

DOI https://doi.org/10.58423/2786-6742/2023-3-227-241 **UDC** 336:316.346.32

Eleonóra BUDAI

PhD, Assistant Professor, Department of Financial and Accounting, Faculty of Business and Economics, University of Pecs, Pecs, Hungary **ORCID ID:** 0000-0002-7711-2479

Ervin DENICH

Lecturer, Faculty of Finance and Accountancy, Budapest Business School, Budapest, Hungary ORCID ID: 0000-0002-6393-3145

THE FINANCIAL BRAVERY OF GENERATION Z

Анотація. Після економічної кризи 2008 року та після епідемії COVID-19 питання фінансової обізнаності набуває все більшого значення в Угорщині. Урядова стратегія "Розвиток фінансової обізнаності", започаткована у 2017 році, підкреслює це. Згідно з місією цієї стратегії, фінансова грамотність та належне набуття фінансових знань є важливими для того, шоб люди могли приймати поінформовані, зважені та раціональні рішення шодо своїх фінансів. Ця мотивація спонукала провести анкетування щодо фінансової грамотності серед студентів в угорських закладах вищої освіти економічного спрямування у 2020 році, результати якого фрагментарно представлені у цій статті. Дотримуючись теоретичного підходу фінансової культури, фінансових знань та консультування, дослідження зосереджено на аспектах фінансових знань та фінансового консультування серед 11 вимірів дослідження. Відитовхуючить від традиційних основ, фінансові знання аналізувалися на основі даних самооцінювання респондентів і порівнювалися з результатами досліджень, проведених іншими дослідниками. Загалом анкету заповнили З 315 студентів у період з 29 листопада 2020 року по 31 жовтня 2021 року. Аналіз зосереджений на відповідях респондентів віковою категорією від 18 до 25 років, тобто представників покоління Z. Після виключення опрацьовано 3 020 анкет. У процесі дослідження виявлено, що, порівнюючи сприйняття фінансових знань з готовністю давати поради, більшість респондентів мають середній (достатній) рівень фінансових знань, але, тим не менш, готові консультувати інших щодо фінансових питань.

Ключові слова: фінансова обізнаність, фінансові знання, фінансові поради, покоління Z, фінансова сміливість

JEL Classification: M41, M49

Absztrakt. A 2008-as gazdasági válság óta, majd a COVID-19 járvány közepette újra egyre fontosabbá vált a pénzügyi tudatosság kérdésköre Magyarországon. A Kormány 2017-ben indított "Pénzügyi tudatosság fejlesztése" címet viselő stratégiája is ezt támasztja alá. Amely stratégia küldetése szerint a pénzügyi jártasság és a pénzügyi ismeretek megfelelő elsajátítása elengedhetetlen ahhoz, hogy tudatos, megfontolt és ésszerű döntések szülessenek az emberek pénzügyivel kapcsolatban. Ezen indíttatásból a pénzügyi tudatosságra vonatkozóan 2020-ban kérdőíves kutatást végeztünk a magyar gazdasági felsőoktatásban tanuló hallgatók körében, amely kérdőíves lekérdezés eredményeinek egy szelete kerül jelen tanulmányban bemutatásra. A tanulmány a pénzügyi kultúra, pénzügyi tudás és tanácsadás elméleti megközelítését követően a kutatás 11 dimenziója közül a pénzügyi tudás és a pénzügyi tanácsadás dimenzióira fókuszál.



A pénzügyi tudást a hagyományoktól eltérően a válaszadók önértékelése alapján értékeltük és ez került összehasonlításra mások által végzett kutatások eredményeivel. A kérdőívet 2020. november 29. és 2021. október 31. között 3 315 hallgató töltötte ki. A válaszadók közül kiemelten a 18 és 25 év közötti korosztály, azaz a "Z" generáció tagjainak válaszait elemeztük Az elemzésbe a tisztítás után 3 020 kérdőív került bevonásra. Arra a megállapításra jutottunk, - a vélt pénzügyi tudást összevetve a tanácsadási hajlandósággal -, hogy a sokaság átlagos (közepes) pénzügyi tudással rendelkezik, de mindemellett szívesen adna másoknak pénzügyekben tanácsot.

Kulcsszavak: pénzügyi tudatosság, pénzügyi tudás, pénzügyi tanácsadás, Z generáció, pénzügyi bátorság

Abstract. Since the economic crisis of 2008 and in the wake of the COVID-19 epidemic, financial awareness has become increasingly important in Hungary. The Government's "Developing Financial Awareness" strategy launched in 2017 underlines this. According to the mission of this strategy, financial literacy and the proper acquisition of financial knowledge are essential for people to make informed, considered, and rational decisions about their finances. This motivation led us to carry out a questionnaire survey on financial literacy among students enrolled in the 2020 Hungarian Higher Education in Economics and Business, and in this study, we present a snippet of the results. After a theoretical approach to financial culture, financial knowledge, and financial advice, the study focuses on the dimensions of financial knowledge and financial advice among the 11 dimensions of the survey. Unconventionally, financial knowledge was assessed based on respondents' self-assessment and this was compared with the results of research conducted by others. The questionnaire was completed by 3 315 students between 29 November 2020 and 31 October 2021. The analysis focused on the responses of respondents aged between 18 and 25, i.e. members of Generation Z. After cleaning, 3 020 questionnaires were included. We found that, comparing perceived financial knowledge with willingness to give advice, the majority had average (medium) financial knowledge, but were nevertheless willing to advise others on financial matters.

Keywords: financial awareness, financial knowledge, financial advice, Generation Z, financial bravery

Problem statement. Financial culture, financial literacy, and financial awareness are concepts that are increasingly and more often used today. The culture of humanity is made up of many factors, including traditions, the past, but also various economic and consumer elements. Developing and possibly improving financial culture and knowledge is a key issue for the future.

The development of financial literacy is not a new issue, as initiatives to disseminate and transfer financial education on a broad scale were already underway before the turn of the millennium. At that time, these efforts were limited to the transmission of financial information and were mainly focused on the Anglo-Saxon countries with developed financial and banking systems [1]. But as the years went by, the financial products presented at that time were transformed and transformed to such an extent that they could no longer be understood with the knowledge of the time. It is therefore particularly important that individuals have sound financial knowledge, a basic financial knowledge that can be developed, improved, and built upon by a usable body of information appropriate to the modern age.

With this in mind, we cannot ignore the fact that one of the dimensions of research into financial awareness - often referred to in Hungary as 'financial culture' - both at

[©] E. Budai, E. Denich



home and abroad is the mapping of the financial knowledge of the population under study. Such research could be found in the international literature as early as the early 1900s. Among researchers and professionals, no generally accepted concept fully describes financial culture. In Hungarian research, the most commonly used definition is the one developed by the Hungarian National Bank (MNB) in 2008, which states that "financial literacy is the level of financial knowledge and skills that enable individuals to identify the basic financial information necessary for making informed and prudent decisions, and once acquired, to interpret and make decisions based on that information, assessing the possible future financial and other consequences of their decisions".

Looking at a wide range of definitions, it seems to emerge that the vast majority of definitions include the ability to be informed about finance, to process that information, and to make the best decision based on the information obtained [2].

The most common method of research on financial culture, financial knowledge, and financial advice is the questionnaire survey. Within this, an aggregate picture of the financial knowledge, and closely related advice of the population under study is built up by examining financial problem-solving skills, financial knowledge levels, and willingness to give financial advice through open and closed questions. This research method is considered a good practice, but there have been several criticisms of the results obtained.

Our research, launched in 2020 under the leadership of Dr. Éva Pintér, Associate Professor at Corvinus University, Budapest, focuses on exploring the complex financial, risk, and digital attitudes of Hungarian higher education students. Among the 11 dimensions of the research, one is financial knowledge and the other is financial advice. The members of the surveyed population were asked to rate their own financial knowledge, preparedness, and willingness to give advice. As a control, we asked a single core question, which flashed the interconnected segment of financial knowledge and mathematical knowledge.

In the present study, we analyzed the responses received from members of Generation Z, from questionnaires completed up to 31 October 2021, along the dimension of financial knowledge and financial advice.

Literature review. According to Remund D.I. [3], there are several definitions of financial literacy in the literature. Financial literacy, financial education, and financial knowledge are interchangeable, as argued by Al-Tamimi H. A. and Bin Kalli A. A. [4], Howlett E. et al. [5], and Yoong F. J. et al. [6]. According to Huston S. J. [7], financial education and financial literacy are only two dimensions of financial culture, but financial culture goes beyond these two. According to the ASIC [8] report, financial literacy is globally recognized as an important component of economic and financial stability and growth. The OECD [9] defined financial literacy as the combination of an individual's skills, behaviors, awareness and attitudes, and knowledge that leads to the achievement of financial well-being. Therefore, the three important determinants of financial literacy are financial knowledge, financial behaviour, and financial attitude.



Financial attitude can be defined as a personal disposition towards financial issues. Ajzen I. [10] stated that financial attitudes are a consequence of certain behavior of a decision- maker and that attitudes can be consolidated through their economic and non-economic beliefs. Bhushan P. and Medury Y. [11] argue that to develop intergenerational financial culture, the focus should be on the development of favorable financial attitudes. Recent research has concluded that there is a link between financial attitudes and financial literacy among young people (Kasman M. et al, [12]). Dwivedi M.[13], Roy B. and Jain R. [14] in their study found that the level of financial literacy differs between men and women. Men have higher financial literacy than women.

According to the OECD [9], financial behavior is a fundamental component of financial culture. According to Atkinson A. and Messy F. A. [15], positive financial behaviors of individuals, such as proper planning of spending, increase the level of financial literacy. Banerjee A. et al. [16] concluded that financial inclusion behavior increases with the positive effect of financial literacy on financial awareness. Bhushan P. and Medury Y. [11] conclude that to improve the financial literacy of individuals, the government should focus on financial education and the promotion of positive financial behavior and attitudes.

Every field of knowledge, including finance, has its vocabulary, methods, issues, and problems. Those who are experts in a particular field of knowledge have acquired a broad knowledge of that field and are therefore better able to understand the problems encountered and find solutions more quickly. As we have seen above, knowledge requires a complex approach. "Four process categories have been defined in PISA's financial literacy domain: identify financial information, analyze information in a financial context, evaluate financial issues, and apply financial knowledge and understanding. While the verbs used here bear some resemblance to those in Bloom's taxonomy of educational objectives [17], an important distinction is that the processes in the financial literacy has also been defined differently by researchers. Remund D. I. [3] examined the definition of financial literacy in studies on this topic from 2000 onwards. "Knowledge is the most obvious—and most common—component of the many conceptual definitions of financial literacy. To effectively manage money, one must first know something about money." [3]

Sanderson A. [19] defines financial literacy as the ability of an individual to use his or her knowledge and skills to make appropriate financial decisions to manage financial resources effectively. According to him, to increase students' financial awareness and knowledge, financial education programs should be school-based. Lusardi A. [20] understands financial knowledge as one of the inputs to financial literacy. Hungarian research related to financial knowledge also plays a significant role within Hungarian financial literacy research. For example: Kovács L. [21], Németh E. [22], etc.

Financial knowledge is acquired partly through learning and partly through experience. However, measuring this knowledge is a subjective process, so we can only have information about an individual's financial knowledge in a particular



context. It is even more difficult to know when and under what circumstances an individual will use the knowledge acquired. The use of acquired knowledge is therefore a process that depends on the individual, as already pointed out by Polányi M. [23]. The application and use of acquired knowledge or perceived knowledge in practice also depend on the individual's habitus. Individuals can use their perceived or actual financial knowledge for their purposes or to advise others. If the individual uses the knowledge to achieve his or her own goals, he or she also bears the damage resulting from any bad decisions. However, in a case where the individual advises to others based on perceived or real knowledge, the potential damage caused by this advice will affect the lives of others. The European Counselling Association defines counselling as "Counselling: an interactive learning process between the counselor(s) and the client(s), be they individuals, families, groups or instit."

Purpose of the study. The goal of this study is to investigate the self-assessment of financial literacy and the willingness to provide financial advice among students in higher education in economics and to highlight the risk of financial literacy utilization by analyzing the relationship between the two.

Results and discussions. Our research team consists of 7 people. 4 members are from the Corvinus University of Budapest, 2 members from the Budapest University of Economics, and 1 member from the University of Miskolc and the University of Pécs. The name of our research group was composed of the initials of the members' names, thus it became "PBD Research".

Our research was inspired by the initial definition of the OECD/INFE [25] joint international research. According to this definition, an appropriate combination of awareness, knowledge, skills, attitudes, and behaviors is essential for informed financial decisions and ultimately for the effective financial well-being of the individual.

"A combination of awareness, knowledge, skills, attitude, and behaviour necessary to make sound financial decisions and ultimately achieve individual financial wellbeing." [25]

Our research focuses on students studying in Hungarian higher education. We aim is to profile the complex financial, risk, and digital attitudes of this population.

In preparing the research questionnaire, we conducted a literature review and reviewed existing national and international research on financial culture, financial awareness, financial knowledge, financial risk-taking, and financial decision-making. This served both quality assurance purposes and, on the other hand, to make the questionnaire suitable for measuring changes between different points in time. We also examined research surveys in sociology, marketing, telecommunications, fintech, digitalization, and trend and generation. We reviewed the research questions, the research methodology, and the results obtained. To carry forward good practice, learning from the problems encountered, learning from the mistakes made in previous research, and gathering inspiration from articles, lectures, and professional and private discussions, we developed the framework for the present research.

To build up a complex profile of the study population, 11 research dimensions were identified and a questionnaire survey was chosen to explore them. To design the



questionnaire, a five-step iteration process was created, which after two iteration rounds eventually resulted in 51 questions. Our questionnaire has closed questions, but in some cases, we used multiple-choice questions and a 5-point Likert scale.

The questionnaire was administered using Qualtrics Online Questionnaire Software, which, despite a large number of questions, allowed respondents to complete the questionnaire quickly - approximately 20-25 minutes. The questionnaire was launched on 29. November 2020 and is still being implemented.

From launch to 31 October 2021, there were 3 315 completions. The completers were all first and second year students in higher education in economics. Since the respondents were in their first and second year at the university at the time of the response, we consider them to be a heterogeneous population in this respect. The vast majority of the completions took place during the period of digital education due to the Covid-19 epidemic, so the IP addresses indicate that completions were received from almost all regions of Hungary.

The data from the online questionnaires were retrieved in Excel file format from the Qualtrics Online Questionnaire Software interface and then cleaned and filtered. All of the questionnaires completed by Generation Z respondents were found to be fully completed and analysable. Microsoft Excel and IBM SPSS Statistics 25 were used to process the data. Descriptive statistics were used for data analysis.

Of the 3 315 completed questionnaires, only those completed by Generation Z were analysed in this study. The grouping of people into generations based on their year of birth is attributed to the authors Howe-Strauss [26], who distinguish generations by their basic characteristics. Of these groups, Generation Z is the children of the digital world, unfamiliar with the world without computers. Thus, their national identity is defined by the experience of globalisation, the disappearance of borders, and shared experiences, which are inseparable from the emergence of an information network that is available to everyone, everywhere, all the time [27]. This network enables communication between all actors connected to the network, but it can also do more [28]. According to the literature, the definition of this generation is not uniform, with some classifying people born between 1995 and 2009, 1995 and 2012, 1996 and 2007, or between 1995 and 2015. According to Székely L. [29], 'Generation Z' thus includes those whose adult lives take place in the 21st century. In Hungary, in 2020, the starting date of the research, the 'Generation Z' population aged between 13 and 24 was 1 229 560 persons [30], i.e. 12.59 % of the total Hungarian population.

Whichever classification is chosen, it is clear that students currently studying at university aged between 18 and 25 are Generation Z. In 2020, 741 094 people belonged to this age group in Hungary, of which 48.41% were female and 51.59% male. [34] According to preliminary data, 187.4 thousand people [30] were studying in higher education in the 2020/21 academic year, in bachelor, master, or postgraduate programs, which is 25.4% of the population in this age group.

Generation Z" has a new way of understanding knowledge, learning, and guidance: it prefers searching, navigating, and confirming to fixed knowledge stored in the brain.



The majority of respondents to the questionnaire in the survey period, 3,020, were Generation Z, representing 1.6% of all higher education students.

Preliminary assumptions

At the outset of the research, we formulated a set of assumptions related to the two dimensions highlighted in this study. A detailed explanation of the rationale for our assumptions is omitted due to space limitations.

Our preliminary assumptions related to the financial knowledge self-assessment dimension:

H1. Respondents will rate their knowledge on the self-assessment of financial knowledge as a 3 on average.

H2. Male respondents will rate their financial knowledge better than female respondents.

H3. The average of the self-assessment of financial knowledge will, according to our research, be minimally above the national average published by the OECD and above the gender average.

H4. At least 10% of respondents will give an incorrect answer to the control question.

H5. The control question will not be answered: "don't know".

H6. The highest percentage of incorrect answers to the control question will be among those respondents who rated their financial knowledge with a mark of 3 or below.

H7. There will be no incorrect responses to the control question from students who have assessed their financial literacy at a grade of four or five.

H8. Male respondents will have a higher failure rate than female respondents.

Our assumptions related to the financial advice dimension:

H9. Respondents would be most likely to give financial advice to friends.

H10. Gendered advice will show a different pattern, with women tending to follow a more assertive, considered strategy.

H11. Respondents who rate their knowledge as a 3 are more likely to give advice.

The sample characteristics

54.6% of respondents were female and 45.4% male. This differs slightly from the gender breakdown by age group, where the proportion of men was higher. The gender distribution of higher education students at the time is not known, but an increase in the proportion of women in higher education was mentioned in several places.

It can be seen from Table 1 that the proportion of 19-year-olds in the sample is high. A dominant share of 67.5 % is found for the 18-20 age group in the sub-sample studied. This dominance is of course because that the questionnaire was predominantly filled in by first and second-year students in full-time education.

The respondents were students from 11 universities in Hungary. Based on the location of the universities, 2,608 respondents (86.4%) are students at a university in Budapest and 412 (13.6%) are students at a university in the countryside.

The breakdown of the age group of respondents by place of residence shows that 31.1% live in the capital, 35.9% in a city, 15.8% in a county, and 17.2% in a village. Overall, 82.8% of respondents live in a city.



Sample characteristics			
Characteristics	Proportion / Average	Ν	
Gender			
Female	54,6 %	1 650	
Male	45,4 %	1 370	
Age (year)	20,11		
18	11,5 %	348	
19	31,7 %	957	
20	24,3 %	734	
21	13,5 %	408	
22	9,3 %	280	
23	5,6 %	168	
24	3,1 %	95	
25	1,0 %	30	
By place of residence			
Capital	31,1 %	939	
Center of county	15,8 %	477	
City	35,9 %	1 083	
Village	17,2 %	521	

Source: own editing

Research results. Questionnaire respondents were asked to rate their financial knowledge on a scale of 1 to 5. The pie chart (Figure 1) shows that almost half of the respondents, 49%, rated their financial literacy as a 3. Relatively few, only 4%, rated themselves as an A and the proportion of unsatisfactory respondents was also low at 2%.



Fig. 1. Classification of financial knowledge

Source: own editing



The average self-rating is 3.17. The gender breakdown of the ratings is shown in Figure 2. The bar charts show a bell-shaped curve indicating a normal distribution. Men rated their financial literacy higher than the sample mean, with an average of 3.31, and women rated their financial literacy lower than the sample mean, with an average of 3.05.

Self-assessment, as we have written about before, does not always realistically reflect knowledge. Researchers have shown that everyone perceives and evaluates their knowledge in ways that differ from real knowledge. For this reason, as a check on our results, we will make two comparisons. One will be a controlled study using the question inserted as the last question in the questionnaire, and the other will be a comparison with the results of a study extended to Hungary.



Fig. 2. Classification of financial knowledge by gender Source: own editing

The last question in the questionnaire was a control question that was a combination of mathematical knowledge and financial knowledge. We asked how much interest is paid on a HUF 1,000 if the interest rate is 7 cents. The respondents could choose from 4 possible answers: 7 thousandths, 7 percent, 70 percent, I don't know.





Fig. 3. Distribution of answers to the verification question *Source: own editing*

The pie chart in Figure 3. illustrates the distribution of responses. It can be seen that 85% of the respondents gave the correct answer. However, the question asked about a basic issue that we could assume should not be a problem for students in university education. In light of this, the 15% error rate is thought-provoking. Let us compare the incorrect answers to the control question and the results of the self-assessment of financial knowledge.



Source: own editing

Figure 4. clearly shows that respondents gave incorrect answers at all levels of assessment. The highest percentage of errors was among those who rated their financial knowledge as a 2. Here 20.5% of respondents gave an incorrect answer to the control question. The percentage of incorrect answers among those who gave an unsatisfactory rating for their knowledge was 18.6%, only slightly higher than the



16.4% error rate for those who scored a C. 12.1 % of those with a 4 and 3.9 % of those with a 5 gave incorrect answers. For the latter two groups, we had previously assumed that there would be no incorrect answers. We do not wish to draw any firm conclusions from Figure 6, which requires further analysis, but it is indicative that such a high level of incorrect answers was obtained for almost the most basic questions.

In the joint OECD/INFE 2020 survey, the financial awareness of the adult population was examined in 12 OECD countries, including Hungary. In the framework of this survey, short exercises were used to test the financial knowledge of the respondents. Comparing the self-assessment with the results of the tasks could shed light on the reality of self-assessment. The survey assessed the results on a Likert scale of 1 to 7 based on the correctness of the task.

The average score for Hungarian respondents was 4.6, based on the OECD (2021) study, which is 3.29 on a scale of 1 to 5. The average score for women was 4.5, which is 3.22. The average score for men was 4.7, which is 3.36. The average score for "young people" - 18-29-year-olds - was 4.7, which is also 3.36 using the previous conversion method.

It can be seen that both the averages for gender and the total population are higher than the averages in our research. In this comparison, we can see that respondents to the questionnaire were cautious in their assessment and that, compared to the OECD (2021) survey, the students surveyed underestimated their financial knowledge.

The evolution of the financial advice given to students who completed the questionnaire, where more than one response was possible, is shown in Figure 5. Students would most likely give financial advice to friends, family members, or their partner. It is also observed that 22.2% of the students surveyed would not give any financial advice to anyone.



Fig. 5. Who would you advise on financial matters? - answers to question *Source: own editing*

Next, we looked at the gender breakdown of responses to the question. Figure 6. clearly shows that the willingness of students to seek advice shows a different pattern by gender. Of the total male respondents, 402 would not advise anyone, 29.34% of



respondents, compared to 16.2% of women. In terms of proportions, both women (51.21%) and men (65.26%) would advise their friends. Women alone are more dominant in the "anyone" response.



Fig. 6. Who would you advise on financial matters? - gender breakdown of responses to question

Source: own editing

It is also important to examine how the students who filled in the questionnaire assess their financial knowledge and, consequently, the relationship between financial knowledge and financial advice, since it is known from theory that a good adviser has both theoretical and practical knowledge. The relationship between financial knowledge and financial advice is illustrated in Figure 7.





Source: own editing



Figure 7 shows that students who perceive their financial knowledge to be medium would overwhelmingly advise others in the financial field, despite having medium knowledge. If we were to look only at the number of people who are giving advice, we would get a distorted picture, so let's also look at the proportions. Of the 1,492 students with medium financial knowledge, 58% would advise friends, while 51% would advise family. Of the 127 respondents with excellent financial knowledge, 63% would advise friends and 51% to family. Furthermore, it can be seen in Figure 9 that those who have undertaken to counsel are also those who have rated their knowledge as 1 or 2. However, it is worth considering whether those who rated their financial knowledge as unsatisfactory, satisfactory, or average should be considered for advice on financial matters. Of course, one should not draw far-reaching conclusions from perceived financial knowledge alone, as this is only one component of real financial knowledge.

Conclusions. The study focused on knowledge, financial knowledge, knowledge measurement, and willingness to give financial advice. The aim of the research was more to shed light on the main elements of thought and thinking on the subject and the related issues, rather than to explore the literature in its entirety. However, it is essential to present the dimensions of the ongoing research.

The element of our research that fits into the "Generation Z" line of research was the self-assessment of financial literacy, its reality, and the willingness to receive financial advice. Based on the results obtained, we would like to summarise in the following Table 2. which assumptions were accepted and which were rejected.

Table 2

Assumptions		\checkmark	Accepted
		×	Rejected
H1.	Respondents will rate their knowledge on the self-assessment of financial		\checkmark
	knowledge as a 3 on average.		
H2.	Male respondents will rate their financial knowledge better than female		\checkmark
	respondents.		
H3.	The average of the self-assessment of financial knowledge will, according to		×
	our research, be minimally above the national average published by the		
	OECD and above the gender average.		
H4.	At least 10% of respondents will give an incorrect answer to the control		\checkmark
	question		
H5. The control question will not be answered: "don't know".			×
H6. The highest percentage of incorrect answers to the control question will be			✓
among those respondents who rated their financial knowledge with a mark of			
	3 or below.		
H7.	There will be no incorrect responses to the control question from students		×
	who have assessed their financial literacy at a grade of four or five.		
H8.	Male respondents will have a higher failure rate than female respondents.		~
H9. Respondents would be most likely to give financial advice to friends.			✓
H10. Gendered advice will show a different pattern, with women tending to follow			×
	a more assertive, considered strategy.		
H11.	Respondents who rate their knowledge as a 3 are more likely to give advice.		\checkmark

Summary of assumptions

Source: own editing



The results show that 80% of the students surveyed would like to give advice. In the majority of cases, men would prefer to advise their family, partner, or friend. There is also no significant difference in women's initiative to give advice compared to men, with women also willing to give advice. Even though the students in the study have an average level of financial knowledge, they would still prefer to give advice.

Officially appointed experts are expected to meet very high standards, both in terms of their educational and professional qualifications and their experience in the field. However, finance is part of everyone's life and, as the definition suggests, it is not only advice given by experts that constitutes advice. It is against this background that the concept of financial bravery is defined. By financial bravery we mean the attitude of individuals, i.e. not appointed experts, to undertake to advise others on financial matters based on of their financial knowledge. In other words, they are not afraid to apply their real or perceived financial knowledge and are not deterred from doing so by the possibility of conveying unsubstantiated information that could cause harm to the person receiving the advice.

References

1. Béres, D., & Huzdik, K. (2012): A pénzügyi kultúra megjelenése makrogazdasági szinten. The emergence of financial culture at macroeconomic level. *Pénzügyi Szemle*, Vol. 57, No. 3, pp. 322-336 2. Kovács, P., Révész, B., & Ország, G. (2013): *A pénzügyi kultúra és attitűd mérése*. Measuring financial culture and attitudes. "Marketing megújulás": Marketing Oktatók Klubja 20. Konferenciája előadásai

3. Remund, D. I. (2010): Financila literacy explicated: The case for a clearer definition in an increasingly complex economy. *Journal of Consumer Affairs*, Vol. 44, No. 2, pp. 276-295.

4. Al-Tamimi, H. A. H., & Bin Kalli, A. A. (2009): Financial literacy and investment decisions of UAE investors. *The Journal of Risk Finance*, Vol. 10., No. 5, pp. 500-516.

5. Howlett, E., Kees, J., & Kemp, E. (2008): The role of self-regulation, future orientation, and financial knowledge in long-term financial decisions. *Journal of Consumer Affairs*, Vol. 42, No. 2, pp. 223-242.

6. Yoong, F. J., See, B. L., & Baronovich, D. I. (2012): Financial literacy key to retirement planning in Malaysia. *Journal of Management and Sustainability*, Vol. 2., No. 1, pp. 75-86.

7. Huston, S. J. (2010): Measuring financial literacy. *The Journal of Consumer Affairs*, Vol. 44., No. 2, pp. 296-316.

8. ASIC (2004, February): Summary of stakeholder responses to financial literacy in schools, ASIC discussion paper, June 2003. Retrieved from: https://download.asic.gov.au/media/1924533/what-do-you-want-to-do-with-fin-lit-dp-responses.pdf.

9. OECD (2013): Financial literacy and inclusion: Results of OECD/INFE survey across countries and by gender. Paris: OECD Centre.

10. Ajzen, I. (1991): The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, Vol. 50, pp. 179-211.

11. Bhushan, P., & Medury, Y. (2016): An empirical analysis of inter linkages between financial attitudes, financial hehavior and financial knowledge of salaried individuals. *Indian Journal of Commerce and Management Studies*, Vol. 5, No. 3, pp. 58-64.

12. Kasman, M., Heuberger, B., & Hammond, R. A. (2018): *Recoomendations for improving youth financial literacy education*. Retrieved from: https://www.brookings.edu/wp-content/uploads/2018/10/ES_20181001_Financial-Literacy-Recommendations.pdf.

13. Dwivedi, M., Purohit, H., & Mehta, D. (2018): *Improving financial literacy among women: The role of universities*. Retrieved from: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2668034.



14. Roy, B., & Jain, R. (2018): A study on level of financial literacy among Indian women. *IOSR Journal of Business and Management*, Vol. 20, No. 5, pp.19-24.

15. Atkinson, A., & Messy, F. A. (2012): *Measuring financial literacy: Results of the OECD/Internationa Network on Financial Education (INFE) pilot study.* Retrievid from: https://search.oecd.org/financial/education/measuringfinancialliteracy.htm#:~:text=Measuring%20Fin ancial%20Literacy%20%282013%29%20This%20paper%20presents%20the,literacy%20by%20socio-demographics%20within%20each%20of%20the%20countries.

16. Banerjee, A., Kumar, K., & Philip, D. (2017): Financial literacy, awareness and inclusion. Retrieved from:

 $\frac{https://scholar.google.co.in/scholar?hl=en&as_sdt=0\%2C5&q=Banerjee\%2C+Kumar\%2C+and+Phili}{p+\%282017\%29+financial+literacy&btnG}=.$

17. Bloom, B.S. (Ed.), Engelhart, M.D., Furst, E.J., Hill, W.H., & Krathwohl, D.R. (1956): *Taxonomy of educational obejctives: The classification of educational goals*. Handbook 1: Cognitive domain. New York: David McKay, 1956. Retrieved from: https://www.uky.edu/~rsand1/china2018/texts/Bloom%20et%20al%20-

Taxonomy%20of%20Educational%20Objectives.pdf

18. OECD (2019): *PISA 2018 Assessment and Analytical Framework*, Paris: PISA, OECD Publishing, 2019. DOI: https://doi.org/10.1787/b25efab8-en

19. Sanderson, A. (2015): Importance of financial literacy. *Bankers Association of Zimbabwe (BAZ) Newsletter*. Rerieved from: http://www.baz.org.zw/consumer-centre/education-centre/importance-financial-literacy.

20. Lusardi, A. (2012): *Finacial Literacy or Financial Capability, Financial Literacy and Ignorance Blog.* November 10. Retrieved from: http://annalusardi.blogspot.com/2012/10/financial-literacy-or financial.html.

21. Kovács, L. (2018): *A pénzügyi kultúra és tudás fejlesztése*. Developing financial culture and knowledge. In: Pál, Zs. (szerk.): Fintelligence – Tudományos Pénzügyi Kultúra Körkép. Miskolc: A közgazdaságtani – módszertani képzés fejlesztéséért Alapítvány, pp. 37-54

22. Németh, E. (2020): Pénzügyi attitűdök – Tinédzserek és felnőttek – Micsoda különbség! Financial attitudes – Teenagers and adults – What a difference! In Pintér, É. (szerk.) Tendenciák a pénzügyi tudatosságban. Miskolc-Pécs: Fintelligence Pénzügyi Kultúra Központ (KMKF Alapítvány), pp.134-153

23. Polányi, M. (1994): Személyes tudás I-II. Personal knowledge I-II. Budapest: Atlantisz Könyvkiadó, 1994

24. EAC (2002)– *Training Standards, Accreditation and Ethical Character*. European Association for Counselling

25. OECD/INFE (2020): *International Survey of Adult Financial Literacy*, 2020. Retrieved from: www.oecd.org/financial/education/launchoftheoecdinfeglobalfinancialliteracysurveyreport.htm.

26. Howe, N., & Strauss, W. (1991): Generations: The History of America's Future, 1584 to 2069. New York: William Morrow & Company.

27. Barabási A.L. (2003): *Behálózva. A hálózatok új tudománya*. Networked. The new science of networks. Magyar Könyvklub, Budapest.

28. Castells, M. (2007): Az évezred éve. Az információ kora. The year the millennium. The information age. Gazdaság, társadalom, kultúra, III. Gondolat, Budapest.

29. Székely, L. (ed) (2012): Magyar Ifjúság 2012. Hungarian Youth 2012. Kutatópont, Budapest.

30. KSH.(2020): *Népesség korév és nem szerint*. Population by age and sex. *Retrieved from*: https://www.ksh.hu/stadat_files/nep/hu/nep0003.html