levels regarding the examined features across the selected groups shows that a change in the attitude towards using digital loans goes along with a similar change in the percentage of people showing a corresponding intensity level related to personal innovativeness and expressed trust (e.g. high innovation/high trust refers to 51.7%/64.6% of users, 39.9%/51.7% of nonusers but intending to use and 12.2%/12.0% of nonusers and not intending to use FinTech lenders).

From the perspective of the adopted research goal, an important field of interpretation regarding the obtained results also refers to the identification and assessment of: a) the impact of trust and personal innovativeness on the use of digital loan services, and b) mutual relationships occurring between the expressed trust and personal innovativeness of the surveyed Poles. The assessment of the correlation between these variables was adopted as the starting point for the conducted analysis. The measurement of the monotonic relationship between two random variables, used to describe the correlation between ordinal variables, was based on Kendall's Tau statistics. The value of this measure, at $p < 0.05$, for the relationship between the expressed trust/personal innovativeness and the use of digital lending services provided by FinTech lenders was at the level of 0.39 and 0.36, respectively. In the case of mutual correlation of the above mentioned factors, i.e. expressed trust and personal innovativeness, the value of Kendall's Tau coefficient reached the level of 0.56. This result indicates that there is a statistically significant, positive correlation of diverse strength between these variables.

The analysis of the distribution of the expressed trust levels among the respondents, divided into groups characterized by different levels of personal innovativeness is an extension of the process aimed at identifying and evaluating the relationships between the studied constructs (see Table 6). The data presented in Table 6 prove, *inter alia*, that a high level of personal innovativeness is accompanied by a high level of expressed trust in the lending activity of FinTech lenders (75% of people showing high innovation are characterized by a high level of expressed trust). The reverse correlation can be found in the group of non-innovative people (only about 5% of non-innovative respondents are characterized by a high level of trust expressed towards FinTech lenders). The above described phenomenon is accompanied by a situation in which a decline in the level of personal innovativeness goes along with an increase in the percentage of people showing lack of trust in this type of entities (this percentage increases in the range from 2.6% of people in the group characterized by high personal innovativeness up to 33.0% in the group of non-innovative people).

Table 6. Trust vs. personal innovativeness of the surveyed population

	Highly innovative (n – 306)		Moderately innovative (n – 464)		Non-innovative (n – 230)	
Trust	High	75.2%	High	28.4%	High	4.8%
	Average	22.2%	Average	66.6%	Average	62.2%
	Low/none	2.6%	Low/none	5.0%	Low/none	33.0%

Source: Authors' own study.

The final issue to be identified and analyzed is determining the demographic and economic profile of a person using digital loan services offered by FinTech lenders (Table 7).

Table 7. The profile of a person using or open to using digital loan services offered by FinTech lenders in the future

Gender (N – 1,000)										
Status	Women (n – 533)				Men (n – 467)					
	Number		% n		Number		% n			
Users	124		23.2%		139		29.7%			
Open	143		26.8%		145		31.1%			
Age (N – 1,000)										
Status	< 25 (n – 121)		25–34 (n – 182)		35–49 (n – 244)		50–59 (n – 174)		≥60 (n – 279)	
	number	% n	number	% n	number	% n	number	% n	number	% n
Users	28	23.1%	73	40.0%	78	31.9%	34	19.0%	50	17.9%
Open	36	29.7%	55	30.2%	74	30.3%	60	34.4%	63	22.5%
Education (N – 1,000)										
Status	Primary/lower secondary (n – 128)				Secondary (n – 497)				Higher (n – 375)	
	number		% n		number		% n		number	% n
Users	25		19.5%		125		25.7%		113	30.1%
Open	33		25.7%		147		29.5%		108	28.8%
Net income (PLN) (N – 1,000)										
Status	≤ 2,000 (n – 215)		2,001–3,000 (n – 220)		3,001–5,000 (n – 251)		≥5000 (n – 105)		Refusal (n – 209)	
	number	% n	number	% n	number	% n	number	% n	number	% n
Users	43	20.0%	55	25.0%	86	34.2%	39	37.1%	40	19.1%
Open	59	27.4%	63	28.6%	75	29.8%	35	33.3%	56	26.7%
Place of residence (N – 1,000)												
Status	Village (n – 404)		City <20,000 (n – 104)		City 20–99,000 (n – 213)		City 100–199,000 (n – 87)		City 200–499,000 (n – 83)		City ≥500,000 (n – 109)	
	number	% n	number	% n	number	% n	number	% n	number	% n	number	% n
Users	109	26.9%	30	28.8%	47	22.0%	24	27.5%	21	25.3%	32	29.3%
Open	113	27.9%	30	28.8%	62	29.1%	21	24.1%	29	34.9%	33	30.2%

Source: Authors' own study.

Approaching the surveyed population from the perspective of gender criterion confirms that men are more likely to use digital loans than women (60.8% vs. 50%). This advantage applies to both the group of users and those open to using it in the

future. The analysis of the respondents in terms of age shows that the level of using the discussed financial services is strongly determined by age. And so, in the population of young people, i.e. up to 35 years of age, 63.1% of such people use digital loans, whereas in the group of people over 50–36.9%. The dominance of young people disappears in the age assessment of people open to using these products. In this case, the percentage of young people and those over 50 open to using FinTech lenders' services presents an equal level (59.9% vs. 60%).

Adopting the education criterion allows concluding that the level of using or openness to the offer of digital loan services is a function of the education level presented by the respondents. In this case, the highest percentages of users (30.1%) and those open to using (29.5%) are characteristic of people with higher and secondary education, respectively. The assessment of the relationship between the income earned and the attitude towards using digital financial services justifies the conclusion that along with the increase in the income earned by the respondents, the percentage of people using or open to using such financial products grows. These measures reach their maximums (i.e. 37.1% and 33.3%) in the group of people with the highest monthly income. The assessment of the last criterion, i.e. place of residence, finally, proves that the highest percentage of users (i.e. 29.3%) and lenders open to using FinTech services (i.e. 34.9%) refers to the residents of the largest Polish cities. Finally, the statistics presented above enable developing a profile of a person using digital loan services offered by FinTech lenders. It is a man, aged 25–34, presenting higher education and income exceeding PLN 5,000, residing in a city with a population of over 500,000 residents.

Discussions

The findings resulting from the authors' own research prove that the perceived trust and personal innovativeness represent factors influencing consumers' decisions about using digital loan services offered by FinTech lenders in Poland. This conclusion is consistent with the inference drawn by other researchers (cf. e.g. Ali et al., 2021; Contreras Pinochet et al., 2019; Nathan et al., 2022; Putranto & Sobari, 2021; Setiawan et al., 2021). For example, the analysis of adoption factors regarding the financial services provided by FinTech lenders in Thailand, conducted by Setiawan et al. (2021), shows that personal innovativeness plays an essential role in the use of FinTech lenders by Indonesians. A similar opinion is expressed by Contreras Pinochet et al. (2019). They state that personal innovativeness of Brazilians has to be perceived as an important factor in their use of digital lending services, as people more open to innovation will be more likely to use such financial services. Ali et al. (2021) provide a similar opinion, but regarding the expressed trust. These authors, examining the perception of Muslim FinTech lenders operating in Pakistan, claim that customer trust should be approached as a factor determining the use of the product

offer delivered by this type of institution. Importantly, the level of trust also determines the positive perception of innovative digital technologies. A similar conclusion regarding the importance of expressed trust in the process of using FinTech services is also formulated by Contreras Pinochet et al. (2019) and Hasan et al. (2021).

An important conclusion resulting from this study is also the statement about the mutual, positive correlation between the analyzed constructs in the form of expressed trust and personal innovativeness presented by Poles. This relationship clearly indicates that these factors are mutually reinforcing, simultaneously increasing the strength of their influence on adoption decisions related to using digital loan services. A similar conclusion is formulated by Hu et al. (2019). Having identified the existing links between personal innovativeness and expressed trust in the service activities provided by FinTech lenders operating in China, these authors also pointed to the strong impact of the innovation shown by the consumers of banking services on the expressed level of trust in this type of institutions, their products and the performed business activity. The analysis of the relationship between the above-mentioned constructs has also become the subject of research conducted by Balcázar and Rivas (2021). In this case, the assessment of the relationship between innovation and trust of Peruvian consumers using digital financial services offered by FinTech lenders indicated their statistical insignificance. Nevertheless, the same analysis proved that the expressed trust is a factor influencing the willingness to use these services.

In the group of respondents surveyed for the purposes of this article, who used the services provided by FinTech lenders, as many as 73.0% are considered to be open towards using innovative, digital financial products, for comparison, in the entire surveyed population, this percentage was at the level of 53.8%. In addition, the vast majority of respondents showing high personal innovativeness declared high level of trust (73.44%). Taking a closer look at the socio-demographic characteristics of the same group, it is dominated by young university graduates aged 25–34. The share of people featuring the above-mentioned characteristics was higher by 8.75 percentage points in the age category and by 5.76 percentage points in the education category, as compared to the entire surveyed population.

Conclusions

Through the source literature analysis covering the adoption factors of digital financial services offered by FinTech lenders and the essence of constructs taking the form of expressed trust and personal innovativeness discussed at this background, and also based on the analysis and interpretation of the collected statistical material, it was determined that both the expressed trust and personal innovativeness of Poles should be approached as the factor influencing their decisions regarding the use of digital lending services offered by FinTech lenders. The impact of the above constructs on the attitudes towards the lenders described in the article is a function

of their reciprocal correlations, based on the mutual reinforcement of these factors. This situation was confirmed by relevant analyses, carried out in the cross-section of individual surveyed groups as well as the separate intensity levels of the analyzed predictors. An important finding of the conducted research is also the economic and demographic profile of a person using these services. It is a man, aged 25–34, presenting higher education and income exceeding PLN 5,000, residing in a city populated by over 500,000 residents.

The studies of the source literature conducted by the authors as well as their own research indicate a clear contribution of this article to the theory of the problem constituting the basis of the conducted considerations. Firstly, the content of the article is in line with the debate on the role and importance of FinTech lenders on the Polish financial services market. Secondly, the results of the conducted analyzes provide the basis for assessing the place of the discussed constructs in a wide set of factors influencing the adoption attitudes towards digital financial services. Thirdly, owing to the characteristics of the relationships between the expressed trust and personal innovativeness, as well as the assessment of the impact exerted by these factors on the use of digital loans offered by FinTech lenders, this article identifies and analyzes mutual relationships between the identified predictors, expanding the perception of their influence on the adoption decisions. From the theoretical perspective, it is also important that this article, according to the best knowledge of its authors, is one of the first studies of this type, which opens a discussion on the identification and assessment of the adoption factors for the digital lending services provided by FinTech lenders both in Poland and in other countries of Central and Eastern Europe. The above fact, in its scientific dimension, may encourage conducting, e.g. comparative studies, allowing better recognition and understanding of the determinants underlying consumer decisions taken on various markets of digital financial services.

In terms of the application dimension, the obtained research results can, according to the authors, be treated as the basis for drawing conclusions focused on the process of identifying and assessing factors conducive to the use of digital loan services, and thus related to the selection of appropriate activities intensifying and/or fostering the development of FinTech lenders, implemented in each element of their ecosystem. This knowledge and the actions taken on its basis are particularly important for the loan entities discussed in the article, striving to fully integrate the expectations expressed by potential customers with the practice of their financial activity. An important conclusion resulting from the conducted research, referring to the practice of FinTech lenders functioning in Poland, is also the identification of the direction and significance of the impact exerted by the analyzed constructs both between them and on the adoption attitudes of Poles. In this case, both the role attributed to perceived trust and personal innovativeness force all parties interested in the development of the domestic FinTech market to take actions focused on:

– education addressing the role and importance of innovations, including digital innovations in human life,

– creating and consolidating the atmosphere of trust towards such institutions and their products,

– promoting digital financial innovations.

In these areas, e.g. personalized educational campaigns, appropriate marketing strategies or regulatory activities can be used. This activity should focus on: expanding knowledge about the essence and importance of digital innovations in human life, increasing awareness regarding the existing possibilities for using the achievements of technological and information revolution in the world of personal finance, as well as creating the desired image of digital financial innovations and entities using them, which facilities developing the atmosphere of trust expressed towards them.

The findings of the authors' own research could have been influenced by the limitations resulting from the assumptions adopted by the authors or the applied research methods. Based on the review of the source literature addressing the prerequisites for the acceptance and use of FinTech services by their consumers (see Table 1), attention was focused on the analysis of only two of them, i.e. personal innovativeness and expressed trust. In order to improve the understanding of consumer attitudes and behaviors regarding the readiness to use digital lending services offered by FinTech lenders, further research should also cover other factors such as: perceived ease of use (PEU), perceived usefulness (PU), brand image (BI), financial literacy (FL), attitude (AT), perceived risk (PR), subjective norm (SN).

The conducted research and its results may also be limited by the adopted method for identifying and analyzing the reasons influencing the intentions to use loan services offered by FinTech lenders. Therefore, according to the authors, in the future it is worth reaching for other models and theories used by the researchers, which offer the opportunity to recognize the diverse mechanisms and prerequisites underlying such consumer decisions, e.g.: unified theory of acceptance and use of technology (UTAUT) or innovation diffusion theory (IDT).

Another limitation identified by the authors regarding the section of the article devoted to "Research methods" refers to the weaknesses of the chosen data collection technique – CAWI, including the risk related to incorrect understanding of the questions by the respondents, due to the fact that FinTech lenders represent a novelty on the Polish market of financial services. The solution here would be to use the technique of collecting data with the participation of an interviewer, e.g. CATI, which could also include people who do not use the Internet in the structure of the research sample and would provide a better basis for formulating general conclusions.

Finally, bearing in mind the statistics of the EBA indicating the leading position of Poland among the countries of Central and Eastern Europe belonging to the EU in terms of the volume of digital lending, it would be interesting and important from a theoretical and practical viewpoint to conduct international comparative studies covering this problem.

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