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Consumers' Financial Literacy in Poland – the Research and the Resulting Conclusions

Andrzej Bień
Warsaw School of Economics, Institute of Banking, Poland
abien@sgh.waw.pl
https://orcid.org/0000-0001-9452-2536

Łukasz Gębski
Warsaw School of Economics, Institute of Banking, Poland
lgebski@sgh.waw.pl
https://orcid.org/0000-0002-5370-3987

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ABSTRACT

Background & Purpose of the article: The research paper raises important issues in the field of consumer financial literacy in Poland. The authors note that efforts made in financial education are not fully effective and the number of wrong decisions made by consumers is high. The study led to two interesting observations: high self-assessment of knowledge is not confirmed in practice. The mistakes made do not result solely from the lack of knowledge of consumers. They are very often a result of their personality and a way of perceiving reality.

Methods: The authors compared Polish and foreign research results in the field of financial literacy and the study of financial knowledge of Polish consumers conducted in 2024. The conducted research was not limited only to "self-assessment" but it contained a pool of questions verifying the practical knowledge and behavior of consumers in the financial market.

Findings & value added: The study confirmed that despite a declared financial knowledge and experience in using financial products & services, consumers make important mistakes, and overestimate their knowledge: they do not read credit agreements, do not compare financial products, their financial knowledge is assumed and much lower than declared. It implies the need to ensure an adequate – higher – level of institutional protection in the financial market.

The analysis of interactions between knowledge, experience and practice on the financial market allows us to identify the educational gap. The results of the analysis could provide direction for other researchers on in-depth research on the impact of heuristics on consumer behavior in the financial market and their correlation with the level of knowledge and institutional protection in the financial market.

JEL classification: G51, G53, G40, I2

Keywords: financial literacy, behavioral finance, consumers' cognitive errors, responsible lending and borrowing, financial products and services.

1. INTRODUCTION

Financial literacy has been the subject of many studies and scientific publications for some time. Researchers emphasize that financial knowledge and rational consumer decisions are the issues that go far beyond the scope of economics. Issues relating to the area were the subject of research by psychologists and sociologists, and the results obtained by them sometimes better explained the previously identified problems.

People face complex financial decisions at all stages of their lives. As young people grow into adulthood, they start making decisions about house loans, credit cards, life insurance, and managing their budget. The decisions have only become more complex with the advent of new financial products, new ways to make payments, modern investment instruments such as crypto assets, and most recently the rise of inflation. *For the reasons and others, financial literacy, by which we mean people's knowledge of and ability to use fundamental financial concepts in their economic decision-making, matters and is more important than ever.* (cit. Lusardi & Mitchell, 2023).

The socio-economic perspective that shows a direct relationship between economic knowledge and financial inclusion has been also noted (Bado et al., 2023; Rudeloff, 2019). A lack of access or limited access to the financial market in modern societies provokes social exclusion (Eldomiaty et al.). The actual financial knowledge of consumers from the perspective of scientific research is much lower because they tend to overestimate their knowledge, prefer their own experiences over objective information and make many cognitive biases, which consequently lead to wrong decisions in the financial market.

From an academic perspective, financial literacy is one of the most important areas of behavioral finance. Repeated errors indicate a low level of financial education, which is not focused on building positive behavioral patterns, but on transmitting nominal knowledge in the field of economics and finance (Rich, 2018). Perhaps, however, the problem does not result from the level of knowledge, but from the nature of human nature – full of various types of emotions and based on individuality.

Consumers learn economic concepts from an early age and are taught how to proceed when choosing and using financial products and services without seeing any practical effects of the efforts. So, what is the reason for the lack of effective education? Are the methods used in this area ineffective or is it wrong to assume that knowledge will simply eliminate all errors?

2. KNOWLEAGE, LEARNING METHODS AND CONSUMERS' COGNIOTIVE BIASES

Financial literacy is a combination of knowledge and practical skills, so its possession is not possible without realizing the role of financial education and the phenomenon of acquiring specific skills. In the area of personal finance, the speed of learning and the level at which consumers can use it are not always correlated. It happens that people who have knowledge of financial concepts and principles, for various reasons, cannot use them in practice or their behavior even contradicts the knowledge. At the same time, for example, young people, despite gaps in knowledge, make rational financial decisions and very efficiently are using modern financial products.

Measuring financial knowledge boils down to three key skills (Lusardi & Mitchell, 2023) that an independent and rational consumer should have:

- the ability to calculate and interpret outcomes in terms of interest rates,
- understanding and the ability to interpret inflation and its consequences,
- the ability to practically diversify risk.

Researchers examining financial literacy shift the burden of definition from individual nominal financial knowledge to practical skills. Knowing a specific concept is only an introduction to understanding how it works and how important it may be in practice. Understanding financial concepts is the ability to use them consciously. In the financial market, it is also important that an individual can resist the temptation of consumerism and avoid making cognitive errors. Chen and Volpe noted that consumers can safely use financial market products and services thanks to knowledge and personal skills (Chen & Volpe, 1998). Especially in the current era it is impossible to enjoy consumption without using financial products (Feghali et al., 2021; Ozili, 2020).

Teaching economics and acquiring financial knowledge are crucial from the perspective of consumers. Knowledge of economic concepts, understanding the mechanisms and connections between them is the basis for the safe use of financial products and services.

Maison, Trzcińska and Sekścińska, (Maison et al., 2015) conducted an analysis of economic and financial knowledge teaching programs. Their study showed the low level of economic knowledge of Poles. From the perspective, the obvious conclusion is the need for more intensive and effective economic education of society. Economic education programs are relatively new and, according to researchers, it is difficult to clearly assess their results. Western European countries have more experience in the area. Experiences of other countries show that simply conducting educational campaigns is not sufficient. To be effective, they must be adapted to the needs and capabilities of recipients.

Economic education is an important element in a child's development. It is understood as providing the child with knowledge of economics, both conceptually and in terms of everyday functioning. According to Maison, schools and specialized organizations are primarily responsible for the economic education of children (Maison et al., 2018; Górski, 2016; Manczak, 2021). Another issue is economic socialization, it is less formal and involves the transfer of broadly understood skills related to functioning in the world of finance. In the area, family relationships are of great importance because this is where behavioral patterns and values related to finances are transmitted.

Bandura reached similar conclusions. His social learning theory posits that behavioral learning occurs not only through reactive and operant conditioning, but also through observation of other people's behavior (Bandura, 1986; Skinner, 1957). The theory assumes that new patterns of behavior are acquired via two key mechanisms:

- Learning by consequences, which is like operant conditioning, involves consciously constructing hypotheses regarding what actions, and under what circumstances, have led to desired results,
- Modeling, where behavior is based on the observation of other people’s actions and their consequences.

Both learning mechanisms proposed by Bandura can be successful in financial education, but they are not mechanical in nature. Therefore, the effectiveness of economic education becomes a challenge because otherwise consumers either quickly forget the knowledge they have acquired or, despite having it, remain susceptible to the influence of external factors. They are repeated cognitive errors that verify the effectiveness of de-education in practice and expose shortcomings.

Behavioral observations of consumer behavior concern interactions with the financial market. They prove the dominance of psychological factors over nominal financial literacy. A perfect example of such a situation is the prospect theory by Kahneman and Tversky (Kahneman, 2003; Kahneman & Tversky, 1992), which explains people's decision-making under risk. It is contrary to the expected utility theory that dominates in mainstream economics. Their research revealed some extremely interesting and important for the assessment of learning outcomes - acquiring financial knowledge - from a psychological perspective. It turned out that the tendency to take risks differs depending on the life context of the decision. Consumers are willing to take even great risks in the financial sphere, but they are less willing to do so in the health sphere. Therefore, the borders of the so-called “rational decisions” may be different in different areas of our lives. Such an assumption is extremely important because it would undermine the assumption about the effectiveness of education as a tool increasing the level of consumer security in the financial market. Behavioral finance reveals many such situations.

The literature on the subject in behavioral finance is very extensive. Therefore, we decided to select and briefly discuss those attributional and cognitive errors whose impact was noticed in the conducted survey.

In the light of the rational choice theory (Hausman, 1995), people make decisions in such a way as to maximize their utility. Consumers place excessive trust in sellers and people consider them competent in financial matters. They then stop being careful and give up many elements of offer analysis. Thaler points out that often supposedly *irrelevant factors* (Thaler, 2015 [NYT]), previously considered marginal, can significantly affect both the financial decisions made and the level of satisfaction with the decisions. Here, for example, one might cite the disastrous – albeit strongly opinion-forming – impact of unprofessional financial advisors, such as online influencers or sales made by persuasive telemarketers.

Households evaluate and compare financial products based on the functional perspective of the household budget, not financial categories (e.g. APR). *Mental accounting* (Thaler, 2004) is one such a factor. Under conditions of fixed remuneration, a consumer allocates their costs in the same way. Therefore, loan offers are analyzed more in terms of fixed payments and the need to secure sufficient funds.

The effect of overconfidence is quite common, and in this case, people tend to overestimate knowledge and their own competences. However, from the point of view of the financial market, it is crucial to assess the probability of negative consequences in the future, and the lack of such ability may lead to risk underestimation.

Own experiences play a fundamental role in the behavioral approach, but they involve a much greater risk than the effort that should be put into education (Vissing-Jorgensen, 2003). It is usually because their lack of self-awareness prevents them from accurately assessing their own abilities (Schlösser et al., 2013; Dunning, 2011).

3. RESEARCH ON FINANCIAL LITERACY IN POLAND

Research related to financial competences, financial literacy, and financial behavior, carried out on behalf of the OECD (OECD, 2016, 2020), indicates a gradual improvement in Poles' financial knowledge. In 2020 Polish consumers achieved a score of 13 out of 21 possible points, indicating that 61.9% of the population feels confident in financial matters and is not far behind the leading countries in the ranking. It is an increase from their 2016 score of 11.6 points. Slovenia emerged as the top performer in the 2020 ranking with 14.7 points, where 70% of the population claimed proficiency in financial knowledge and skills. Austria followed closely behind with a score of 14.4 points, and 68% of its population demonstrating financial competence. Conversely, Italy (11.1 points) and Romania (11.2 points) recorded the lowest financial literacy results.

However, the study revealed overall weak financial attitudes among Polish consumers, with a total of 2.6 out of 5 points indicating a focus on immediate financial needs rather than long-term planning. Additionally, the research confirmed a significant level of overconfidence among respondents, with individuals often overestimating their financial competence, as compared to their actual knowledge (Rutecka-Góra, 2020).

Beckaman and Kiesl-Reiter (2023) provided evidence from a unique and ex ante harmonized dataset for nine countries of Eastern Europe. Their analysis based on the most recent wave of the OeNB Euro Survey, which was conducted in fall 2022. The level of financial literacy varies between and within the analyzed countries. The research findings show that there is no gender gap in financial literacy and there is no clear-cut relationship between age and financial literacy. Swacha-Lech and Solarz (2021) drew attention to the speed with which the Millennials adopt quickly practical aspects of using modern financial products offered by LendTech's. Their practical abilities were even higher than their actual financial knowledge.

In 2023, as part of the #JacyPolacy series, Dominika Maison presented a study involving a representative group of 1,076 consumers (Maison, 2023). An analysis of responses revealed that many Poles possess accurate financial knowledge, such as understanding the interest rate risks associated with foreign currency loans. However, a discrepancy was observed between older and younger generations, with those over 55 exhibiting the highest levels of financial knowledge.

Research related to financial literacy has been conducted many times. Most of them demonstrated high self-assessment and knowledge of financial products and services. Observations and analyses have been shared by Grzesiuk (2019) who focused on Polish political views and examined the possible connections between financial knowledge and approach to economic issues. Gola has investigated household financial behavior (Gola & Smyczek, 2019). In 2019, Święcka and her team examined the level of financial knowledge among high school students in Poland (Święcka et al., 2020). The research results demonstrated a good level of financial knowledge of young people in Poland – 45.3% of the examined obtained an average level score and 43.8% achieved a high-level score. Boratyn (2022) surveyed students regarding their knowledge and attitudes towards savings products. Suska (2023) compared the offer of financial education in Poland and other European countries.

Analyses have revealed that financial literacy, defined as the understanding of concepts, categories, and financial products and services, is relatively high among consumers. Individuals demonstrate familiarity with major financial concepts. However, when it comes to practical skills, which are crucial in navigating the financial market, people tend to perform less effectively. To validate findings from previous research and assess the current landscape, a survey on the financial knowledge of Polish consumers was conducted in January 2024. The results obtained aim not only at assessing the level of consumers' knowledge but also at pinpointing areas in which efforts should be intensified in terms of financial education and outreach to enhance understanding of the financial market.

3.1. Survey on Financial Literacy of Polish Customers

In January 2023, a PAPI & CAWI survey was conducted by Lukasz Gebski on the financial literacy of consumers in Poland. The research group of 1002 people (N = 1002) took part in the study and the statistical distribution of the research group was maintained in accordance with the demographic profile from the National Census conducted in 2021 (see Table 1).

The study aimed at verifying the level of consumers' knowledge regarding financial categories and at confirming or denying the influence of behavioral factors on the decisions made by respondents in the financial market. The behavioral factor complemented the study. A lack of influence of behavioral factors would suggest focusing only on effective consumer education. The occurrence of attribution errors would mean the need to take a critical look not only at the level of financial knowledge, but also at the scope of institutional consumer protection in the financial market – the need to increase the level of protection.

Table 1
Distribution and characteristics of the sample (N = 1002)

Variable/Question	Description	N	%
How old are you?	less than 25	212	21.2
	25–40	277	27.6
	41–60	279	27.8
	more than 60	234	23.4
What is your education level?	primary education	473	47.2
	secondary education	306	30.5
	high education	223	22.3
Where do you live?	village or small town (< 50 000 inhabitants)	393	39.4
	medium city	340	34.0
	big city (> 100 000 inhabitants)	269	26.8
What your household looks like?	I live alone	194	19.4
	We are a childless couple	325	32.5
	We live with children younger than 15 years old	237	23.6
	We live with children older than 15 years	192	19.2
	I am a student or someone else supports me	54	5.3
How financial decisions are made in your household?	I make financial decisions independently	307	30.6
	I make financial decisions together with my partner	416	41.5
	I make financial decisions, but I consult people I trust in this area	215	21.5
	I do not participate in financial decisions – they are made by my partner/parents	64	6.4
Have you ever used any type of loans?	Yes, I am repaying the loan now or have repaid it in the past	613	61.4
	No, I am not paying off now nor I have never used it in the past	389	38.6
	Yes, I bought something financing the purchase with a consumer loan	387	38.6
	No, I have never bought anything using consumer credit to finance the purchase	409	40.8
	No, I have never purchased anything using consumer credit and I do not want to use credit in the future	206	20.6
How do you earn money?	I have a fixed salary	852	85.2
	I have variable income (temporary contracts, commissions…)	150	14.8
Do you have a bank account?	Yes	986	98.4
	No	16	1.6

Source: Financial literacy survey 2024 – conducted by Lukasz Gebski.

3.2. Methods

The analysis of the results of the consumer financial knowledge survey was carried out to assess the structure of the answers provided to obtain a comprehensive picture of the financial knowledge of the surveyed group, against the background of demographic data. The aim of the study in this area was to determine the relationship between financial knowledge and: the age of the respondents, their education, place of residence, household structure and experience in using financial products and services.

The second cross-section of the study was to verify the respondents’ declarations regarding their financial knowledge. The verification questions verified both the actual knowledge of the omissions and the compliance of the declarations with practical behavior in the financial market. The survey included different types of questions:

- questions regarding the declared level of financial knowledge and knowledge of financial concepts (as in most similar studies in Poland and abroad);
- questions verifying the respondents' actual knowledge of financial concepts and categories;
- questions examining the knowledge of the financial market (products and services) and the respondents' practice in taking out loans;
- questions relating to practical aspects of the respondents' behavior in the financial market: individual preferences in terms of loan repayment, how they conclude loan agreements and questions regarding the role of financial advisors.

At the first stage, the obtained answers were examined. Then, the actual knowledge of financial concepts and categories was verified based on testing questions.

In the second phase of the study, the responses verifying financial knowledge and determining practical market behavior were subjected to statistical and correlational analysis in terms of connections with the demographic characteristics of the respondents and their personal experience in the financial market.

The following statistical tests were used:

1. **Pearson’s χ^2 test** (a non-parametric test) used to examine the relationship between two variables measured on a qualitative scale. A statistically significant result of $p < 0.05$ indicates a relationship between the variables.

$$x_c^2 = \frac{\sum (O_i - E_i)^2}{E_i}$$

The strength of the relationship is calculated based on Cramer’s V coefficient:

$$\text{Cramer's V} = \sqrt{\frac{\chi^2}{n \cdot \min(r-1, c-1)}}$$

2. **Kendall’s tau correlation analysis** (a non-parametric method) for examining the relationship between two variables measured on an ordinal scale. The aim of the study was to determine the actual level of knowledge of the respondents in relation to the declared level - to determine the extent to which we are dealing with overestimation of the financial knowledge in the research group.

$$\tau = \frac{n_c - n_d}{\frac{1}{2} \times n \times (n-1)}$$

The Kendall’s tau correlation value can range from -1 to 1, where values closer to -1 mean a strong negative correlation and values closer to 1 mean a strong positive correlation.

3.3. Results & Observations

The respondents’ level of financial knowledge was objectively high – 87.9% claimed that they know and at least more or less understand the concept of interest rate as the cost of money (Table 2). More than half (56.7%) also declared some awareness of the concept of APRC/RRSO (RRSO – Roczna Rzeczywista Stopa Oprocentowania; *APRC – Annual Percentage Rate of Charge*). From the perspective of CEE countries, where mortgage loans are still granted to consumers at variable interest rates, it is encouraging that 74.7% of the respondents declared that they understand how the variable interest rate loan mechanism works as well as the possible consequences for borrowers.

Consumers are aware of the risk of excessive household debt – for 88.7% of respondents, it is a situation in which their current income is not sufficient to repay their loans on time (Table 2). For 50.6%, debt significantly burdening household budgets is a dangerous sign. Only 25% believe that excessive debt requires new loans to be taken out to repay previous loans (see Table 2).

Table 2
Knowledge and understanding of principal financial concepts

Variable/Question	Description	N	%
Interest rate as the cost of money	I know and understand the concept of interest rate as the cost of money	493	49.2
	I know and more or less understand the concept of interest rate as the cost of money	388	38.7
	I heard but I don't understand interest rate mechanism as the cost of money	109	10.9
	I refuse to answer the question	12	1.2
APRC (RRSO)	I know, understand and know what the APRC is for	200	20.0
	I more or less know, understand and know what the APRC is for	368	36.7
	I've heard of it, but I don't understand the calculation mechanism and I can't practically interpret the APRC value	217	21.7
	I refuse to answer the question	36	3.6
Variable interest rate on the loan	I understand the rules and mechanisms that cause changes in the loan interest rate	381	38.0
	I understand the principle of variable interest rate on a loan, but I don't understand what influences it	368	36.7
	I do not know or understand the mechanisms that cause changes in loan interest rates	217	21.7
	I refuse to answer the question	36	3.6
Over-indebtedness*	This is a situation in which the current repayment of loans is a heavy burden on the household budget	504	50.6
	This is a situation in which my income is not sufficient to repay loans on an ongoing basis	884	88.7
	This is a situation in which I have to take out new loans to repay the previous ones	253	25.4

* More than one answer accepted.

Source: Financial literacy survey 2024 – conducted by Lukasz Gebski.

Consumers' approach taken in terms of reading financial contracts before signing them indicated a few significant statistical correlations – relationships between age, place of residence, education, and the structure of the consumer household (see Table 3):

- there was a statistically significant relationship between the approach taken to signing loan agreements and age ($V = 0.11$; $p < 0.05$) and education ($V = 0.24$; $p < 0.001$) where the relationship with education was stronger. Those who claimed that they carefully read loan agreements tended to be young people up to 25 years of age, as well as those with higher education.
- there was a statistically significant relationship between the approach taken to signing consumer loans and place of residence ($V = 0.17$; $p < 0.001$) and household type ($V = 0.13$; $p < 0.001$). Those living in large cities and raising children or themselves dependent on someone else were more likely to carefully read credit agreements.

Table 3
Consumer behavior in concluding contracts and trust in sellers of financial products – the relationship between age, education, place of living, household structure and the practice of concluding credit agreements

	leass than 25 yo	between 25–40 yo	between 41–60 yo	more than 60 yo	V	P
I always read loan agreements before I sign them	40.60%	37.50%	41.20%	31.60%		
I only read the most important points and ask the seller about the rest	26.90%	37.90%	38.00%	39.70%		
I don't read loan agreements – they are long, boring and I don't understand them...	13.70%	11.90%	11.50%	20.10%	0,11	0,022*
Only sometimes I inspect them – but you can't negotiate them anyway, so why do it...	10.80%	6.60%	5.00%	5.60%		
I refuse to answer this question	8.00%	6.10%	4.30%	3.00%		
	primary education	**secondary education**	**students of economy**	**high education**	**V**	**P**
I always read loan agreements before I sign them	27.50%	25.70%	70.00%	60.50%		
I only read the most important points and ask the seller about the rest	37.70%	52.10%	15.00%	23.80%		
I don't read loan agreements – they are long, boring and I don't understand them...	20.90%	14.20%	0.00%	4.50%	0,24	***
Only sometimes I inspect them – but you can't negotiate them anyway, so why do it...	9.70%	4.00%	3.80%	4.50%		
I refuse to answer this question	4.20%	4.00%	11.20%	6.70%		
	village & small city	**medium size city**	**big city**		**V**	**P**
I always read loan agreements before I sign them	31.10%	34.40%	51.90%			
I only read the most important points and ask the seller about the rest	37.00%	42.10%	27.00%			
I don't read loan agreements – they are long, boring and I don't understand them...	19.10%	13.20%	7.80%		0,17	***
Only sometimes I inspect them – but you can't negotiate them anyway, so why do it...	7.70%	7.40%	4.80%			
I refuse to answer this question	5.10%	2.90%	8.50%			
	living alone	**childless couples**	**couples with children**	**others**	**V**	**P**
I always read loan agreements before I sign them	38.70%	30.20%	40.70%	57.40%		
I only read the most important points and ask the seller about the rest	29.90%	39.60%	38.00%	20.40%		
I don't read loan agreements – they are long, boring and I don't understand them...	16.50%	19.10%	11.00%	0.00%	0,13	***
Only sometimes I inspect them – but you can't negotiate them anyway, so why do it...	10.30%	6.50%	5.40%	7.40%		
I refuse to answer this question	4.60%	4.60%	4.90%	14.80%		

P – level of statistical significance, *V* – Cramer 's V strength of relationship.

Source: Financial literacy survey 2024 – conducted by Lukasz Gebski.

Analyses showed also that there was a statistically significant relationship between approach taken to signing loan agreements and taking out loans in general ($V = 0.26$; $p < 0.001$) and taking out instalment loans ($V = 0.14$; $p < 0.001$). Loan agreements were more carefully read by people who admitted that they did not use loans in general, as well as by people who took out consumer/instalment loans.

Table 4
Practical knowledge of financial products & services

Question	Possible anwsers	Distribution
I have funds in my bank account and, as I understand it, they are covered by the Bank Guarantee Fund deposit guarantee system up to the amount of EUR 100,000?	Definitely YES, deposits in all banks operating in Poland are covered by the BFG guarantee up to the amount of EUR 100,000	31.2%
	It seems to me that all deposits in all banks operating in Poland are covered by the BFG guarantee up to the amount of EUR 100,000	48.2%
	Definitely NO – there are foreign banks operating on the Polish market whose deposits are not covered by the BFG guarantee system	10.2%
	I don't know and I don't know the regulations in this area	10.4%
BNPL (Buy Now Pay Later)	I know what it is – I used it	10.7%
	I know what it is but I haven't used this service	29.8%
	I've heard of BNPL but I don't know how it works	23.5%
	I haven't heard of BNPL, but I don't know how it works	36.0%
BLIK is it	The product/service of PKO BP bank – consistsing on innovative way of payment using mobile telephone	11.5%
	This is a FinTech product	25.0%
	The name of the service offered by VISA International	4.7%
	I do not know exactly	58.8%

Source: Financial literacy survey 2024 – conducted by Lukasz Gebski.

An analysis of the findings of the consumer survey shows several interesting observations leading to the following conclusions regarding the financial literacy of the respondents and their behavior in the financial market. The influence of behavioral factors such as heuristics and cognitive errors on how consumers behave when choosing and evaluating financial products and services is particularly tangible.

The study confirms that consumers overestimate their level of knowledge and are uncritical towards their own shortcomings when it comes to the responsible use of financial products and services. It proves consumers' superficial knowledge, limited to financial concepts simply defined. They use financial product and services without knowing how they are constructed (BFG guarantee & BNPL) and who is the right provider (BLIK).

Table 5
Relationship between credit use and financial knowledge

INTEREST RATE	no credit history	I took loans	*V*	*P*
I know and understand the concept of interest rate as the cost of money	47.00%	50.60%	0.18	***
I know and more or less understand the concept of interest rate as the cost of money	33.70%	41.90%		
I heard but I don't understand interest rate mechanism as the cost of money	17.00%	7.00%		
I refuse to answer the question	2.30%	0.50%		

Table 5 – continued

APRC/RRSO	no credit history	I took loans	*V*	*P*
I know, understand and know what the APRC (RRSO) is for	17.80%	38.40%	0.09	0.062
I more or less know, understand and know what the APRC (RRSO) is for	34.20%	39.00%		
I've heard of it, but I don't understand the calculation mechanism and I can't practically interpret the APRC (RRSO) value	41.40%	27.90%		
I refuse to answer the question	1.00%	0.30%		
VARIABLE RATES	**no credit history**	**I took loans**	***V***	***P***
I know and understand the concept of interest rate as the cost of money	35.10%	42.70%	0.21	***
I know and more or less understand the concept of interest rate as the cost of money	25.40%	43.90%		
I heard but I don't understand interest rate mechanism as the cost of money	25.40%	19.20%		
I refuse to answer the question	6.50%	1.80%		
INTERPRETATION OF APRC/RRSO	**no credit history**	**I took loans**	***V***	***P***
Which loan is cheaper for me from APRC/RRSO perspective? Both are identical	20.40%	48.40%	0.06	0.315
The loan that I repay in one lump sum of PLN 1,200 after a year is more beneficial	11.80%	21.50%		
I dont know exacly	49.40%	24.80%		
it doesn't matter – I will spend the same amount	18.40%	5.30%		

P – level of statistical significance, *V* – Cramer 's V strength of relationship.

Source: Financial literacy survey 2024 – conducted by Lukasz Gebski.

In terms of interdependencies between the groups of respondents and their profile, from the point of view of the purpose of the study, it is worth analyzing the significance of the connections between the personal credit experience of the respondents and their declared level of financial knowledge. As expected, analyses concerning the relationship between the use of loans and financial knowledge confirmed the influence of consumers' personal experiences of financial products and the declared financial knowledge. The analysis of the results presented in Table 5 shows that there is a statistically significant relationship between the overall use of loans and declared knowledge of the cost of money ($V = 0.18$; $p < 0.01$) and variable interest rates ($V = 0.21$; $p < 0.001$). People who have taken out loans tended to claim knowledge and understanding of concepts such as the cost of money and variable interest rates. However, it was not demonstrated by the study group that taking out loans had a statistically significant impact on the knowledge of other financial concepts.

Consumers are uncritical towards their own shortcomings when it comes to the responsible use of financial products and services (see Table 7).

Table 6
Relationship between the declared level of financial knowledge and actual knowledge (tested using Kandall's Tau)

	Low knowledge (real knowleage)	Averege knowledge (real knowleage)	High knowledge (real knowleage)
LOW (declared level of knowleage)	93.3%	6.7%	
AVEREGE (declared level of knowleage)	86.3%	12.7%	0.9%
HIGH (declared level of knowleage)	51.8%	36.6%	11.6%

Source: Financial literacy survey 2024 – conducted by Lukasz Gebski.

4. CONSLUSIONS

On the one hand, the survey results indicate a relatively high level of consumers' financial literacy. As many as 87.9% of respondents confirmed that they know and at least more or less understand the concept of interest rate as the cost of money (see Table 2). More than half (56.7%) also declared some knowledge of the definition of RRSO/APRC.

Consumers are aware of the risk of excessive debt – for 88.7% of respondents it is a situation in which their current income is not sufficient to repay the loan on time. For 50.6%, debt that significantly burdens household budgets is a signal of danger. Only 25% believe that excessive debt requires taking out new loans to repay the previous ones (credit trap).

An in-depth analysis of the results obtained does not lead to clear conclusions. The essence of the problem is not only the fact itself that consumers overestimate their knowledge. Even though their knowledge is getting better, they still make many mistakes proving a lower level of their knowledge than would result from the survey.

Our analysis of the study results indicates that researchers were often uncritical about the answers they obtained. High indicators assessing the knowledge of financial concepts and categories resulted from the lack of verification of the respondents' self-assessment. Almost 90% of the declared knowledge of the concept of interest rate and almost 90% of other concepts do not reflect the actual situation. Less than half of the respondents can compare the costs of loans using the RRSO/APRC (see Table 5).

Table 7
Answers to questions testing financial knowledge (selected questions)

Question	Answer	N	%	Comment
I'm buying a TV in installments. The bank offers me two 0% loans: a) repaid once after 12 month in the amount of PLN 1,200 b) repaid in 12 equal monthly installments of PLN 100 each. Which loan is cheaper in terms of APRC/RRSO?	Loan A (repaid once at the end)	111	11.1	
	Loan B (repaid in 12 installments)	152	15.2	
	Both are similar	**250**	**25.0**	**right answer**
	I dont know	489	48.7	
I have funds in my bank account and, as I understand it, they are covered by the deposit guarantee system of the Bank Guarantee Fund up to the amount of EUR 100,000?	Definitely YES, deposits in all banks operating in Poland are covered by the BFG guarantee up to the amount of EUR 100,000	312	31.2	
	It seems to me thatall deposits in all banks operating in Poland are covered by the BFG guarantee up to the amount of EUR 100,000	482	48.2	
	Definitely NO – there are foreign banks operating on the Polish market whose deposits are not covered by the BFG guarantee system	**102**	**10.2**	**right answer**
	I don't know and I don't know the regulations in this area	104	10.4	
BLIK is it	The product/service of PKO BP bank – consisting of innovative way of payment using mobile telephone	115	11.5	
	This is a FinTech product	**250**	**25.0**	**right answer**
	The name of the service offered by VISA International	47	4.7	
	I do not know exactly	588	58.8	

Source: Financial literacy survey 2024 – conducted by Lukasz Gebski.

Polish consumers overestimate their level of financial knowledge and are uncritical of their own mistakes and ignorance. For many of them, knowledge about financial risks and previous credit experiences are not an obstacle to irresponsible borrowing behavior (see Table 7):

- not reading loan agreements before signing them (lack of interest in detailed information or uncritical trust in advisors);
- lack of interest in the real cost of credit (question about the cost of credit card credit).

Consumers are not aware how the financial market works and which products they use:

- question about the BFG (Bank Guarantee Fund),
- questions about the BLIK payment system,
- questions about "Buy Now Pay Later".

Many of the errors made are cognitive errors resulting from false attribution – so is it possible to eliminate them? Will financial knowledge be a sufficient factor to avoid making wrong financial decisions?

The study of the financial knowledge of Polish consumers shows also that there is a persistent gap in large and small centers (see Table 3). Because market behavior is shaped more by the social environment and not by knowledge itself, residents of rural areas and small towns who have poorer contact with positive behavior patterns make more mistakes and are less inquisitive when analyzing loan offers. Consumers from smaller centers more often do not read contracts before signing them and declare that they do not understand many economic concepts and categories.

Improvement requires further work on popularizing knowledge of financial categories and promoting responsible consumption behavior among the young, but also on developing practical skills in all social and educational groups. Without the component, the consumer protection legal system will remain only partially effective.

The study also indicates the need to increase the level of institutional consumer protection. The results show that Polish consumers have problems not only with correctly identifying the exchange risk (which has been the focus of regulatory initiatives so far), but also that interest rate risk is a serious challenge. It this case it's advisable to quickly introduce regulations obliging banks not only to offer loans denominated in foreign currencies, but also to lend to consumers only at a fixed interest rate. Banks can hedge the interest rate risk, but for consumers such a risk is a very serious threat to the stability of the household budget. In practice, consumers cannot fully assess the risk and do not understand its scale.

This area requires further research from the scientific community. Psychological knowledge is an extremely valuable addition to economic knowledge. It is advisable to conduct joint research in the area to better understand the nature of behavioral errors made in the financial market and their relationship with financial literacy.

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