



## THE RELATIONSHIP BETWEEN FINANCIAL BEHAVIOR AND DETERMINANTS OF FINANCIAL EDUCATION DEMAND: AN APPLICATION TO UNIVERSITY STUDENTS

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### Abstract

The purpose of this research is to explore the relationship between financial behaviors and the determinants of demand for financial education. This study uses a quantitative approach and collects data through an online survey method. The study was conducted with the participation of university students in Romania and Türkiye. A total of 673 responses from both countries were included in the statistical analysis, and financial behavior scores were calculated based on these data. To examine the relationship between financial behavior scores and the factors influencing the demand for financial education, an independent samples t-test was applied to find statistical evidence. The findings of this study revealed no significant difference in positive financial behavior levels between student groups from Romania and Türkiye. Besides, the study found that sufficient knowledge of personal finance positively influences financial behavior. Furthermore, it was observed that students in Romania have a significantly higher demand for financial education compared to those in Türkiye. This study concluded that as positive financial behavior increases, the demand for financial education also rises. By identifying the factors influencing the demand for financial education, this research contributes policymakers and educational authorities in creating more effective programs to enhance financial literacy.

**Anahtar Kelimeler:** Financial Behavior, Financial Education, Financial Literacy, Financial Decision.

**JEL Sınıflandırması:** A22; G53, D14, D91

## FINANSAL DAVRANIŞ İLE FINANSAL EĞİTİM TALEBİNİN BELİRLEYİCİLERİ ARASINDAKİ İLİŞKİ: ÜNİVERSİTE ÖĞRENCİLERİNE YÖNELİK BİR UYGULAMA

### Öz

Bu çalışmanın amacı, finansal davranışlar ile finansal eğitim talebinin belirleyicileri arasındaki ilişkiyi incelemektir. Bu çalışmada nicel araştırma yöntemi kullanılmış olup veriler çevrimiçi anket yöntemiyle toplanmıştır. Çalışma, Romanya ve Türkiye'den üniversite öğrencilerinin katılımıyla yapılmıştır. Her iki ülkeden toplam 673 yanıt istatistiksel analize dahil edilmiş olup, elde edilen bu verilere göre finansal davranış puanları hesaplanmıştır. Finansal davranış puanları ile finansal eğitim talebini etkileyen faktörler arasındaki ilişkiyi incelemek için bağımsız örneklem t-testi kullanılmıştır. Bu çalışmanın bulguları, Romanya ve Türkiye üniversite öğrencileri arasında, pozitif finansal davranış düzeyi açısından bir farklılık olmadığını ortaya koymuştur. Diğer yandan bu araştırma, kişisel finans hakkındaki yeterli bilginin, finansal davranışı olumlu yönde etkilediğini göstermiştir. Ayrıca bulgular, Romanya'daki öğrencilerin finansal eğitim talebinin Türkiye'deki öğrencilerden önemli ölçüde yüksek olduğunu belirlemiştir. Çalışmanın sonucunda, pozitif finansal davranış düzeyi arttıkça finansal eğitime olan talebin de arttığı sonucuna ulaşılmıştır. Bu araştırma finansal eğitim talebine ilişkin belirleyicileri ortaya koyarak, politika yapımcıların ve eğitim otoritelerinin finansal okuryazarlığı artırmak için daha etkili programlar geliştirmelerine katkı sağlamaktadır.

**Keywords:** Finansal Davranış, Finansal Eğitim, Finansal Okuryazarlık, Finansal Karar.

**JEL Classification:** A22; G53, D14, D91

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## **1. Introduction**

Significant changes in the economic and demographic environment have given the responsibility for all financial decisions that may have impact in the long-term on individuals, such as the increase in life expectancy, ease of access to credit, increase in insurance costs, and whether or not to take out private retirement insurance (Garcia, 2013). Making poor financial decisions negatively affects the existing standard of living (Fabris & Luburic, 2016). A low level of financial competency has far-reaching adverse consequences at both micro and macro levels. In particular, young individuals with low financial literacy create financial problems not only for themselves but also for society. They tend to be over-indebted, which negatively impacts financial stability. Financially competent people make more responsible choices and decisions in spending, saving, investing, risk, insurance, and retirement. Investing in financial education is essential because the competencies gained enable young people to make responsible financial choices that lead to a healthy financial future for themselves and society. Financial education is a crucial factor that enhances consumer knowledge and confidence in cross-border transactions, improves consumer understanding of issues such as product features and risks, and fosters increased consumer confidence in financial markets (European Banking Federation, 2020). Financial education and financial literacy can equip consumers with the skills to manage their budgets, understand the importance of saving, use credit responsibly, make informed investments, protect against fraud, and mitigate security risks (European Banking Authority, 2020). Since financial literacy significantly impacts savings and investment behaviors, as well as debt management and borrowing practices, it is crucial to provide financial education to students and young adults, equipping them with the necessary tools to make informed financial decisions as they transition into adulthood and become financially responsible (Lusardi, 2019). A well-designed and practical financial education program enhances financial literacy. The primary purpose of financial education is to help individuals make sound financial decisions.

Remund (2010) defines financial literacy as the extent to which individuals possess the competence and confidence to understand and effectively manage basic financial concepts related to their finances. This level involves making informed short-term decisions and effective long-term financial planning while remaining aware of changing economic conditions. This definition emphasizes individuals' ability to understand financial concepts, make effective financial decisions, develop short- and long-term financial plans, and possess the skills and confidence to manage their finances under changing economic and financial conditions. Financial literacy encompasses financial knowledge, attitudes, and behavior. Financial knowledge refers to concrete knowledge directly related to financial matters and financial instruments, whereas financial behavior refers to the actions and decisions made regarding financial matters. This behavior can be either positive or negative.

The OECD (2005) defines financial education as a process through which individuals improve their knowledge and understanding of financial products and financial concepts. This process involves both acquiring financial information and receiving financial training or advice. Ultimately, financial education empowers individuals with the skills and confidence to identify financial risks and opportunities, make informed financial decisions, learn about available financial assistance resources, and enhance their overall financial well-being. This definition of financial education refers to a process that involves enhancing individuals' knowledge and understanding of financial products and instruments, as well as informing their decisions about these choices. Therefore, financial education is an educational activity that enables individuals to become financially competent. Financial education programmes significantly affect young people's financial knowledge (Johan et al., 2021), as well as their behaviors and preferences related to this knowledge. They have a particularly striking effect on financial literacy, increasing the impact of programs that improve academic performance. This effect can only support learning when financial education is presented as a mandatory course within the curriculum, as it

is a course that students must complete. Students tend to view optional financial education courses less favorably than mandatory courses (Frisancho, 2020).

On the other hand, social media is also a source of information regarding financial knowledge and affects overall financial literacy. Excessive Internet and social media use may have made it an important reference for financial knowledge. Exposure of students to social media has positive effects on their financial literacy. To increase financial literacy, social media should be utilized, considering that students increasingly depend on information and communication technology (Yanto et al., 2021). Social media has a significant impact on micro capital. For this reason, social media serves as a source of financial information, providing access to financial services and strengthening capital for the creative industry sector (Widyastuti & Hermanto, 2022). The media's coverage of financial markets and economic issues has a positive impact on stock market participation and the share of money invested in stocks. Acquiring financial literacy from the media has positive effects on stock market participation. The media for financial literacy is now a learning channel for personal finance (Hermansson et al., 2022).

This study aims to identify possible determinations regarding the demand for financial education. The determinations are expected to contribute to financial education planning and studies. The introduction is the first section of this study and provides a brief framework for the importance of financial literacy and financial education. The second section consists of a literature review. The third section addresses the research method, and the fourth section explains the statistical data related to the research. The final section comprises the conclusion, which discusses the results, suggestions, and limitations of the research.

## **2. Literature Review**

While individuals learn sound decision-making behaviors in their financial education, they should also be able to learn how to make sound decisions and act logically in their decisions and behaviors within the environment and society. It is beneficial to take a holistic approach, mainly when focusing on the financial education of young people. This integrates young people into society in their later years and encourages their socialization. Malá (2022) suggests that older individuals should be supported in their social relations and active participation in public life, as well as in financial security and retirement planning. This suggestion posits that individuals can achieve financial and social well-being by satisfying not only their material needs but also their emotional needs.

Financial education enhances individuals' financial knowledge and their ability to understand investment markets. It also gives people competence in personal financial health and money management. Financial education also increases students' digital management skills and helps them plan their income and expenditures (Liu & Lin, 2021). Financial education replaces questionable sources of financial information, such as parents and friends. The effects of education are most pronounced among those least likely to save, but they can also impact high savers. For example, financial education provided in the workplace significantly increases both overall and retirement savings rates (Bernheim & Garrett, 1996).

To increase financial literacy levels, it is necessary to provide financial education programs in schools and make them a mandatory part of the curriculum. In their study, Xiao and O'Neill (2016) concluded that mandatory financial education can have a positive impact on financial ability. Besides, the authors concluded that receiving personal finance training, regardless of one's level of education or workplace setting, is positively associated with both objective and subjective financial literacy. They also argued that financial education not only enhances individuals' financial knowledge but also boosts their confidence in that knowledge. The research by Wagner and Walstad (2019) found that financial education has a limited effect on short-term behaviors, such as managing money or credit. In contrast, it may positively impact long-term financial behaviors such as saving or investing. Joo and Grable (2004) concluded that education,

financial knowledge, financial behavior, financial risk, and financial solvency directly impact financial satisfaction, and higher financial knowledge and solvency lead to higher financial satisfaction.

The PISA 2022 financial literacy assessment investigated the financial literacy levels of 15-year-olds. According to the financial literacy levels determined between one and five, 91% of the students were found to have a first-level or above financial literacy level. In comparison, 8% of the students had a fifth level of financial literacy. Türkiye and Romania did not participate in this financial literacy assessment. However, these two countries participated in the PISA assessments, including reading, mathematics, and science. While the OECD average financial literacy score was 498, two countries scored below this average. Eight countries scored above the OECD average (OECD, 2024). In this respect, determining the financial needs related to demand and providing well-planned financial education based on these determinations can increase individuals' financial satisfaction. In the Czech Republic, Spain, Estonia, Croatia, France, Slovenia, Portugal, Poland, Slovakia, and Italy, numerous financial education initiatives have been implemented to enhance the financial literacy levels of individuals (European Banking Authority, 2020). In Romania, research and practices on financial education are being addressed by considering broader social and environmental concerns beyond focusing solely on the economic dimension. In this context, studies on financial literacy education primarily follow a path and methodology that involves determining the current situation, describing financial threats, and finally, identifying what needs to be done to overcome the difficulties in financial literacy (Şimandan et al., 2022). Türkiye, on the other hand, has a national strategy on financial literacy and its subject, which was established in 2014 (OECD, 2022). Research and practices are being implemented to enhance financial literacy in Türkiye. Besides, the public sector implements programs and practices primarily to enhance students' financial literacy. The unique value of this study research in its comparative analysis of the relationship between financial behavior and the demand for financial education among students from Turkey and Romania. Unlike previous studies, which typically focus on a single country, this research examines two countries with different socioeconomic structures. This approach helps highlight the impact of cultural, economic, and educational differences on the demand for financial education. Additionally, the study employs a methodological analysis using an independent samples t-test to explore the relationship between financial behavior scores and the factors influencing the need for financial education. This provides a quantitative contribution to the existing literature. The findings reveal significant theoretical and practical insights, demonstrating that higher financial behavior levels are associated with an increased demand for financial education. Ultimately, this study offers a unique contribution to the field by providing empirical evidence that can inform the design of financial literacy policies and educational programs.

### **3. Data and Methodology**

This quantitative study is based on an online survey shared with university students in Romania and Türkiye. These two countries were included in this study because both countries are located in Eastern Europe. Although they differ significantly in terms of economic structure and education systems, their financial literacy levels fall below the European average. This study analyzes the current situation of financial literacy and the specific needs for financial education in both countries. Despite being a member of the European Union, Romania exhibits lower financial literacy levels compared to other European nations. Similarly, individuals in Turkey rank below the average in terms of financial knowledge and behavior, according to OECD criteria. The unsatisfactory levels of financial literacy in both countries provide a solid foundation for a comparative study on financial education. Furthermore, it is important to note that both Romania and Turkey also lag behind Western European countries in terms of economic development, which could influence students' financial behaviors and their demand for financial education. This comparison allows us to explore how students' financial behaviors and their educational needs may differ due to the structural differences between the two countries. The

survey's universe was not limited to specific universities in each country; to reach a broader range of participants, all eligible students were invited to participate in the online survey. In this study, no comparison was made between universities, and the students' university information was omitted. The survey was developed based on a literature review conducted by the author. The survey questions used in this study include known and accepted behaviors related to positive financial behaviors such as "saving for emergencies, planning for a monthly budget, price matching, long-term saving, goals for future financial situations, and reading about financial issues." These questions were used to compare the total score of positive financial behaviors with the need for financial education. The measurement tool (survey questionnaire) was developed and implemented based on current literature, leading to the creation of survey questions. The survey was conducted in Turkish for students from Turkey and in Romanian for students from Romania. To ensure clarity and accuracy, the Romanian version of the survey was reviewed and edited by two native Romanian academics. A pilot study involving 30 students from both countries was carried out to evaluate the initial responses. It was determined that there was no ambiguity in the survey items. Consequently, the survey was administered as originally designed.

The total positive financial behavior score was based on the number of questions answered correctly. Each correct answer was evaluated as 1 point. Additionally, the survey posed 16 questions that could be determinants of students' potential financial literacy needs. A detailed explanation of possible financial education needs was provided at the beginning of the questions. Those who needed financial education were asked to answer with "I need," and those who did not need it were asked to answer with "I do not need." For example, students were asked the following question about spending habits: "Do you need the ability to have successful financial negotiation?" At the beginning of the questions, a detailed explanation of possible financial education needs was provided. Those who needed financial education were asked to answer with "I need," and those who did not need it were asked to answer with "I do not need." All the questions were understandable and straightforward for the students. All questions were mandatory and based on participants' self-assessment.

The total positive financial behavior scores were calculated from closed-ended questions (yes/no). The maximum possible score was 6. The relationship between the total financial behavior score and possible determinants of the need for financial education was examined using the Independent Samples t-test, which compares the associated populations for statistical evidence.

For the comparison of two groups, a z-statistic can be used to test the hypothesis of equal population means only if the population variances of both groups,  $\sigma_1^2$  and  $\sigma_2^2$ , are known (Kim, 2019):

$$x = \frac{\bar{X}_1 + \bar{X}_2}{\sqrt{\frac{\sigma_1^2}{n_1} + \frac{\sigma_2^2}{n_2}}} \quad (1)$$

$\bar{X}_1$  and  $\bar{X}_2$ , sample means;  $\sigma_1^2$  and  $\sigma_2^2$ , population variances; and  $n_1$  and  $n_2$ , the sizes of two groups.

The research was approved by Balıkesir University Social and Human Sciences Research Ethics Committee (26.06.2025, No. 2025/06-09). The survey link hosted on the Google Survey tool was sent to students. Student surveys were collected in two stages. The first stage took place between June 27 and 30, 2025. Afterwards, a reminder email was sent to students, and the second stage, data collection, took place between June 30 and July 4, 2025. 686 responses were received. The total score of positive financial behavior was examined for outliers, and 13 responses were removed from the survey. Thus, 673 surveys from Romania and Türkiye were

included in the statistical analysis. The study included 359 Turkish and 314 Romanian students. Skewness and kurtosis values were utilized to assess normality. According to Hair et al. (2019), the acceptable range for these values is between -1 and +1. The skewness value was -.181, and the kurtosis value was -.874. Thus, values that fall within this range (between -1 and +1) are considered valid indicators of normally distributed data.

#### 4. Results

Table 1 presents the descriptive statistics of the sample, comprising 673 student participants, with 314 from Romania (46.7%) and 359 from Türkiye (53.3%). The majority of the participants are female (59.1%). Approximately 32% of the students report having debt or loans. More than 58% of the students reported having sufficient financial knowledge.

Table 1. Descriptive Statistics of the Sample

Variables		N	%
Nationality	Romania	314	46.7
	Türkiye	359	53.2
Gender	Male	275	40.9
	Female	398	59.1
Field of Education	Business/Economics	246	36.6
	Other	427	63.4
Age	18-20	270	40.2
	21-24	403	59.8
Debt/Loans	Yes	212	31.5
	No	461	68.5
Sufficient knowledge	Yes	392	58.2
	No	281	41.8

Table 2 presents the participants' positive responses to the questions. Out of the maximum behavior score of 6, Romanian and Turkish students scored an average of 3.64 across the entire sample, indicating that the average for positive financial behavior is above 60% (60.6%). The median was measured as 4. Students from both countries have high positive financial behavior scores compared to the mean, particularly in terms of price matching (Romania, 92%; Türkiye, 91.1%) and setting goals for future financial situations (Romania, 76.1%; Türkiye, 68.2%). The lowest average score was for reading about financial issues for both countries (Romania, 40.4%; Türkiye, 32.9%). Students from Romania have low positive financial behavior scores, with 39.8% having a monthly budget plan. Students from both countries also exhibit low financial behavior scores in creating a monthly written budget plan (Romania, 39.8%; Türkiye, 67.7%).

Table 2. Descriptive Statistics of Survey Questions

		Romania		Türkiye	
		N	%	N	%
Q1	Saving for emergencies	213	67.8	213	59.3
Q2	Plan for monthly budget	125	39.8	243	67.7
Q3	Price matching	289	92.0	327	91.1
Q4	Long term saving	160	51.0	155	43.2
Q5	Goals for future financial situations	239	76.1	245	68.2
Q6	Reading about financial issues	127	40.4	118	32.9

Table 3 presents the areas where financial education can be obtained, along with the needs and demands of students from both Romania and Türkiye. Romanian students are generally more inclined to seek financial education across all areas of interest. The subjects in which students from both countries wish to gain the most competence include increasing earning potential (Romania, 84.1%; Türkiye, 74.4%) and enhancing well-being (Romania, 70.7%; Türkiye, 71.9%). Students also express a strong need for financial education to help them achieve their financial goals (Romania, 79.3%; Türkiye, 68.8%), understand financial risks (Romania, 67.2%; Türkiye,

66.9%), and improve their long-term financial situations (Romania, 78.7%; Türkiye, 62.1%). The need for financial education was found to be lower in certain areas, such as achieving greater satisfaction with bank services (Romania, 42.4%; Türkiye, 43.7%), establishing private retirement account plans (Romania, 56.1%; Türkiye, 54.0%), and changing spending habits (Romania, 57.0%; Türkiye, 41.8%).

Table 3. Descriptive Statistics of the Demand for Financial Education

Demand for financial education		Romania %	Türkiye %
D1	Better financial situation in the long-term	78.7	62.1
D2	Achieving financial goals	79.3	68.8
D3	Saving regularly	73.2	56.5
D4	Having successful financial negotiation	78.7	61.0
D5	Greater satisfaction with bank services	42.4	43.7
D6	Effective spending plan	64.6	48.7
D7	Private retirement account plan	56.1	54.0
D8	Savings for emergency situations	56.4	54.9
D9	Identify the pitfalls	75.8	59.9
D10	Knowledge on financial options	67.8	57.7
D11	Using bank services	60.8	51.0
D12	Changing spending habits	57.0	41.8
D13	Identifying the minimum savings	62.4	49.3
D14	Increasing earning potentials	84.1	74.4
D15	Being aware of financial risks	67.2	66.9
D16	Enhancing well-being	70.7	71.9

Table 4 presents the results of the Independent Samples t-test statistics. There was no significant difference in the scores for Romanian ( $M = 3.67$ ,  $SD = 1.35$ ) and Turkish students ( $M = 3.62$ ,  $SD = 1.61$ );  $t(671) = -0.41$ ,  $p = 0.678$ .

It is an expected result that students in the field of business or economics ( $M = 3.83$ ,  $SD = 1.41$ ) have a higher positive financial behavior level than the students in other fields of study ( $M = 3.53$ ,  $SD = 1.53$ );  $t(671) = 2.528$ ,  $p = 0.012$  because financial education increases the level of financial literacy (Kaiser & Menkhoff, 2017; Wagner, 2019; Lusardi & Mitchell, 2007). There is no statistically significant difference in positive financial behavior between females ( $M = 3.63$ ,  $SD = 1.53$ ) and males ( $M = 3.66$ ,  $SD = 1.44$ );  $t(671) = 0.328$ ,  $p = 0.743$ .

Table 4. Results of the Independent t-Test for the Entire Sample

Independent t test		N	M	SD	t	P
Nationality	Romania	314	3.67	1.35	$t = -.041$	.678
	Türkiye	359	3.62	1.61		
Gender	Male	398	3.63	1.53	$t = .328$	.743
	Female	275	3.66	1.44		
Field of Education	Business/Economics	246	3.83	1.41	$t = 2.528$	.012
	Other	427	3.53	1.53		
Age	18-20	270	3.64	1.45	$t = .103$	.918
	21-24	403	3.65	1.52		
Debt/Loans	Yes	212	3.24	1.52	$t = -4.800$	.000
	No	461	3.83	1.44		
Sufficient Knowledge	Yes	392	3.86	1.46	$t = 4.545$	.000
	No	281	3.34	1.48		

On the other hand, there is a significant difference in the mean scores between students with debt or loans ( $M = 3.24$ ,  $SD = 1.52$ ) and those without debt or loans ( $M = 3.83$ ,  $SD = 1.44$ );  $t(671) = -4.800$ ,  $p < 0.001$ . Students without debt or loans were found to have higher levels of positive financial behavior. Students without debt or loans were found to have higher levels of positive

financial behavior. There is also a significant association between students who believe they have sufficient knowledge about personal finance ( $M = 3.86$ ,  $SD = 1.46$ );  $t(671) = 4.545$ ,  $p < 0.001$ . However, there was no association in terms of age categories (18-20:  $M = 3.64$ ,  $SD = 1.45$ ; 21-24:  $M = 3.65$ ,  $SD = 1.52$ ;  $t(471) = 0.103$ ,  $p = 0.918$ ).

Table 5 shows the relationship between students' demand for financial education and positive financial behavior in both countries. For Romanian students, positive financial behavior is statistically higher for students who demand free or affordable financial education ( $M = 3.76$ ,  $SD = 1.35$ );  $t(671) = 2.463$ ,  $p = 0.015$ . For Turkish students ( $M = 3.66$ ,  $SD = 1.63$ ), no statistically significant result was found between demand for financial education and positive financial behavior ( $t(671) = 0.900$ ,  $p = 0.369$ ).

Table 5. Results of the Independent t-Test for the Financial Education Demand

Independent t test			N	M	SD	t	P
Financial Education	Romania	Yes	248	3.76	1.35	$t = 2.463$	.015
		No	66	3.31	1.30		
	Türkiye	Yes	266	3.66	1.63	$t = .900$	.369
		No	93	3.49	1.52		

Table 6. Results of the Independent t-Test for Each Financial Education Item

Independent t test		Financial Behavior					
		Romania			Türkiye		
		Demand for Financial Education Items		Mean		Mean	
		Yes	No	p	Yes	No	p
D1	Better financial situation in the long-term	3.75	3.35	.032	3.67	3.54	.464
D2	Achieving financial goals	3.62	3.84	.244	3.65	3.56	.627
D3	Saving regularly	3.73	3.51	.205	3.32	4.01	.000
D4	Having successful financial negotiation	3.71	3.50	.262	3.58	3.67	.608
D5	Greater satisfaction with bank services	3.76	3.60	.502	3.45	3.75	.086
D6	Effective spending plan	3.72	3.56	.312	3.33	3.90	.001
D7	Private retirement account plan	3.82	3.47	.024	3.67	3.56	.514
D8	Savings for emergency situations	3.78	3.52	.091	3.18	4.16	.000
D9	Identify the pitfalls	3.75	3.42	.063	3.56	3.70	.417
D10	Knowledge on financial options	3.76	3.47	.076	3.74	3.46	.099
D11	Using bank services	3.69	3.64	.755	3.67	3.57	.564
D12	Changing spending habits	3.73	3.58	.324	3.32	3.83	.003
D13	Identifying the minimum savings	3.65	3.70	.750	3.37	3.86	.004
D14	Increasing earning potentials	3.68	3.60	.682	3.70	3.39	.108
D15	Being aware of financial risks	3.82	3.84	.003	3.75	3.36	.035
D16	Enhancing well-being	3.74	3.48	.123	3.74	3.32	.028

Table 6 analyzes whether university students in Romania and Turkey would demand financial education if it were available in schools. Possible Financial education needs are outlined in 16 specific items. Thus Table 6 demonstrates the relationship between the demand for each financial education item and positive financial behaviors. According to the findings from the analysis Romanian students with high levels of positive financial behaviors have a statistically significant positive demand for financial education on being aware of financial risks (D15) ( $p < .05$ ). They also indicate a significant positive demand for financial education for a better financial situation in the long term (D1) ( $p < .05$ ) and having a private retirement account (D7) ( $p < .05$ ). Turkish students with high levels of positive financial behaviors have a statistically significant negative demand for financial education on saving regularly (D3) ( $p < .001$ ), having an effective spending plan (D6) ( $p < .001$ ), savings for emergency situations (D8) ( $p < .001$ ), changing spending habits (D12) ( $p < .05$ ), and identifying the minimum savings (D13) ( $p < .05$ ). They have significant positive demand for financial education for being aware of financial risks (D15) ( $p < .05$ ), and enhancing well-being (D16) ( $p < .05$ ).

## 5. Discussion

It was found that those with high levels of positive financial behavior have a higher demand for financial education. It was also concluded that Turkish students with low levels of financial behavior do not demand financial education in 8 financial behavior areas (Better financial situation in the long-term, achieving financial goals, having successful financial negotiation, having private retirement account plan, identify the pitfalls, using bank services, and increasing earning potentials). In comparison, those with high financial behavior levels demand financial education only in two areas (Being aware of financial risks and enhancing well-being). It was determined that there is a statistically significant relationship between positive financial behavior and demand for financial education, specifically in terms of having knowledge of financial options and being aware of financial risks. A study indirectly related to the results of this research, although not conducted by Davis, was carried out by Davis et al. (2023). This study found that individuals with overconfidence, despite having low financial literacy, exhibited less interest in financial education. In contrast, those with low self-confidence showed a greater desire to engage in financial education. The findings highlight that overconfidence can diminish the demand for financial education, underscoring the importance of developing innovative strategies to engage this group in financial education activities. The study conducted by Billari et al. (2021) supports these studies' findings. It concluded that an individual's intention to improve their financial literacy is closely linked to psychological factors such as attitudes, social norms, and perceived behavioral control. Additionally, the study found that people with lower financial literacy tend to have a reduced intention to pursue financial education, indicating that those who need help the most may also be the least likely to seek out educational opportunities.

There is no statistically significant difference in positive financial behavior between females. Males generally have higher financial literacy levels than females (Kadoya & Khan, 2020; Sconti, 2022; West et al., 2023). Although hands-on financial management behaviors are positively related to financial knowledge (Yao et al., 2023), the gender gap primarily affects the level of financial knowledge. This study only considered financial behaviors, and no gender differences were found. Knowledge differences do not directly translate into behavioral differences, especially among young people (Woodyard & Robb, 2012; Theodos et al., 2016). However, Fisher (2010) found that women were less likely than men to have saved in the previous year, although men and women had the same regular savings rates. On the contrary, Robson and Peetz (2020) suggested that gender differences in financial literacy may not be reliable. Their study revealed that a significant portion of the gender gap may be attributed to differences in fundamental characteristics between men and women, including personality, age, income, education, level of financial responsibility, and beliefs about economic status.

There was no significant difference in the financial behavior scores for Romanian and Turkish students. Both countries ranked lower among 43 countries in the 2022 PISA results for mathematics, reading, and science. While Türkiye ranked 36th among 43 countries, Romania ranked 41st (OECD, 2024). According to research by Ergün (2018), Romania scored a higher financial literacy level than Türkiye in eight European countries. However, no statistical difference was found between the two countries, but Romania ranked 7th among eight countries, while Türkiye ranked 8th, and thus both countries ranked in the last two places. According to the 2014 Standard & Poor's Global Financial Literacy Survey, 33% of adults worldwide have financial literacy, while 24% of adults in Türkiye and 22% in Romania have financial literacy. Both countries have the lowest financial literacy levels in Europe. This study compared the two countries with the lowest financial literacy levels in Europe regarding the level of positive financial behavior and found that Romania has a higher level of financial literacy than Türkiye (Klapper et al., 2015).

Among Romanian students, the financial behavior level of those who demand financial education is statistically higher than that of those who do not. Although no statistically significant relationship was found among Turkish students, the financial behavior score average of those

who demand financial education is higher than that of those who do not. As the level of positive financial behavior increases, so does the demand for financial education. Xiao et al. (2022) found that educated individuals were significantly more confident in their financial knowledge, suggesting that overconfidence in financial literacy may lead to mixed evidence. The lower demand for financial education among individuals with low levels of positive financial behavior may be due to misconceptions or overconfidence regarding their actual levels of positive financial behavior. Overconfidence not only causes individuals to misjudge their financial behavior levels but also leads to incorrect financial decisions. Overconfident consumers are less likely to seek financial advice. Mandatory financial education may help reduce the self-confidence bias (Porto & Xiao, 2016).

## **6. Conclusion**

The importance of financial knowledge, responsible financial behavior, and overall financial literacy is growing, not only for the economic well-being of individuals and society but also for economic stability and social sustainability. The rising trends in debt, economic instability, the proliferation of digital financial instruments, the potential for reduced pensions, and economic uncertainties highlight the need for young people to develop responsible financial decision-making skills. In this context, this study aims to explore the relationship between the financial behaviors of university students in Romania and Turkey and the factors influencing their demand for financial education. The research utilized quantitative data gathered from an online survey of 673 students, which was analyzed using an independent samples t-test. The findings illustrate the connection between individual financial behavior and the need for financial education, as well as highlighting structural differences. These insights provide valuable contributions to the development of policies and educational programs focused on improving financial literacy.

It is concluded that as positive financial behaviors increase, the demand for financial education also increases; however, low levels of positive financial behaviors lead to a lower demand for financial education. As the level of financial behavior shifts towards negative, the demand for information on this subject decreases. Low levels of financial behavior reduce the demand for financial education. It is also concluded that significant education demands on financial issues are financial behaviors that individuals cannot achieve on their own, such as having a retirement plan, but with external help and information. As positive financial behavior increases, the demand for financial education on creating a retirement plan, managing financial risks, and risk diversification, as well as achieving a better financial situation in the future and enhancing welfare, also increases. The demand for education is generally driven by the need to make safe transactions in market conditions, secure the future, and achieve welfare.

Providing financial education only to those who demand it may not produce the proper results. For example, according to the results of this study, we only offer financial education to those with high levels of financial literacy, as we observe that the demand for financial education is statistically significant only among them. However, financial education is essential for everyone, regardless of their current level of financial literacy, especially for those with lower levels of financial literacy. Therefore, financial education programs should be initiated, especially in primary school, and should be a mandatory part of the curriculum throughout the educational system, from primary school to university.

This study provides researchers, policymakers, and education authorities with insights into the demand for financial education. Financial education programs can be developed based on the determinants identified in this research, and the students' needs for financial education. This study also provides statistical evidence to education authorities that financial education should be offered directly as part of the school curriculum, not as an optional course. Students from both countries exhibit different behavioral patterns and financial education demands. Therefore, each country needs to approach financial education differently, tailored to the needs and demands of its own society.

## References

- Bernheim, B. D., & Garrett, D. G. (1996). The Determinants and Consequences of Financial Education in the Workplace: Evidence from a Survey of Households. Working Paper 5667. <https://doi.org/10.3386/w5667>
- Billari, F. C., Gentile, M., Linciano, N., & Saita, F. (2021). *Understanding the demand for financial literacy*. Global Financial Literacy Excellence Center (GFLEC). <https://gflec.org/wp-content/uploads/2021/04/Saita-et-al-Understanding-the-demand-for-financial-literacy-UPDATED-2.pdf>
- Davis, B. J., Richardson, D. P., & Seligman, J. S. (2023). Assessing the relative need and demand for financial education programs: A case study of graduate students. *Financial Services Review, 31*(2/3), 133-150. <https://doi.org/10.61190/fsr.v31i2/3.3531>
- Ergün, K. (2018)ç Financial literacy among university students: A study in eight European countries. *International Journal of Consumer Studies, 42*(1), 2-15. <https://doi.org/10.1111/ijcs.12408>
- European Banking Authority. (2020). EBA Report on Financial Education 2019/2020, EBA/Rep/2020/12. Available at <https://www.eba.europa.eu/activities/information-consumers/financial-education>
- European Banking Federation. (2020). Financial Literacy Playbook for Europe. Available at <https://www.ebf.eu/wp-content/uploads/2020/11/EBF-Financial-Literacy-Playbook-for-Europe.pdf>
- Fabris, N., & Luburic, R. (2016). Financial Education of Children and Youth. *Journal of Central Banking Theory and Practice, 5*(2), 65-79. <https://doi.org/10.1515/jcbtp-2016-0011>
- Fisher, P. (2010). Gender Differences in Personal Saving Behaviors. *Journal of Financial Counseling and Planning, 21*(1). Available at <https://ssrn.com/abstract=2803965>
- Frisancho, V. (2020). The Impact of Financial Education for Youth. *Economics of Education Review, 78*, 101918. <https://doi.org/10.1016/j.econedurev.2019.101918>
- Garcia, M. J. R. (2013). Financial Education and Behavioral Finance: New Insights into the Role of Information in Financial Decisions. *Journal of Economic Surveys, 27*(2), 297-315. <https://doi.org/10.1111/j.1467-6419.2011.00705.x>
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate data analysis* (8th ed.). Cengage Learning. [https://eli.johogo.com/Class/CCU/SEM/\\_Multivariate%20Data%20Analysis\\_Hair.pdf](https://eli.johogo.com/Class/CCU/SEM/_Multivariate%20Data%20Analysis_Hair.pdf)
- Hermansson, C., Jonsson, S., & Liu, L. (2022). The Medium is the Message: Learning Channels, Financial Literacy, and Stock Market Participation. *International Review of Financial Analysis, 79*, 101996. <https://doi.org/10.1016/j.irfa.2021.101996>
- Ivana Malá, I. (2022). Ageing of the European Population and Deprivation. *Economics and Culture, 19*(1), 43-53. <https://doi.org/10.2478/jec-2022-0004>
- Johan, I., Rowlingson, K., & Appleyard, L. (2021). The Effect of Personal Finance Education on the Financial Knowledge, Attitudes and Behaviour of University Students in

- Indonesia. *Journal of Family and Economic Issues*, 42, 351-367. <https://doi.org/10.1007/s10834-020-09721-9>
- Joo, S. H., & Grable, J. E. (2004). An Exploratory Framework of the Determinants of Financial Satisfaction. *Journal of Family and Economic*, 25, 25-50. <https://doi.org/10.1023/B:JEEI.000016722.37994.9f>
- Kadoya, Y., & Khan, M. S. R. (2020). Financial Literacy in Japan: New Evidence Using Financial Knowledge, Behavior, and Attitude. *Sustainability*, 12(9), 3683. <https://doi.org/10.3390/su12093683>
- Kaiser, T., & Menkhoff, L. (2017). Does Financial Education Impact Financial Literacy and Financial Behavior, and if So, When? *The World Bank Economic Review*, 31(3), 611-630. <https://doi.org/10.1093/wber/lhx018>
- Kim, H. Y. (2019). Statistical Notes for Clinical Researchers: The Independent Samples t-Test. *Restorative Dentistry & Endodontics*, 44(3), e26. <https://doi.org/10.5395/rde.2019.44.e26>
- Klapper, L., Lusardi, A., & van Oudheusden, P. (2015). Financial Literacy around the World: Insights from the Standard & Poor's Ratings Services Global Financial Literacy Survey. Available at <https://gflec.org/initiatives/sp-global-finlit-survey/>
- Liu, H. C., & Lin, J. S. (2021). Impact of Internet Integrated Financial Education on Students' Financial Awareness and Financial Behavior. *Frontiers in Psychology*, 12, 751709. <https://doi.org/10.3389/fpsyg.2021.751709>
- Lusardi, A. (2019). Financial Literacy and the Need for Financial Education: Evidence and Implications. *Swiss Journal of Economics and Statistics*, 155(1), 1-8. <https://doi.org/10.1186/s41937-019-0027-5>
- Lusardi, A., & Mitchell, O. S. (2007). Financial Literacy and Retirement Preparedness: Evidence and Implications for Financial Education: The Problems are Serious, and Remedies are not Simple. *Business Economics*, 42, 35-44. <https://doi.org/10.2145/20070104>
- OECD. (2005). *Improving Financial Literacy: Analysis of Issues and Policies*. OECD Publishing, Paris. <https://doi.org/10.1787/9789264012578-en>
- OECD. (2022). *Evaluation of National Strategies for Financial Literacy*. Available at <https://www.oecd.org/financial/education/evaluation-of-national-strategies-for-financial-literacy.htm>
- OECD. (2024). *PISA 2022 Results (Volume IV): How Financially Smart are Students?* OECD Publishing, Paris. <https://doi.org/10.1787/5a849c2a-en>
- Porto, N., & Xiao, J. J. (2016). Financial Literacy Overconfidence and Financial Advice Seeking. *Journal of Financial Service Professionals*, 70(4), 78-88. Available at <https://ssrn.com/abstract=4051786>
- Remund, D. L. (2010). Financial Literacy Explicated: The Case for a Clearer Definition in an Increasingly Complex Economy. *Journal of Consumer Affairs*, 44(2), 276-295. <https://doi.org/10.1111/j.1745-6606.2010.01169.x>

- Robson, J., & Peetz, J. (2020). Gender Differences in Financial Knowledge, Attitudes, and Behaviors: Accounting for Socioeconomic Disparities and Psychological Traits. *Journal of Consumer Affairs*, 54(3), 813-835. <https://doi.org/10.1111/joca.12304>
- Sconti, A. (2022). Digital vs. In-Person Financial Education: What Works Best for Generation Z? *Journal of Economic Behavior & Organization*, 194, 300-318. <https://doi.org/10.1016/j.jebo.2021.12.001>
- Șimandan, R., Leuștean, B., & Dobrescu, R. M. (2022). An Uphill Battle: Financial Education in Romania in the Midst of Societal Transformation. *Journal of Risk and Financial Management*, 15(11), 494. <https://doi.org/10.3390/jrfm15110494>
- Theodos, B., Kalish, E., McKernan, S. M., & Ratcliffe, C. (2016). Do Financial Knowledge, Behavior, And Well-Being Differ by Gender. *Urban Institute*, 1-8. Available at <https://coilink.org/20.500.12592/c2h8rz>
- Wagner, J. (2019). Financial Education and Financial Literacy by Income and Education Groups. *Journal of Financial Counseling and Planning*, 30(1), 132-141. <https://doi.org/10.1891/1052-3073.30.1.132>
- Wagner, J. and Walstad, W.B. (2019). The Effects of Financial Education on Short-Term and Long-Term Financial Behaviors. *Journal of Consumer Affairs*, 53(1), 234-259. <https://doi.org/10.1111/joca.12210>
- West, T., Butler, D., & Smith, L. (2023). Slugged! Can Financial Literacy Shield Against Price Manipulation at the Shops? *International Journal of Consumer Studies*, 47(5), 1853–1870. <https://doi.org/10.1111/ijcs.12959>
- Widyastuti, M., & Hermanto, Y. B. (2022). The Effect of Financial Literacy and Social Media on Micro Capital through Financial Technology in the Creative Industry Sector in East Java. *Cogent Economics & Finance*, 10(1), 2087647. <https://doi.org/10.1080/23322039.2022.2087647>
- Woodyard, A., & Robb, C. (2012). Financial Knowledge and the Gender Gap. *Journal of Financial Therapy*, 3(1), 1-16. <https://doi.org/10.4148/jft.v3i1.1453>
- Xiao, J.J. and O'Neill, B. (2016). Consumer Financial Education and Financial Capability. *International Journal of Consumer Studies*, 40(6), 712-721. <https://doi.org/10.1111/ijcs.12285>
- Xiao, X., Li, X., & Zhou, Y. (2022). Financial Literacy Overconfidence and Investment Fraud Victimization. *Economics Letters*, 212, 110308. <https://doi.org/10.1016/j.econlet.2022.110308>
- Yanto, H., Ismail, N., Kiswanto, K., Rahim, N. M., & Baroroh, N. (2021). The Roles of Peers and Social Media in Building Financial Literacy among the Millennial Generation: A Case of Indonesian Economics and Business Students. *Cogent Social Sciences*, 7(1), 1947579. <https://doi.org/10.1080/23311886.2021.1947579>

Yao, M., Rehr, T. I., & Regan, E. P. (2023). Gender Differences in Financial Knowledge among College Students: Evidence from a Recent Multi-Institutional Survey. *Journal of Family and Economic Issues*, 44(3), 693-713. <https://doi.org/10.1007/s10834-022-09860-1>