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FINANCIAL LITERACY OF CUSTOMERS OF THE SELECTED SLOVAK BANK AS A BASIS FOR MANAGERIAL DECISION-MAKING

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Abstract

Research purpose. The main goal of the article is to determine the current level of financial literacy among clients of the selected bank in Slovakia. This finding will be compared with the average level in the country. In the survey, we focused on determining their financial literacy level. Currently, a lot of attention is paid to the issue of financial literacy. In connection with financial literacy, a lot is said about education. Therefore, in the paper, we focused on finding out the relationship between financial literacy and the level of education as such. We also compared the financial literacy of the survey sample with the overall financial literacy in Slovakia.

Design / Methodology / Approach. For the purposes of this article, an anonymous online questionnaire survey focused on the financial literacy of customers of the selected bank was conducted. By analysing theoretical knowledge and existing surveys, we established hypotheses, which we subsequently verified statistically. When analysing theoretical knowledge and surveys in the Slovak Republic, we found that there is a large number of surveys focused on financial literacy. The output and support of each of them are primarily focused on increasing financial literacy through education. We, therefore, assumed, given that financial literacy has been in the curriculum of primary and secondary schools for several years, that financial literacy is related to the availability of goods. We also assumed that financial literacy in the Slovak Republic is increasing. To verify the hypothesis, we used two statistical methods - the Chi-Square test and the Mean Congruence Test. The reason for choosing customers of a specific bank for the purposes of our survey was the number of respondents' answers. We managed to collect the most answers for the bank mentioned.

Findings. Through the selected statistical method, we found that in our survey, the number of correct answers is not affected by the level of education. It was also interesting to find that the level of financial literacy of the selected region in 2022 is not higher than the overall level of financial literacy of the Slovak Republic determined on the basis of a survey from 2012.

Originality / Value / Practical implications. The proposals and recommendations that emerged from the survey relate to increasing the financial literacy of customers of the selected bank. We focused our recommendations on education and conducting surveys, both for customers and for the bank's management. The bank can use these recommendations as a basis for managerial decisions. It is necessary to increase the financial literacy of customers. It is also necessary to support the field of marketing, especially communication with customers. It is only up to the management of the bank to decide which customers it will have and how it will retain or expand them.

Keywords: Financial literacy; Customer; Management; Managerial decision-making.

JEL codes: G53; M29

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Introduction

People naturally tend to fulfil their desires and demands while having only a limited amount of financial capital. The financial decision-making challenges cannot be matched by those faced by previous generations (Beranova et al., 2020). The financial environment, together with its digitisation, has become more demanding and unpredictable, which results in an increase in significant financial problems that people have to face (Dare et al., 2020). People with a low level of financial literacy, without basic financial knowledge and skills, do not know how to make sound financial decisions or manage crisis financial situations. While previous generations used to buy goods and services almost exclusively in the form of cash payments with the cash they had, over the past decade, various financial products and services have become widespread in society. Today, it is possible to use products such as credit cards, consumer loans, or mortgage loans. Products, as well as insurance and investment services, have also gained importance. Nowadays, people are afraid to put money into investment funds or securities (Stankeviciene & Petroniene, 2019). Empirical studies show that limited participation in the securities market is caused by a lower level of financial literacy (Caplinska & Ohotina, 2019). Individuals who have entered the financial markets are increasingly active due to the wide range of financial goods and services offered at this location (Ozkale & Erdogan, 2020). This fact makes it more important today than at any time in the past to understand how to use these products effectively and, above all, responsibly.

For a proper understanding of financial literacy, it is necessary to know what the concept of financial literacy is, what affects it, and what other literacy skills it is related to. It is necessary to know basic financial concepts, which are essential for acquiring a level of financial literacy and for use in practice. The main goal of the contribution is to find out the current state of financial literacy in the selected region of the Slovak Republic. We focused on bank clients, as the rational use of funds depends on their financial literacy, which can be a starting criterion for banks and client assessment. For this reason, we consider the focus of our research to be necessary.

Literature Review

There are many definitions in various professional literature or discussions on the concept of financial literacy. They all have the same essence: the ability to navigate one's own money and manage it properly so that people are not surprised by an unexpected economic situation (Filippini et al.,2021). Financial literacy refers to knowledge of financial products such as the differences between a share and a bond, as well as financial terms, such as inflation and interest rates (Hastings et al., 2013).
Gedvilaite et al. (2022) define financial literacy as the ability to use knowledge, skills, and experience to effectively manage one's financial resources to ensure lifelong financial security for oneself. The authors Pearson & Korankye (2022) explain the issue as a necessary process that constantly acquires abilities, knowledge, and skills that enable people to function economically independently, both in their families and in society. Basic principles should apply that everyone should understand as a whole, such as a correct understanding of the essence of money, constant control of money, the disposition to earn and save money, properly invest money, the ability to build assets, and its sufficient protection against various risks (Skagerlund et al., 2018). According to Bongini et al. (2018), financial literacy is the set of knowledge, skills, and value attitudes of a citizen necessary to financially secure himself and his family in today's society and actively participate in the market for financial products or services. According to Kawamura et al. (2021), financial literacy is a whole that consists of three parts, which are monetary literacy, price literacy, and budget literacy:

- financial literacy - the ability to properly handle cash and non-cash funds and transactions related to them, such as managing current bank accounts and using payment instruments;
- price literacy - understanding inflation and the tax system;
- budget literacy - the ability to manage a personal, family budget.

Constant monitoring of one's own income and expenses in the budget provides the ability to manage various unwanted situations or establish a family plan for the future. We have savings if income exceeds

expenses (Unruh et al., 2016). If expenses exceed income, a budget deficit arises, meaning households or individuals are in debt (Ho & Lee, 2020). When managing personal finances, an individual is influenced by skills and abilities such as:

- reading literacy - the ability to understand text that is found in various forms that are obtained through communication and information technologies;
- information literacy - the ability to correctly perceive, understand, and evaluate information based on the truth of the information, its purposefulness, and its reliability;
- legal literacy - the legal skills and knowledge required to enforce one's rights and obligations (Folke et al., 2021; Litvinova, 2018).

Based on the above knowledge, we can state that several authors agree on financial literacy.

Many people do not realise the value of money, which is often used for unnecessary purposes. Nowadays, we are affected by various types of aggressive advertisements, which tend to influence even a financially literate person. The essence of promotion is to create a desire to own a given good or service, which leads to a purchase. Often, many buyers do not have enough money, but their desire to own the advertised product is much greater than the fact that they lack money. Companies have an answer to the problem of lack of money, which is a short-term consumer loan. If this option is not available, another option is a non-purpose consumer loan from financial institutions, among which we can include commercial banks. If a commercial bank refuses to provide a loan due to the client's poor credit rating, a situation arises where most people consider whether the given product is necessary at all. If this has not happened, the last option is a loan from a non-bank institution, which will provide a loan even if the client has a bad credit rating. Many of these loans have high interest rates and fees that cause a default or the loss of assets. In addition to the negative impact on households, indebtedness also has consequences for the country itself, namely the likelihood of financial crises, which deepen their consequences and reduce the economy's growth potential (Fabova, 2017). It is essential to be financially educated because "bad financial decisions can push households closer to the poverty line" (Jerrim et al., 2022). Financial education was not considered a key subject in the development of individuals, which could disrupt their ability to find the optimal solution, especially in economic activities (Abad-Segura & Gonzalez-Zamar, 2019). It is necessary to make efforts through education and gain experience because financial literacy cannot be inherited or simply acquired (Al-Bahrani et al., 2018). People should acquire financial literacy from childhood, especially from their parents, because the main source of information for developing financial knowledge is their parents (Lucic et al., 2020). If the parents' financial literacy is low, there is a high probability that their offspring will have similar tendencies. Various educational institutions, especially schools, help the youth change these habits (Nemeth et al., 2022). Financial literacy is essential for young people as they face various financial decisions that can have important consequences throughout their lives (Lusardi, 2015; Sari & Fatimah, 2017). Improving financial literacy among adults is problematic because it is difficult to influence them in the usual ways.

Over the past decades, various foreign and domestic organisations have conducted surveys on the level of financial literacy. We consider the PISA 2018 survey, under the auspices of the OECD organisation, and the second HFCS survey of the third wave from 2017, dealt with by the NBS and the Statistical Office of the Slovak Republic, to be the most significant. PISA is a three-year survey of the international assessment of 15-year-old students from all over the world that was launched by the Organization for Economic Cooperation and Development (OECD) in 2000. According to the PISA 2018 survey, Slovakia's overall result was a score of 481 points, which statistically indicates that it is below the average level of the OECD countries. The average OECD score is 505 points. Comparable performance to Slovakia is achieved by Italy, which was ranked one rung lower with a point score of 476 points. Overall, the worst in the survey is Indonesia, with 388 points, and the best is Estonia, with 547 points. The results of this research are an important starting point for understanding the formation of financial literacy. Financial literacy begins to form in people already at school age. Since 2010, the Household Finance and Consumption Survey project has collected data on household income, consumption, and wealth (tangible and financial assets, financial liabilities) at three-year intervals (Kucserova & Strachotova, 2019). The intervals were divided into three waves: the first in 2010, the second in 2014, and the third in 2017. This project is managed by the European Central Bank. Based on the HFCS

project, the results of the third wave, which was implemented in 2017 with the help of the National Bank of Slovakia and the Statistical Office of the Slovak Republic, are summarised.

Based on the results of the third wave of the HFCS 2017, it was concluded that the dependence between education and financial literacy was confirmed (Kucserova & Strachotova, 2019). When answering the questions, it was found that the higher the level of education, the higher the number of correct answers in the survey. However, the overall result of the HFCS survey pointed out that the level of financial literacy in the Slovak Republic has slightly deteriorated compared to the second wave. Based on the analysis of official theoretical surveys, we decided to carry out research in the subject area, which would reflect current aspects of the given issue.

Research Methodology

A research method is a way of conducting research. It depends on a certain selection and organisation of research activities, while this learning method is planned and suitable for multiple uses. For the purposes of this contribution, an anonymous online survey was conducted that focused on the financial literacy of the selected region. We chose residents who live in the Trencin region in the territory of the Slovak Republic and subsequently focused on the clients of the bank with the most significant representation of answers from respondents. Research in this region has not yet been carried out.

The goal of the survey was to obtain knowledge from the clients of the selected bank in the field of finance, with the help of which we will determine their financial literacy level. In recent times, emphasis has been placed on education in the field of financial literacy. From that title, we assumed that the education achieved would have an impact on the respondent's financial literacy. From the bank's point of view, it is crucial that its clients are financially literate and that the products offered by the bank are in line with the survey results. At the beginning of the questionnaire, we tried to familiarise the respondents with the survey. The survey was aimed at residents of the Trencin region, whose minimum age limit is 15 years. We chose the age structure for the reason that a 15-year-old student can be a client of the bank, use applications on a mobile phone, and thus shape their financial literacy. The composition of the survey consisted of 15 questions, where the first 5 questions focused on basic information regarding the respondents (gender, age, district of the Trencin region, respondent's bank). The remaining 10 questions were used to assess the financial literacy of the practice (APRC, interest rate, payment cards, loans, insurance, etc.). The total time for completing the questionnaire was approximately 10 minutes. The survey regarding financial literacy was carried out from November 2022 to January 2023. A total of 529 respondents took part in the survey. Of these, clients of Slovenska Sporitelna had the most significant representation. Since we received the largest number of responses from clients of this bank, we prioritised evaluating these responses.

For the purposes of the contribution, we analysed the answers of 305 respondents as clients of Slovenska Sporitelna. We tried to ask the selected questions in such a way that they did not create a feeling of intrusion into the private lives of the respondents; for this reason, the questions for the respondent were designed from real-life examples from various situations. Based on the obtained theoretical knowledge from various existing surveys, we established hypotheses in which we assumed that financial literacy depends on the level of education achieved. In the second hypothesis, we optimistically assumed that the selected region would have higher financial literacy than the Slovak Republic as a whole. We used two methods of calculation to verify the hypotheses. When analysing the dependence between the level of education and the number of correct answers, we used the X2-test of independence of categorical variables. The second method of calculation, which served us to determine the level of financial literacy in the Trencin region, was the test of the agreement of the mean value with a known constant.

Hypothesis H1 was created based on the assumption that education in the field of financial literacy is necessary. This issue has been discussed for several years. Given that we considered official surveys from 2000–2012 as the basis, we assumed that the higher the level of education, the higher the respondents' financial literacy. We assume that the introduction of financial literacy in primary and secondary schools is already showing results. Also, banks are currently providing support for developing financial literacy among the population in the Slovak Republic. Hypothesis H2 arose because the level of financial literacy of the Slovak population was based on the data from the official survey of the Focus

agency from 2012. In this survey, the financial literacy of the Slovak population was determined to be 62.5%. Concerning financial education, we hypothesised that the current results would show a higher level of financial literacy. In order to achieve the set goals, it was necessary to use two calculation methods. When analysing the dependence between the level of education and the number of correct answers, we used the X2-test of independence of categorical variables. The second method of calculation, which served us to determine the level of financial literacy in the Trencin region, was the test of the agreement of the mean value with a known constant. The X2-test of independence of categorical variables is used if, through n elements of the sample set, we observe two qualitative features, A and B, which acquire more features, and the range of the sample set is more than 20. In our case, the qualitative features are the number of correct answers and the level of education achieved.

We subsequently verified the hypotheses established by us based on surveys carried out in the past using statistical methods. For the purposes of this survey, we defined the following hypotheses:

H1: The number of correctly answered questions depends on the level of education achieved (the higher the education, the more correct answers)

H2: The level of financial literacy in the Trencin Region is higher than the average level of financial literacy in the Slovak Republic, i.e., more than 62.50%

Research Results

Based on a questionnaire survey conducted in a selected region of the Slovak Republic, we found the following results:

- 13 respondents answered all questions correctly. Six respondents with a secondary school education with a high school diploma and three respondents with a first degree of university education achieved a 100% success rate. One with the second level of university education and a secondary school with a teaching certificate. Of the respondents with the highest level of primary education, there was not a single one who answered all the questions correctly.
- The level of financial literacy in our survey does not depend on the level of education of the respondents, even though the best success rate was among those with a second-level university education and above (59.39%). Respondents who achieved the highest level of secondary education with a high school diploma were better off with their results than those with a first-level university education. In our survey, the respondents who obtained a high school diploma obtained 58.20%, which is 1% lower than the respondents' 2nd level of higher education. Respondents who have achieved a first-degree university education (43.6%) had a lower level than those who have a basic education (45%). Respondents whose education is secondary school with a teaching certificate fared the worst. Their level of financial literacy is 40.17%;
- men had more correct answers than women, while the success rate for men was 60.91% and for women, 44.41%;
- in terms of age, the respondents who are in the age range of 15 to 24 years, whose level represents 59.66%, did the best; on the contrary, the worst were people over 55 years of age, whose success rate is 40.42%;
- all districts of the Trencin region had a success rate above 40%; only the district of Banovce nad Bebravou had 38.18%; The level was just above 40% in the districts of Povazska Bystrica (40.50%), Partizanske (41.96%), and Prievidza (44%). The district of Nove Mesto nad Vahom has the best financial literacy level, representing 70.43%, followed by the district of Trencin with 66.09%. Myjava district was also above our survey's average, reaching 50.59%. The districts of Ilava and Puchov, which had a 50% success rate, remained just below the level.
- Up to 65.20 per cent of respondents cannot distinguish which interest rate is more advantageous for them with a term account,

- When choosing a loan, 51.50% of the respondents decide on the basis of references from acquaintances and according to the required amount of money, while only 1/3 of the respondents would choose the annual percentage rate of costs.
- Less than half, i.e., 48.20%, of the respondents know that obtaining a loan is more difficult with delayed loan payments. We can also attribute this fact to the personal experiences of the respondents. In the issue of insurance, the results were the most satisfactory. 68.40% know that the insurance company can withdraw from the contract in case of concealment of facts, which represents the majority of respondents, and less than half (49.50%) know what is represented by the sum insured of the property,
- Question number 15, which was about investing in shares, was answered by most respondents, whose age is in the range of 15-34 years.

Initially, we hypothesised that education and the number of correct answers are not dependent (H0). Our alternative hypothesis is that education and the number of correct answers are dependent (H1). We decided that the level of significance (α), also known as the deviation we are willing to accept, will be 0.05. After establishing the hypotheses and levels of significance, the real frequencies were determined. We obtained these frequencies by finding out how many respondents with the same level of education answered the individual questions correctly. This category does not include questions regarding basic data about the respondent. We present the detected frequencies in Table 1.

Table 1. Contingency table of real frequencies (Source: Own processing)

Education	The number of correct answers to individual questions										
	6	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**∑**
Basic	11	7	8	8	18	7	10	12	12	6	**99**
Secondary with a certificate	21	22	27	16	31	21	26	20	33	24	**241**
Secondary with a high school diploma	61	31	53	62	65	62	66	58	74	50	**582**
University 1st degree	31	25	35	32	41	26	28	26	42	37	**323**
University 2nd degree	30	21	24	30	32	29	32	35	36	22	**291**
∑	**154**	**106**	**147**	**148**	**187**	**145**	**162**	**151**	**197**	**139**	**1536**

In the contingency table, we can see that there were a total of 1,536 correct answers, but with 100% of the questions answered correctly, the total value would have to be 3,050. Thus, 50.36% of the total answers are correct. From the perspective of these results, we abstracted 49.64% of incorrect answers, so the error rate was higher. The analysis presented us with actual values, but to determine the dependence of our qualitative variables, it is also necessary to know the theoretical or expected frequencies. The condition must be met that the theoretical abundance value obtained should be equal to or greater than 5 or that 80% of these values meet the condition. The following table shows a table of theoretical values.

Table 2. Contingency table of theoretical or expected frequencies (Source: Own processing)

Education	The number of correct answers to individual questions										
	6	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**∑**
Basic	9,93	6,83	9,47	9,54	12,05	9,35	10,44	9,73	12,70	8,96	**99**
Secondary with a certificate	24,16	16,63	23,06	23,22	29,34	22,75	25,42	23,69	30,91	21,81	**241**
Secondary with a high school diploma	58,35	40,16	55,70	56,08	70,86	54,94	61,38	57,21	74,64	52,67	**582**
University 1st degree	32,38	22,29	30,91	31,12	39,32	30,49	34,07	31,75	41,43	29,23	**323**
University 2nd degree	29,18	20,08	27,85	28,04	35,43	27,47	30,69	28,61	37,32	26,33	**291**

We obtained the test criterion through the difference between real and theoretical abundance.

Table 3. Test criterion value (Source: Own processing)

Education	The number of correct answers to individual questions										
	6	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**∑**
Basic	0,12	0,00	0,23	0,25	2,93	0,59	0,02	0,53	0,04	0,98	**5,68**
Secondary with a certificate	0,41	1,73	0,67	2,25	0,09	0,13	0,01	0,58	0,14	0,22	**6,24**
Secondary with a high school diploma	0,12	2,09	0,13	0,63	0,48	0,91	0,35	0,01	0,01	0,14	**4,86**
University 1st degree	0,06	0,33	0,54	0,02	0,07	0,66	1,08	1,04	0,01	2,07	**5,88**
University 2nd degree	0,02	0,04	0,53	0,14	0,33	0,09	0,06	1,43	0,05	0,71	**3,40**
∑	**0,73**	**4,20**	**2,10**	**3,28**	**3,92**	**2,38**	**1,52**	**3,59**	**0,24**	**4,11**	**26,06**

The value of the test criterion is 26.06. We used the test criterion for the inequality of the critical domain. The critical field pointed out that the inequality does not hold, so we did not reject our null hypothesis. In the event that the null hypothesis is rejected and the result is that there is a dependence between the qualitative features, the intensity measure would determine how strong the dependence is between them. Through the X2-test of independence of categorical variables, we found that in our survey, the number of correct answers was not affected by the level of educational attainment.

To compare the level, we used the Mean Value Conformity Test method with a known constant. We chose this type of test because we know the constant with which we compare our unknown value and determine whether the level of financial literacy in the Trencin region is identical, higher, or lower. The calculation of the test was done in absolute values. Our constant is the level of the Slovak Republic, which represents 62.50%, i.e., 0.625, which also means the null hypothesis, which claims that the level of financial literacy of the Trencin Region and the Slovak Republic is identical (H0). As mentioned above, the average level of financial literacy of Slovaks was shown by a survey conducted in 2012 by the Focus agency, which was 62.50%. We approved the chosen source because a more up-to-date status could not be obtained from available sources that we would consider relevant to the needs of this post. An alternative two-sided hypothesis is that the level of financial literacy in the Slovak Republic and the Trencin Region is not identical (H1). In confirming the two-sided alternative, it is essential to find out through the one-sided alternative whether the level of financial literacy is higher or lower. Our one-sided alternative is that the level of financial literacy in the Trencin region is lower compared to the level in the Slovak Republic. The necessity for the calculation of the test criterion is the sample characteristics, which are the arithmetic mean, the sample standard deviation and the sample variance. The test criterion and critical range can be calculated according to the following relationships:

$$T = \frac{\bar{x} - \mu_0}{\frac{s}{\sqrt{n}}} \tag{1}$$

where:

T	test criterion
$\bar{x}$	average value
μ_0	mean value of a statistical set
s	standard deviation of a statistical set
n	the size of the statistics set

$$T = \frac{\bar{x} - \mu_0}{\frac{s}{\sqrt{n}}} = \frac{0{,}5036 - 0{,}6250}{\frac{0{,}2339}{\sqrt{305}}} = -9{,}0659$$

Verification of the hypothesis: whether the level of the Trencin region is the same as the average level of Slovakia:

$$|T| \geq z_{\alpha}(n-1)$$
$$9{,}0659 \geq z_{0{,}05}(305-1)$$
$$9{,}0659 \geq 1{,}9678$$

Verification of the hypothesis: whether the level of the Trencin region is lower than the average level of Slovakia:

$$T < 2z_{\alpha}(n-1)$$
$$-9{,}0659 < 2z_{0{,}05}(305-1)$$
$$-9{,}0659 < -1{,}6499$$

Through the test criterion and the critical area of rejection, we found that the levels of financial literacy in the Trencin region and the Slovak Republic are not identical. Our survey shows that the level of the Trencin region is 50.36%, which points to the fact that it is 12.14% lower than the SR average.

Discussion

Based on our survey results, which were aimed at residents of the Trencin region of the selected bank, we obtained information about the current state of financial literacy. Based on the survey results, we decided to make suggestions and recommendations for increasing financial literacy. We would suggest improving financial literacy among people in productive and post-productive ages due to the lack of knowledge on the issue pointed out by the survey. We would recommend educational courses through which orientation in the field of finance is obtained, which is related to practice. Another option is podcasts, which are available for free on music and streaming services such as Spotify and YouTube. An example is the Index podcast from the SME Daily, the BMT (Business Money Talks) podcasts, and many others, which easily try to explain the importance of financial literacy and other economic information currently happening in the country and the world. It would be appropriate if the bank entered this process of financial literacy education through qualified employees who communicate with clients. She could create her own podcasts with well-known personalities or influencers who would lead people to financial literacy and thus to the use of their services and products. Currently, there are still many schools in the Slovak Republic that do not teach financial literacy, which is why they should include it in their curricula. Here, it is up to the bank to consider whether it will create space for the education of students already at the elementary and secondary school levels. The issue of financial literacy should be constantly pointed out through more extensive surveys. Banks can also actively participate in this process and conduct a financial literacy survey in person or through an application. They can use apps, social networks, and trusted mass media to promote survey results for the same reason mentioned above when conducting surveys. For the others who do not use the previous option, they have a radio, a daily newspaper, or a TV at their disposal. In this way, they could make the obtained results available to clients and use them to support the improvement of their clients' financial literacy. From our point of view, it is a means by which the bank can differentiate itself from its competition. Products presented in this way would, on the one hand, increase clients' financial literacy and, from our point of view, would be more accepted than an aggressive promotion of products and services. From the point of view of the bank's clients, it is crucial to have their income and expenses under control. For increasing individual or household budgets, it is important to consider income and expenses influenced by insufficient financial knowledge and aggressive promotions of products and services. Therefore, the appropriate way is to regulate income and expenses, which will lead to an increase in the budget. When communicating with the management of the selected bank, we found out that they recommend that clients keep their spending on consumer goods, housing, transportation, and education under control.

Expenditures on consumer goods can be divided into short-term and long-term. We can include food in the short-term and appliances and equipment in the long-term expenditures.

The most significant portion of the family budget is spent on food. With this item, it is possible to save a considerable amount of money, which can be used for other purposes. Some households believe that "what is expensive is good quality," but this assumption has been debunked numerous times. When comparing the composition of goods, it is easy to find out which of the goods is beneficial for health (more BIO, etc.). After obtaining information about individual goods, it can be said that even cheap goods can have the required quality. Households should be interested in unit prices of goods by weight. With the exception of changes in the quality of the goods, the weight also changes. When comparing two products of the same quality, we should look at the unit price per weight. The price per unit weight, because the actual price can be deduced from it, i.e., one can pay more for the same quality product, even if optically we think we have saved.

Following the promotional brochures of retail chains provides an overview of stock goods that can supply the household for several days. Another solution is the ability to resist the goods presented by sellers' manipulative techniques to lead the customer to buy. Among these manipulators, we include posters with blackboards in eye-catching colours with inscriptions such as 3+1, 50% off, Black Friday, or post-season sales. This will make the customer realise that the product is worth it and will make him want to buy, leading him to the realisation itself. There is a homogeneous procedure for another means of manipulation: the offer of coupons for discounts on goods.

Constant changes in market trends and modern technologies define the nature of durable goods. Every year, similar goods compared to the previous ones, with an innovative or new function, are launched on the market. The innovation evokes in people the desire to own the product, although the selling price is extremely high and the original product fulfils its role flawlessly. In households, mobile phones are a typical example.

After the wear and tear of appliances that are a necessary part of every household, the choice should be made based on utility, lifespan, and price. A certain part of the population chooses appliances for various reasons. Among these benefits, we can include gifts. A typical example is dishwashers, where sellers offer a free monthly supply of capsules as a gift or free winter tires when buying a car. In most cases, individual benefits are included in the price of the goods or are conditioned by various factors.

Housing expenses include mortgage repayments, rent, and household expenses (gas, water, and electricity). These are all costs that will increase significantly due to the current inflation rate. It is for this reason that people in the Slovak Republic must be financially literate.

As for a mortgage loan, most households will agree to one provided by a commercial bank with which they have an open bank account. A suitable variant is the analysis of individual offers from competing banks. Households should focus on the annual percentage rate of costs (RPMN), which represents the total annual cost of the loan, the amount of the monthly payment, and the maturity period. They should know that the longer the loan is repaid or the lower the instalment in a given period, the longer the repayment period and the higher the repayment of the loan. To analyse individual offers, it is advisable to visit commercial banks in person, use an external consultant, or use websites that contain loan calculators. In the calculator, the client enters the amount of money he wants to borrow, the number of years of repayment, and the monthly payment amount. Before ratifying the credit agreement between the creditor and the debtor, that is, the commercial bank and the client, there is an important part, namely literacy, thanks to which it is guaranteed to eliminate fees from unwanted services. Expenses for transport, but above all for a car, a standard of everyday life. Many households use a car daily, whether for short or long distances. The price of fuel, fees, repairs, and services for cars is increasing, which also increases household expenses. A step towards reducing transportation expenses is that cars will only be used in cases of necessity or for long distances. This type of transport use behaviour also contributes to higher environmental protection. Education expenses are integral to acquiring knowledge, not only in the financial field. Even if education is included in expenses, it represents an investment for households to achieve a better financial situation. If there is a lack of funds used to improve the quality of knowledge, we recommend increasing this item.

Conclusions

Nowadays, we have a lot of financial products and services available to us, which each of us uses, but not everyone understands them. Many people think they have sufficient information in the area of financial literacy, but the opposite is often true. The article contains the results of selected surveys conducted in the Slovak Republic in the past and the results of a survey conducted by us focused on the financial literacy of the clients of the selected bank. Using survey data and statistical calculations, we determined the state of financial literacy among these clients. The resulting level of financial literacy reached 50.36%. A statistical calculation was also carried out through the X2-test of independence of categorical variables, which pointed out the fact that the number of correct answers in the conducted survey does not depend on the education obtained, even though respondents who achieved the second level of university education and above had the best results. The proposals and recommendations that emerged from the survey relate to improving the financial literacy of the clients of the selected bank so that, on the one hand, the financial literacy of the clients increases and, on the other hand, there is effective communication between the bank and its clients. In conclusion, we would like to add that financial literacy is the ability of individuals to make well-considered financial decisions and thus have their financial situation firmly in their hands. We believe that this is also the goal of every bank and that the results of the bank's survey inspire the improvement of the financial literacy of its clients.

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References

Abad-Segura, E., & Gonzalez-Zamar, M. D. (2019). Effects of financial education and financial literacy on creative entrepreneurship: A worldwide research. *Education Sciences, 9(3),* 238. https://doi.org/10.3390/educsci9030238

Al-Bahrani, A., Weathers, J., & Patel, D. (2018). Racial differences in the returns to financial literacy education. *Journal of Consumer Affairs, 53(2),* 572-599. https://doi.org/10.1111/joca.12205

Beranova, M., Sima, J., & Navratilova, M. (2020). Financial literacy as knowledge necessary in today's globalised world. *Proceedings of the 19th International Scientific Conference on Globalization and its Socio-economic Consequences 2019, 74(1).* https://doi.org/10.1051/shsconf/20207405007

Bongini, P., Iannello, P., & Rinaldi, E. E. (2018). The challenge of evaluating financial literacy: Alternative data analysis methods within the Italian context. *Empirical Research in Vocational Education and Training, 10,* 12. https://doi.org/10.1186/s40461-018-0073-8

Caplinska, A. & Ohotina, A. (2019). Analysis of financial literacy tendencies with young people. *Entrepreneurship and sustainability, 6(4),* 1736–1749. https://doi.org/10.9770/jesi.2019.6.4(13)

Dare, S. E., Van Dijk, W. W., Van Dijk, E., Van Dillen, L. F., Gallucci, M., & Simonse, O. (2020). The effect of financial education on pupils' financial knowledge and skills: Evidence from a Solomon four-group design. *Journal of Educational Research, 113(2),* 93-107. https://doi.org/10.1080/00220671.2020.1733453

Fabova, L. (2017). Priciny a dosledky rastu zadlzenosti slovenskych domacnosti. *Journal of Knowledge Society, 5(1),* 1-43.

Filippini, M., Leippold, M., & Wekhof, T. (2021). Sustainable finance literacy and the determinants of sustainable. *Swiss Finance Institute Research Paper,* 22-02.

Folke, T., Gjorgjiovska, J., Paul, A., Jakob, L., & Ruggeri, K. (2021). Asset a new measure of economic and financial literacy. Eu*ropean Journal of Psychological Assessment, 37(1),* 65-80. https://doi.org/10.1027/1015-5759/a000575

Gedvilaite, D., Gudaitis, T., Lapinskiene, G., Brazaitis, J., Zizys, J., & Podviezko, A. (2022). Sustainability literacy and financial literacy of young people in the Baltic States. *Sustainability, 14(21),* 14013. https://doi.org/10.3390/su142114013

Hastings, J. S., Madrian, B. C., & Skimmyhorn, W. L. (2013). Financial literacy, financial education, and economic outcomes. *Annual Review of Economics, 5(1),* 347-373. https://doi.org/10.1146/annurev-economics-082312-125807

Ho, M. C. S., & Lee, D. H. L. (2020). School banding effects on student financial literacy acquisition in a standardised financial literacy curriculum. *Asia-Pacific Education Researcher, 29,* 377–391 (2020). https://doi.org/10.1007/s40299-019-00491-z

Jerrim, J., Lopez-Agudo, L. A. & Marcenaro-Gutierrez, O. D. (2022), The link between financial education and financial literacy: A cross-national analysis. *Journal of Economic Education, 53(4),* 307-324. https://doi.org/10.1080/00220485.2022.2111383

Kawamura, T., Mori, Motonishi, T., & Ogawa, K. (2021). Is financial literacy dangerous? Financial literacy, behavioral factors, and financial choices of households. *Journal of the Japanese and International Economies, 60,* 101131. https://doi.org/10.1016/j.jjie.2021.101131

Kucserova, J. J. & Strachotova, A. (2019). Results of the third wave of the household finance and consumption survey (HFCS). *Occasional Paper, No 1/2019,* National Bank of Slovakia, Bratislava

Litvinova, S. (2018). The development of a financial literacy system in Russia. *Proceedings of the CBU International Conference on Inovations in Science and Education, 6,* 314–318. https://doi.org/10.12955/cbup

Lucic, A., Barbic, D., & Uzelac, M. (2020). The role of financial education in adolescent consumer's financial knowledge enhancement. *Market - Trziste, 32,* 115-130, https://doi.org/10.22598/mt/2020.32.spec-issue.115

Lusardi, A. (2015). Financial literacy skills for the 21st century: Evidence from PISA. *Journal of Consumer Affairs, 49 (3),* 639-659. https://doi.org/10.1111/joca.12099

Nemeth, E., Beres, D., Huzdik, K., Deak-Zsoter, B. & Meszaros, A. (2022). Teachers' financial literacy. *Public Finance Quarterly - Hungary, 67(1),* 7-32. https://doi.org/10.35551/PFQ_2022_1_1

Ozkale, A. & Erdogan, E. O. (2020). An analysis of the interaction between mathematical literacy and financial literacy in PISA. *International Journal of Mathematical Education in Science and Technology, 53(8),* 1983-2003. https://doi.org/10.1080/0020739X.2020.1842526

Pearson, B. & Korankye, T. (2022). The association between financial literacy confidence and financial satisfaction. *Review of Behavioral Finance, Vol. ahead-of-print No. ahead-of-print.* https://doi.org/10.1108/RBF-03-2022-0090

Sari, R. C., & Fatimah, P. R. (2017). Bringing voluntary financial education in emerging economy: Role of financial socialisation during elementary years. *Asia-Pacific Education Researcher, 26(3/4),* 183–192. https://doi.org/10.1007/S40299-017-0339-0

Skagerlund, K., Lind, T., Stromback, C., Tinghog & Vasrfajall, D. (2018). Financial literacy and the role of numeracy - how individuals' attitude and affinity with numbers influence financial literacy. *Journal of Behavioral and Experimental Economics, 74(6),* 18–25. https://doir.org/10.1016/j.socec.2018.03.004

Stankeviciene, J., & Petroniene, I. (2019). Bond mutual funds vs. bond exchange traded funds: Evaluation of risk adjusted performance. *Administrative Sciences, 9(2),* 31. https://doi.org/10.3390/admsci9020031

Unruh, G., Kiron, D., Kruschwitz, N., Reeves, M., Rubel, H., & Felde, A. M. (2016). Investing for a Sustainable Future. *MIT Sloan Management Review, 57,* 1–31.