# FUTURE WAYS IN SUSTAINABLE ECONOMIC HIGHER EDUCATION

# BOTOND GÉZA KÁLMÁN

Kodolányi János University of Applied Sciences, Department of Business and Management, (Institute for Sustainable Economy), Orosháza, Hungary kalman.botond.geza@kodolanyi.hu

Abstract The purpose of this study is to examine the question of whether the current form of economic higher education meets the goals of sustainable education. In order to do this, author examined whether university students studying economics perform better in a special financial field, in their answers to the question of borrowing. For this purpose, author analysed the results of his own previous questionnaire survey using statistical methods. Among the questions in the questionnaire was selected those that examine theoretical and practical knowledge related to loans. The results show that the level of theoretical and practical financial knowledge of Hungarian higher education students can still be improved. In order to do this, the basic knowledge should be generally taught in the financial courses in higher education, while more specific knowledge should be differentiated. A limitation of the research is that it only examined Hungarian university students, it may be worthwhile searching for foreign students with another query. Its originality, on the other hand, is the demonstration that in sustainable higher education, in addition to the introduction of new educational content and methods, students shall also acquire the ability of lifelong learning.

#### Keywords:

sustainability, higher education, financial knowledge, lifelong learning, economics

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# 1 Introduction

The purpose of this study is to examine what sustainability in education means in terms of learning content and methods. The ever-accelerating scientific and technical development and increasingly frequent crises require adaptation. Education is one of the most important areas of the sustainability issue, as this sector lays the foundation for our future. As a result of Industry 4.0, the output requirements of higher education have changed. This study focuses on a special area, financial behaviour and decision-making.

# 2 Theoretical Background

The economic crisis of 2008 and its effects on everyday people focused the attention of specialists on several key areas. Such an area is, for example, financial literacy, knowledge and efficient management of everyday finances (Kershaw & Webber, 2004). The financial knowledge and behaviour of university students was already a question in early research (Chen & Volpe, 1998; Danes & Hira, 1987). Later research (Altintaş, 2009) showed that teaching investment skills can remarkably increase the financial knowledge of participating subjects. Studies have also been published in the literature on the relationship between the major studied by the students and the level of financial knowledge (Chemlíková & Svoboda, 2017). Jain & Jain (2018) described that students of economic courses perform 5-35 percentage points better in everyday questions compared to other majors. There is a correlation between the ability to plan long-term and university studies, too (Treger & Wendel, 2021). In such situations, the role of education comes to the fore (Horowitz et al., 2021). After reviewing the literature, author formulated the below hypotheses.

- H1. University students studying economics have better theoretical knowledge and practical skills related to loans than their peers studying other subjects.
- H2. The development of differentiated financial education programs in higher education is recommended for students studying in different majors
- H3. In addition to financial programs, lifelong learning (LLL) skills and competencies must be established in higher education, preparing students to follow future changes and keep their knowledge up-to-date

The performance of higher education is also part of the Global Competitiveness Index of the World Economic Forum (Schwab, 2020). The university rankings used and recognized worldwide (QS, 2020; THE, 2022) can also be understood as indicators of competitiveness. Competitive attractive and valuable study programs attract more students and promote collaboration between the economic sector and higher education (Mian et al., 2020) This promotes the sustainability of both sectors.

In the rest of the article, it will first describe the research methodology, then the study will be concluded by drawing conclusions and summarizing the results obtained.

## 3 Methodology

The study is based on own previous research conducted in 2019-2020 among university students. This research also became the basis of author's PhD dissertation. The research took place in two phases. The first survey took place in the fall of 2019, and the second survey took place in the fall of 2020. The most important event between the two periods was the COVID-19 pandemic, with the effects of which was the model of the economic crisis situation. This study now analyses a small part of this research based on new aspects. The current goal was to find out whether students of economics majors know more about credit-related theoretical and practical knowledge than their fellow students studying in other majors. The questionnaire used for the original research is a self-developed, voluntary and anonymous paper-based questionnaire. This form allows the highest response rate and the least biasing effect (Dillman & Smyth, 2014; Ilieva et al., 2002; Lavrakas, 2008). After data cleaning and coding, the answers to the questionnaires were processed using statistical methods, used IBM-SPSS, MS-Excel and Jamovi programs for this purpose. In this study, the mainly used methods are descriptive statistics. With the help of these, it is possible to compare the theoretical and practical knowledge and skills of university students in different courses related to credits. 1004 respondents filled out the questionnaire during the first survey, and 1155 respondents during the second survey. On both survey nights, approximately 50% of the respondents were students studying vocational education in economics, the proportion of law students was almost 25%, and the same proportion of respondents included humanities, pedagogy and art students.

## 4 Results

Based on the analysis of the entire questionnaire, the students were classified into three groups (Figure 1). In addition to the group of students majoring in economics and the group of law students who performed equally with them, the students of the liberal arts-pedagogy-art majors were placed in the third group. An average of 15% of the respondents had credit when filling out the questionnaire. This ratio did not change significantly between the first and second survey. Among humanitiespedagogy-art students, there was an observable increase of 4 percentage points in the proportion of students with loans, while the change in the group of law students is in the opposite direction, they show a decrease of 2 percentage points.





Examining the typical approach (Figure 2), regardless of the university major, students primarily approach finance from a theoretical perspective. The practical approach characterizes only about a quarter of the students in the entire sample. It can be observed that, as a result of the crisis, in the second phase, the practical activity of economics students decreased, while that of lawyers increased. A particularly interesting result is that the students of the humanities-pedagogy-art majors produced the greatest increase (10 percentage points). This suggests that these students were forced to manage their finances better and more actively as a

result of the changes due to the crisis. The withdrawal of law students from financial matters indicates that they recognized the dangers of wrong decisions and typically reacted to new problems with a risk-averse attitude.

Another question is, that to which part of the practice the interviewees performed best in. As a result, the most important thing for all respondents, regardless of their university major, is to know the total amount to be repaid at the end of the loan term, and the size of the repayment instalments when taking out the loan.





Then author examined how students who currently have loans answered the theoretical and practical questions about loans. The most unfavourable of the results is that these students cannot list the items that determine how big the repayment instalment will be. They don't even know what their creditor's financial situation is and what resources they use to ensure their own financial situation. These deficiencies can be seen in all groups of students, regardless of the major they study. Another result worth paying attention to is that 70% of students who do not have credit are aware of the role of credit brokers, that is, that with the help of credit brokers we can save time and costs and have the opportunity to find the most favourable loan for us. Unfortunately, those students who currently have loans to

pay did not use a loan broker at all before making their loan decision. This is true even for students studying economics.

Another pivotal question is a basic mathematical operation already expected at the skill level in high school: interest calculation (Figure 3). In this, the economics students met the expectations, 99% of them answered that they know how to calculate interest. This ratio is the same between students majoring in economics with and without credit. In the entire sample, the same ratio was 90% in the first phase and 87% in the second phase.

The reason for the difference is primarily the lower performance of law students, for whom the performance of those with loans did not even reach 50% at the time of the first inquiry. Among both law students and humanities-pedagogy-art students, the proportion of those who knew the method and process of interest calculation was higher than among students without credit.



Figure 3: Calculating Interest Source: Author's calculations.

On the other hand, law students are the best at knowing the Total Loan Interest Ratio (APR). This is true even when we examine law students with loans and even when we focus on law students without loans (Figure 4). The probable reason for this result may be that the law student can answer the question correctly based on their legal knowledge. Economics students are not significantly behind law students,

but unfortunately, economics students who have loans perform worse. Students majoring in humanities-pedagogy-art perform the worst, with 55-75% of correct answers. At the same time, among them, the biggest increase occurred as a result of the crisis: among students with loans: it was found an improvement of 14 percentage points. This indicates that they feel the consequences of the crisis to be the most threatening, so they try to minimize their risks.



**Figure 4: APR Knowledge** Source: Author's calculations.

## 5 Discussion and Conclusions

The economic effects of crises affect not only states and companies, but also individual people. The knowledge that an individual can use in practice is of paramount importance. As a result of crises, reserves often run out and people are more often forced to take out loans to overcome everyday financial difficulties. These skills must be learned and taught. And the most suitable environment for education is education in the school system. In this study, it was investigated how efficiently this happens in higher education, where there is the last opportunity to teach usable financial knowledge before entering the labour market. It was paid special attention to the students in economics, as they should also perform better than their peers in other majors due to their specialization. According to results, 15% of students have loans to pay. This data is much more favourable than the latest international statistics, because in these 55% of students have to pay some kind of loan (Forbes, 2022). As a result of the crisis, the number of people taking out loans increased slightly, by 4 percentage points, among students of humanities-pedagogy-arts majors. This represents an opposite change compared to literature data, which indicated a 5-8% decrease (Berg, 2021). The direction of the change correlates with the decrease among law students, but in terms of its magnitude, the decrease according to the literature is higher than the 1 percentage point value was measured. The 2 percentage point increase among students studying economics is a good indicator that these students are aware of the risks of taking out a loan, so they only choose this option carefully.

The approach to the credit question is primarily theoretical, only a quarter of the students approach the problem from a practical perspective. This indicates that teaching of practical tasks should be improved (Faisal et al., 2022; Grijalvo et al., 2022). Although educational methods are being modernized, this does not mean a higher level of knowledge at the same time. This statement is well justified by the issue of interest calculation. As expected, almost all economics students know how to calculate interest. Among students studying in other majors, on the other hand, this ratio is only 47-91%. Humanities-pedagogy-arts students are the least informed about the APR (Annual Percentage Rate), students of economics and law know more than them.

In the light of the above findings, it can be said that the hypothesis H1 was only partially confirmed. Economics students only perform best in certain areas, but in general the performance of law students is similar. Students of humanities, pedagogy and art programs are most at risk. Therefore, hypothesis H2 is accepted on the condition that differentiated education programs must include basic knowledge (interest calculation, importance of APR) for all specializations. However, the H3 hypothesis was fully confirmed. Sustainability in higher education can therefore be realized in two parallel ways: by incorporating new knowledge and methods, and by teaching the ability of independent LLL.

A limitation of the research is that it only examined Hungarian university students, it may be worthwhile to search for foreign students with another query. Its originality, on the other hand, is the demonstration that in sustainable higher education, in addition to the introduction of new educational content and methods, students must also acquire lifelong learning skills.

#### References

- Altıntaş, K. M. (2009). Belirlenmiş katkı esaslı emeklilik planlarında finansal eğitimin önemi: Katılımcıların finansal okur yazarlığı çerçevesinde alternatif bir yatırım modeli. Zonguldak Karaelmas Üniversitesi Sosyal Bilimler Dergisi, 5(9), 151–176. Retrieved from: http://earsiv.cankaya.edu.tr:8080/xmlui/handle/20.500.12416/3764
- Berg, E. (2021). How the Pandemic Could Affect the Rise in Student Debt (p. 14). The Pew Charitable Trusts. https://pew.org/3pgti0j
- Chemliková, B., & Svoboda, M. (2017). Is the Financial Literacy Level of Finance and Law Students the Same? VŠB-TU of Ostrava. Retrieved from: https://www.ekf.vsb.cz/share/static/ekf/www.ekf. vsb.cz/export/sites/ekf/frpfi/.content/galeriesouboru/2017/proceedings/Part\_II\_final.pdf
- Chen, H., & Volpe, R. P. (1998). An Analysis of Personal Financial Literacy Among College Students. *Financial Services Review*, 7(2), 107–128. https://doi.org/10.1016/s1057-0810(99)80006-7
- Danes, S. M., & Hira, T. K. (1987). Money Management Knowledge of College Students. Journal of Student Financial Aid, 17(1), 4–16.
- Dillman, D. A., & Smyth, J. D. (2014). Internet, Phone, Mail, and Mixed-Mode Surveys | Guide books. Wiley Publishing. https://dl.acm.org/doi/10.5555/2692708
- Faisal, N., Chadhar, M., Goriss-Hunter, A., & Stranieri, A. (2022). Business Simulation Games in Higher Education: A Systematic Review of Empirical Research. Human Behaviour and Emerging Technologies, 2022, 1–28. https://doi.org/10.1155/2022/1578791
- Forbes. (2022, September 19). 2023 Student Loan Debt Statistics: Average Student Loan Debt Forbes Advisor. Retrieved from: https://www.forbes.com/advisor/student-loans/average-student-loanstatistics/
- Grijalvo, M., Segura, A., & Núñez, Y. (2022). Computer-based business games in higher education: A proposal of a gamified learning framework. *Technological Forecasting and Social Change*, 178, 121597. https://doi.org/10.1016/j.techfore.2022.121597
- Horowitz, J., Brown, A., & Minkin, R. (2021, March 5). A Year into the Pandemic, Long-Term Financial Impact Weighs Heavily on Many Americans Pew Research Center. Retrieved from: https://www.pewresearch.org/social-trends/2021/03/05/a-yearinto-the-pandemic-longterm-financial-impact-weighs-heavily-on-many-americans
- Ilieva, J., Baron, S., & Healey, N. M. (2002). Online Surveys in Marketing Research. International Journal of Market Research, 44(3), 1–14. https://doi.org/10.1177/147078530204400303
- Jain, N., & Jain, J. K. (2018). An Appraisal of Financial Literacy between Commerce and Non-Commerce Students (A Case Study of Dr. Harisingh Gour University, Sagar). *Commerce Today*, 12(1), 9. https://doi.org/10.29320/jnpgct.v12i01.10984
- Kershaw, M. M., & Webber, L. S. (2004). Dimensions of Financial Competence. Psychiatry, Psychology and Law, 11(2), 338–349. https://doi.org/10.1375/pplt.2004.11.2.338
- Lavrakas, P. (2008). Encyclopedia of Survey Research Methods. Sage Publications, Inc. https://doi.org/10.4135/9781412963947
- Mian, S. H., Salah, B., Ameen, W., Moiduddin, K., & Alkhalefah, H. (2020). Adapting Universities for Sustainability Education in Industry 4.0: Channel of Challenges and Opportunities. *Sustainability*, 12(15), 6100. https://doi.org/10.3390/su12156100
- QS. (2020). QS World University Rankings 2020: Top Global Universities | Top Universities. Retrieved from: https://www.topuniversities.com/university-rankings/world-universityrankings/2020
- Schwab, K. (2020). The Global Competitiveness Report 2019 (p. 666).

- THE. (2022, October 4). World University Rankings. Times Higher Education (THE). Retrieved from: https://www.timeshighereducation.com/world-university-rankings/2023/world-ranking
- Treger, S., & Wendel, S. (2021). The COVID-19 Pandemic, Retirement Savings, and the Financial Security of American Households. Morningstar. Retrieved from: https://www.morningstar.com/content/dam/marketing/shared/pdfs/workplace/COVID\_ and\_Financial\_Security.pdf?utm\_source=eloqua&utm\_medium=email&utm\_campaign=&ut m\_content=28665