Journal of International Trade, Logistics and Law, Vol. 7, Num. 2, 2021, 22-29

THE RELATIONSHIP BETWEEN FINANCIAL LITERACY AND FINANCE EDUCATION: A RESARCH FOR UNIVERSITY STUDENTS OF THE SÜTLÜCE REGION

Ömer AYDIN
Istanbul Commerce University, Turkey

Okşan KİBRİTÇİ ARTAR
Istanbul Commerce University, Turkey

Received: Augt 09, 2021 Accepted: Oct 18, 2021 Published: Dec 01, 2021

Abstract:
Financial literacy is a feature that has been stripped of privilege and has become a necessity in today's society. When proliferation of financial markets, the increase in the variety of financial instruments, the use of internet technologies in financial markets, and that bank clients have started to execute their transactions through online channels instead of the face-to-face branch visits are taken into consideration, the need for financial literacy can be recognized more clearly. Today, the most basic way to develop financial literacy is through education in this field. In this context, either individuals will catch up with the recent developments through their own research efforts or they will receive education from relevant external institutions.This study, which investigated the effect of financial education on financial literacy, the students from the finance and economics departments of the universities located in Sütlüce, Istanbul were compared with the students who did not receive such education. The study was conducted over 110 students. While 77 percent of these students received education in economic and financial fields, 23 percent did not. Our analyses showed that students who received economics and finance education displayed higher average financial management and accounting capability, financial literacy sub-dimensions, compared to ones who did not have these educations. On the other hand, the financial calculation success levels of respondents were found inadequate with respect to the significantly large size of the group who received financial education. Only 1.8% of the participants were able to successfully answer all of the questions.

Keywords:
Financial Literacy, Financial Education, Financial Management, Accounting Ability

1. Introduction

Beginning of emerging and development of capital markets could be dated back chronologically as early as the Industrial Revolution. Along this period, countries have tended to make money from their accumulated capital instead of from their manufacturing owing to expansion production and consequent accumulation of capital in their hand. Hence, global lending and crediting mechanisms have been commissioned over the time. This approach has gained wider range in parallel with the flourishing finance industry accompanied with capabilities introduced by advancing technological tools which have enabled each member of society from individuals to institutions to execute financial operations. As these financial operations could be classified under banking and investment operations in general, they could be considered under two main practices of deposit account and loans in banking sector and subsequent operations. Yet, there are wide variety of product range lies on the finance and investment wing and significant portion of society could make gains from these products. However, there is no always gains in the markets and it is possible to mention losses that could exceed the gains due to the associated risks.

Managing assets and making profit in financial markets require knowledge, experience and even competency in certain aspects. For instance, stock markets and operations in these markets could be some of these aspects of financial markets. Within the limits of technology and internet available in our contemporary time, individuals have gained capability to invest for even all size budgets for substantial variety of investment instruments. Such that, an infrastructure enabling making investment in any market in any country from all around the world has been established; and both institutional and personal savings have been channeled to these markets. However, at this point, prospect investors, especially individuals, are required to be well informed about their target investment products, markets and countries. Otherwise, they are prone to future losses.

Another financial issue could be given as management of current investment budget. Individuals need capacity to manage their current resources to sustain their lives, make investment or borrowing. These resources are composed of monthly or annual incomes. Overall incomes from various resources such as salary, rental income and interest earnings constitute individuals' monthly and annual incomes. In this regard, management capability is crucial to maintain balance between income and expenditure since these expenditure and investments would be compensated with aforesaid resources. Level of this management capability is positively correlated with levels of the investment or financial activities need to be managed. Otherwise, disrupted markets in both micro and macro levels would invite financial crises.

In this context, personal knowledge level about the financial operations is simply described as financial literacy. Remund (2010) describes financial literacy as the best personal managing capacity to sustain individual financial status by taking variable economic conditions which may fluctuate as a result of various circumstances into account to interpret necessary financial concepts accurately for more efficient short term decisions and for long term financial planning.

From another point of angle, Schagen and Lines (1996) imply that financial literacy occurs around three fundamental characteristics of financial planning, problem solving and making financial decisions. Researchers emphasize that financial literate persons first need to comprehend fundamental concepts of money management. Moreover, they are required to be informed about operations of financial institution, service and systems as well as efficient handling of financial issues.

Financial literacy refers having basic knowledge about financial operations when having intention to use them. Moreover, among the indicators of financial literacy, there are interest rate, (simple interest rate, compound interest rate, default interest rate, contractual interest rate etc.), currency rate (real rate, cross rate, volatile rate etc.), inflation rate, stock equities, and government bond as well as their functions. Briefly, financial literacy could be described as capability of making financial planning for different financial circumstances and variables.

Financial education refers the education given by the various departments of universities such as economy, finance and business administration to build comprehensive financial knowledge and even to raise their graduates as the actors of financial markets. The difference of an individual who received financial education from a financial literate person is having superior level of knowledge as well as capability to have role in financial markets. More precisely, this is the expectation from the individuals who receive financial education. Employees actively employed within the scope of institutions and corporations such as banking systems, markets, financial companies are the one who received financial education.

Nevertheless, educational content and methods sometimes could not be practiced appropriately mostly due to the reasons caused by learners and expected outcomes may not be acquired. Based on this theory, the present study aimed to investigate the hypothesis of "financial literacy levels of university students who receive financial education are higher than the ones who does not receive financial education". In this regard, a survey study was conducted on the university students from the higher education institution located in Sütlüce County of Istanbul City. Collected survey data was analyzed in line with the objectives of the hypothesis test

2. Description and Indicators of Financial Literacy

From the widest scope, financial literacy is regarded as a concept used to indicate that an individual's knowledge level about financial services and products and their capability to use this knowledge to make the most accurate decisions. Yet there is no consensual description of financial literacy, it could be seen that almost all of these point out the same characteristics.

One the descriptions in the relevant literature, Noctorn et al. (1992) describe financial literacy as "capability of individuals to make sensible assessments and to make effective decisions when they are managing their personal funds consciously" (rep. by Goel and Khanna, 2013: 339).

Different perspectives adopted by the various studies in this field have resulted in variety in descriptions available in the literature. Such that this term differs from one country to another. While "financial adequacy" is adopted in

Canada and the Great Britain, "financial literacy" is used in Australia, “financial awareness” in the US and Turkey by various researchers (Dağdelen 2017:3).

The most evident correlation of financial literacy is with the financial decisions about acquisition and management of necessary finance for sustention of daily life; and it could be briefly stated as the knowledge for utility of financial instruments. From this fundamental approach, it is possible to state that financial literacy is capability to use these instruments and this capability is fundamental indicator for a financial literate individual. In this case, personal saving methods, their way of transforming savings into investment, way of management of their investments and their methods of using financial resources are regarded as indicators of financial literacy. Personal adequacy in these aspects has become substantially important in our contemporary world (Lusardi, 2008: 14).

When it is considered that frequent financial volatilities and economic crises are encountered in today’s world, it is undeniable that financial safety of individuals has gained greater importance. Furthermore, individual need for protection and development of financial assets have gained importance as well for sustaining personal life standard. In this regard, while the most important factors required to protect and develop financial assets are financial instruments, they cannot be employed by individuals with the same convenience and mostly they require personal expertise and capabilities. Otherwise, these instruments may yield momentarily losses for individuals instead of profits. Making investment in financial instruments based on unreliable information constitutes deliberate danger and results in economic losses from the social perspective (Temizel, 2010). When aforesaid and other reasons are taken into consideration, it is possible to state that it is necessary that individuals could develop their competency on these instruments and this competency could be considered in terms of financial literacy. From these explanations, it could be inferred that financial literacy is capability to practice financial knowledge rather than only having plane knowledge. In other words, financial literate individuals are regarded as persons who know how to make investment, could evaluate financial indicators and establish healthy communication with service providers.

Reyes (2006:82) suggests that individuals with low level of financial literacy do not only cause troubles on their own, they also cause problems in financial system. As a foundation of his theory, the author indicates that investors with missing financial information would experience bankruptcy and liquation action as a result of their losses, which cause problems in financial industry.

On the basis of the report on financial literacy to be submitted to the US presidential administration, capability indicators expected from the individuals or institutions with financial literacy are given below by the designated reporting committee (Bayram, 2010: 14):

- Sustention of cash flow,
- Prioritization of resources with respect to certain needs and preparing expenditure plans,
- Accumulation of funds against emergency situations,
- Making accurate decisions with home owning or leasing,
- Recognition of and determining financial risks,
- Taking measures against financial frauds,
- Making investment with basic investment tools by observing the balance between risk and return
- Making retirement plans.

These indicators refer knowledge domains contained by the financial literacy at the same time. These domains include the instruments needed for financial sustention and development of individuals in terms of investment as these investments in which aforesaid instruments were utilized are regarded as indicators for financial literacy level.

3. Financial Education and Its Benefits

Financial education oriented on training of individuals about competent usage of financial product and services contains acquisition of capabilities such as making accurate financial decisions, making planning, or assessment of applied plan. Individuals receiving financial education are not expected to be an expert in finance world. However, subject to the content of the organized education, this situation would contribute development of financial competency at different levels. On the other hand, educated individuals would gain vigorous knowledge helpful for the financial decisions for themselves or for their families along their life. They also would display more safe and efficient behaviors with their consumption, investment and saving decisions. Moreover, these educations enhance individuals’ investment competency for financial instruments.

Due to its meaning, the "education" phenomenon is an action to transfer details and practical issues of a certain subject to human beings. In this sense, financial education would not remain limited with teaching narrow scope of teaching names of investment tools to learners. This education also ensures learners to comprehend how to use these tools. Individuals who do not have financial education would not take any action with financial instruments because they even learn about conceptual details of these instruments, they lack of practical capabilities to take further action or their actions would result in failures. On the other hand, since educated investors are competent on how to assess all gained knowledge for investment purposes, they could exhibit more effective behavior and acquire more positive results. Yet, making investment with financial assets that have been saved along individuals' lives is somehow regarded among the vital objectives and their significance could be viewed in this way. In this context, any mistaken decision that could be made with them would result in loss or shortage of life-long savings, which could cause economic and psychologic harms with individuals. When this situation is evaluated from the social context, it is possible to mention economic damage made to the national economy. Accordingly, financial education displays significance in terms of both individual and society (Özçam, 2006: 2).

In an article published by the Economist in 2008, which concerned with financial education, an approach reflecting assessments made based on the mortgage crises and correlating experienced developments with financial illiteracy could be seen:

"Financial education helps to recognize the relationship between financial risk and return, to establish balance between income and expenditure through budgeting, to make saving and investment by families for their futures, to have better education for children of families, and to make better financial decisions. Consumers would be conscious about how to satisfy their needs and thus they contribute efficient function of economy. This would help to develop competitive environment in financial markets so that new services and products could be supplied to the markets. During the mortgage crisis in the US, it was revealed that majority of mortgage credit users were not aware that their monthly payments would be increased in parallel with the increasing interest rates afterwards the crisis. Therefore, financial illiteracy is considered greater problem for developed countries surprisingly rather than developing ones. Studies conducted in the US also suggest that individuals sustaining credit card debts are not aware that they would pay higher interest rate if they do not pay timely payments to their outstanding balance." (The Economist, 2008).

When current studies are taken into consideration, 40-50% of individuals who received investment education or self-educated through documents are found to make retirement plan for the future (Blau and Vanderhei, 2000: 85). Moreover, it is seen that educated individuals develop their knowledge levels about asset returns and they make more detailed amendments in their preferred contribution-based retirement plans. Additionally, it is seen that employers who help their employees to have financial education contribute welfare of their employees and accordingly they enhance loyalty, efficiency and productivity of their employees (Maki, 2001: 2).

Schug and Hagedorn (2005) studied the effect of financial education program on saving and investment capability of learners; and reported that education yields positive impact on these both actions. On the other hand, it is necessary to determine that how such education given during childhood period would be effective for adults. Providing financial education through various methods with respect to age and qualification of learners is crucially important to ensure success of the such efforts.

Gökmen (2012:49) considers financial education as a mean to fight against underground economy. Hence, the harm of the underground economy toward the economic system and society could be prevented and muscles of financial institutions could be strengthened in this fight. Any resulting aggrievement of this situation could be eliminated and social unity, welfare and peace could be established.

4. The Relationship Between Financial Education and Financial Literacy

Studies concerning description and benefits of financial education report personal achievements of this education as that enabling them to be more competent individuals in financial area and transforming them into more capable individuals in their financial actions. Thus, financial literacy levels of individuals are structured and developed as they gain better capability in financial system to make more robust investments. On the other hand, they acquire legal information about financial system so that they avoid any potential legal sanction. Financial education is also important issue in terms of acquiring minimum financial culture by individuals. Individuals having education in this way would gain knowledge and training on investment, saving, borrowing, and debt management, credit, insurance, and legal rights.

According to Hogarth and Hilgert (2002: 1-7) individuals who had financial education are found to be knowledgeable on asset management, banking, insurance, tax, credit and investment. Besides having fundamental knowledge on money and asset management subjects, individuals having this education could be capable of making plans in line with financial code of conducts.

Özçam (2006) reports the personal characteristics gained through financial education as below:

"…investor education includes not only teaching theoretical knowledge to individuals such as financial markets, financial institutions and investment tools, but also comprehension, assessment of these knowledge and developing capacity to practice them. Individuals who do not receive this education would not exhibit behavior patterns required by financial information even they are provided to them. On the other hand, individuals who receive financial education could be able to assess significance and impacts of information flow as well as responsive decisions and precautions. Moreover, the profit obtained from the businesses done after a certain financial education and the way of handling this income play significant role in welfare of individuals. When it is considered the fact that economical resources accumulated through borrowing or saving for years could be disappeared in a second as a result of mistaken investment decisions, the delicate role of investor education played in welfare development of individuals could be well recognized."

On the basis of the approach of the researcher, financial education would provide both fundamental financial information to individuals as well as teach them how to use this knowledge practically.

Inherently, this financial education and financial literacy concepts could be regarded as two proximate concepts. Financial education enables individuals to comprehend financial terminology as well as get acquainted with financial instruments and learn how to access them. Furthermore, they gain capability to make better decisions so as to protect themselves from the adverse consequences of mistaken decisions by developing their knowledge about decision making criterions.

5. Empirical Study

5.1. Research Method

In the present study, it was aimed to compare financial literacy levels of university students through sample group. In this sense, a descriptive research method was adopted. To that end, a survey method was employed to compare financial literacy levels of two student groups based on the collected survey data. Within the scope of the study, totally 168 students were distributed survey forms, and they were explained about the process. Since survey was applied in 2020 pandemic period, it was not possible to reach greater population. Collected survey forms were examined so that missing or false forms were to be excluded from the further analysis. Hence, totally 110 accurate forms were included in the survey study.

Data collection tool employed in the study was structured within the scope of the study under title of "Determination of Financial Literacy Level: A Case Study on Freelance Accountants and Financial Advisors in Aydın City" conducted by Dağdelen (2017); and its validity and reliability analysis was conducted. The scale was composed of 35 questions in two sections. In the first section, there were 29 items constructed 5-scale Likert model in order to measure financial literacy levels of respondents. In the second section, there were 6 multiple-selective questions to evaluate financial operation capabilities and knowledge levels of respondents within the scope of financial literacy levels. There was only one correct answer for each of these questions in the second section. The researcher examined the scale with single dimension and evaluated the correlations among variables based on the total scores from 35 questions. Moreover, overall reliability coefficient of the scale was reported as α= .749.

In this study, the scale was considered with two dimensions. Twenty-nine items with five-point Likert style were employed to evaluate financial literacy; the rest of 6 questions were for assessing financial math adequacy. Each correct answer given to each of these six questions increase 1 point the total score while wrong answers has no impact. Thus, the maximum score a respondent could get was 6 and the lowest score was 0. This scale was assessed in three groups of low, medium and high. If respondent's total score was in the range of 0-2, it was low while 3-4 corresponded to medium; 5-6 was high group. Additionally, factor analysis was conducted on the scale comprised of 29 items with 5-point Likert structure; and two-dimensional structure was determined, which were "Accounting Capability" and "Financial Management".

5.2. Findings

Characteristics of sampling group were exhibited in Table 1 below. Additionally, obtained research findings were exhibited in Table 2 and 3.

Table 1: Demographical Characteristics of Respondents (N=110)

Demographic Variables		n	%
Gender	Bay	50	45.5
	Bayan	60	54.5
Age Groups	18-27 Age	30	27.3
	28-33 Age	51	46.4
	34 and older	29	26.4
Degree	Bachelor	84	76.4
	Graduate	26	23.6
Year	1st Year	8	7.3
	2nd Year	6	5.3
	3rd Year	8	7.3
	4th Year	36	32.7
	Graduated	52	47.3
Received Economy Education?	Yes	85	77.3
	No	25	22.7
Monthly Income	0-3000 TL	28	25.5
	3.001-4.000 TL	35	31.8
	4.001-5.000 TL	47	42.7
Accommodation	Family	77	70.0
	Private Dorm or Flat	29	26.4
	Public Dorm	4	3.6
Financial Calculation Capability	Low	49	44.5
	Medium	59	53.6
	High	2	1.8

According to Table 1, 54.5% of respondents were female and the rest was male. In terms of age distribution of respondents, 27.3% was in group of 18-27; 46.4% was in 28-33; 26.4% was in 34 and older.

Study degrees of respondents were also asked in the survey and 76.4% of them were found to be at bachelor degree level while the rest 23.6% were at graduate degree level study. In terms of distribution of respondents with respect to their years at their universities, 7.3% was at their freshmen year; 5.3% was sophomore; 7.3% was third-year; 32.7% was at senior level; and 47.3% was graduate. From the economic/financial education perspective, 77.3% of respondents received economy/financial education; and the rest 22.7% did not receive.

From the income level distribution of respondents, 25.5% was in group of 0-3.000 TL; 31.8% was in 3.001-4.000 TL; and majority 42.7% was in 4.001-5.000 TL. In terms of accommodation of respondents, it was found that 70% of respondents were staying with their families; 26.4% was in private dormitory or leased apartment flats; and 3.6% was in public dormitories.

Regarding the financial calculation capacity of respondents, they were asked 6 questions. Based on the total scoring scheme, financial calculation capability of 44.5% of respondents were found to be low level; 53.6% was medium level; and 1.8% was high level. These findings suggested that respondents' financial calculation capacity was not adequate.

According to whether the respondents had education either on economy or finance, their Accounting Capability average scores were compared and obtained findings were exhibited in Table 2. According to these results, significant difference was seen in terms of accounting capability between the respondents who had economy-finance education and the ones who had not. Hence, it was inferred that accounting capabilities of students who declared they had received education was found to be superior than the ones who declared otherwise. In other words, it could be said that student who received economy/finance education were able to reflect their education to their daily life.

Table 2: The Relationship Between Accounting Capability and Receiving Economy Education

	Received Economy Education?	n	Ave.	t	P
Accounting Capability	Yes	85	4.8791	4.264	.009
	No	25	3.4022		

p<,05

The other financial literacy dimension was financial management. When average scores of respondents who received economy and financial education compared to the ones who did not, similar result was found with the accounting management case. Table 3 below exhibits the analysis results. According to these findings based on average scores, a significant statistical difference was determined between the group who received economy/finance education and who did not in terms of financial management capability. It is possible to suggest that this difference was in the favor of the group who received economy / finance education.

Table 3: The Relationship Between Financial Management Capability and Receiving Economy Education

	Received Economy Education?	N	Ave.	t	p
Financial Management Capability	Yes	85	4.2706	2.887	.003
	No	25	3.4900		

p<.05

6. Result

Financial literacy has gained significant importance for today's daily life along with evolving technological infrastructure and increasing financial instrument variety. In general, financial literacy represents knowledge level about economic and financial issues such as budget management, resources management and assignment, accumulation of financial resource.

In the field study conducted on 110 students, it was revealed that receiving accounting education was an advantage in terms of financial literacy. As a result of the variance comparisons conducted with respect to demographic variables (gender, age group, whether continuing to education or not, monthly income and life style), it was seen that these variables did not make significant difference in terms of financial literacy level. Although there are some studies indicating similar results in the literature (Yıldız, 2019; Yücel, 2017), there are other studies reporting that financial literacy levels of men are higher than women since men are considered to have greater responsibility for family livelihood in the society and consequently they are more concerned with financial subjects (Tosun, 2016; Er and Taylan, 2017; Erkılıç, 2019).

Moreover, on the basis of accounting capability, one of the financial literacy indicators in the center of this study, average accounting capability scores of students who received economy and financial education was found to be comparably higher than the other student who did not receive that education. Thus, it was possible to suggest that economy and financial education could enhance accounting capability of students.

Additionally, findings related with the financial management were in similar characteristic with accounting capacity. Average financial management scores of respondents differed significantly with respect to whether they received economy/financial education. Average scores of the students who received economy/finance education were found to be higher in comparison with the ones who did not. Thus, it was concluded that economy / finance education increased respondents' financial literacy levels.

Another notable point found in this study was that even though 77% of respondents received economy/finance education, only 1.8% of respondents' financial calculation capability was at high level while 44.5% was low and 53.6% at medium level. In consideration of these calculation capability levels, economy / financial education was effective on financial literacy but this effect occurred within the scope of different parameters. Yet, high level of financial calculation capacity was only determined with 1.8% of the sampling group even though 77% received economy / financial education. This finding was suggested as potential subject of future researches within the scope of various parameters.

References

Bayram, S. Seçil (2010), Finansal Okuryazarlık ve Para Yönetimi Davranışları: Anadolu Üniversitesi Öğrencileri Üzerine Uygulama, Yayınlanmamış Yüksek Lisans Tezi, Anadolu Üniversitesi Sosyal Bilimler Enstitüsü.

Bernheim, D.B., Garrett, Daniel M. ve Maki D. M.; (2001), "Education and Savings: The Long-Term Effects of High School Financial Curriculum Mandates", Journal of Public Economics, 80(3), pp. 435-465.

Blau, G. ve Vanderhei J.L. (2000), "Employer Involvement in Defined Contribution Investment Education", Benefits Quarterly, Fourth quarter Vol. 16 No. 4, pp. 80-89.

Dağdelen, T. (2017), Finansal Okuryazarlık Düzeyinin Belirlenmesi Ve Aydın İlindeki Serbest Muhasebeci Mali Müşavirler Üzerine Bir Uygulama, Adnan Menderes Üniversitesi Sosyal Bilimler Enstitüsü, Yayınlanmamış Yüksek Lisans Tezi, Aydın.

Goel, I. and Khanna, S. R. (2013). Financial Education as Tool to Achieve Financial Literacy. Eastern Economic Forum, 338-345.

Gökmen, H. (2012). Finansal Okuryazarlık. İstanbul: Hiperlink Yayınları, 1. Baskı.

Hogart, J. ve Hilgert, M. (2002). Financial Knowledge, Experience And Learning Preferences: Preliminary Results From A New Survey On Financial Literacy. Consumer Interests Annual. 48, 1-7.

Lusardi, A. (2008). Financial Literacy: An Essential Tool For Informed Consumer Choice" Joint Center For Housing Studies, Harvard University.

Özçam, M. (2006).Yatırımcı Eğitimi: Dünya Uygulamaları ve Türkiye İçin Öneriler. Ankara: Sermaye Piyasası Araştırma Raporu.

Remund, D. L. (2010). Financial Literacy Explicated: The Case For A Clearer Definition In An Increasingly Complex Economy. The Journal Of Consumer Affairs. 44(2),276-295.

Reyes, R. (2006). The Psychological Meanings Of Money. Doctorate Thesis, Usa:Alliant International Univercity.

Schagen, S. ve Lines, A. (1996). Financial Literacy In Adult Life. National Foundation For Educational Research.The National Foundation For Educational Research.

Schug, M. C., ve Hagedorn, E.A. (2005). The money savvy pig goes to the big city: Testing the effectiveness of an economics curriculum for young children. The Social Studies, 96(2), 68-71.

The Economist .(2008). Financial Literacy: Getting It Right On The Money.