Original scientific paper

FINANCIAL AWARENESS OF YOUNG ADULTS – EXPERIENCE FROM A CROSS-BORDER SURVEY AMONG HUNGARIAN SPEAKING STUDENTS

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Abstract

The focus of the present study was to investigate the financial knowledge, attitude, and overall financial awareness of recent high school graduates starting their undergraduate studies in economics in 2021. The authors' objective was to assess the impact of the strategy adopted by the Hungarian government in 2017, and the related Money7 series of programmes launched in 2015, aimed to improve the financial literacy of secondary school students. The research methodology was based on an internationally recognised model developed by the OECD. For the purpose of international comparison, the authors conducted empirical research among Hungarian native-speaking students in two neighbouring countries, where similar strategies were adopted to develop financial literacy of young adults. The results of the survey were analysed using analysis of variance to investigate whether participation in financial literacy development programmes and demographic characteristics such as gender and location, i.e., the university where the student is studying, influence financial knowledge, behaviour, attitude and overall financial awareness. The results showed that the level of financial awareness of both Hungarian and cross-border Hungarian speaking students exceeds the level of financial awareness of their relevant population. This confirmed the positive medium-term effects of the strategy and the related financial programmes aimed to improve the financial literacy of young adults, as suggested by other authors. In terms of demographic characteristics, research findings also reinforced the results of previous international research, as female students in the sample were characterised by a higher level of financial attitude, while male students were found to possess a higher level of financial knowledge.

Keywords: financial knowledge, financial awareness, financial attitude, financial literacy, first-year students

INTRODUCTION

Financial awareness contributes to consumer welfare and, in the long term, it facilitates a more efficient use of resources, improves family welfare and provides for safer institutions on

a macroeconomic level. Ultimately, it enables the economy to grow on a more sustainable development path.

Previous international and domestic research has shown that people's perceptions of financial security depend on their financial literacy and their ability to put it into practice. Several studies among university students have shown that young people display a low level of financial literacy, often overestimate their financial knowledge and are not always able to apply it in practice. First, a brief theoretical summary of the definitions of financial literacy and financial awareness is provided, together with the presentation of the main results of similar research conducted in the past. Then the methodology of the research and the database used are detailed, followed by a conclusion, highlighting the main findings and outlining possible directions for further research.

Based on the results of previous OECD surveys and the lessons of the financial crisis, in 2015 Hungary joined the European Money Week (Money7) programme, a school-based initiative spanning nearly 30 countries, with the main objective of raising financial literacy among primary and secondary school students. The focus of the programme is on financial education in schools, with extra-curricular classes on financial topics scheduled for the time of the Financial and Management Week. In addition, the Government of Hungary has developed a 7-year strategy covering the period 2017-2023 to improve the financial literacy of students still in the school system. The strategy has been developed taking into account OECD/INFE and international best practices and focuses on developing financial literacy among primary and secondary school students.

The main objective of this research is to assess the results of the government's financial literacy programmes and strategy, through the evaluation of the financial knowledge, behaviour, attitude and overall financial awareness of young people fresh out of secondary school in 2021. The empirical research, therefore, examines the impact of the Money7 programme over a 5-year time horizon and the impact of the strategy to improve young people's financial literacy over a 4-year time horizon.

As the authors are lecturers at the Faculty of Economics of the University of Pannonia, the primary target group of the research were first-year economics students of the University of Pannonia. These are young people who had just started their secondary school studies at the time of the adoption of the financial literacy strategy and who, as secondary school students, participated in financial literacy programmes in the preceding years. In addition to the original research objectives, the survey also sheds light on which components of financial literacy are still lacking and, thus, need to be more strongly emphasised in higher education. The set of

questions, the analyses and the evaluation of the results were based on the internationally recognised OECD methodology, ensuring that the level of financial literacy of students is comparable with the level of financial literacy of the relevant population as measured by the OECD.

Subsequently, in order to extend the research beyond the national borders of Hungary, the survey was also conducted among first-year economics students at Babes-Bolyai University in Romania, which is very similar to the University of Pannonia in terms of its main characteristics and training portfolio. The reason for choosing the Romania-based Babes-Bolyai University as a peer study is that the National Bank of Romania (Banca Nationala a Romaniei) has been organising financial awareness development programmes for primary, secondary and college students since 2011. Initially, there were events related to "financial awareness" in only 4 cities, but by 2022, 78,000 students from 600 educational institutions were reached through the "Let's talk about money and banks" project. In 2018, the Ministry of National Education, the National Bank of Romania, the Ministry of Finance, the Financial Supervision Authority and the Romanian Banking Association signed a cooperation agreement to jointly implement financial education activities and map out a National Financial Education Strategy. The document sets out an inter-institutional framework in which the five organisations jointly carry out financial education activities.

The paper begins with a brief theoretical summary of the definitions of financial literacy and financial awareness and the main results of previous research on the subject. Then the exact methodology of the present research is presented, together with the database used. The paper concludes by highlighting the main findings and outlining possible directions for further research.

THEORETICAL BACKGROUND

Despite nearly 40 years of research, there is no uniform definition of financial literacy and no uniform methodology for its analysis. In numerous international and national publications, the concept of financial literacy is typically defined according to the purpose of the research and the target group.

In everyday language, financial literacy is most often reduced to financial knowledge and financial awareness. In most publications, financial literacy is understood as the ability to be informed about finance, to process information and to make good financial decisions. In Hungary, the National Bank of Hungary was one of the first to develop a comprehensive

definition that encompassed many elements of financial literacy concepts such as financial knowledge, and skills (see MNB, 2008).

In the English literature financial culture is referred to by two distinctive terms, "financial capability" and "financial literacy". "Financial capability" refers primarily to financial skills and abilities, while "financial literacy" refers to comprehensive financial knowledge. In addition, the term "financial awareness" is often used in the financial literature.

The importance of financial decisions is highlighted by the OECD definition of financial literacy as "a combination of awareness, knowledge, skill, attitude and behavior necessary to make sound financial decisions and ultimately achieve individual financial wellbeing" (OECD, 2014, p.33). Financial awareness is, therefore, considered to be an important part of financial literacy. But since these terms may have various meanings depending on the context, it is important to pin down in the beginning of the discussion what the authors of this study understand by the word "financial awareness". In this study and the related survey, financial awareness is defined as a combined measure of financial knowledge, financial attitude and financial behaviour. Therefore, the level of financial awareness in this study is determined by a combination of the levels of financial knowledge, attitude and behaviour, which is very similar to the definition of the OECD, only that financial awareness in our understanding is equivalent with financial literacy.

Several international organizations, such as the World Bank (World Bank, 2019) and the OECD, highlighted the positive impact of financial awareness on the economy. Previous OECD research examined the financial literacy of the adult population in 26 countries (OECD, 2005; OECD, 2016). According to the latest 2020 survey, Hungary's population is in the middle of the financial literacy rankings (OECD, 2020). However, financial decisions still lacked financial planning and had low risk-taking capacity. This clearly pointed to the fact that the practical application of existing knowledge remains the area most in need of improvement.

The market for financial products and services is now so complex that everyone needs a constantly updated knowledge base to be able to use the products on offer with confidence. Low levels of financial awareness can also have a negative impact on the development of the financial services market. The existence and development of adequate financial knowledge is of paramount importance not only at the microeconomic level but also at the macroeconomic level, and its impact is strongly felt in times of economic crisis (see for example Kovács-Terták, 2019).

Several national and international surveys were conducted on financial awareness (Huzdik et al., 2014; Potrich et al., 2016). The results showed that students in higher education had some financial knowledge in almost all the observed dimensions (e.g. knowledge of the benefits and risks of FinTech innovations), but this knowledge was incomplete and not necessarily applicable in practice (SAO, 2021a).

According to a 2020 survey by the State Audit Office of Hungary, nearly 40% of students in higher education overestimated their financial knowledge, which put them at risk of making uninformed financial decisions (SAO, 2021b). Risk aversion was still prevalent among students, but a positive change in financial attitude could be observed. Students considered it important to make savings and maintain a safety margin. The pandemic probably contributed to this process.

Nitoi et al. (2022) examined the factors affecting financial well-being in Romania and identified the lack of financial resources, lack of financial capability and knowledge, lack of trust in financial institutions, and disconnection from information as factors having a negative impact on financial well-being. This research also unveiled that 92% of the Romanian population was financially illiterate.

Horobet et al. (2020) surveyed undergraduate and master's students at the Bucharest University of Economics and Business in 2019-2020. They asked a total of 23 questions. Of these, 8 were from the OECD and the other 15 concerned socio-demographic and other factors that the authors believed influence financial awareness, such as place of work, type of workplace, living conditions. They divided the level of financial awareness into three parts (low, medium and high) and found that women outperform men at both the low and the high level of financial awareness. Overall, students were found to show a relatively high level of financial awareness. However, the authors found that factors such as age, educational degree, living conditions, property and presence in capital markets significantly affect the level of financial awareness.

Several international analyses have examined the gender gap in financial knowledge and awareness. Research has shown that there is a significant difference between women and men, with women generally having lower financial knowledge than men (see for example Bucher-Koenen et al., 2017; Almenberg - Save-Soderberg, 2011; Boisclair - Lusardi - Michaud, 2017; Lusardi - Mitchell - Curto, 2014; Shih - Keh, 2014; Hsu, 2016). Fonseca at el. (2012) also looked at the possible causes of the gender gap. The author pointed out that the gap is not primarily due to male and female characteristics, but to the very process of creating financial awareness.

In a study of college students, Jorgensen and Savla (2010) showed that perceived parental influence has a direct and moderately significant effect on financial attitude, no effect on financial knowledge, and an indirect and moderately significant effect on financial behaviour through financial attitudes. Campenhout (2015) also suggests that parental involvement in financial education programs for young people is not well developed.

The literature on financial awareness among young people is summarised in Garg and Singh (2018). In their study, they highlight the low level of financial knowledge among young people in most parts of the world. They find that various socio-economic and demographic factors such as age, gender, income, marital status and educational attainment affect the level of financial literacy of young people and there is a correlation between financial knowledge, financial attitudes and financial behaviour.

Several authors examined the relationship between education and financial awareness (e.g. Carlin and Robinson, 2012; Xiao and O'Neill, 2016; Xiao and Porto, 2017). In their study, Kaiser and Menkhoff (2017) showed that financial education significantly influences financial behaviour and, even more so, financial literacy. However, the effects of education are highly heterogeneous: less effective in low- and middle-income economies.

The purpose of this research is to show the extent to which conscious financial behaviour and informed financial decision making are typical traits of first-year economics students of the surveyed universities in a financial environment that had changed significantly by 2021.

DATA AND METHODS

The main objective of this research was to map the financial awareness of Hungarian and cross-border Hungarian university students. The first part presents the average financial literacy level of young people who have completed their secondary school studies and are starting their studies in economics, and who also have been participating in a financial literacy development programme. The second part of the analysis maps students' financial attitudes, financial behaviour and the factors determining these traits. And, finally, in an effort to establish the connection between financial literacy and good consumer behaviour, the preferences related to bank selection, that is, the aspects and factors young people take into account when selecting a bank, are also discussed.

The analysis uses data gathered through an online questionnaire survey. To compile the questionnaire, the guidelines of the OECD were adopted, which provide detailed information on how to measure financial awareness (OECD, 2018). These guidelines served as the starting point for the survey, and were supplemented by further questions exploring aspects of bank

selection and general demographic data. Thus, the questionnaire contained 29 questions in total. In terms of its structure, it covered the following issues: financial knowledge; financial attitude, and behaviour; knowledge of digital financial (FinTech) solutions; knowledge of financial products; bank selection factors; general demographics (see the questionnaire in the Supplement).

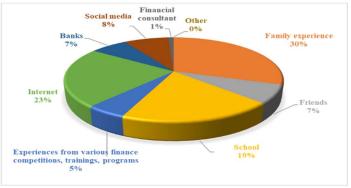
The questionnaire was only available to students online. Data collection started in March 2021 and ended in November 2021. The target group of this data collection was first-year full-time students studying economics. In the data collection process, another higher education institution was chosen in the neighbouring Romania, closely matching the characteristics of the home university of the authors both in terms of the education portfolio and the number of first-year students. Therefore, finally, the first-year students of the Faculty of Business and Economics of the University of Pannonia¹ and the Faculty of Economics and Business Administration of the Babes-Bolyai University² were contacted in the data collection process. A total of 315 students from the two institutions completed the questionnaire in full and provided assessable responses (PE: 174; BBT: 141).

RESULTS

Descriptive Statistics

The following descriptive statistical methods help explore the characteristics of the research sample. At the beginning of the questionnaire, students were asked about the main sources of their financial knowledge. In this case, they were allowed to select more than one option, but no more than 3. The distribution of responses is illustrated in Fig. 1.

Figure 1 Sources of students' financial knowledge



Source: own editing, N=315

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¹ PE, "Pannon Egyetem"

² BBT, "Babes-Bolyai Tudományegyetem"

In light of the results obtained, it is clear that most students draw their financial knowledge from their immediate environment, and from family experience. The social impact is, therefore very significant, but the fact that almost 20% of the respondents (also) rely on financial knowledge acquired at school supports previous research findings (Noh, 2022) that the younger generation is trying to become more financially aware. In addition to these sources, the internet also plays a key role, with 23% of respondents also using online platforms to gain information.

Students were then asked to share who in their household was responsible for making daily financial decisions. As illustrated in Fig. 2, approximately 50% of respondents make these decisions by consulting and supported by their parents (family members). 28% of respondents said that these decisions are made by others. They are basically those who are still living at home with their parents, not working while studying at university.

28%

• You make these decisions by yourself.

• You make these decisions with someone else.

• Someone else makes these decisions.

Figure 2 How financial decisions are made

Source: own editing, N=315

For this question, the distribution of respondents by location was investigated. The results are illustrated in Fig. 3.

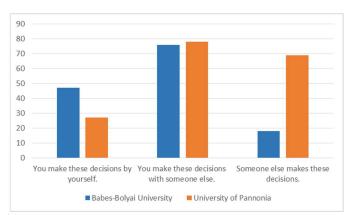


Figure 3 How financial decisions are made in relation to location

Source: own editing, N=315

On one hand, the sample is balanced between students who make important daily financial decisions together with others. On the other hand, the figure shows that, compared to PE students, more BBT students make decisions on their own, based on their family experience and knowledge acquired at school.

Covid-19 related lockdowns significantly accelerated digital innovation in the financial sector. Therefore, the study also seeks to assess the knowledge and use of FinTech solutions among young students today. In relation to this subtopic 6 statements were formulated (see the questionnaire in the Supplement).

They were asked to rate their answers on a scale of 1 to 5 (1 not true at all, 5 absolutely true). In the evaluation of the answers, students were given 1 point per statement for a rating of 4 or 5, otherwise 0 point. Accordingly, students received a score between 0 and 6 points.

Based on the results obtained, first-year PE students scored an average of 3.6, while BBT students scored a lower average of 2.8. This comparison shows that PE students are more open to and interested in technological innovations, new products and services available online.

Looking at the institutions along gender lines, at BBT, males scored 2.9 while females scored 2.7. At the same time, the average score for first-year female students (3.6) was higher than for males (3.4) at PE.

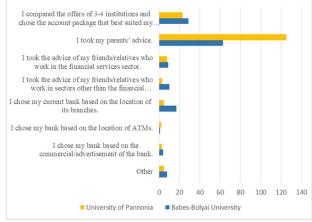


Figure 4 University students' banking preferences

Source: own editing, N=315

As already indicated in the methodological part of the research, the questions in the OECD guidelines were supplemented by an examination of the aspects of bank selection. In order to identify the factors that influence the respondents' bank selection, the students were asked to tell which criteria they used to select a bank.

The preferences related to bank selection are illustrated in Fig. 4, which shows that parental recommendation plays a crucial role in these young people's bank selection. However, the second most important factor influencing bank selection is the review and comparison of offers published by banks, which also confirms the fact that the young generation is becoming more aware of their finances.

Analysis of Variance

One research goal was to explore the relationship between gender and the average level of financial knowledge. The investigation into whether the sample differs significantly between males and females in terms of financial knowledge, confirmed the results of several previous studies (see for example Siegfried and Wutke, 2021; SAO, 2021).

Financial knowledge is measured using questions from the OECD guidelines. These questions mainly cover the level of knowledge complemented by calculation skills, interest calculation, inflation, the relationship between risk and return, and portfolio management. The surveyed students answered seven questions. If they answered the question correctly, they received one point; otherwise, they received zero. This gave a total of 7 points. Thus, financial knowledge can be measured on a scale of 0 to 7, based on the answers to the questions. In light of the measurement level of the variables, the relationship between gender and the value of financial knowledge is examined using analysis of variance (ANOVA).

The results show that, on average, male students in the sample had a score of 5.0, while females had a lower score of 3.9. ANOVA shows whether the gender group means are significantly different from each other. As seen in the ANOVA table, the significance level of the probability associated with the F test (p=0.000) is less than 0.05, so the null hypothesis is rejected. The result of Levene's test for homogeneity of variance (p=0.602) indicates that the homogeneity of variance between the two groups is satisfied (Northcott, 2008). This also means that there is a significant difference in the average level of financial knowledge between male and female students in the sample.

Next it is examined whether the location of the institution where students study has a significant impact on their financial knowledge.

The mean value of financial knowledge of first-year students studying economics in the two institutions is 4.3. The probability significance level for the F test is 0.900. This means that there is no significant difference between the mean values. Thus, it can be concluded that students' financial knowledge is not determined by the university they study at.

In a further analysis, the existence of a relationship between gender and financial behaviour is analysed. The question is whether there is a significant difference in the financial behaviour of male and female students.

Questions in the OECD guidelines were used to assess financial behaviour. Accordingly, the behaviour score is calculated based on responses to questions on taking responsibility for financial decisions, budget planning, active saving, keeping track of finances, striving to achieve financial goals, making prudent purchases and paying bills on time. The resulting score is taken as a measure of "financially literate" behaviour.

If respondents make decisions alone or with others, that is, taking responsibility for financial decisions, they are given 1 point. For budget planning, an additional 2 points are given if at least 2 of the statements given were true (see the questionnaire in the Supplement). For active savings, respondents who saved money in any of the ways enlisted in the questionnaire receive an additional 2 points (see the Supplement). Finally, respondents were asked to rate the four statements on a scale of 1 to 5 (1 not true, at all, 5 absolutely true). When the answers were evaluated, respondents were given 1 point per statement for a rating of 4 or 5, otherwise, 0 point. Thus, a total of 9 points were given to respondents. Therefore, financial behaviour is measured on a scale of 0 to 9, based on the answers to the questions

The results of ANOVA show that among the university students included in the survey, the indicator of financial behaviour is also higher for men. The group mean for men was 6.8, while the mean for females was lower, 6.1. The analysis showed a significant difference, as the F test resulted in a p-value of 0.003. However, the p-value of the Levene's test is very low in this case (p=0.03), which weakens the result of ANOVA.

It is then investigated whether location, that is, the institution where students study, has a significant impact on their level of financial behaviour.

According to the results, the financial behaviour of Hungarian-speaking students across the border has an average score of 6.7, while the average score of students living in Hungary is slightly lower, 6.1. ANOVA shows a significant difference, as the p-value for the F test is 0.001. But again, the p-value of the homogeneity test (p=0.000) shows that the homogeneity of variance condition is not fulfilled, so the result cannot be considered statistically supported.

When asked about their financial attitude, respondents were asked to rate statements on a scale of 1 to 5, with 1 point given to those that they considered not true, at all, and 5 points given to those that were considered absolutely true (see the questionnaire in the Supplement). The attitude score can be calculated as the average of the responses to the three attitude questions, that is, the sum of the scores for these three statements divided by three. Thus,

financial attitude is measured on a scale of 1 to 5 based on the responses to the survey questions.

As to the question whether gender affects financial attitude, the analysis of variance answers yes. Female students show a higher mean value of 4.2 for financial attitude, while the group mean for men is 3.8. The difference between the means is significant, as the p-value associated with the F test is 0.000. The condition of homogeneity of variance is also met, with a p-value of 0.534 for the Levene's test.

As to the question of whether the higher education institution attended by the student influences financial attitude, the ANOVA results suggest that it does not. Although PE students have a higher mean value of 4.1 for financial attitude, while the group average for BBT students is 4,0, this difference is not significant, as the p-value of the F test is 0.187.

The score for the overall financial awareness indicator is obtained as the sum of the scores for financial knowledge (7), financial behaviour (9) and financial attitudes (5), as described in detail earlier. The indicator can take any value between 1 and 21.

In this comparative study of financial awareness, the objective was to find out if there was a significant difference between students at the institutions included in the study. The results of ANOVA show that there is no significant difference between the group averages. First-year BBT students have a mean of 15.0, while PE students have a mean of 14.5, but the result of the F test (p=0.072) does not support the statistical significance of this difference.

International comparisons

The results were then compared to values from the OECD survey published in 2020. The three components of OECD's financial literacy indicator are the level of financial knowledge, the ability to apply this knowledge, that is, financial behaviour, and financial attitude. These indicators were studied by OECD in 26 countries, including Hungary and Romania, and the results were also screened by age and gender. For gender comparisons, only data for the total population (18-79 years old) are available; for the other indicators, the data for young people (aged 18-29) could be used. The sample of the research in this article is even narrower as only the responses of first-year students were analysed. Thus, the results of this present survey turned out to display a similar pattern but with higher values than those seen in the OECD survey.

Generally, the results of this present analysis show that university education leads to an increase in financial knowledg scores among first-year students, shown by significantly higher scores among students at both universities compared to the relevant population. One

can also make two observations on the impact of location and gender on the financial knowledge of students in this sample, as compared to the results of the OECD survey. First, the impact of gender in this sample seems to be very similar to that seen in the OECD survey, with the male population showing a higher level of knowledge and the female population higher levels of attitude and behaviour.

Second, as shown in Tab. 1, although the financial knowledge of BBT and PE students are on the same level, BBT students' knowledge is higher than the Romanian average, while PE students are below the average of Hungarian youngsters. To put this result into perspective, it should be emphasised that Hungary achieved its highest score in the OECD survey in the category of financial knowledge both in the young and in the total population. In fact, the knowledge of basic financial concepts (e.g. inflation, simple interest, compounded interest, risk, and diversification) in Hungary was close to the OECD average.

Table 1 International comparison of financial awareness

	Financial							
	knowledge		attitude		behaviour		Financial awareness	
	M	F	M	F	M	F	M	F
PE	5,4	4,0	3,6	4,2	6,9	5,9	16,0	14,1
	4,3		4,1		6,1		14,5	
BBT	4,8	3,8	3,9	4,1	6,7	6,7	15,4	14,7
	4,3		4,0		6,7		15,0	
PE&BBT	5,0	3,9	3,8	4,2	6,8	6,1	15,6	14,3
	4,3		4,1		6,4		14,8	
HU (18-29)	4,7		3,1		4,3		12,1	
RO (18-29)	3,3		2,5		4,9		10,6	
HU (18-79)	4,7	4,5	3,2	3,3	4,4	4,6	12,3	12,4
	4,6		3,3		4,5		12,3	
RO (18-79)	3,5	3,4	2,7	2,8	5,0	5,0	11,2	11,2
	3,5		2,7		5,0		11,2	

Source: own research, OECD (2020).

CONCLUSION

This present study used the results of a survey to assess and compare the financial knowledge, attitude and behaviour of first-year economics students at two higher education institutions with the objective of gaining an insight into the level of financial awareness of students at the two universities. In the survey, in addition to measuring subject knowledge, students' financial attitudes, habits and goals were also examined. Data collection took place between March and November 2021 and the research was conducted using the internationally recognised OECD

methodology, which allows for international comparisons and can be used to measure changes in a future survey.

The survey results show that financial awareness among students in the regional centres of higher education included in the study exceeds the level of financial awareness of the relevant young population (18-29 years old). This clearly demonstrates that there has been and still is a relevance and social utility of the strategy and the series of programmes aimed at developing financial literacy among young adults. The results also support the conclusions of the international literature that young people in higher education are more financially literate than the general population. Within the financial awareness of young people, levels of financial behaviour and financial attitudes are higher than average, with financial knowledge being higher for Hungarian speaking Romanian students of BBT and lower for Hungarian students of PE than for the population aged 18-29.

The results of the survey also show that personal contact is a determining factor in the development of financial literacy, with the family environment playing a key role, alongside the internet and education. In the overall sample, parental influence is also dominant in the management of daily finances. Parental recommendation plays a decisive role in bank choice, as well as in knowledge acquisition and financial decision making. This was followed by a review and comparison of the offers published by banks, which suggests that the younger generation is trying to become more aware of their finances. The role of education is expected to increase as the number of semesters spent in business education grows, and the rapid spread of new technologies is predicting a greater role for the internet.

The average use of FinTech services by PE students is higher than that of BBT students, indicating that cross-border students are less likely to use the opportunities offered by new financial innovations to manage their finances. The comparison shows that Hungarian students in the home country are more interested in benefiting from the results of financial technology innovation.

Analysis of variance between gender and financial knowledge levels shows that young men in the sample are on a significantly higher average financial knowledge level than young women. When the relationship between gender and financial behaviour is examined, men also show a higher value, but the latter result is weakened by the fact that the homogeneity of variance condition is not met. Analysis of variance between gender and financial attitude showed that females scored significantly higher than males on their level of financial attitude. In the OECD international survey, the gender gap in financial knowledge and financial attitudes shows the same trends for the whole population (18-79 years). However, the average

for financial attitudes is higher for women (Hungary) or the same as for men (Romania). Overall, these findings support the findings of international research, and, in a future study, the reasons for these differences should be investigated in more detail.

An analysis of the relationship between participation in financial educational programmes and financial awareness shows that students who have previously participated in such training have significantly higher levels of financial awareness. The analysis has also shown that there is no significant difference between the two universities in terms of the mean value of students' financial literacy. In conclusion, there is no significant difference in financial knowledge and financial awareness between students at the two universities studied, i.e. their financial awareness is not affected by the university they study at. Consequently, the financial programmes implemented in recent years in the 2 countries under study have achieved the same results in terms of developing young people's financial awareness.

REFERENCES

- Állami Számvevőszék (2021a). Elemzés a pénzügyi tudatosság helyzetének áttekintéséről, különös tekintettel a digitalizációs kihívásokra, [State Audit Office of Hungary (2021a). Analysis of the state of financial awareness, with a special focus on the challenges of digitalization], 5-39.
 - https://www.asz.hu/storage/files/files/elemzesek/2021/penzugyi_tudatossag_digitalizaci o 20210331.pdf?ctid=1259 [Accessed: 23.05. 2022].
- Állami Számvevőszék (2021b). Felmérés a felsőoktatásban tanuló fiatalok pénzügyi kultúrájáról, [State Audit Office of Hungary (2021b). Survey on the financial literacy of young people in higher education], 1-55.
 - https://www.asz.hu/storage/files/files/elemzesek/2021/felsooktatas_penzugyikultura_20 210311.pdf?ctid=1259 [Accessed: 23.05. 2022].
- Állami Számvevőszék (2013). Felmérés a felsőoktatásban tanuló fiatalok pénzügyi kultúrájáról, [State Audit Office of Hungary (2013). Survey on the financial literacy of young people in higher education] 1-73.
 - https://www.asz.hu/storage/files/files/Szakmai%20kutat%C3%A1s/2013/t353.pdf?ctid=743 [Accessed: 23.05. 2022].
- Bucher-Koenen, T., Lusardi, A., Alessie, R., & Rooiji, M. (2017). How Financially Literate Are Women? An Overview and New Insights, *Journal of Consumer Affairs*, 51(2), 255–283. https://doi.org/10.1111/joca.12121.
- Campenhout, G.V. (2015). Revaluing the role of parents as financial socialization agents in youth financial literacy programs, *Journal of Consumer Affairs*, 49(1), 186–223. https://doi.org/10.1111/joca.12064.
- Carlin, B.I., & Robinson, D.T. (2012). What Does Financial Literacy Training Teach Us? Journal of Economic Education, 43(3), 235–247. http://doi.org/10.1080/00220485.2012.686385.
- Fonseca, R., Mullen, K., Zamarro, G., & Zissimopoulus, J. (2012). What Explains the Gender Gap in Financial Literacy? The Role of Household Decision Making, *The Journal of consumer affairs*, 46(1), 90–106. https://doi.org/10.1111/j.1745-6606.2011.01221.x.

- Horobet, A., Vrinceanu, G., Hurduzeu, G., & Lupu, R. (2020). Financial Literacy in Romania: A Test of Economics and Business Students. *Studies in Business and Economics*, 15(3), pp. 269-286. http://doi.org/10.2478/sbe-2020-0058.
- Hsu, J.W. (2016). Aging and Strategic Learning: The Impact of Spousal Incentives on Financial Literacy, *The Journal of Human Resources*, 51(4), 1036–1067. http://doi.org/10.3368/jhr.51.4.1014-6712r.
- Huzdik, K., Béres, D., & Németh, E. (2014). An Empirical Study of Financial Literacy versus Risk Tolerance Among Higher Educations Students, *Public Finance Quarterly*, 59(4), 444-456.
 - https://www.penzugyiszemle.hu/upload/pdf/penzugyi_szemle_angol/volume_59_2014_4/a_huzdik_beres_nemeth_2014_4.pdf [Accessed: 23.05. 2022].
- Jorgensen, B.L., & Savla, J. (2010). Financial Literacy of Young Adults: The Importance of Parental Socialization, *Family Relations*, 59(4), 465–478. https://doi.org/10.1111/j.1741-3729.2010.00616.x.
- Kaiser, T., & Menkhoff, L. (2017). Does Financial Education Impact Financial Literacy and Financial Behavior, and If So, When? *World Bank Economic Review*, 31(3), 611–630. http://doi.org/10.1093/wber/lhx018.
- Kovács, L., & Terták, E. (2019). Financial Literacy, Theory and Evidence, Verlag Dashöfer, Bratislava, Slovakia. https://www.bankszovetseg.hu/Public/publikacio/Financial%20literacy.pdf [Accessed: 23.05. 2022].
- Lusardi, A., Mitchell, O.S., & Curto, V. (2014). Financial Literacy and Financial Sophistication in the Older Population, *Journal of Pension Economics & Finance*, 13(4), 347–366. http://doi.org/10.1017/S1474747214000031.
- MNB (2008). Együttműködési megállapodás a pénzügyi fejlesztés területén [Cooperation agreement in the field of financial development]. https://www.mnb.hu/letoltes/0415mnbpszafmegallpodas-penzugyi-kultura-fejleszte.pdf [Accessed: 23.05. 2022].
- Nitoi, M., Clichici, D., Zeldea, C., Pochea, M., & Cocirlean, C. (2022). Financial well-being and financial literacy in Romania: A survey dataset. *Data in Brief*, 43, 108413. http://doi.org/10.1016/j.dib.2022.108413.
- Noh, M. (2022). Effect of parental financial teaching on college students' financial attitude and behaviour: The mediating role of self-esteem, *Journal of Business Research*, Vol. 143, April 2022, 298-304. https://doi.org/10.1016/j.jbusres.2022.01.054.
- Northcott, R. (2008). Can ANOVA measure causal strength? *The Quarterly Review of Biology*, 83(1), 47–55. https://doi.org/10.1086/529562.
- Potrich, A. C. G., Vieira, K. M., & Mendes-Da-Silva, W. (2016). Development of a financial literacy model for university students, *Management Research Review*, 39(3), 356-376. https://doi.org/10.1108/MRR-06-2014-0143.
- OECD (2020). *OECD/INFE 2020 International, Survey of Adult Financial Literacy*, https://www.oecd.org/financial/education/oecd-infe-2020-international-survey-of-adult-financial-literacy.pdf_[Accessed: 23.05. 2022].
- OECD (2018). *OECD/INFE Toolkit for Measuring Financial Literacy and Financial Inclusion*, https://www.oecd.org/financial/education/2018-INFE-FinLit-Measurement-Toolkit.pdf [Accessed: 23.05. 2022].
- OECD (2016): *OECD/INFE International Survey of Adult Financial Literacy Competencies*, http://www.oecd.org/daf/fin/financial-education/OECD-INFE-International-Surveyof-Adult-Financial-Literacy-Competencies.pdf [Accessed: 23.05. 2022].

- OECD (2014). PISA 2012 Results: Students and Money (Volume VI): Financial Literacy Skills for the 21st Century, OECD (PISA), https://www.oecd.org/pisa/keyfindings/PISA-2012-results-volume-vi.pdf [Accessed: 23.05. 2022].
- OECD (2005). Recommendation on Principles and Good Practices for Financial Education and Awareness, https://www.oecd.org/daf/fin/financial-education/35108560.pdf [Accessed: 23.05. 2022].
- Siegfried, C., & Wutke, E. (2021). What Influences the Financial Literacy of Young Adults? A Combined Analysis of Socio-Demographic Characteristics and Delay of Gratification, *Frontiers in Psychology*, December 2021, Volume 12. https://doi.org/10.3389/fpsyg.2021.663254.
- Shih, T.-Y., & Ke, S.-C. (2014). Determinates of financial behaviour: insights into consumer money attitudes and financial literacy, *Service Business*, 8(2), 217–238. http://doi.org/10.1007/s11628-013-0194-x.
- World Bank (2019) "Global Financial Development Report 2019-2020" https://www.worldbank.org/en/publication/gfdr [Accessed: 23.05. 2022]
- Xiao, J. J., & O'Neill, B. (2016). Consumer financial education and financial capability, *International Journal of Consumer Studies*, 40(6), 712–721. http://doi.org/10.1111/ijcs.12285.
- Xiao, J. J. & Porto, N. (2017). Financial education and financial satisfaction: Financial literacy, behaviour, and capability as mediators, *International Journal of Bank Marketing*, 35(5), 805–817. http://doi.org/doi:10.1108/IJBM-01-2016-0009.