

INFORMATION AS A CONSUMER PROTECTION INSTRUMENT ON THE CONSUMER CREDIT MARKET

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Abstract. The aim of the article was to assess the opinions of consumer credit borrowers on the information message provided to them by lenders at the pre-contractual stage. The opinions were presented in the context of the demographic characteristics of the respondents.

The research question posed was whether, taking into account demographic characteristics, the assessment of consumer credit borrowers regarding the information message obtained at the pre-contractual stage varied. The research methodology included a questionnaire and Computer-Assisted Telephone Interviewing (CATI). For the information analysis, we employed the following non-parametric tests: the chi-square test of independence, the Mann–Whitney U test and the Kruskal–Wallis H test. No significant differences were observed in all the parameters of the assessment of the information message, which means that the answer to the research question was negative. The findings suggest that even though borrowers may positively assess the compliance with the information obligations by lenders, it does not mean that all credit decisions made were rational and appropriate to their financial situation. Our study focused on the consumer protection and employed non-parametric tests to analyze the consumer credit borrowers' assessment of the information provided to them by lenders.

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1. Introduction

Consumers are a vital element of economic life and as such, they need to be protected. The financial crisis highlighted the importance of financial consumer protection for the long-term stability of the global financial system (Ardic et al., 2011), since the market is not subject to self-regulatory mechanisms and efforts must be made for it to be stable (Peters, 2012). The transformations that took place in the world market after the Great Depression of 2007–2010 (Goddard et al., 2009) have spurred interest in the concept of consumer protection in the financial market (Dietrich & Vollmer, 2012; Kowalski & Shachmurove, 2011). Researchers have noted that consumer protection and financial literacy can improve efficiency, transparency, competition, and access to retail financial markets by reducing information asymmetries and

power imbalances between financial service providers and users (Selvakumar & Sathyalakshmi, 2016). Moreover, research has demonstrated that consumer protection in financial markets impulses economic growth through fair treatment, responsible lending, enforcement and dispute resolution, and recourse regulation (Alshubiri, 2022; Kriese et al., 2019). The development of financial markets entails not only opportunities, but also increased risk. Consumers often fall victim to abuse and manipulation, resulting from their ignorance of the mechanisms governing products or services (Frączek, 2017). They are forced to meet certain needs, and thus are willing to accept unfavorable transaction terms, often without being aware of the financial consequences of such decisions. Problems of consumers of the banking market may also result from marketing activities of service providers, such as promotions which trigger demand for artificially created needs (Mazuruk, 2011). A non-professional party to the transaction, the consumer suffers from information asymmetry, trusts in the reliability of the information provided (Tsindeliani & Mikheeva, 2022), and may make irrational financial decisions regarding the financial product (Koćwin, 2015; Tfaily, 2017). The concept of information asymmetry was first identified in the 1960s (Brunetti et al., 2023; Tsindeliani & Mikheeva, 2022). It consists in a deficit of information and the under-information of the weaker subject (Pawłowska-Szawara, 2020; Bellucci et al., 2023). Protecting financial consumers is one of the top priorities of financial system regulators. The banking market uses a variety of instruments in order to achieve it. One of them is protection through information, which obliges the professional, stronger party to the transaction to provide a specific information message (Malczyńska-Biały, 2010), allowing for informed decision-making on the part of the weaker party (Tereszkiewicz, 2015; Rutkowska-Tomaszewska, 2013; Gałązka, 2021). Incorrect information or lack thereof negatively impacts the reliability of the decisions made (Węgrzyn, 2013). The quality of the information message is crucial at every stage of the relationship between consumers and banks: before, during, and after the conclusion of the agreement (Ribaj & Lollari, 2019; Wojciechowska-Filipek, 2014).

Having analyzed the literature on the subject, we noticed the existence of a research gap concerning the assessment of information transmission at the consumer credit pre-contractual stage. As a result, we decided to focus our study on that precise issue. The aim of the article was to assess the opinions of consumer credit borrowers on the information message provided to them by lenders at the pre-contractual stage. Their opinions were presented in the context of the demographic characteristics of the respondents.

In addition, we sought to answer the research question posed: Taking into account demographic characteristics, does the assessment of consumer credit borrowers regarding the information message obtained at the pre-contractual stage vary? In order to answer the above question, we used an original questionnaire, implemented using the Computer-Assisted Telephone Interviewing (CATI) technique. The study involved 800 respondents over 18 years of age. The analysis of information obtained was carried out with the use of non-parametric tests, such as: the chi-squared test of independence, the Mann-Whitney U test and the Kruskal-Wallis H test.

2. Literature review

2.1. Information as a means of protection in the financial market

The consumer is an important actor in economic processes. In scientific discourse, the consumer is described as an active subject, a partner for other participants of economic life, and a creator of value. As a result of the civilizational development, consumer preferences, expectations, attitudes, and behaviors have undergone numerous changes (Mazurek-Łopacińska & Sobocińska, 2014). Due to the discrepancy between the economic interests of consumers and financial institutions, consumers need to be protected, as weaker, non-professional market participants (Czechowska, 2009; Borkowska & Klimczak, 2015; Malczyńska-Biały, 2019) so as to prevent them from making erroneous (imprudent, hasty, reckless, risky, or speculative) financial decisions. Concluding contracts, especially long-term, by consumers has a considerable impact on their financial situation (Butor-Keler, 2019). The concept of consumer protection in the financial services market is based on the adoption of express rules which financial institutions should respect (Horosz, 2022). One of the good practices of the financial markets is the provision of information by financial service providers. Lack of adequate knowledge and information is most often associated with inappropriate communication of information (Calcagno & Monticone, 2015; Hastings & Mitchell, 2020). The activities of modern financial institutions are based on the principles of clarity and fairness in the provision of financial information, compliance with numerous requirements related to the marketing of products and services, and the security of consumer rights (OECD, 2011; World Bank, 2012, 2017). The availability (disclosure) of information, its transparency, and appropriate quantity are major aspects of consumer protection. It principally translates to the imposition of new information obligations on entrepreneurs, which, however, may bring disparate results (Howells, 2005). Information overload can cause a sense of misinformation among consumers (Sługocka-Krupa, 2017). Information provided to consumers must not be misleading or selective in its scope. It must not be excessive either, so as not to confuse consumers and induce them to buy unnecessary or unsuitable products. This kind of fraudulent sale is known as *misselling* (Cyman, 2016; Horosz, 2022).

Information is an important resource in the decision-making process (Jakubowska, 2017). On the financial services market, there may appear an inappropriate information policy created by financial institutions, although not always consciously. This might result obscuring information transparency or its excess, thus limiting effective and informed participation in the financial market through the conclusion of contracts. Such situation may in turn result in discouragement from using financial services and a decline in trust in the financial sector (Frączek, 2017). Lack of information or misinformation between the consumer and the professional financial services provider causes information asymmetry (Cyman, 2016; Sane & Halan, 2017) identified as a source of potential threats. Information asymmetry can give rise to certain consequences such as adverse selection and moral hazard associated with the unfair use of market advantage (Cyman, 2016). As an institution of public trust, the bank should maintain good relations with customers, as their deterioration may trigger potential withdrawals of funds, and subsequently pose a threat to the stability of the financial system and the entire economy (Butor-Keler, 2019; Sługocka-Krupa, 2017). It should be highlighted,

however, that the use of the information paradigm to protect the financial services consumer is insufficient and ineffective (Oehler & Wendt, 2017; Howells, 2020). In order to justify the low effectiveness of the information obligation in terms of its impact on consumer decisions, subject literature offers the following (Porrás & van Boom, 2012; Wilhelmsson, 2018):

- The possibility of not delivering the information (because the consumer either does not understand it or does not read it).
- Acting irrationally on the basis of previously received information.
- Information overload.
- Effective use of information only by educated people from privileged socioeconomic strata.

In the face of such arguments evidencing the ineffectiveness of information communication, how information is conveyed, received, and understood by consumers is of vital importance. In this approach, what matters is the adequate information form: the manner of its transmission, the selection of appropriate, uncomplicated formulations, and its amount. The aim of consumer protection in financial markets should be shaping consumers so they can understand their situation and make the right decisions with regard to the management of their funds (Opinion of the European Economic and Social Committee, point 2.4 (European Economic and Social Committee, 2011)). Therefore, financial service providers should be not only burdened with information obligations, but also encouraged by supervisors and regulators to take actions aimed at reducing the risk of information asymmetry and effectively protecting consumers (Sługocka-Krupa, 2017). In order to make right decisions, consumers should have financial awareness of their rights and the mechanisms governing the products they obtain (Kaiser & Menkhoff, 2017). As Lusardi (2019) points out, low levels of financial literacy in different countries correlate with both inefficient financial spending and planning, and costly borrowing and debt management. Poor debt literacy translates into more costly transactions (Lusardi & Tufano, 2015). Researchers have attempted to establish the factors determining the financial behavior of consumers. Strömbäck et al. (2017) concluded that people with good self-control have a greater propensity to save and show a positive attitude towards their current and future financial situation (Strömbäck et al., 2017). To sum up, financial consulting and knowledge is crucial for strengthening consumers' economic interests. Such conclusions have been confirmed by empirical studies using the Mann–Whitney Rank Sum U-Test, which demonstrated that consumer education and access to effective consumer redress are two of the most vital mechanisms that can strengthen consumer protection (Selvakumar & Sathyalakshmi, 2015). In conclusion, an educated consumer is able to understand the information presented in a standardized way and make appropriate decisions on its basis.

2.2. Pre-contractual information obligation

The literature concerning the analysis of the extent to which standardized information obligations imposed on lenders at the pre-contractual stage can improve the quality of choice and lead to responsible borrowing (Commission of the European Communities, 2002; Junuzović, 2018) refers to the starting point – the Consumer Credit Directive of 2008 (2008/48/EC). This document lays down the principle that failure to comply with the information obligation may be regarded as an unfair market practice because it is misleading. According to this legal

act, the consumer information process consists of three stages. The first stage is the moment when the product is placed on the market, i.e., the advertising stage. This is followed by the pre-contractual stage in which consumers, before concluding a contract, should be able to compare different offers using the Standard European Consumer Credit Information form. In the final stage, the entrepreneur is obliged to explain to the consumer which of the proposed products is the most suitable in terms of their needs and financial situation (EC Directive 2008/48/EC). With regard to the pre-contractual phase, the Directive enumerates a wide range of required information to be made available through the standard consumer credit information form (Miscenic, 2018). At the mentioned stage, the following information must be disclosed: costs, terms of the potential consumer credit contract, essential characteristics of the credit product, information concerning the creditor and the credit intermediary, rights and obligations of the contracting parties, and a warning regarding the consequences of missing payments. Lenders are also required to present the benefits and risks of a given contract applicable to the specific consumer (Tereszkiewicz, 2015). The purpose of the information message is to eliminate inequalities between the parties on the basis of standardized behavior. Ultimately, financial decisions are the responsibility of consumers who make them at their own risk. In this case, they need to be aware of potential problems. Most consumers buying a loan, for example, do not compare the accepted loan offer with others. This is due, among others, to the cost of searching for them. Furthermore, consumers are not in a position to assess certain credit features, such as quality, contract risk, and long-term effects. They rely on advice obtained from lenders, financial advisors, intermediaries, and third parties (Porrás & van Boom, 2012). Given the potential problems arising from inadequate communication of information, consumer research carried out by the European Commission demonstrates that information should be comprehensive, written in plain language, and devoid of excessive technical jargon (European Commission, 2009, p. 5).

3. Research method

The aim of the article was to assess the opinions of consumer credit borrowers on the method, content, and quantity of information provided by lenders at the pre-contractual stage. Information is a key element defining consumer protection in the financial market. Through transparent information, it is possible to provide appropriate solutions for consumers and ensure greater efficiency of the financial market (Muller et al., 2014). Based on the review of literature on consumer protection and methodological aspects of consumer protection measurement in the banking sector, a research questionnaire was designed. In terms of the method of information transmission, the following aspects were considered (World Bank, 2017): comprehensibility (terminology should be understandable for the consumer), legibility (without complicated content), transparency (the provisions should not be misleading), clarity (the message should be simple, not overloaded with excessive content), and appropriate graphic form (appropriate font size and spatial distribution of the content). As far as the information content, the following aspects were included: ease of comparison with other offers, lack of reference to explanations in footnotes, structure, accuracy and precision, and unambiguity of interpretation (the content is exhaustive). In terms of the amount of information provided, the questionnaire included three options: adequate, excessive, and insufficient.

The study was conducted with the use of an original questionnaire containing questions concerning the transfer of information from the lender at the pre-contractual stage, e.g., the scope (of basic documents), assessment of the manner in which information was conveyed by the lender's employees, assessment of information content and amount, and the subjective opinion of respondents in this respect. The study was carried out with the use of the CATI technique. Telephone survey (CATI) is a tool used for collecting information in quantitative research. The study involved 800 respondents over 18 years of age. An important aim of the analysis was to determine the demographic profile of the respondents. Women slightly dominated among the respondents, accounting for 52.5% of the surveyed group. In terms of age, the largest group were people aged over 65 (22.6%), followed by those aged 35–44 (20.1%), 25–34 (16.8%), 55–64 (16%), 45–54 (15.9%) and 18–24 (8.6%).

In order to verify whether the respondents' opinions on the manner of information transfer, content, and quantity are affected by demographic parameters (gender and age), we employed non-parametric tests, such as the chi-square test of independence (for the amount of information), the Mann–Witney U test or the Kruskal–Wallis H test (for the manner and content of information communication). The chi-square test was used due to the way it measures the dependent variable (amount of information) which is expressed on a nominal scale. The analysis allows for making inferences as to the co-occurrence of two phenomena or the relationship/dependence/relationship between two variables (Gallo Jr et al., 2019). The chi-square test examines the following hypotheses:

H0. *The variables are independent.*

H1. *The variables are not independent.*

We used non-parametric tests to analyze the manner and content of information transfer, as these variables are measured on an ordinal scale. The Mann–Witney U test is the non-parametric equivalent of the Student's t-test. It is used to test differences between two independent groups. The Kruskal–Wallis test is the non-parametric equivalent of the ANOVA test. The Kruskal–Wallis test should be used when more than 2 groups are compared (Ostertagova et al., 2014).

To assess the strength of the relationship between the variables, we used the Cramér's V coefficient which is a symmetrical measure with a value between 0 and 1, resistant to both sample size and inequalities in the number of variants of the studied variables.

We can find the examples of application of statistical tests to examine consumer protection referred to in the article in the subject literature (Wu et al., 2023). Selvakumar and Sathyalakshmi (2015) used the Mann–Witney U test to verify whether the level of financial protection of consumers varied depending on the type of bank. Gomathinayagam et al. (2019) employed non-parametric tests to assess problems related to the use of mobile banking, taking into account the socioeconomic characteristics of the respondents. Marimuthu and Mathan, (2015) used the chi-square, Mann–Witney U. and Kruskal–Wallis H test to study the homogeneity of the level of interest in financial services among bank customers in Sivakasi.

The results were processed with the use of the IBM SPSS 27.0 statistical package.

4. Assessment of the lender's information message

This article analyzes the opinion of the respondents on the information message received from the lender, in terms of the method of its communication, its content, and amount, as well as the significance of this information in the context of tailoring the loan to the needs of the consumer. The surveyed borrowers were asked whether the lender had provided them with an information form, which is a document that includes an offer prepared for a specific customer, after learning about their needs. About 58% of the respondents confirmed that they had received such form (of which about 60% declared having received it before concluding the loan agreement). Approximately 16% of the respondents declared that they had not received it, while nearly 25% checked the *I do not remember* option (which may indicate that they did not pay much attention to such issues, or were not aware of their rights and the lender's obligations). More than half of the survey participants who had been provided with the information form (i.e., 51.4%) stated that they had received it on the lender's initiative, nearly 37% declared that they obtained it at their request, whereas 12.2% marked the *I do not remember* answer. The vast majority (86.8%) of the respondents indicated that they had received the form free of charge, 7% declared having paid for it, whereas 6.2% selected the *I do not remember* option. 60% of the respondents indicated that they used the form to compare it with the forms obtained from other banks, and almost 56% compared the received loan offer with other offers. 26.7% of the surveyed group who had the information form declared not doing so. The majority of the respondents (63%) stated that they had received the document in electronic form, while about 45% indicated having received it in writing.

In addition to the information form, the survey participants confirmed having received other documents before signing the loan agreement. These included: an information leaflet (44.5%), a draft agreement (59.1%), general terms and conditions (74%), a model agreement (63%), and table of fees and commissions (69.9%). The respondents were also asked whether the information provided by the lender referred to the basic issues pertaining to the conclusion of such agreements. Nearly 75% of the survey participants confirmed that the information referred to the total costs borne by the consumer. As regards fees and commissions, including early repayment of the loan, 72% of the respondents confirmed having obtained such information, while 64% declared having been informed about potential additional charges (i.e., monthly costs of maintaining a bank account, insurance costs). The remaining questions as to the content of the information message referred to whether the message contained information about:

- Simulation of loan repayments taking into account changes in the interest rate (59% of the respondents stated they had received it).
- Complaints and complaint handlers (57.6% of the respondents confirmed having received this information).
- Attachments required for the verification of the loan application, such as the certificate from the Polish Social Insurance Institute and the Tax Office, or a tax return (54.8% indicated this survey option).
- Possibility of early repayment (72.8% of indications).
- Possibility of withdrawal from the contract (68.4% of indications).

- The consequences of non-payment and the rules for servicing overdue debt (66.8% of indications).

According to the respondents, the most important information about the loan was that related to total costs, fees, and commissions. On the other hand, they considered information on the attachments for the loan application verification and the complaint procedure the least relevant. Almost 99% of the respondents believed that the information provided to them by the lender was complete. The surveyed borrowers largely positively assessed the fulfilment of information obligations by the lender. As many as 87.1% of the respondents selected the *very good* and *good* options. Only 1.9% (*very bad* and *bad* answers) expressed the opposite opinion. However, when asked whether they had received any unfavorable information during this process, numerous respondents gave a positive answer.

- 32.5% received information that the conclusion of the contract was dependent on the use of other services.
- 29.9% were informed that additional costs would be charged in the event of early repayment or termination of the contract.
- 29.4% were advised only about the benefits, whereas information about the threats and risks was omitted.
- 14.6% received no information about the Annual Percentage Rate (APR).
- 12.1% declared that the lender made the financial service appear to be free of charge.

The lack of information about the loan repayment plan was the least frequently indicated answer variant (12.0%). At the time of taking out a loan, the respondents most often considered the following risks: the need to reduce household expenses (41.0%), the possibility of losing the loan collateral (29.4%), and the failure to repay other liabilities (24.3%). Criminal liability for loan fraud was indicated with the least frequency (2.6%). More than half of the survey participants (56.1%) intended to report this fact to the lender and request a "credit repayment holiday" in the event of problems with the loan repayment. The second most frequently indicated option in such case was turning to family or friends for help (42.0%). The respondents generally assessed their knowledge as satisfactory (46.3%). A positive assessment was given by 44.5% of the respondents (*very good* and *good*). Only 7.9% believed that their knowledge was mediocre, and 1.3% indicated that it was insufficient.

The following part presents the analysis of the opinions of the surveyed borrowers on the manner of communication of the information package, its content, and amount, along with their view on the impact of the information message on the adjustment of the loan to their needs.

4.1. Assessment of the method of information transmission

The first area studied concerned the opinion of the respondents on the manner in which the information was communicated. Table 1 presents a summary of the average scores in terms of individual parameters comprising the method of information transmission and its overall assessment.

Table 1. Assessment of the method of information transmission (source: own analysis)

Specification		Comprehensible	Legible	Transparent	Clear	Appropriate in terms of graphics	Overall assessment	
Total	Mean	1.89	2.05	2.12	2.19	2.13	2.12	
	SD	0.86	0.85	0.86	0.88	0.88	0.87	
Gender	W	Mean	1.87	2.03	2.11	2.17	2.10	2.09
		SD	0.88	0.84	0.86	0.85	0.86	0.87
	M	Mean	1.91	2.07	2.12	2.20	2.15	2.15
		SD	0.84	0.86	0.87	0.91	0.90	0.88
Age	18–24	Mean	2.04	2.13	2.16	2.25	2.14	2.20
		SD	0.92	0.84	0.89	0.91	1.02	0.92
	25–34	Mean	1.66	1.91	1.99	2.03	2.03	1.98
		SD	0.73	0.82	0.87	0.80	0.84	0.85
	35–44	Mean	1.81	2.01	2.06	2.15	2.12	2.11
		SD	0.88	0.88	0.86	0.92	0.93	0.89
	45–54	Mean	1.91	2.02	2.13	2.21	2.15	2.14
		SD	0.94	0.87	0.85	0.87	0.87	0.83
	55–64	Mean	1.91	2.08	2.13	2.13	2.09	2.10
		SD	0.77	0.85	0.83	0.86	0.80	0.88
	65+	Mean	2.04	2.15	2.23	2.33	2.20	2.19
		SD	0.86	0.82	0.87	0.88	0.87	0.89

Note: The median value for the variables considered was 2.00.

From the point of view of particular aspects of the information transmission mode, the respondents mostly found the message understandable and legible (the lender's employees generally used understandable terminology without excessive complicated content and definitions). These aspects scored an average of 1.89 and 2.05 on a five-point Likert scale (1 being the highest and 5, the lowest respectively). The remaining parameters describing the information message received average scores in the range of 2.12–2.19. On the other hand, the overall score was on average 2.12, which means that the respondents generally highly (positively) assessed the method the information was provided to them by their lenders.

As regards gender, no statistically significant differences between women and men were found in this aspect in general or for individual parameters (the probability value in the Mann–Witney U test exceeds the threshold value $p = 0.05$ as illustrated in Table 2). In the assessment of how comprehensible the provided information was, a significant relationship was noted in terms of borrowers' age (the probability value in the Kruskal–Wallis H test was lower than the threshold value $p = 0.05$). The distribution of assessments of the manner of information transmission differed depending on the age of the respondents (Table 2).

In the result of post hoc tests, using the Kruskal–Wallis one-way variance test for k independent samples, it was observed that people aged 25–34 years differed significantly from people aged 65+ ($p < 0.001$) in terms of the information message assessment. People aged 65+ assessed the information message as more comprehensible (average score 441.45) than

those aged 25–34 (average score 343.31). In the case of other parameters of the method of information transmission, no significant differences were noted in terms of the borrowers' age (the probability value in the Kruskal-Wallis H test was higher than the threshold value $p = 0.05$).

The assessment of the quality of the information transmission was generally high (Table 3). In the synthetic assessment, 72% of indications were recorded. In each of the discussed parameters of the information transfer method, the quality of the message was mainly regarded as high (the level of indications exceeded 67% for each parameter).

Table 2. The results of the analysis of the relationship between the assessment of the method of information transmission and the demographic characteristics of the respondents (source: own analysis)

Specification		Comprehensible	Legible	Transparent	Clear	Appropriate in terms of graphics	Overall assessment
Gender	W	392.65	396.18	399.78	399.20	395.15	392.28
	M	409.18	405.27	401.29	401.93	406.41	409.58
Mann Whitney U test value		76501.50	77986.50	79498.50	79255.00	77555.00	76349.00
p-value		0.277	0.553	0.921	0.859	0.460	0.255
Decision based on $p = 0.05$		No dependencies	No dependencies	No dependencies	No dependencies	No dependencies	No dependencies
Age	18–24	437.93	422.28	408.62	411.12	397.89	397.89
	25–34	343.31	364.02	367.64	364.59	377.22	365.53
	35–44	376.34	376.34	385.38	388.08	394.16	396.31
	45–54	400.01	390.63	390.63	408.93	405.68	409.80
	55–64	413.16	413.16	404.27	385.55	397.47	394.91
	65+	441.45	432.19	430.61	438.74	422.88	419.10
Kruskal-Wallis test value		20.638	9.546	7.536	10.820	3.779	6.027
p-value		0.001	0.089	0.184	0.055	0.582	0.304
Decision based on $p = 0.05$		Dependency of features	No dependencies	No dependencies	No dependencies	No dependencies	No dependencies

Note: The Mann–Whitney U test was used to assess the relationship between gender and the Kruskal–Wallis H test for the age variable.

Table 3. Quality of the method of information transmission (in % of responses) (source: own analysis)

Specification	Comprehensible	Legible	Transparent	Clear	Appropriate in terms of graphics	Overall assessment
High	80.00	72.38	70.50	67.75	72.00	72.00
Neither low nor high	15.88	23.13	22.88	24.25	20.25	21.88
Low	4.13	4.50	6.63	8.00	7.75	6.13

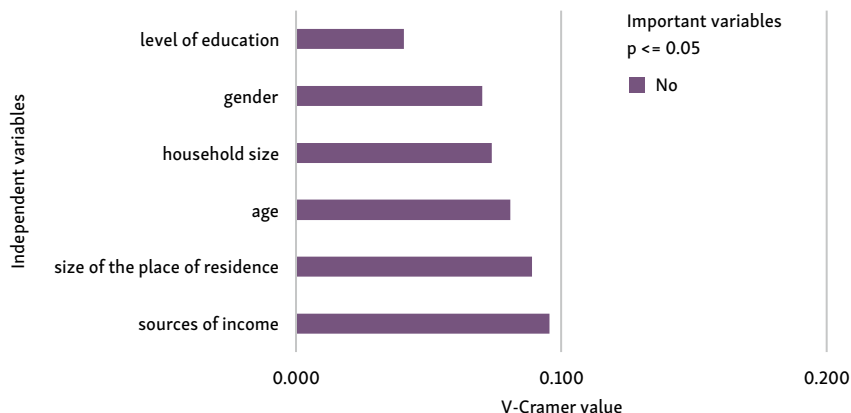


Figure 1. Results of the analysis of correlation between the assessment of the quality of information provided and the sociodemographic characteristics of the respondents (source: own analysis)

The analysis using the chi-square test did not show any significant differences in the assessment of the quality of information transfer in terms of sociodemographic characteristics of the respondents (Figure 1). A very small and insignificant strength of the relationship was observed in terms of the considered variables (the value of Cramér's V coefficient did not exceed 0.1).

4.2. Assessment of the information message content

The next point of analysis was the assessment of the content of the lenders' information message (Table 4). Table 4 presents a summary of the average scores in terms of individual parameters describing the method of information transmission and its overall assessment.

As regards the individual parameters of the information content, the surveyed borrowers rated the ease of comparing the content with other offers and its structure the highest (a clear indication of which information they deem more and which less important). These parameters scored an average of 2.07 and 2.19 on a five-point Likert scale (1 being the highest and 5, the lowest respectively). The remaining parameters received average scores in the range of 2.12–2.23. This means that the respondents have a predominantly positive opinion on the content of the information provided to them in connection with the loan offer (Table 4).

With regard to the overall assessment of the information message content, as well as the individual parameters that comprise this assessment, there was no significant relationship in terms of gender of the respondents (Table 5). In terms of the general assessment of information message content, as well as individual parameters (with the exception of the parameter concerning the content structure), significant differences were observed among the respondents in terms of their age. The probability value in the Kruskal–Wallis H test was lower than the threshold value $p = 0.05$ (Table 5).

Table 4. Assessment of the information message content (source: own analysis)

Specification		Easily comparable with other offers	Without referring to footnotes	Structured	Accurate/precise information	Comprehensive/unambiguous in interpretation	Overall assessment	
Total	Mean	2.07	2.23	2.19	2.20	2.25	2.16	
	SD	0.79	0.83	0.86	0.90	0.88	0.85	
Gender	W	Mean	2.06	2.21	2.19	2.20	2.28	2.15
		SD	0.77	0.83	0.89	0.88	0.88	0.83
	M	Mean	2.08	2.24	2.18	2.20	2.21	2.17
		SD	0.82	0.83	0.82	0.93	0.88	0.87
Age	18–24	Mean	2.07	2.19	2.20	2.22	2.26	2.12
		SD	1.05	0.94	1.11	0.97	0.98	0.96
	25–34	Mean	1.91	2.14	2.07	2.09	2.07	1.99
		SD	0.77	0.85	0.86	0.86	0.94	0.91
	35–44	Mean	2.06	2.11	2.20	2.14	2.22	2.17
		SD	0.83	0.83	0.85	0.88	0.74	0.86
	45–54	Mean	2.06	2.11	2.20	2.14	2.22	2.17
		SD	0.73	0.80	0.73	0.89	0.90	0.83
	55–64	Mean	2.02	2.21	2.21	2.18	2.23	2.10
		SD	0.65	0.75	0.82	0.89	0.81	0.72
	65+	Mean	2.20	2.40	2.25	2.31	2.32	2.25
		SD	0.80	0.82	0.86	0.92	0.94	0.84

Note: The Mann–Whitney U test was used to assess the relationship between gender and the Kruskal–Wallis H test for the age variable.

In the result of post hoc tests, using the Kruskal–Wallis one-way variance test for k independent samples, it was observed that people aged 25–34 years differed significantly from people aged 65+ ($p < 0.001$) in terms of how easy it was for them to compare the information content with other offers. People aged 65+ found it easier to compare the information message content with other offers (average score 435.69) than people aged 25–34 (average score 359.12).

As regards the assessment of the message content in terms of the lack of references to explanations in footnotes, people aged 35–44 differed considerably from people aged 65+ ($p < 0.001$). Namely, the respondents aged 65+ rated this aspect higher (average score 446.05) than those aged 35–44 (average score 369.01). Similarly, the assessment of the information content in terms of its comprehensiveness and explicitness varied greatly between the group aged 25–34 from that aged 65+ ($p < 0.001$). People aged 65+ rated the examined parameter of the information message better (average score 429.56) than those aged 25–34 (average score 374.82).

Taking into account the overall assessment of the information message content, the opinion of the respondents aged 25–34 differed significantly from that of the 65+ group ($p < 0.001$). The respondents aged 65+ generally rated the content of lenders' information messages higher (average score 426.19) than those aged 25–34 (352.96).

The quality of information content can be defined as high (Table 6). In the synthetic assessment, a high 72% of indications were recorded. With regard to each of the discussed parameters of the information content, the quality assessment proved to be generally high, exceeding 63%.

The analysis using the chi-square test did not show any significant differences in the assessment of the quality of information content in terms of sociodemographic characteristics of the respondents (Figure 2). A very small and insignificant strength of the relationship was observed in terms of the considered variables (the value of Cramér's V coefficient did not exceed 0.1).

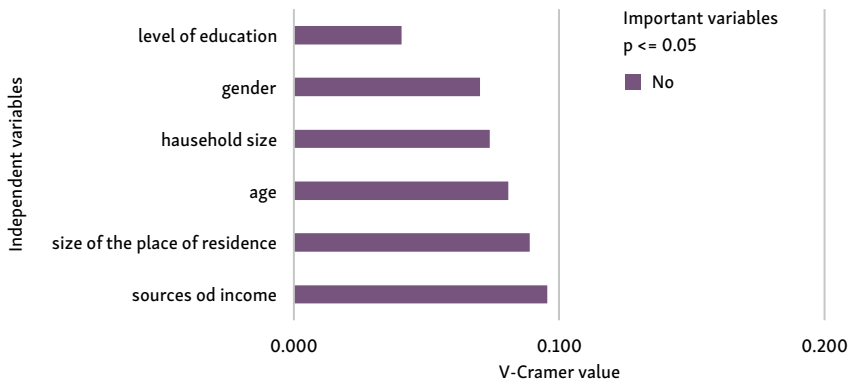
Table 5. The results of the analysis of the relationship between the assessment of the information message content and the demographic characteristics of the respondents (source: own analysis)

Specification		Easily comparable with other offers	Without referring to footnotes	Structured	Accurate/precise information	Comprehensive/unambiguous in interpretation	Overall assessment
Gender	W	399.97	397.62	399.88	402.48	408.55	399.88
	M	401.08	403.69	401.18	398.31	391.61	401.18
Mann Whitney U test value		79578.00	78589.50	79540.50	78968.50	76420.00	79541.00
p-value		0.941	0.691	0.932	0.785	0.271	0.931
Decision based on $p = 0.05$		No dependencies	No dependencies	No dependencies	No dependencies	No dependencies	No dependencies
Age	18–24	386.81	381.14	385.78	396.50	398.06	380.68
	25–34	359.12	379.63	368.59	374.82	348.88	352.96
	35–44	391.73	369.01	405.46	386.29	395.83	403.64
	45–54	419.22	408.14	403.73	407.50	436.36	428.93
	55–64	393.88	400.41	409.82	399.38	401.49	392.47
	65+	435.69	446.05	416.46	429.56	417.94	426.19
Kruskal-Wallis test value		11.873	13.470	4.623	6.022	12.282	12.406
p-value		0.037	0.019	0.464	0.304	0.031	0.030
Decision based on $p = 0.05$		Dependency of features	Dependency of features	No dependencies	Dependency of features	Dependency of features	Dependency of features

Note: The Mann-Whitney U test was used to assess the relationship between gender and the Kruskal-Wallis H test for the age variable.

Table 6. Quality of the information message content (in % of responses) (source: own analysis)

Specification	Easily comparable with other offers	Without referring to footnotes	Structured	Accurate/ precise information	Comprehensive/ unambiguous in interpretation	Overall assessment
High	75.38	64.88	68.25	68.13	63.88	71.75
Neither low nor high	20.00	29.00	25.50	24.00	28.50	20.88
Low	4.63	6.13	6.25	7.88	7.63	7.38

**Figure 2.** Results of the analysis of correlation between the assessment of the quality of information content and the sociodemographic characteristics of the respondents (source: own analysis)

4.3. Assessment of the amount of information provided

The next area assessed was the amount of information provided by the lender to the consumers (Table 7).

Table 7. Assessment of the amount of information provided by the lender (in % of indications) (source: own analysis)

Specification		Adequate (relevant, complete, sufficient)	Too extensive, overloaded with content	Insufficient (shortage of information)
	Total	63.88	34.38	1.75
Gender	W	66.67	32.14	1.19
	M	60.79	36.84	2.37
Age	18–24	59.42	39.13	1.45
	25–34	66.42	33.58	0.00
	35–44	63.98	32.93	3.11
	45–54	70.87	28.35	0.79
	55–64	60.94	35.94	3.13
	65+	60.77	37.57	1.66

Note: The Mann-Whitney U test was used to assess the relationship between gender and the Kruskal-Wallis H test for the age variable.

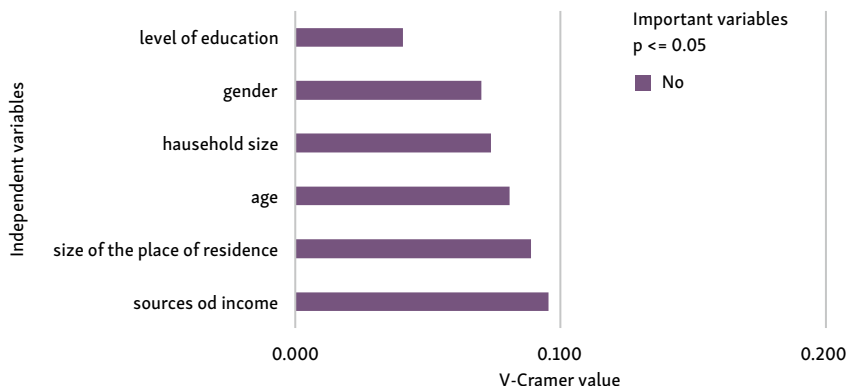


Figure 3. Results of the analysis of correlation between the assessment of the amount of information and the sociodemographic characteristics of the respondents (source: own analysis)

The respondents generally declared that the amount of information was adequate (nearly 64% of responses). One in three respondents believed that it was too extensive (overloaded with content). Only fewer than 2% of the respondents thought that the information provided was insufficient (shortage of information).

The analysis using the chi-square test did not show any significant differences in the assessment of the amount of information in terms of sociodemographic characteristics of the respondents (Figure 3). A very small and insignificant strength of the relationship was observed in terms of the considered variables (the value of Cramér's V coefficient did not exceed 0.1 in any case).

4.4. Adjusting the credit to the needs of the consumer vs. information message

The last aspect considered was whether the information provided facilitated the adaptation of the consumer credit to the borrower's needs. The responses are summarized in Table 8.

As regards the opinions of the respondents on the impact of the information on the adjustment of the loan to the needs of the consumer, the majority believed that the information received allowed for this adjustment (78% believed that the information allowed for a very good or a rather good adjustment of the loan to their needs). Only about 3% of the respondents indicated that the information did not contribute to tailoring the loan to their needs (*definitely not* or *rather not*). Approximately 18% of the respondents were not able to determine whether the information had a positive impact on the adaptation of the loan to their needs (*neither yes nor no*).

In the studied aspect, no significant differences were observed among the respondents in terms of their demographic characteristics (gender and age) (Table 8).

In addition, the vast majority of the respondents (93.1%) indicated that the information provided allowed them to make an informed decision regarding the loan and its terms.

Table 8. Opinion on the impact of the information provided on adjusting the credit to the needs of the consumer (source: own analysis)

Specification		Definitely yes	Rather yes	Neither yes nor no	Rather not	Definitely not	Medium rank	Dependency test	
								Test value	p-value
Total		22.88	55.50	18.38	2.50	0.75	–	–	–
Gender	W	25.48	54.29	16.90	2.38	0.95	388.34	3.018	0.082
	M	20.00	56.84	20.00	2.63	0.53	413.94		
Age	18–24	23.19	53.62	17.39	4.35	1.45	406.36	4.926	0.425
	25–34	24.63	51.49	23.88	0.00	0.00	398.86		
	35–44	25.47	57.76	13.66	2.48	0.62	377.89		
	45–54	27.56	51.18	17.32	3.15	0.79	385.31		
	55–64	20.31	56.25	21.09	2.34	0.00	413.04		
	65+	17.68	59.67	17.68	3.31	1.66	421.38		

Note: The Mann–Whitney U test was used to assess the relationship between gender and the Kruskal–Wallis H test for the age variable.

5. Conclusions and discussion

The surveyed borrowers positively assessed the fulfilment of information obligations by lenders. The majority of the respondents received information forms at the initiative of the lender before concluding the loan agreement. The survey participants also positively assessed the forms of communication between the lender and the content of their information message. In terms of all the studied parameters constituting the mode of communication, the gender variable did not have a significant impact on the disparity of the opinions expressed. We demonstrated that people aged 65+ rated the information message as more understandable compared to people aged 25–34. In the case of other parameters of the method of information transmission, no significant differences were noted in terms of the borrowers' age. Taking into account the overall assessment of the information content, there were no significant differences in terms of the gender of the respondents, while age was a significant differentiating factor. The respondents generally indicated that the amount of information provided by the borrower was adequate (nearly 64% of responses). One in three respondents believed that it was too extensive (overloaded with content). Only fewer than 2% of the respondents thought that the information provided was insufficient (shortage of information).

The aim of the study consisting in the assessment of the opinions of consumer credit borrowers on the information message provided by lenders at the pre-contractual stage was achieved through the analysis of information obtained from the survey questionnaire using non-parametric methods. The conclusions of the study indicate that, taking into account demographic characteristics, the assessment of consumer credit borrowers regarding the information message obtained at the pre-contractual stage is not diversified. The study did not confirm the existence of any fundamental differences in consumers' assessment of the information provided to them by lenders. The standardization of the information contained in the information form should be viewed positively and treated as one of the instruments

of consumer protection policy, as it serves to stimulate the availability and comparability of information, as long as it is understood and used properly. We should still bear in mind that even though borrowers may positively assess the compliance of the information obligations by lenders, it does not mean that credit decisions they made were rational and appropriate to their financial situation, nor that all the information received was understood. Conclusions concerning the assessment of the information message may be referred to and verified in subsequent studies in relation to mortgage loans, with the use of a longer research period. From a scientific point of view, it would also be compelling to analyze and evaluate the information message from the perspective of particularly vulnerable consumers.

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Author contributions

Iwona Dorota Czechowska: introduction, literature review, part of methodology of the research, part of the results, part of the conclusions and discussion. Marta Paduszyńska: part of methodology of the research, part of the results, part of the conclusions and discussion. Ryszard Jędrzejczak: part of literature review. Adam Sadowski: part of methodology of the research.

Disclosure statement

The authors declare not to have any conflicts of interest.

References

- Alshubiri, F. (2022). The effect of saving and capital expansion on financial and technological development in GCC countries. *Technological and Economic Development of Economy*, 28(1), 1–25. <https://doi.org/10.3846/tede.2021.15769>
- Ardic, O. P., Ibrahim, J., & Mylenko, N. (2011). *Consumer protection laws and regulations in deposit and loan services: A cross-country analysis with a new data set* (World Bank Policy Research Working Paper 5536). World Bank. <https://doi.org/10.1596/1813-9450-5536>
- Bellucci, A., Borisov, A., Giombini, G., & Zazzaro, A. (2023). Information asymmetry, external certification, and the cost of bank debt. *Journal of Corporate Finance*, 78, Article 102336. <https://doi.org/10.1016/j.jcorpfin.2022.102336>
- Borkowska, B., & Klimczak, B. (2015). Ochrona konsumenta w Polsce po 1989 roku jako przedmiot badań naukowych. *Europa Regionum*, 25, 27–52. <https://doi.org/10.18276/er.2015.25-02>
- Butor-Keler, A. (2019). Using of customer experience to protect the consumer in the banking services market – opportunities and possibilities. *Zeszyty Naukowe Wyższej Szkoły Humanitas Zarządzanie*, 20(1), 145–157. <https://doi.org/10.5604/01.3001.0013.2427>
- Brunetti, C., Harris, J. H., & Mankad, S. (2023). Networks, interconnectedness, and interbank information asymmetry. *Journal of Financial Stability*, 67, Article 101163. <https://doi.org/10.1016/j.jfs.2023.101163>

- Calcagno, R., & Monticone, C. (2015). Financial literacy and the demand for financial advice. *Journal of Banking & Finance*, 50, 363–380. <https://doi.org/10.1016/j.jbankfin.2014.03.013>
- Commission of the European Communities. (2002). *Communication to the Green Paper on EU Consumer Protection*. COM (2002) 289 final.
- Cyman, D. (2016). Kierunki zmian ochrony konsumenta usług finansowych w Unii Europejskiej [Directions of Change of Consumer Protection in Financial Services in the European Union]. *Annales Universitatis Mariae Curie-Skłodowska, Sectio H Oeconomia*, 50(4), 39–48. <https://doi.org/10.17951/h.2016.50.4.39>
- Czechowska, I. D., & Zatoń, W. (2018). Problemy klientów usług finansowych oraz ich uwarunkowania [Problems of Financial Services Customers and Their Determinants]. *Bank i Kredyt*, 49(3), 289–320.
- Czechowska, I. D. (2009). Ochrona konsumenta rynku usług bankowych [Consumerism on a Bank Services Market]. *Zeszyty Naukowe Uniwersytetu Szczecińskiego. Ekonomiczne problemy usług*, 38(548), 407–413.
- Dietrich, D., & Vollmer, U. (2012). Are universal banks bad for financial stability? Germany during the world financial crisis. *The Quarterly Review of Economics and Finance*, 52(2), 123–134. <https://doi.org/10.1016/j.qref.2011.12.008>
- Directive 2008/48/EC. European Parliament, & Council of the European Union. (2008). *Directive 2008/48/EC of the European Parliament and of the Council of 23 April 2008 on credit agreements for consumers and repealing Council Directive 87/102/EEC*.
- European Commission. (2009). *Public consultation on Responsible Lending and Borrowing in the EU*. <https://www.mfsa.mt/wp-content/uploads/2019/08/20090616-Consultation-on-Responsible-Lending-Borrowing-in-the-EU.pdf>
- European Economic and Social Committee. (2011). *Opinion of the European Economic and Social Committee on 'The open method of coordination and the social clause in the context of Europe 2020' (exploratory opinion)* (2011/C 44/04).
- Fraćzek, B. (2017). Deficyt transparentności informacji dotyczącej produktów oszczędnościowo-inwestycyjnych jako zagrożenie bezpieczeństwa konsumenta na rynku usług finansowych [Deficit of Information Transparency in Savings-investment Products as the Consumer Security Risk on the Financial Services Market]. *Rozprawy Ubezpieczeniowe. Konsument na rynku usług finansowych*, 2(24), 35–49.
- Gałązka, P. (2021). Obowiązki informacyjne przedkontraktowe w projekcie nowej dyrektywy o kredycie konsumenckim w świetle dotychczasowych regulacji unijnych. *Internetowy Kwartalnik Antymonopolowy i Regulacyjny (iKAR)*, 10(7), 63–78.
- Gallo Jr, P., Čabinová, V., Onuferová, E., Gallo, P., & Gallo, J. (2019). The influence of leadership style on the work activity of employees in the selected financial institution. *Calitatea*, 20(170), 90–93.
- Goddard, J., Molyneux, P., & Wilson, J. O. S. (2009). The financial crisis in Europe: Evolution, policy responses and lessons for the future. *Journal of Financial Regulation and Compliance*, 17(4), 362–380. <https://doi.org/10.1108/13581980911004352>
- Gomathinayagam, S., Bharathi, V., & Azhakappan, C. (2019). Analysis of problems faced by customers during use of Mobile Banking in Tenkasi. *International Journal of Research and Analytical Review*, 6(2). http://ijrar.com/upload_issue/ijrar_issue_20544042.pdf
- Hastings, J., & Mitchell, O. S. (2020). How financial literacy and impatience shape retirement wealth and investment behaviors. *Journal of Pension Economics & Finance*, 19(1), 1–20. <https://doi.org/10.1017/S1474747218000227>
- Horosz, P. (2022). Ochrona konsumentów przed nieuczciwymi praktykami rynkowymi na rynku finansowym. *Opolskie Studia Administracyjno-Prawne*, 20(1), 55–74. <https://doi.org/10.25167/osap.4753>
- Howells, G. (2005). The potential and limits of consumer empowerment by information. *Journal of Law and Society*, 32(3), 349–370. <https://doi.org/10.1111/j.1467-6478.2005.00328.x>
- Howells, G. (2020). Protecting consumer protection values in the fourth industrial revolution. *Journal of Consumer Policy*, 43(1), 145–175. <https://doi.org/10.1007/s10603-019-09430-3>

- Jakubowska, A. (2017). Zaufanie i asymetria informacji w relacjach podmiotów na rynku finansowym – wybrane aspekty na przykładzie banków i ich interesariuszy [Trust and information asymmetry in relations on financial market – chosen aspects on the basis of banks and their stakeholders]. *Zeszyty Naukowe. Organizacja i Zarządzanie / Politechnika Śląska*, 113, 125–133. <https://doi.org/10.29119/1641-3466.2017.113.9>
- Junuzović, M. (2018). Transparency of (pre-) contractual information in consumer credit agreements: Is consistency the missing key?. *Croatian Yearbook of European Law & Policy*, 14(1), 69–98. <https://doi.org/10.3935/cyelp.14.2018.310>
- Kaiser, T., & Menkhoff, L. (2017). Does financial education impact financial literacy and financial behavior, and if so, when? *World Bank Economic Review*, 31(3), 611–630. <https://doi.org/10.1093/wber/lhx018>
- Kowalski, T., & Shachmurove, Y. (2011). The financial crisis: What is there to learn? *Global Finance Journal*, 22(3), 238–247. <https://doi.org/10.1016/j.gfj.2011.10.014>
- Koćwin, J. (2015). Ochrona i edukacja konsumenta. Instytucjonalne zapobieganie działaniom nieetycznym i nieprawidłowościom w branży usług finansowych [Consumer protection and education – institutional prevention of unethical activities and irregularities in the financial services industry]. *Prace Naukowe Uniwersytetu Ekonomicznego We Wrocławiu*, 405, 157–172. <https://doi.org/10.15611/pn.2015.405.11>
- Kriese, M., Abor, J. Y., & Agbloyor, E. (2019). Financial consumer protection and economic growth. *International Journal of Emerging Markets*, 14(5), 1060–1080. <https://doi.org/10.1108/IJOEM-05-2018-0229>
- Lusardi, A. (2019). Financial literacy and the need for financial education: Evidence and implications. *Swiss Journal of Economics and Statistics*, 155(1), 1–8. <https://doi.org/10.1186/s41937-019-0027-5>
- Lusardi, A., & Tufano, P. (2015). Debt literacy, financial experiences, and overindebtedness*. *Journal of Pension Economics & Finance*, 14(4), 332–368. <https://doi.org/10.1017/S1474747215000232>
- Malczyńska-Biały, M. (2010). Ochrona konsumentów w Polsce w zakresie prawa do informacji i edukacji [Consumer protection in Poland in range of right to information and education]. *Facta Simonidis*, 3(1), 119–135. <https://doi.org/10.56583/fs.283>
- Malczyńska-Biały, M. (2019). Education and information in consumer policy in the Republic of Poland. *Srodkowoeuropejskie Studia Polityczne*, (2), 47–63. <https://doi.org/10.14746/ssp.2019.2.3>
- Marimuthu, S., & Mathan, J. (2015). Rural perspective towards financial inclusion. *Journal of Economic and Social Thought*, 2(2), 106–120.
- Mazurek-Łopacińska, K., & Sobocińska, M. (2014). Nowe spojrzenie na konsumenta jako uczestnika życia gospodarczego [New Look at the Consumer as a Participant of the Economic Life]. *Handel Wewnętrzny*, (4 (351)), 189–201.
- Mazuruk, P. (2011). Ochrona praw konsumenta w Rzeczypospolitej Polskiej w odniesieniu do prawodawstwa Unii Europejskiej [Law Consumer in the Republic of Poland in Addition to the European Legislation]. *Studia i Materiały Polskiego Stowarzyszenia Zarządzania Wiedzą*, 51, 166–179.
- Miscenic, E. (2018). Uniform interpretation of Article 4 (2) of UCT Directive in the context of consumer credit agreements: Is it possible?. *Revue du droit de l'Union européenne*, (3), 127–159.
- Muller, P., Devnani, S., Heys, R., & Suter, J. (2014). *Consumer protection aspects of financial services: Study*. European Parliament Committee, Directorate-General for Internal Policies, Policy Department A: Economic and Scientific Policy.
- OECD. (2011, October). *G20 high-level principles on financial consumer protection*. Organisation for Economic Co-operation and Development. <https://www.oecd.org/finance/high-level-principles-on-financial-consumer-protection.htm>
- Oehler, A., & Wendt, S. (2017). Good consumer information: The information paradigm at its (dead) end?. *Journal of Consumer Policy*, 40, 179–191. <https://doi.org/10.1007/s10603-016-9337-5>
- Ostertagova, E., Ostertag, O., & Kováč, J. (2014). Methodology and application of the Kruskal–Wallis test. *Applied Mechanics and Materials*, 611, 115–120. <https://doi.org/10.4028/www.scientific.net/AMM.611.115>

- Pawłowska-Szawara, E. (2020). *Asymetria informacji na rynku bankowych kredytów konsumenckich w Polsce*. Difin.
- Peters, M. A. (2012). Neoliberalism, education and the crisis of western capitalism. *Policy Futures in Education*, 10(2), 134–141. <https://doi.org/10.2304/pfie.2012.10.2.134>
- Porras, C. I. G., & van Boom, W. H. (2012). Information disclosure in the EU Consumer Credit Directive: Opportunities and limitations. In J. Devenney, & M. Kenny (Eds.), *Consumer credit, debt, and investment in Europe* (pp. 21–55). Cambridge University Press. <https://doi.org/10.1017/CBO9781139003469.004>
- Ribaj, A., & Ilollari, O. (2019). *Asymmetric information versus banks' customer trust, Albania case linked with SEE countries*. SSRN.
- Rutkowska-Tomaszewska, E. (2013). *Ochrona prawna klienta na rynku usług bankowych*. Wolters Kluwer Polska.
- Sane, R., & Halan, M. (2017). Misled and mis-sold: Financial misbehaviour in retail banks? *Journal of Comparative Economics*, 45(3), 429–444. <https://doi.org/10.1016/j.jce.2017.06.001>
- Selvakumar, M., & Sathyalakshmi, V. (2015). Comparison of financial consumer protection of public sector banks and private sector banks: Application of Mann–Whitney rank sum U-Test. *Asian Journal of Managerial Science*, 4(2), 14–20. <https://doi.org/10.51983/ajms-2015.4.2.1194>
- Selvakumar, M., & Sathyalakshmi, V. (2016). Financial consumer protection and customer satisfaction. A relationship study by using factor analysis and discriminant analysis. *EuroEconomica*, 34(2), 71–94.
- Ślugocka-Krupa, E. (2017). Ryzyka w usługach finansowych i ich wpływ na bezpieczeństwo ekonomicznych interesów konsumentów – wybrane aspekty. In E. Rutkowska-Tomaszewska (Ed.), *Ochrona klienta na rynku usług finansowych w świetle aktualnych problemów i regulacji prawnych*. C.H. Beck.
- Strömbäck, C., Lind, T., Skagerlund, K., Västfjäll, D., & Tinghög, G. (2017). Does self-control predict financial behavior and financial well-being? *Journal of Behavioral and Experimental Finance*, 14, 30–38. <https://doi.org/10.1016/j.jbef.2017.04.002>
- Tereszkiewicz, P. (2015). *Obowiązki informacyjne w umowach o usługi finansowe. Studium instrumentów ochronnych w prawie prywatnym i prawie unijnym*. Wolters Kluwer.
- Tfaily, A. (2017). Managing information asymmetry and credit risk—a theoretical perspective. In *Proceeding of the 11th International Management Conference* (pp. 652–659).
- Tsindeliani, I. A., & Mikheeva, I. E. (2022). Review of information asymmetry in banking in the Russian Federation. *Journal of Money Laundering Control*, 25(4), 779–791. <https://doi.org/10.1108/JMLC-09-2021-0092>
- Węgrzyn, J. (2013). *Prawo konsumenta do informacji w Konstytucji RP i w prawie unijnym*. Prawnicza i Ekonomiczna Biblioteka Cyfrowa.
- Wilhelmsson, T. (2018). The informed consumer v the vulnerable consumer in European unfair commercial practices law – a comment. In *The Yearbook of Consumer Law 2007* (pp. 211–227). Routledge. <https://doi.org/10.4324/9780429430862-8>
- Wojciechowska-Filipek, S. (2014). Zniekształcenia informacji a bezpieczeństwo decyzji finansowych [Distortion of Information and the Security of Financial Decisions]. *Teoria stabilności finansowej. Test praktyki XXI wieku*, 55.
- World Bank (2012). *Good practices for financial consumer protection*. <https://doi.org/10.1596/26861>
- World Bank. (2017). *Good practices for financial consumer protection, 2017 edition*. <https://doi.org/10.1596/28996>
- Wu, S., Chen, Z. S., Pedrycz, W., Govindan, K., & Chin, K. S. (2023). Nonparametric numerical approaches to probability weighting function construction for manifestation and prediction of risk preferences. *Technological and Economic Development of Economy*, 29(4), 1127–1167. <https://doi.org/10.3846/tede.2023.18551>