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DETERMINATION OF FACTORS AFFECTING THE FINANCIAL LITERACY OF UNIVERSITY STUDENTS IN EASTERN ANATOLIA USING ORDERED REGRESSION MODELS

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ABSTRACT

Financial literacy is a factor that has a significant effect on financial development, stabilization and the economy. This study determined the factors affecting the financial literacy levels of formal and secondary education undergraduate students at Atatürk University. The study population was formal and secondary education undergraduate students at Atatürk University. A questionnaire was sent to 1,008 students who agreed to participate in the survey in the last quarter of 2018. In the study, factors affecting the financial literacy levels of undergraduate students were determined by ordered logistic regression and ordered probit regression analysis. The ordered logistic regression model was the best according to model comparison criteria. According to the results of this model, age, class, basic science field, gender, marital status, monthly personal income, watching eco-finance news status, and economic knowledge variables were found to be factors that affected financial literacy levels. In the study, it was determined that the financial literacy levels of women, those under 25 years old, university students in science, in the fourth year and above, having a monthly personal income of □1251 and below, single, not watching economic and financial news and with lower economic literacy were low. This study emphasizes the need to target these groups. These groups' financial literacy levels need to be improved.

Contribution/ Originality: The study was conducted at Ataturk University. Ordered regression analyses were conducted, rendering this study a distinctive one. In this study, important determinants of financial literacy were discovered.

1. INTRODUCTION

Financial literacy is the ability of an individual to understand and perfectly interpret basic financial concepts by taking into consideration events that may occur in life and changing economic conditions and to rationally handle personal financial conditions by making effective short-term decisions and long-term financial plans (Remund, 2010). An individual described as financially literate will have such abilities and behaviors as

understanding basic concepts of money management, having sufficient knowledge of financial institutions, the financial system and financial services, and exhibiting efficient and responsible behaviors related to the management of financial affairs (Schagen & Lines, 1996).

Being financially literate contributes to people and their families on a micro-level and to the national economy on a macro level and in the long term. Financially literate individuals manage their finances better and so improve in areas of money management, financial planning, savings, debt management and insurance (Refera, Dhaliwal, & Kaur, 2016). The importance of having knowledge on financial issues increases every day in a complicated financial world where information asymmetries are rapidly increasing (Hilgert, Hogarth, & Beverly, 2003). Consequently, in recent years, financial literacy has frequently been brought into question by many different groups including governments, politicians, banks, economists, the media and educators (Hilgert et al., 2003).

International interest in financial literacy education accelerated especially after the global economic crisis of 2008 (Blue, Grootenboer, & Brimble, 2014). The interest of financial institutions, educational institutions, public institutions and the media in financial literacy did not escape the notice of academics (Opletalová, 2015). Many financial literacy and educational projects emerged in the light of this trend regarding the understanding and interpreting of financial concepts. The PISA 2015 project conducted by OECD and intended to determine the financial literacy of students is a good example that shows the financial literacy levels by country (OECD, 2017). In addition, the concerns of countries with low financial literacy levels have led to the establishment and implementation of national financial literacy policies (Titko, Ciemleja, & Lace, 2015).

The issue of enhancing financial literacy among young people is one of the most fundamental agendas for politicians because today, financial products and services that young people can choose are different and more complex than in the past. Due to ambiguous economic conditions and declining job opportunities, it is also a fact that young people will have to face more unemployment and risk in the coming years. Financially literate individuals have basic information about financial products and services and exhibit less risky behavior in their financial decisions (Atkinson & Messy, 2012). Therefore, understanding the financial literacy of young people is critical for politicians in many areas. This understanding plays a contributing role for those wanting to generate effective financial education programs aimed at young people and to enact laws to protect young consumers (Lusardi, Mitchell, & Curto, 2010).

When the financial literacy of young individuals and students is evaluated within this framework, it is clear that a lack of financial literacy may cause significant problems. There are many studies showing that the financial skills of university students are insufficient. Therefore, the financial literacy of students has emerged as an important factor in determining how to overcome financial problems and how to manage (Mandell & Hanson, 2009).

In recent years, developed and developing countries have shown increasing interest in the financial literacy levels of citizens, notably university students. This study aimed to determine the factors affecting the financial literacy levels of formal and secondary education undergraduate students at Atatürk University by ordered logistic and probit regression models.

In the second section of this paper, the data, variables and the analysis methods used in the study are described. In the third section, the results of the research are described in detail. In the fourth section, the results are discussed and their relationship to studies in the literature is explored.

2. METHODS

2.1. Study Design and Data

The study's population is formal and secondary education undergraduate students at Atatürk University. The data set was obtained through a questionnaire. According to data from the 2018-2019 academic year, 42,729 undergraduate students were receiving formal and secondary education at Atatürk University (Atauni, 2018). The following formula was used to determine the size of the sample for the questionnaire:

$$n = \frac{NPQZ^2}{(N-1)d^2 + PQZ^2}$$

In this formula, n = sample size, N = population size (number of undergraduate students studying at Atatürk University), P = probability of the occurrence for a given event, Q = 1-P, Z= test statistic at a level of (1-α), α = significance level, d = tolerance (Özer, 2014).

Sample size, after necessary calculations were made in the formula, was calculated as:

$$n = \frac{42729(0,5)(0,5)(1,96)^2}{(42729-1)0,05^2+(0,5)(0,5)(1,96)^2} = 381$$

The minimum sample size aimed at in the study was 381. Consequently, 1008 responses to the questionnaire exceeded the minimum sample size.

2.2. Measures and Variables

The dependent variable of the study was the financial literacy level (low, medium, high) of formal and secondary education undergraduate students at Atatürk University.

One of the independent variables included in the study was the state of knowledge about economic terms. Students were asked 12 questions to measure their knowledge of economic terms: subsistence wage, consumer price index (CPI), stock, current account deficit, Gross National Product (GNP), world gold prices, growth rate, Istanbul Stock Exchange (BIST), compound interest, cross rates, International Monetary Fund (IMF), and devaluation. If the students know these terms, they were coded as "1", if not "0". Those who did know "six or more" of these terms were considered "knowledgeable with the economy", and those who knew "five or less" as "not knowledgeable with the economy".

Other independent variables included in the study were: age (18 and under, 19-21, 22-24, 25 +), class (1, 2, 3, 4 and +), marital status (married/engaged/single), gender (female, male), science field (social sciences, sciences, health sciences, educational sciences), monthly personal income (□750 and below, □751-1250, □1251 and more), scholarship status (yes, no), working status (yes, no), using credit cards (yes, no), using internet banking (yes, no), watching economic-financial news (yes, no), and run out of money status (yes, no).

Ordinal and nominal variables were defined as dummy variables to observe the effects of the categories of all variables to be taken into the ordered logistic regression and ordered probit regression models (Alkan & Abar, 2020).

2.3. Research Methods

The SPSS 20 and Stata 14 programs were used to analyze the data. First, the frequency and percentage of the students who participated in the survey were obtained according to their financial literacy levels. The chi-square test of independence was performed to investigate the relationship between financial literacy levels and independent variables. Then, the factors that influence financial literacy levels were determined using ordered logistic regression and ordered probit regression analysis.

3. RESULTS

3.1. Descriptive Statistics and Chi-Square Tests

Socio-economic and demographic variables are shown in Table 1. 51.1% of the students in the study were female and 48.9% were male. The highest participation rate in the study was observed in the 19-21 age group. 28.3% of the students are in the third grade. The percentage of married students was 12.2%. 34.5% of the students were studying social sciences, 26.4% science, 22.2% educational sciences, and 16.9% health sciences. While the

percentage of students with a monthly personal income of □750 or below was 60.6%, the proportion of students with an income of □1,251 or more was 9.8%. It was determined that 60.5% of the students who participated in the study worked to earn money and 72.5% of them received scholarships or education credit. It was detected in the study that 54.5% of the students used credit cards and 75.8% of them used internet banking. While 50.9% of the students answered "yes" to the question "Have you ever been without money for a long time?", 46.3% answered "no" to the question "Do you watch economic and financial news?" It was also determined that 73.1% of the students had economic knowledge, while 26.9% of them did not.

The financial literacy levels of 48.2% of the students in the age group of 18 and under were low, while 41% were fair and 10.8% were high. 61.6% of the students in the age range of 22-24 were mid-level financially literate, while 15.7% were high-level. The financial literacy level of 46.9% of the students in the age group of 25 and over was fair and 25% was low. While 50.5% of the students studying in the first year had mid-level financial literacy, 12.5% were at a high level and 37% were at a low level. Similarly, 57.5% of the students studying in the third year had mid-level financial literacy while 22.8% were at a low level and 19.6% were at a high level. 56.7% of single students were mid-level financially literate, with 28.4% at a low level and 14.9% at a high level. 55% of female students were mid-level financially literate, with 33.4% at a low level and 11.7% at a high level.

54.6% of the students whose science field is social sciences were mid-level financially literate, with 26.1% at a low level and 19.3% at a high level. 59.6% of students whose monthly personal income was □750 or less were mid-level financially literate with 28.2% at a low level and 12.3% at a high level. Similarly, 50.5% of students whose monthly personal income was 1.251 or higher were mid-level financially literate with 37.4% high-level financially literate and 12.1% low-level financially literate. 67.3% of working students were at a high level of financial literacy with 61.1% at a medium level and 55.4% at a low level. 61.6% of students who watched economic and financial news were at mid-level financial literacy with 20% highly financially literate and 18.5% at a low level of financial literacy. 57% of the students using credit cards were at mid-level financial literacy while 25% were at a low level and 18% were at a highlevel. 58.6% of the students using internet banking were at mid-level financial literacy while 25.3% were at a low level and 16.1% were at a high level of literacy. 18.9% of the students with economic literacy were at a low level, 62.3% were at a mid level and 18.9% were at a high level of financial literacy.

3.2. Ordered Logistic and Ordered Probit Regression Model Estimation

To define the factors affecting the financial literacy levels of students who participated in the study, ordered logistic regression and ordered probit regression models were performed. In the study, we tested whether there was multicollinearity between the independent variables to be included in ordered regression models. It is thought that those with Variance Inflation Factor (VIF) values of five and above cause multicollinearity to a medium degree, while scores of 10 and above cause it to a high degree (Alkan, Oktay, & Genç, 2015). When Table 2 is examined, no variables cause strong multicollinearity problems between the variables.

The results and the marginal effects of estimated ordered logistic and ordered probit regression models are given in Table 2. In the models, the "high" category of the dependent variable was taken as the reference category. We also tested whether the ordered logistic and ordered probit regression models provided the parallel regression assumption. According to the test results, parallel regression assumption was provided (χ^2=28; df=20; p=0.109).

The comparison criteria of the models used in the study are given in Table 3. The ordered logistic regression model with lower AIC and BIC values and larger Pseudo R^2 and Cox-Snell/M value can be said to be the best model.

Table-1. Findings related to factors affecting financial literacy levels.

Variables		N (%)	Financial Literacy Level n (%)			P
			Low	Medium	High	
Age	18 and under	83(8.2)	40(48.2)	34(41.0)	9(10.8)	0.000[a]
	19-21	504(50.0)	139(27.6)	289(57.3)	76(15.1)	
	22-24	357(35.4)	81(22.7)	220(61.6)	56(15.7)	
	25 +	64(6.3)	16(25.0)	30(46.9)	18(28.1)	
Class	1	216(21.4)	80(37.0)	109(50.5)	27(12.5)	0.010[a]
	2	267(26.5)	68(25.5)	156(58.4)	43(16.1)	
	3	285(28.3)	65(22.8)	164(57.5)	56(19.6)	
	4 and +	240(23.8)	63(26.2)	144(60.0)	33(13.8)	
Marital Status	Married	123(12.2)	25(20.3)	71(57.7)	27(22.0)	0.051[c]
	Single	885(87.8)	251(28.4)	502(56.7)	132(14.9)	
Gender	Male	493(48.9)	104(21.1)	290(58.8)	99(20.1)	0.000[a]
	Female	515(51.1)	172(33.4)	283(55.0)	60(11.7)	
Basic Science Field	Social Sciences	348(34.5)	91(26.1)	190(54.6)	67(19.3)	0.056[c]
	Science	266(26.4)	74(27.8)	164(61.7)	28(10.5)	
	Health Sciences	170(16.9)	50(29.4)	87(51.2)	33(19.4)	
	Educational Sciences	224(22.2)	61(27.2)	132(58.9)	31(13.8)	
Monthly Personal Income	□750 and less	611(60.6)	172(28.2)	364(59.6)	75(12.3)	0.000[a]
	□751-□1,250	298(29.6)	92(30.9)	159(53.4)	47(15.8)	
	□1.251 and +	99(9.8)	12(12.1)	50(50.5)	37(37.4)	
Scholarship Status	No	277(27.5)	75(27.1)	156(56.3)	46(16.6)	0.905
	Yes	731(72.5)	201(27.5)	417(57.0)	113(15.5)	
Working Status	No	398(39.5)	123(44.6)	223(38.9)	52(32.7)	0.047[b]
	Yes	610(60.5)	153(55.4)	350(61.1)	107(67.3)	
Eco-Financial News	No	467(46.3)	176(37.7)	240(51.4)	51(10.9)	0.000[a]
	Yes	541(53.7)	100(18.5)	333(61.6)	108(20.0)	
Using a Credit Card	No	459(45.5)	139(30.3)	260(56.6)	60(13.1)	0.039[b]
	Yes	549(54.5)	137(25.0)	313(57.0)	99(18.0)	
Internet Banking	No	244(24.2)	83(34.0)	125(51.2)	36(14.8)	0.028[b]
	Yes	764(75.8)	193(25.3)	448(58.6)	123(16.1)	
Run Out of Money Status	No	495(49.1)	143(28.9)	275(55.6)	77(15.6)	0.571
	Yes	513(50.9)	133(25.9)	298(58.1)	82(16)	
Economic Knowledge	No	271(26.9)	137(50.6)	114(42.1)	20(7.4)	0.000[a]
		737(73.1)	139(18.9)	459(62.3)	139(18.9)	

Note: [a]p<.01; [b]p<.05; [c]p<.10

According to the ordered logistic regression model given in Table 2, the probability of a student in the 19-21 age range being financially literate at high-level, when compared to the 18 and under age group, was 5.3% more, whereas the probability of a student in the 22-24 age range being highly financially literate was 6.4% more. The probability of a student in the age group of 25 and over being mid-level financially literate was 5.8% more than the 18 and under age group, while the probability of being high-level financially literate was 11.1% more. The probability of a third year student being mid-level financially literate was 2.2% more than the reference group while being high-level financially literate was 4.9% more. The probability of students studying science being mid-level financially literate was 1.7% lower than the reference group while being high-level financially literate was 3.9% lower.

The probability of male students being mid- and high-level financially literate compared to female students was 2.2% and 5% more, respectively. The probability of a single student being mid-level financially literate compared to a married/engaged student was 1.2% lower. The probability of a student with a monthly personal income of □1,251 and above being high-level financially literate was 13.2% more compared to a student with an income of □750 and below.

Table-2. The results of ordered regression models and marginal effects.

Variables		Ordered Logistic Regression				Ordered Probit Re□ression				VIF
		B	dy/dx			β	dy/dx			
			Low	Medium	High		Low	Medium	High	
Age (reference category: 18 and under)										
	19-21	0.528[c] (0.277)	-0.100[c] (0.056)	0.047 (0.032)	0.053[b] (0.024)	0.282[c] (0.158)	-0.090[c] (0.053)	0.036 (0.027)	0.053[b] (0.026)	4.59
	22-24	0.619[c] (0.323)	-0.116[c] (0.063)	0.051 (0.034)	0.064[b] (0.030)	0.318[c] (0.184)	-0.101[c] (0.061)	0.039 (0.029)	0.061[c] (0.032)	5.76
	25 and +	0.954[b] (0.428)	-0.169[b] (0.075)	0.058[c] (0.032)	0.111[b] (0.052)	0.514[b] (0.246)	-0.155[b] (0.073)	0.046[c] (0.027)	0.109[b] (0.054)	2.67
Class (reference category: 4 and +)										
	1	0.121 (0.260)	-0.022 (0.047)	0.008 (0.019)	0.013 (0.028)	0.447 (0.149)	-0.014 (0.046)	0.005 (0.016)	0.008 (0.029)	2.85
	2	0.287 (0.227)	-0.051 (0.040)	0.018 (0.015)	0.033 (0.026)	0.149 (0.130)	-0.045 (0.040)	0.014 (0.013)	0.031 (0.027)	2.51
	3	0.409[b] (0.194)	-0.071[b] (0.034)	0.022[c] (0.013)	0.049[b] (0.022)	0.235[b] (0.112)	-0.070[b] (0.034)	0.018 (0.011)	0.051[b] (0.024)	1.94
Basic science field (reference category: educational sciences)										
	Social Sciences	-0.069 (0.174)	0.011 (0.028)	-0.002 (0.006)	-0.008 (0.022)	-0.050 (0.100)	0.014 (0.028)	-0.002 (0.005)	-0.011 (0.023)	1.73
	Science	-0.324[c] (0.184)	0.056[c] (0.031)	-0.017[c] (0.010)	-0.039[c] (0.022)	-0.200[c] (0.107)	0.059[c] (0.031)	-0.016[c] (0.009)	-0.043[c] (0.023)	1.68
	Health Sciences	-0.280 (0.212)	0.048 (0.036)	-0.014 (0.011)	-0.034 (0.025)	-0.148 (0.121)	0.043 (0.036)	-0.010 (0.009)	-0.033 (0.026)	1.56
Gender (reference category: female)										
	Male	0.418[a] (0.143)	-0.072[a] (0.024)	0.022[b] (0.008)	0.050[a] (0.017)	0.241[a] (0.081)	-0.072[a] (0.024)	0.019[a] (0.007)	0.052[a] (0.018)	1.26
Marital Status (reference category: married)										
	Single	-0.355[c] (0.202)	-0.058[c] (0.031)	-0.012[a] (0.004)	-0.046 (0.028)	-0.199[c] (0.118)	0.056[c] (0.032)	-0.010[a] (0.003)	-0.046 (0.029)	1.13
Monthly Personal Income (reference category: □750 and under										
	□751-□1250	-0.130 (0.151)	0.023 (0.027)	-0.008 (0.010)	-0.014 (0.016)	-0.065 (0.086)	0.020 (0.026)	-0.006 (0.009)	-0.013 (0.017)	1.17
	□1251 and +	0.875[a] (0.241)	-0.128[a] (0.030)	-0.003 (0.0□4)	0.132[a] (0.041)	0.496[a] (0.138)	-0.128[a] (0.031)	-0.002 (0.012)	0.130[a] (0.040)	1.27
Scholarship Status (reference category: no)										
	Yes	0.088 (0.157)	-0.015 (0.027)	0.004 (0.009)	0.010 (0.018)	0.049 (0.090)	-0.014 (0.027)	0.004 (0.007)	0.010 (0.019)	1.24
Working Status (reference category: no)										
	Yes	-0.185 (0.149)	0.031 (0.025)	-0.009 (0.006)	-0.022 (0.018)	-0.105 (0.086)	0.031 (0.025)	-0.007 (0.006)	-0.023 (0.019)	1.34
Credit Card Usage Status (reference category: no)										
	Yes	0.119 (0.140)	-0.002 (0.024)	0.000 (0.007)	0.001 (0.017)	-0.017 (0.081)	0.005 (0.024)	-0.001 (0.006)	-0.003 (0.017)	1.25
Run Out of Money Status (reference category: no)										
	Yes	0.102 (0.136)	-0.017 (0.023)	0.005 (0.007)	0.012 (0.016)	-0.062 (0.079)	-0.018 (0.023)	0.004 (0.006)	0.013 (0.017)	1.18
Internet Banking (reference category: no)										
	Yes	0.060 (0.162)	-0.010 (0.028)	0.003 (0.009)	0.007 (0.019)	0.050 (0.093)	-0.015 (0.028)	0.004 (0.008)	0.010 (0.019)	1.21
Eco-Financial News (reference category: no)										
	Yes	0.552[a] (0.137)	-0.098[a] (0.024)	0.033[a] (0.010)	0.065[a] (0.015)	0.312[a] (0.078)	-0.095[a] (0.024)	0.027[a] (0.008)	0.067[a] (0.016)	1.15
Economic Knowledge (reference category: no)										
	Yes	1.133[a] (0.155)	-0.225[a] (0.032)	0.114[a] (0.022)	0.111[a] (0.013)	0.640[a] (0.089)	-0.213[a] (0.031)	0.094[a] (0.019)	0.118[a] (0.014)	1.13
Cut1		0.614 (0.449)				0.281 (0.258)				
Cut2		3.644 (0.465)				2.062 (0.263)				

Note: [a]p<.01; [b]p<.05; [c]p<.10; The values in parentheses are the standard errors; VIF: Variance Inflation Factor.

Table-3. Comparison of models.

Criteria	OLOGIT	OPROBIT
Pseudo R^2	0.0892	0.0865
Cox-Snell/M	0.158	0.154
AIC	1819.761	1824.997
BIC	1927.907	1933.143
P-value	0.0000	0.000
N	1008	1008

Note: OLOGIT: Ordered Logistic, OPROBIT: Ordered Probit.

The probability of a student watching economic and financial news being mid-level financially literate was 3.3% more than a student who does not watch economic and financial news while being high-level financially literate was 6.5% more. A student with economic knowledge was 11.4% more likely to have a mid-level financial literacy than a student with no economic literacy and 11.1% more likely to have high-level financial literacy.

4. DISCUSSION

In recent years, financial literacy has become an issue for families, financial institutions, students, financial experts, and educators. Many organizations now prioritise increasing the financial literacy levels of university students. This is because the financial literacy levels of university students affects their academic success during the university years and the financial decisions made during university have a significant impact on their financial status after they leave. Examination of financial literacy levels of young individuals is important if they are to look to the future with more confidence. This study determined the factors affecting the financial literacy levels of formal and secondary education university students.

The measurement of financial literacy levels of young people, especially university students, and whether they differ according to varied socio-demographic variables (gender, department, work experience, age, marital status, etc.) have been explored in both international and national literature in recent years (Ansong & Gyensare, 2012; Beal & Delpachitra, 2003; Chen & Volpe, 1998; Cude et al., 2006; Louw, Fouché, & Oberholzer, 2013; Lusardi et al., 2010). These studies aimed to increase the knowledge and competence of young people on financial issues, to help them informed decision making on financial issues and, within this framework, to achieve a sustainable and stable economic structure at the community level. The reason for attaching more importance to the financial literacy of university students was their tendency towards high consumption and their getting a start in business in the next few years. Therefore, university students will have significant effects on the economy. Students who graduate lacking financial knowledge and experience may be more likely to make mistakes in the following years. For most students, university is where they make budget decisions without family supervision for the first time. The knowledge and behavior they learn in this period will have a significant impact on their financial status both during and after their university years. Recent research underlines this situation. It shows that young people who receive financial education in the early stages of their working careers earn more financial income for the rest of their lives (Lusardi., Michaud, & Mitchell, 2017).

In the study, it was found that men had higher financial literacy levels than women. Similar results have been obtained in other studies (Chen & Volpe, 1998; De Clercq & Venter, 2009; Dvorak & Hanley, 2010; Falahati & Paim, 2011; Furtuna, 2007; Lusardi et al., 2010; Volpe, Chen, & Pavlicko, 1996; Worthington, 2005). It has been suggested that the socialization of women financially can create differences in their financial literacy levels over time (Agnew & Cameron-Agnew, 2015). Increasing the level of education of women and allowing them to participate more especially in business life can be important factors in increasing women's financial literacy levels.

The financial literacy levels of students aged 25 and over were found to be higher than those of younger students. Within this framework, age was detected to be a determinant on the financial literacy levels of Atatürk

University students. There are studies with similar results in the literature (Chen & Volpe, 1998; Danes & Hira, 1987; Ergün, 2018).

In the study, the financial literacy level of students studying science was determined to be low. In the literature, the financial literacy of students studying economic and administrative sciences was higher than that of students studying engineering sciences, sports sciences, tourism sciences, educational sciences, science, and social sciences (Chen & Volpe, 1998; Ergün, 2018; Hanna, Hill, & Perdue, 2010; Rasoaisi & Kalebe, 2015; Volpe et al., 1996).

It was found out that the financial literacy level of the third-year students was higher than those in higher classes. There are studies supporting this result in the literature (De Clercq & Venter, 2009; Ergün, 2018) but others that do not. That is to say, there are studies in which university students receiving education in lower classes were found to have low financial literacy levels (Chen & Volpe, 1998; Shaari, Hasan, Mohamed, & Sabri, 2013).

It was concluded that students with a monthly personal income of □ 1,251 and over had a high level of financial literacy. This result was consistent with the literature (ANZ, 2003; Atkinson & Messy, 2012; De Clercq & Venter, 2009; Klapper & Panos, 2011). Allocating more financial resources to education with the increased income level, together with the increased education level, positively influences the financial literacy levels of students.

The financial literacy levels of single students were determined to be lower than those of married/engaged students. A similar finding has been reported in the literature (ANZ, 2003; Beal & Delpachitra, 2003; Gökmen, 2011).

It was also found out that the students with economic literacy had higher financial literacy levels than students without economic literacy. If young people with insufficient knowledge of financial issues actively participate in the labor market, they could consume more than those with such knowledge. As a result, individuals and the overall economy could encounter problems of severe debt.

Students are predicted to be informed about economic terms before university and so make conscious decisions on financial issues and not fall into debt. In a study to examine the financial knowledge levels of first-year economics students, it was concluded that the financial knowledge levels of students who previously received economics education were higher. It has been suggested that providing financial education at all levels will positively affect the financial knowledge development of young individuals (Ergün, 2018).

In another study, it was determined that in terms of the importance of financial education among young people, students studying economics and business administration had higher financial literacy levels than those who did not receive education in this field (Rasoaisi & Kalebe, 2015). In a study conducted in the United States on what and how young people want to learn about money, it was concluded that young people wish to receive education on financial issues such as the importance of savings, credit, and money. The preferred environment for such education was the Internet (Varcoe, Peterson, Wooten Swanson, & Johns, 2010).

5. CONCLUSION

It may be useful to offer optional personal finance lessons to students in all university departments separate from the lessons that are a compulsory part of their education. The introduction of a compulsory course including basic knowledge of economic subjects into the university education curriculum, especially for the first-year students, might positively affect the financial knowledge and behavior of students in the following years and after university. With such an application, different ages and fields of study, which emerged as the main determinants of financial literacy in this study, might be removed in time. Considering the decisive impact of gender on financial literacy, providing more opportunities for female students to work within the university, encouraging them towards internships and including them in additional incentive financial literacy training might reduce the gap between women and men.

The results of this study could also encourage the creation of financial literacy research units within universities. Such institutional structures could increase the financial literacy of university students by cooperating

with local, national and international economic institutions, banks and financial organizations, conducting such national and international studies could provide beneficial results.

Running national and international projects in universities could also improve the financial literacy of students. Involvement of youth communities in universities, especially in financial literacy, organizing activities such as panels and conferences where students can actively participate, and ensuring the participation of competent domestic and foreign researchers in these conferences may raise awareness on this issue.

This study had some limitations. First, this study was conducted only on undergraduate students at Atatürk University. The results cannot be generalized to university students other than Atatürk University students. Since cross-sectional data were employed in this study, it cannot be considered appropriate to determine long-term changes. This study should only be considered as effective in determining the current situation in terms of determining the factors that affect student financial literacy levels. The level of financial literacy was determined according to student responses. Therefore, the results could be biased. The questionnaire prepared for this study consisted of multiple-choice questions. Open-ended questions were not added to the questionnaire. This may have prevented students from making an explanatory reply on financial issues. Despite these limitations, the work is a significant source of information for future studies, for educators and for those involved in planning financial literacy education.

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