FINANCIAL PLANNING IN SLOVAKIA: RESULTS OF EMPIRICAL RESEARCH *

Ján Morvai ¹, Mihály Ormos ², Imrich Antalík ³, Ladislav Mura ⁴, Adam Páldi ⁵, Barnabás Szabó ⁶

¹,²,³,⁵,⁶ Faculty of Economics and Informatics, J. Selye University, Komárno, Bratislavská cesta 3322, 945 01 Komárno, Slovakia
⁴ Faculty of Commerce, University of Economics in Bratislava, Dolnozemská cesta 1, 852 35 Bratislava, Slovakia

E-mails: ¹1255@student.ujs.sk; ²ormosm@ujs.sk; ³antaliki@ujs.sk (corresponding author); ⁴ladislav.mura@euba.sk; ⁵121708@student.ujs.sk; ⁶szabo.barnabas@student.ujs.sk

Received 11 October 2022; accepted 18 December 2022; published 30 December 2022

Abstract. In this paper, we have highlighted one of today's most critical issues: financial literacy and its importance in our lives. According to several studies, financial literacy needs to be at the appropriate level, not only among the younger but also among the middle and older generations. Financial literacy is the knowledge that allows people of different ages to understand the workings and importance of finances. It helps people make the right decisions in appropriate situations. Finance is a part of everyone's life. Daily, we perceive their importance concerning current spending and the financial concepts to which people are exposed at every step. We have analysed the population's financial literacy and financial planning, which contains Slovakian households, especially in the case of the young generations. Our goal was to have a sample size of at least 400 people, and our sample size was 463 people. As we applied snowball sampling, our research can not be considered representative. Collected data were analysed in statistical software and commented. While the older generation is more attentive to planning for their retirement, even if they cannot always stick to the plan they have set, they also design their spending goals to a greater extent.

Keywords: finance; financial literacy; financial planning; financial concepts; Slovakia


JEL Classifications: B26, G53, G51

Additional disciplines: financial management

* This research was supported by the project VEGA 1/0568/20 called “Equilibrium modelling of V4 capital markets”, which has received funding from Ministry of Education, Science, Research and Sport of the Slovak Republic.
1. Introduction

The importance of financial literacy is increasing as the expected lifetime of the population is rising, as the fertility ratio is decreasing, and as a result, even less population has to generate a higher value of pension covering the spending of the ageing population. Furthermore, the increasing inflation is impairing the importance of savings generated in their active life. In these circumstances, conscious financial decisions seem more critical than ever. We are curious about the background of financial decisions of focus on the younger generations of Slovakian households in our work. We focus on their interest in financial planning for retirement and their spending habits. We were interested in working on this topic because of its topicality and the enrichment of personal experience, as this topic affects everyone. It was interesting for us to pay more attention. This work aims to assess financial behaviour planning and spending to use this data to provide additional interesting information for those attracted to the finance world. We highlight the importance of financial literacy and interest in managing retirement savings at a young age.

There needs to be more academic work on financial planning for Slovak residents. Our work explores the topic's importance and the need for further research to improve financial literacy and financial planning in Slovakia.

2. Theoretical background

Financial literacy

As we have already noted, people mismanage their money and lack knowledge of basic economic concepts. This phenomenon can be related to poor financial literacy (e.g., Dvorsky et al., 2018). In doing so, however, they must consider changing economic conditions and life events. The authors have derived this definition from five behavioural categories that allow us to understand the breadth of financial literacy. Firstly, it is the knowledge of economic concepts and the ability to communicate them; the application of this knowledge requires the ability to manage personal finances by performing money-related tasks (such as earning money, spending money and saving money (Simionescu et al., 2018). Another manifestation is the ability to make appropriate decisions by thinking critically and considering the consequences of a decision concerning one's values, needs and goals; finally, confidence in planning effectively for future financial markets is essential (Hershey et al., 2012; Andrejovská, 2019; Karas & Režňáková, 2021; Cabagnols et al., 2022).

Financial literacy in Slovakia

Financial literacy is one of the skills we need for life. It is 'the ability to use knowledge, skills and experience to manage one's financial resources effectively to ensure the financial security of oneself and one's household throughout life' (National Financial Literacy Standard, version 1.2, p. 3). Household facts in Slovak conditions are analysed in the papers of Šubová and Buleca (2020), Šubová et al. (2021),

Raising the population's financial literacy level is also one of the state's priorities. In 2008, the Government of the Slovak Republic approved the document "Proposal for education in the field of finance and personal finance management", based on which the National Standard of Financial Literacy was developed, which has been in force since 1 September 2017 in version 1.2 (MoF SR). The Ministry of Education, Science, Research and Sport of the Slovak Republic approved the document. It was prepared in cooperation with the Ministry of Finance of the Slovak Republic. It defines the scope of knowledge and skills in financial education and personal finance management. The document (National Financial Literacy Standard, version 1.2, p. 3) states that graduates of secondary school should be able to: search, evaluate and use financial information, know the basic rules of financial management, identify risks in financial management, set financial targets and plan to achieve them, develop the ability to earn and save their own income, use efficiently financial services, meet financial
obligations, improve and protect their property and the assets entrusted to them, understand and address the basic human and economic needs of individuals, families and businesses, appreciate the success of their own self-realisation, and be inspired by the examples of successful personalities, understand the basic concepts of each topic, navigate the financial market, be aware of consumer protection issues and be able to exercise these rights, understand the rights, obligations, benefits and risks of being an entrepreneur, draw up and present a business plan, think strategic etc.

The development of financial literacy in schools has been an issue in recent years. In the days of compulsory schooling for today's adults, almost no attention was paid to the subject. However, finance is an integral part of the market economy based on which our society operates. Therefore, it is crucial to handle them correctly in different situations in life. Financial literacy is also closely linked to several competencies considered essential for personal satisfaction and development, active citizenship, social inclusion and employment in the countries of the European Union.

Financial literacy is one of the skills that are particularly desirable for the fulfilment of entrepreneurial competencies. Its development is linked in particular to the ability to understand written texts, use different types of information sources, critical thinking skills, mathematical competencies or digital competencies.

The Slovak Republic, like other countries, bases the development of the financial literacy of its citizens primarily on the recommendations and documents of the OECD and the European Union. The documents published by the International Financial Education Network (INFE), established within the framework of the OECD, inspired the government's proposal, which resulted in the NSFG.

Both the OECD and the EU support their Member States in implementing national strategies to improve financial literacy and recommend introducing financial education in schools and promoting financial education for the general public.

Our current cultural beliefs will influence our future financial habits, so it is important to assess our current habits as soon as possible so that we can change them if necessary, to ensure that we can pass on better financial literacy to future generations (Setiawan et al., 2020).

Financial planning

The 2018 OECD survey introduces the concept of financial stress resilience as a new element in the measurement: this includes financial planning, regular monitoring of the economic situation, debt management and bankruptcy knowledge (Khan et al., 2020; Ključnikov et al., 2022), and the building up of reserves, or "financial cushions". Hungarian adults report very low-stress tolerance in most areas, below average. Still, most interestingly, 34.8% of Hungarian adults surveyed have only enough financial reserves for one week in case of a loss of income. This may indicate a lack of or inadequate savings management and a long-term perspective among the adult population (Klapper & Lusardi, 2020; Lusardi, Hasler & Yakoboski, 2021; OECD, 2020).

Financial behaviour involves many human activities. Managing economic income and achieving financial goals form the basis of financial behaviour and decision-making. It requires many competencies such as critical and strategic thinking, knowledge and consideration of risk-taking propensity, and last but not least, knowledge of financial planning, investing and many other principles.
Strategic thinking focuses on future and long-term goals that are very different from the present, and there are many ways to achieve these goals. Strategic thinking synthesises intuition and creativity and also aims to lead to new assumptions and alternatives (Ead et al., 2021). Investing is often confused with financial planning while investing is only one activity of financial planning and aims to achieve long-term financial goals (Konečná & Andrejovská, 2020).

Gallego-Losada (2021) points out that the burst of the crisis of COVID-19 drew attention to issues raised by a lack of financial literacy since the failure to manage personal financial responsibility may result in long-term consequences for individuals and the entire society. The authors assert that citizens must be prepared to take on greater responsibility to make informed decisions about their retirement.

A separate strand of literature is devoted to the financial literacy of young adults. She, Waheed, Lim and E-Vahdati (2022) stress that economic well-being among young adults is an emerging and essential field of research. They point out that the well-being of this social group is affected by numerous factors, including skills, attitudes and financial practices. Zhang and Fan (2022) investigate the relationships among financial capability, financial education, and student loan debt outcomes. Gedvilaitė et al. (2022) studied the sustainability literacy and financial literacy of young people in the Baltic States.

Vazquez-Alonzo, Garcia-Santillan and Molchanova (2022) focus on the saving habits of high-school students associated with their future retirement. Their most essential findings highlight significant part of the population analysed is unaware of basic concepts such as retirement age and institutions for retirement.

Richardson et al. (2022) analyse the interrelations between financial literacy and retirement spending of university students. The results demonstrated that there needed to be more understanding of the costs of living and the characteristics of the different pillars of the Australian retirement system. The authors stress the increasing role of knowledge and skills in the financial literacy of Australian young adults.

Self-evaluation of own literacy of young people may differ from evaluation from outside (Dundure & Sloka, 2021). Undoubtedly, the financial literacy of young people is very important for their well-being in older age (Bongini & Cucinelli, 2019). Alas, economic behaviour and attitudes peculiarities still have to be investigated more thoroughly. This research is devoted to filling in the indicated gap.

3. Research objective and methodology

As the research focuses on the financial knowledge and financial literacy of the younger generations of Slovakian households, our goal has been to reach many members of the target group and get quantitative results that could be the basis of our conclusions. To obtain quantitative results, we decided to apply quantitative research.

As primary research, a questionnaire has been applied to our study. In Horváth's formulation, one of the most critical moments of questionnaire design is the search for indicators. In this work, brainstorming can help researchers (Horváth, 2004). According to Morgan, it is worthwhile to create 3-5 focus groups on a topic (Morgan, 1997). To find the indicators, we conducted 4 focus group discussions with employees of different organisations, with 10 employees per group. According to Vicsek (2006), a focus group is a research method in which data are generated in such a way that the subjects of the research communicate in a group about a given topic. These preparatory discussions helped to understand the research problem better. Following the talks, our questionnaire was compiled, including the structure, the choice of the type of questions, the order of the questions and the layout of the questionnaire. Through the questionnaire, we have analysed the population's financial literacy and financial planning, which contains Slovakian households, especially in the case of the young generations. Our goal was to have a sample size of at least 400 people, and our sample size was 463 people.
In the case of our research, the population contains the members of Slovakian households. We also determined another requirement: the age of the target group members has to be at least 18 years because adults have salaries – in the case of students, they have scholarships and student loans – that is why they have to make financial-related decisions. However, our research focuses on financial literacy in the case of the young generations, but we would like to compare the financial literacy of the young generations with the financial literacy of the old generations; that is why we did not determine any other strict requirements towards the population regarding the age.

Based on their guidelines, our goal was to reach at least 400 target group members. We decided to share the questionnaire via the Internet. We composed the questionnaire in Google Forms and shared it online in January: we shared it in some Facebook groups, forwarded the link to our relatives and friends, and asked them to forward it to their friends who are members of our population. As we applied snowball sampling, our research cannot be considered representative, but our sample size was 463 people, which is enough to investigate the investigation. Research data was analysed in statistical software and presented by figures.

3. Results and Discussion

Financial planning

In the next part of the questionnaire, we asked the respondents about their habits regarding financial planning. Only one-quarter of the answerers (26.8%) have tried to calculate how much their household should save for retirement, but most have yet to figure it out (Figure 1).

![Figure 1. Have you ever tried to calculate how much your household should save for retirement?](source: primary research, own calculation)

Investigating the answers by generation, we can see that in the case of the members of X generation, almost half of the respondents (41.7%) have ever tried to calculate how much their household should save for retirement. In the case of the younger generations, this ratio is lower: it is 27.5% in the case of the members of the Y generation, and it is only 2.1% in the case of the members of the Z generation.

According to the null hypothesis of the Chi-Square Tests (Figure 2), there is no relationship between the two variables: generations and whether the participants have ever tried to calculate how much their household should save for retirement. The value of Pearson Chi-Square is 21.449; its significance level is 0.000, which is lower than the significance level of 0.05, which is why we reject the null hypothesis. It means that there is a relationship between the two investigated variables.
The significance of Phi is 0.000, which confirms the relationship between the two variables. The Phi value is 0.215, indicating a weak relationship between the two investigated variables (Figure 3).

We also asked the respondents whether they had planned to save for retirement. Only 25.5% of them answered "yes" to this question, meaning that most of the answerers haven't ever made a plan to save for retirement (Figure 4).
In the case of the members of the X generation, the ratio of the respondents who have ever made a plan to save for retirement was 16.7%. In the case of the members of the Y generation, the ratio was 28.7%, and it was 12.8% in the case of the members of the Z generation.

According to the null hypothesis of the Chi-Square Tests (Figure 5), there is no relationship between the two variables: generations and whether the participants have ever made a plan to save for retirement. The value of Pearson Chi-Square is 8.340; its significance level is 0.015, which is lower than the significance level of 0.05, which is why we reject the null hypothesis. It means that there is a relationship between the two investigated variables.

![Chi-Square Tests](image)

**Figure 5.** Chi-Square Tests

*Source: primary research, own calculation*

The significance of Phi is 0.000, confirming the relationship between the two variables. The Phi value is 0.134, indicating a weak relationship between the two investigated variables (Figure 6).

![Symmetric Measures](image)

**Figure 6.** Symmetric Measures

*Source: primary research, own calculation*

In the following question, we asked the participants who had ever made a plan to save for retirement. We wanted to know how often they could follow their plan to save for retirement. The Statistics Table (Figure 7) provides information about the valid and missing answers: we got 301 responses, and 162 people did not answer this question. We asked the respondents to mark their answers on a 5-point Likert scale, between always (1) and never (5). As this is a Scale variant, we were able to calculate the mean, the median, the mode and the standard deviation. The mean is 2.5748, which is lower than 3 and means that the answerers could instead follow their
retirement plan. The median represents "the midpoint of the frequency distribution," 2.00. The mode is also "2": it is the most common answer, meaning that most respondents could follow their retirement plan. The last information which can be seen in the table refers to standard deviation, and it is 1.23770. It expresses how much the sample members differ from the sample's mean.

![Frequencies](image)

**Figure 7.** If you made a plan to save for retirement, how often could you follow the plan? – frequencies, statistics

Of the most answerers, 43.5% marked "2", meaning they usually could follow their plan to save for retirement. 16.9-16.9% scored that they always followed their goal or could follow it moderately. Less than one-quarter of the answerers mentioned that they couldn't follow their retirement plan: 10.3% sometimes could follow it, but 12.3% could never follow it (Figure 8).

![If you made a plan to save for retirement, how often could you follow the plan?](image)

**Figure 8.** If you made a plan to save for retirement, how often could you follow the plan?

Source: primary research, own calculation

We also investigated the numbers based on the generations. In the case of the members of the X generation, the most answerers – their ratio was 50% – chose 3 for this question which means that they could follow their plan.
moderately. Approximately 10% of them could follow the plan and 40.0% usually followed it. There was nobody among the members of the X generation who sometimes followed their plan or could never follow it.

Regarding the members of the Y generation, almost half of the answerers (47.2%) usually could follow their plan. The ratio of the answerers who always could follow it was 17.0%, while 6.8% could follow it moderately. Approximately one-quarter of the respondents could not follow their plan to save for retirement; 10.3% of them sometimes could follow it, but 15.7% never could follow it. In the case of the members of the Z generation, the ratios are the following: almost two-thirds (62.5%) of the respondents could follow their plan to save for retirement moderately while the remaining 37.5% could follow their plan.

In the case of this question, we could not apply Chi-Square Test and Phi Test concerning the Crosstable to analyse the relationship between the dependent variable and the independent variable because 26.7% of the cells have an expected count of less than 5.

In the following question, we asked the sample members about the frequency of tracking their spending. They could mark their answer on a 5 point Likert scale between always (1) and never (5). As the Statistics table (Figure 9) presents, all 463 respondents provided their answers. The mean was 2.3089, meaning the respondents usually track their actual spending. Both mode and median are 2.0, meaning that most of the answerers chose "2" for this question, and this value divides the answers into two parts based on their frequency. The standard deviation is 1.04740, which is lower than it was in the previous question.

<table>
<thead>
<tr>
<th>Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>How often do you track your actual spending?</td>
</tr>
<tr>
<td>N</td>
</tr>
<tr>
<td>Missing</td>
</tr>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>Median</td>
</tr>
<tr>
<td>Mode</td>
</tr>
<tr>
<td>Std. Deviation</td>
</tr>
</tbody>
</table>

Figure 9. How often do you track your actual spending?

Source: primary research, own calculation

If we investigate the answers in detail, we can see that more than one-third of the respondents usually track their actual spending (Figure 10). The ratio of people who always follow their existing spending is equal to those who track it moderately: both ratios are 23.5%. 10.8% of the answerers sometimes track their actual expenditure, and only 3.2% said they never followed their actual spending.

We also prepared a Crosstable to investigate the answers based on the generations. In the case of the members of the X generation, half of the respondents usually track their actual spending. The other half can be divided into two parts: 25% of the answerers always track their actual expenditures, and 25% track them moderately. There was nobody among the members of the X generation who followed their actual spending only sometimes or who did not track it at all. Regarding the members of the Y generation, we received the following results: approximately one-third of the respondents (35.4%) usually track their spending. 26.1% always track their actual spending, while 23.0% track it moderately. The number of answerers who follow it only sometimes is 11.2%, while 4.2% do not track it. We also examined the answers in the case of the Z generation: more than half of the
respondents (55.3%) usually track their actual spending. The ratio of people who follow their actual spending moderately is equal to those who sometimes track it: both ratios are 21.3%. There is nobody among the members of the Z generation who ever track their actual spending.

**Figure 10.** How often do you track your actual spending?

*Source: primary research, own calculation*

According to the null hypothesis of the Chi-Square Tests (Figure 11), there is no relationship between the two variables: generations (as an independent variable) and the frequency of tracking the actual spending (as a dependent variable). The value of Pearson Chi-Square is 32.406, and its significance level is 0.000, which is lower than the significance level of 0.05, which is why we reject the null hypothesis. It means that there is a relationship between the two investigated variables.

**Figure 11.** Chi-Square Tests

*Source: primary research, own calculation*

The significance of Phi is 0.000, confirming the relationship between the two variables. The Phi value is 0.265, indicating a weak relationship between the two investigated variables (Figure 12).
In the following question, we asked the sample members about the frequency of setting budget goals for their spending. The answerers could mark their answers on a 5-point Likert scale where 1 means always and 5 means never. Based on the Statistics table (Figure 13), all 463 respondents answered this question. The mean is 2.4773, which means that the respondents usually set budget goals for their spending. Both mean and median are 2.00: it was chosen by the most answerers; this value divides the answerers into two groups based on the frequency of setting goals for their spending. The standard deviation is higher than in the previous question: its value is 1.12191.

We also examined the answers in a detailed manner (Figure 14). Almost one-third of the respondents (31.7%) usually set budget goals for their spending. 28.7% of the answerers set budget goals with moderate frequency. Approximately one-fifth of the answerers (21.8%) always set budget goals for their spending, while 12.3% do it only sometimes. The ratio of respondents who never set budget goals for their spending is 5.4%.
We investigated the frequency of setting budget goals for spending based on the generation. In the case of the members of X generation, 33.3% always set budget goals for their spending and an additional 33.3% set budget goals reasonably. 16.7% usually set budget goals, while 16.7% sometimes set them. Nobody among the members of the X generation ever set up any budget goals for their spending. Analysing the respondents' answers from the Y generation, we can see that 31.2% usually set budget goals, while 28.9% moderately set budget goals. Approximately one-fifth of the respondents (21.1%) always set budget goals for their spending, while 13.2% sometimes set them. The ratio of respondents who never set budget goals for their spending is 5.6% among the members of the Y generation. The proportions are the following in the case of the members of the Z generation: approximately half of them (55.3%) usually set budget goals or their spending, while roughly one-fifth of them (21.3%) moderately set budget goals. The ratio of the respondents who always set budget goals is 12.8% among the members of the Y generation. Nobody sets budget goals only sometimes, while 10.6% of the respondents never set up budget goals.

According to the null hypothesis of the Chi-Square Tests (Figure 15), there is no relationship between the two variables: generations and the frequency of setting budget goals for spending. The value of Pearson Chi-Square is 32.021, and its significance level is 0.000, which is lower than the significance level of 0.05, which is why we reject the null hypothesis. It means that there is a relationship between the two investigated variables.
The significance of Phi is 0.000, which confirms the relationship between the two variables. The Phi value is 0.263, indicating a weak relationship between the two investigated variables (Figure 16).

<table>
<thead>
<tr>
<th>Symmetric Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
</tr>
<tr>
<td>Nominal by Nominal</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>N of Valid Cases</td>
</tr>
</tbody>
</table>

Figure 16. Symmetric Measures

*Source: primary research, own calculation*

At the end of the questionnaire, we had some demographic questions. Regarding gender, 64.1% of the respondents are men, and 35.9% are women (Figure 17).

<table>
<thead>
<tr>
<th>What is your gender?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
</tr>
<tr>
<td>Valid</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Figure 17. What is your gender?

*Source: primary research, own calculation*

Regarding age, most respondents were between 25 and 32 years old. Overall, we received answers from people between 19 and 52 years old (Figure 18).
Based on the respondents' ages, we created a new variable called generation. The most answerers represent the Y generation (79.9%), 13.0% are members of the X generation, and 10.2% are members of the Z generation (Figure 19).

We also examined the educational qualification of the respondents. 58.1% have bachelor's or Master's degrees, 41.7% are high school graduates, and 0.2% attended basic education (Figure 20).
Regarding profession, 64.4% of the respondents are an employee. 13.2% of them work as self-employed, the 7.8% are unemployed. The ratio of the students (another category) is 14.7% (Figure 21).

In the last question, we asked the respondents in which country they live. All of the respondents live in Slovakia. We received 12 additional questionnaires from Hungary, but our research target group contains Slovakian household members, so we excluded them. In the descriptive statistics part of the paper, we only investigated the questionnaires we received from our target group members.

Conclusions

According to our survey, the older generation is better prepared for their retirement in Slovakia than the younger generation; since a higher percentage of the older generation answered positively to our question, "have you tried to calculate how much you should save for your retirement" and "have you made a financial plan for your retirement?". A chi-square test and Crammer's V index support the relationship between these questions.

Since, in real life, it is essential not only to make plans but also to follow them, our next question was aimed at this. Among those who had already made a plan for their retirement, we asked the following question about how often they could follow their plan. For this question, neither the older nor the younger generation can pursue their strategy precisely.
We know that the basis of our finances is to be aware of our spending; therefore, we asked the respondents, "how often do you track your spending" from this question, we could conclude that the younger generation tracks their spending better. However, the older generation had a higher percentage when asked how often they set budget goals.

Based on our research, we can conclude that while the older generation is more attentive to planning for their retirement, even if they cannot always stick to the plan they have set, they also design their spending goals to a greater extent. On the other hand, the younger generation is more attentive to their spending, tracking it to a greater extent but setting targets to a lesser extent. Completers who plan for their retirement are more likely to stick to the financial plans they set for themselves.

Among our respondents, the older generation appeared more prepared for retirement, but younger completers were more likely to track their current financial spending.

Our research is aimed at individuals and organisations working to improve financial literacy. Last but not least, we recommend this research to researchers who want to survey a country or group of their choice on a similar topic. As a unique feature, depending on the generation, there are specific forms of financial planning. On the other hand, we have to stress the limitations of our results that are obtained by the methodology we applied to gather the answers for our survey: as the 463 respondents were collected in a snowball method, there can be a sample selection bias; thus the survey answers may not be representative. However, mostly the respondents completed the questionnaire who have some interest to finance; therefore, if our results are biased, then they upward biased.

References


587


Funding: This paper was supported by the Ministry of Education, Science, Research and Sport of the Slovak Republic, Scientific grant agency VEGA 1/0568/20 called “Equilibrium modelling of V4 capital markets”

Author Contributions: Conceptualisation: Ormos, Antalík; Mura; methodology: Ormos, Szabó; data analysis: Morvai, Páldi, Szabó, writing—original draft preparation: Páldi, Szabó, Ormos writing; review and editing: Antalík, Mura; visualisation: Morvai, Mura. All authors have read and agreed to the published version of the manuscript.

Jan MORVAI is an external student of doctoral studies at the FEI UJS. His experience comes mainly from the private sector, his current employer is the strongest market player among private bus operators in Slovakia. Since October 2010, he has gained a lot of relevant experience in his previous positions, and he has held his current position as Director of Tenders and M&A since May 2021. As a PhD student, he works closely with the other members of various research teams mainly focusing among others on corporate stress and organisational engagement.

ORCID ID: https://orcid.org/0000-0003-4575-7253

Mihály ORMOS is a Professor of Finance at the Department of Economics at J. Selye University, Komarno, Slovakia and at the Department of Finance and Accounting, Faculty of Economics, Eotvos Lorand University, Budapest, Hungary. His area of research is financial economics especially asset pricing, risk measures, risk perception and behavioral finance. He serves as one of the contributing editors at Eastern European Economics published by Taylor and Francis. His teaching activities concentrate on financial economics, investments and accounting. Prof. Ormos published his research results in Journal of Banking and Finance, Quantitative Finance, Finance Research Letters, Economic Modelling, Empirica, Eastern European Economics, Baltic Journal of Economics, PLoS One, Acta Oeconomica and Economic Systems amongst others.

ORCID ID: https://orcid.org/0000-0002-3224-7636

Imrich ANTALÍK is a Vice Dean for Science at the Faculty of Economics and Informatics at J. Selye University (FEI UJS) and an associate professor at the Department of Economics of FEI UJS. His area of research is financial literacy, corporate finance and competitiveness of SMEs. He teaches following subjects: Economics of SMEs, Corporate Finance, Financial Analysis, Financial Markets and Investments, Financial Literacy.

ORCID ID: https://orcid.org/0000-0001-7060-6567

Ladislav MURA is an Associate Professor, a Slovak expert on small and medium business, international business, and the human resource of management. He is the author of 3 domestic scientific monographs on the internationalisation of business, small and medium enterprises, human resource management, co-author of foreign scientific monographs. He has published a lot of articles in various scientific journals.

ORCID ID: https://orcid.org/0000-0002-2453-8740

Adam PÁLDI is a third-year PhD student at the Faculty of Economics and Informatics of J. Selye University. His Phd thesis is on "Financial behaviour of households and its impact on financial stability." The main topics of the dissertation are financial literacy and the effects of bank marketing strategies on individuals. The main focus of his publications are based on research of the financial literacy, primarily in Slovakia and the surrounding countries.

ORCID ID: https://orcid.org/0000-0002-8797-4726

Barnabás SZABÓ is a PhD student of the Department of Management at J. Selye University. He started his studies at the J. Selye University in 2014. In 2019 he successfully defended his thesis and obtained his Master's degree in Economics and Corporate Management. He continued his studies and was successfully admitted to the Faculty of Economics and Informatics of J. Selye University in field of Business Economics and Management.

ORCID ID: https://orcid.org/0000-0002-9719-7502

Copyright © 2022 by author(s) and Vsf Entrepreneurship and Sustainability Center
This work is licensed under the Creative Commons Attribution International License (CC BY).
http://creativecommons.org/licenses/by/4.0/

Open Access