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## RESEARCH ARTICLE

# Financial Literacy in Agricultural Products Industry: The Case of Kastamonu

Tolga Ulusoy<sup>1</sup>, Mehmet Yunus Çelik<sup>2\*</sup>

<sup>1</sup>Kastamonu University, Faculty of Economics and Administrative Sciences, Department of Banking and Finance, Kastamonu/Turkey <sup>2</sup>Kastamonu University, Faculty of Economics and Administrative Sciences, Department of Economics, Kastamonu/Turkey

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#### **ABSTRACT**

The aim of this study was to reveal the literacy in banking sector of real or legal bank clients who have the right to take commercial and agricultural loans, have bank accounts and are operating in agricultural products industry in Kastamonu city center and districts, and which groups are more financially literate. In the study, the data was acquired by using face-to-face survey method with 400 real and legal persons who are operating in agricultural products industry, and it was determined that the financial literacy level of bank clients increase as the educational level increases. In the survey created in order to measure their knowledge about banking, among the answers given by those concerned, we have tried to determine problems that were considered to be related to each other. Considering the results obtained from the research, suggestions were developed, regarding what must be done in order to improve the banking sector literacy of bank clients in Kastamonu. The survey data indicate that the farmers are not attending to the banking sector at a professional level.

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### Introduction

Banks have an important position in the financial markets. Having a significant place in every fields of our lives and constituting one of the foundation stones of the economy today, the basic function of banks is to establish connection and mediate between persons and organizations fund surplus and persons and organizations having funding need. While the banks carrying out their basic functions, they touch almost every point of social and economic life in order to provide profit and value maximization, and actively operate in the markets with their broad range of products.

Since banking activities have to act in unison with all sectors that direct the country economics, they exist where capital exists; that is why they dynamically continue their

Materials and Methods

existence in every sectors that constitute basis for development of a country. They are in contact with both persons operating in agriculture, especially the agriculture and livestock sectors having a considerable share in our country's economy in regard to the significance of agriculture in Turkey, and legal persons.

In the study, we have tried to reveal whether the farmers, who operate in the production of agricultural products in Kastamonu city and its districts, benefit from banking products and services or not in order to make these activities sustainable. The information regarding the literacy level of individuals, who are engaged in farming and benefit from banking products and services, and for what purpose they use these products and services has been introduced as a result of the surveys conducted.

E-mail address: mycelik@kastamonu.edu.tr

<sup>\*</sup> Corresponding author

#### **Conceptual Framework**

Financial literacy means that the people have enough knowledge to use and manage their money in the most efficient way. The main factor represented in financial literacy is the financial pillar of the correct use of scarce resources, which is also shaped in the nature and definition of economics. Financial literacy includes four important concepts. These concepts are income, spending, wealth and debt. From the perspective of banking, what is made of monetary aggregates or all liquidable financial assets can ben given as example for income; the expenditure arising from purchases and sales in financial transactions including taxes for spending; the interests of financial aggregates used, credit cards in particular, for debts; and financial aggregates for wealth. Financial literacy means for persons to have knowledge regarding money and capital markets in order to live in social wealth, to use this in the most efficient way, and to be in discipline and determination with required methods and knowledge. The ability to manage the situations of having liabilities and receivables before banks and to be familiar with basic concepts in banking sector constitute the outlines of the conceptual framework. Individuals who want to improve themselves on the financial literacy should pay attention to the concept of literacy under three main topics:

- Managing the money
- Choosing financial products and services
- · Making savings

Within the above-mentioned conceptual framework, in terms of financial literacy, what banking sector expects from the ones with fund surplus and the ones with funding need is based on the principles that the communication is clear, the desired outcomes are achievable, the goals are realistic and the stakeholders share their wishes openly.

Agricultural sectors, on the other hand, have great importance on the economy for the reasons that they meet the food needs, provide raw materials for agro-industries, provide employment and reduce foreign dependency. In order to sustain the agricultural economy, it is a necessity for all stakeholders, especially the individuals who operate in the sector, live in villages and provide for themselves by these means, to basically understand or interpret the law, regulations, rights and processes of funding amounts and conditions, organizations and institutions for the production of goods and services. "Daily agricultural life" depending on the sustainability of financial power required has an important place in the information chain of banks, who are the most easily accessible mediators for the continuance of this power. The main purpose for taking loans is to provide inputs in sufficient amount with the loan taken and to ensure the production amount and sustainability (Aksu, 2012).

Agricultural subsidies in our country are mostly provided by the projects supported by the government and state banks who participate in their funding processes. Cooperatives and unions have been seen as a tool by the state in order to support the agriculture, and been effective in the funding of traditional Turkish agriculture and in the development of funding. Along with the fast-growing banking sector, many public or private

banks provide subsidies in suitable terms in order to support farmers (Özçelik et al., 2005).

Forming the basis for the study, the sample is Kastamonu, a city located in Karadeniz Region of our country, where loans for agriculture and livestock are used quite intensively. Despite the fact that 59% of the lands of Kastamonu are woodlands and heaths, it is known that the total agricultural area is 367,445 hectares. 123,891 hectares of this area is suitable for dry farming and 243,554 hectares area is suitable for irrigable farming. In Kastamonu that is not completely under the influence of Karadeniz climate, the important agricultural products produced are wheat, barley, potato, sugar beet and garlic(www.kastamonutarim.com).

When it is examined in terms of banking sector, according to Türkiye Bankalar Birliği (The Banks Association of Turkey) data, there are 184 ATMs of banks having 9577 member businesses around the city and 7 banks are operative with 567 employees. Total deposit is 1,484,881 (thousand) TL and 558,202 (thousand) of which is from agricultural sector.

#### Literature

Kofarmata (2016) attests that poorer farmers are more likely to be excluded from the credit market than better-off households. Consequently, the finding in the credit market model recommends that there is need to build trust, encourage commercial farming, apply modern farming tools, strengthen property rights and increase financial literacy among farmers Lalrinmawia and Gubta (2015) examines the level of financial literacy among farmers of Lunglei district India. A survey of 320 farmers all over the district of Lunglei had been conducted. Das (2016) approaches adopted in measuring the level of financial literacy in different studies and finally an analysis is carried out on determinants of financial literacy level among different groups of people. Gaurav and Singh (2012) assesses the financial literacy and cognitive ability of farmers using data from a unique field experiment in the Indian state of Gujarat. Using ordered response models, the effect of farmers' education on cognitive ability and financial literacy is estimated on the one hand, and the relationship between cognitive ability and financial literacy is analysed on the other. Cole et. Al. (2009) show that Önancial literacy is a powerful predictor of demand for Önancial services. Schuchardt et. Al. (2009) identify critical research questions that could inform outcomes-based financial education, relevant public policy, and effective practice leading to personal and family financial literacy. Lusardi et. Al. (2010) examined financial literacy among the young showed that financial literacy is low. Akdağ (2018) has examined the factors affecting the decisions of individual investors in TR81 level 2 cities (Bartın, Karabük Zonguldak). While Aydın and Ağan (2018) have investigated the effect of irrational decisions on financial investment choices, Bayrak and Pelenk (2018) have established their research sample on the financial literacy levels of the students of Recep Tayyip Erdoğan University, and Bayrakdaroğlu and Bilge (2018) have researched the effect of financial education on financial literacy in women. Berekeci and Arıçay (2018) have conducted a field research on Islamic financial literacy at Kahramanmaras Sütçü İmam University; and Conturk (2018) has evaluated the factors that affect the

familiarity level of students of Muğla Sıtkı Koçman University with financial matters. While Durmuş and Yardımcıoğlu (2018) have studied on financial literacy through theology students, Güney and Tanyıldızı (2016) have conducted a field research regarding tradesmen and craftsmen of Ağrı city. Kanmaz (2018) and Karyağdı (2018) have respectively tried to measure the literacy of individual equity share investors and the level of financial awareness of students of Bitlis Eren University Vocational School of Health Sciences. While Sakınç (2018) have addressed the importance of financial literacy in evaluating the savings, Sebetçi (2018) have researched the relationship between mobile applications and financial literacy.

#### **Data Set and Method**

In the study, the data was obtained by face-to-face survey method, conducted on 400 real and legal persons operating in agricultural products sector in Kastamonu. The data has been analyzed by using T test and ANOVA test with the help of SPSS 22 statistics package software. While conducting ANOVA test in this study, Lenave statistics was used in order to obtain data regarding whether intergroup variants had been distributed ordinarily. According to the Leneve statistics, it was determined that intergroup variants had not been distributed equally. In the study, Tamhane's T2 and Thamhane's T3 test statistics have been utilized. In cases where intergroup variants are not equal, post-hoc statistics to be used change. Statistics to be used in this case: Games-Howell, Tamhane's T2, Tamhane's T3, Dunnet's C and Dunnet's T3; and they are only processed as "multiple test" (Sparks, 1963).

#### **Results and Discussion**

Table 1. Demographic characteristics of participants

	Frequency	Percentage
Gender		
Male	346	86.5
Female	54	13.5
Age		
Ages 18-30	23	5.8
Ages 31-45	169	42.3
Ages 46-55	103	25.8
Ages 56-65	49	12.3
65 and older	56	14.0
<b>Educational Status</b>		
Primary School	175	43.8
Secondary school	88	22.0
High School	118	29.5
Associate Degree	5	1.3
License	14	3.5
Experience in the Sector		
10 years and less	105	26.3
11-20 Years	114	28.5
21-30 Years	91	22.8
31-40 Years	56	14.0
More than 40 years	34	8.5

According to the Table 1, 13.50% of participants are males and 86.50% females. The vast majority of participants are males. When the graph regarding the ages of participants is reviewed; it is seen that 5.75% are between ages 18-30, 42.25% between ages 31-45, 25.75% between ages 46-55, 12.25%

between ages 56-65, and 14% age 65 and above. When the graph regarding the educational status of participants is reviewed; 45.75% of the participants stated that their educational level is primary education, 22% secondary education, 29.5% high school education, 1.25% associate degree, and 3.50% license education. 26.25% of the participants stated that they have been operating in their sector for 10 or less years, 28.50% between 11-20 years, 22.75% between 21-30 years, 14% between 31-40 years and 8.50% 40 or more years.

According to research data, 55% of the participants prefer public banks and 44.8% prefer private banks. We observe that the most important factor affecting the bank preferences of clients is interest rates. It is seen that, in addition to the interest rates, the advice from clients' acquaintances and the bank products are also effective on clients' preferences. The vast majority of clients perform loan transactions most frequently at banks. It appears that another transaction performed intensively at banks is deposits and withdrawals. The majority of bank clients have stated that they do not experience any problems with their banks.

The vast majority of participants who use credit cards expressed that they have 1 or 2 credit cards. It is noteworthy that 23.5% of the clients using credit cards do not know whether an annual operating fee is cut from their credit cards. 72.8% of credit card users stated that they sometimes or never check their expenditure bills. This situation indicates that the clients are vulnerable to be abused. Consumer's loan and agricultural loans come to the forefront as loan types that bank clients generally prefer. It is seen that the clients mostly receive their monthly receipts via mail. 23.8% of clients have stated that they do not receive their monthly receipts. Failure of clients who do not follow-up their receipts to check their account activities may cause delays for them to intervene to mistakes caused by banks, or may expose them to credit card frauds

Bank clients in general have stated that the transactions regarding their businesses are performed under their control. It is seen that 56.3% of the clients do not have information about how to claim their rights in cases where they have problems with banks. It is necessary to increase the level of knowledge of clients about claiming their rights. It appears that the vast majority of bank clients (86.5%) are not aware of Credit Bureau nor Findex, which monitor whether they meet the required conditions for them to be able to take loans. 66.3% of bank clients have stated that they have active loan payments, and 33.8% of them have stated that they have no active loan payments. While 70.8% of the clients using credit cards check their receipts, 29.3% of them have stated that they do no check the receipts.

A large proportion of bank clients (90.3%) have stated that they do not benefit from the services provided by banks, equity shares, securities and the like capital market instruments.

Table 2. Descriptive statistics		
Basic Variable	Sub Variable	Percentage %
Which bank do you work with the most?	Public Sector	55.3
- Hiller bank do you work with the most:	Private	44.8
	Interest rates	50.5
	Products	14.8
Why do you prefer this bank?	Accessibility	2.0 22.5
	Advice of an acquaintance	1.5
	Interest free banking	8.8
	Attention of employees  Loan transactions	60.5
What transaction do you do the most?	Deposit operations	11.3
What transaction do you do the most:	Deposits-withdrawals	28.2
	None	70.8
	Loan transactions	6.5
	Mortgage Transactions	3.5
What is the most significant problem that you have experienced with your bank?	Insufficient branches	7.5
	Lack of briefing	6.3
	Intensity	5.5
	None	11.5
	One	35.3
	Two	30.3
How many credit cards do you have?	Three	12.8
	Four	5.3
	Five or more	5.0
	Yes	42.8
Do they apply annual operating fee for your credit card?	l don't know	23.5
bo they apply aimual operating fee for your credit card:		33.8
	No	
Do you check the slip coming out of the machine when you do purchases with your	Yes	42.3
credit card?	Sometimes	30.5 27.3
	No	
What type of loans do you prefer most frequently?	Consumer's	30.5
	Agriculture	48.3
	Other	21.3
Harrista and a second and a second as a second as	By mail	51.7
How do you receive your receipt?	Electronically	24.5
	I do not receive any receipts	23.8
Decree and the best the best to a constant and the consta	Yes	66.5
Do you personally handle the bank transactions regarding your business?	Sometimes	30.5
	No	3.0
Do you know where to apply when you have a problem with banks?	Yes	43.8
	No	56.3
Do you know what Credit Bureau or Findeks are?	Yes	13.5
	No	86.5
Do you have any existing loans?	Yes	66.3
	No	33.8
Do you check the monthly receipt that you receive when you learn about your credit	Yes	70.8
card debts?	No	29.3
Do you benefit from capital market instruments such as stock bonds and securities etc.	Yes	9.8
	NO	90.3
Do you read the documents that you sign at banks?	Yes	36.8
	No	63.2
Does the gender of officer serving you at the bank matter to you?	Yes	23.5
	No	76.5
Does the age of officer serving you at the bank matter to you?	Yes	26.8
	No	73.3
Does it matter to you whether the officer serving you at bank is from Kastamonu?	Yes	41.8
	No	58.3
Do you use online banking?	Yes	28.5
	No	71.5
Do you use mobile banking via your mobile phone?	Yes	30.0
20 you are mobile banking the your mobile phone:	No	70.0
Do you have a private retirement fund or a health incurrance at a hank?	Yes	33.3
	A1.	66.8
Do you have a private retirement fund or a health insurance at a bank?	No	
	Yes	27.3
Are you familiar with the North Anatolian Development Agency and its activities?		27.3 72.8
	Yes	27.3

36.8% of bank clients have stated that they read the documents that they sign; 63.2% of them have stated that they do not. Clients failing to read the documents that they sign indicate that they are not aware of their legal obligations. Such costumers are likely to experience problems with banks. Bank clients in general have stated that the gender, age or hometown of the personnel serving them at bank do not matter to them. It is seen that the bank clients prefer to perform their

transactions directly through bank and ATMs more, and they do prefer Internet and mobile banking less.

It is evident that the bank clients in general are not aware of NADA (North Anatolian Development Agency) taking part in regional development and its activities. At the same time, the clients in general have stated that they are aware of the Institution for Supporting Agriculture and Rural Development and its activities.

Table 3. T test table regarding gender variable

	Gender	N	χ̄	Standard Deviation	t	sd	p	
Which bank do you work with the most?	Male	346	1.4422	.49737	539	398	.590	
Which bank do you work with the most:	Female	54	1.4815	.50435	557	370	.570	
Why do you prefer this bank?	Male	346	2.2746	1.66543	-2.586	398	.010	
Trify do you prefer this bank.	Female	54	2.9074	1.71858	2.300	370	.010	
What transaction do you do the most?	Male	346	1.9711	1.31624	-3.563	67.151	.001	
	Female	54	2.7222	1.45909	3.303	07.131	.00	
What is the most significant problem that you have experienced	Male	346	1.8902	1.56763	.166	398	.868	
with your bank?	Female	54	1.8519	1.62999				
How many credit cards do you have?	Male	346	1.8410	1.29241	1.665	398	.097	
	Female	54	1.5370	.90518				
Do they apply annual operating fee for your credit card?	Male	346	1.9480	.86989	2.218	398	.027	
	Female	54	1.6667	.84675				
Do you check the slip coming out of the machine when you do	Male	346	1.8671	.83386	1.052	398	.294	
purchases with your credit card?	Female	54	1.7407	.73164				
What type of loans do you prefer most frequently?	Male	346	1.8815	.69812	-1.848	398	.065	
	Female	54	2.0741	.79745	.,,,,,			
How do you receive your receipt?	Male	346	1.6734	.81311	-2.890	398	.004	
	Female	54	2.0185	.83532				
Do you personally handle the bank transactions regarding your	Male	346	1.3179	.52483	-4.513	398	.000	
business?	Female	54	1.6667	.54944		370		
Do you know where to apply when you have a problem with	Male	346	1.5636	.49666	.110 2.871	398	.912	
banks?	Female	54	1.5556	.50157		370	• • • • • • • • • • • • • • • • • • • •	
Do you know what Credit Bureau or Findeks are?	Male	346	1.8902	.31313		60.862	006	
	Female	54	1.7037	.46091	2.071	00.002	.000	
Do you have any existing loans?	Male	346	1.3092	.46285	-2.867	67.669	.006	
	Female	54	1.5185	.50435			.000	
Do you check the monthly receipt that you receive when you	Male	346	1.2861	.45260	708	398	.479	
learn about your credit card debts?	Female	54	1.3333	.47583	700	370	٠,٦,	
Do you benefit from capital market instruments such as stock	Male	346	1.9104	.28601	1.144	63.951	257	
bonds and securities etc.?	Female	54	1.8519	.35858	1,177	03.731	.237	
Do you read the documents that you sign at banks?	Male	346	1.6358	.48189	.350	398	.727	
bo you read the documents that you sign at banks:	Female	54	1.6111	.49208	.330	370	./ _/	
Does the gender of officer serving you at the bank matter to you?	Male	346	1.7775	.41656	1.365	66.711	.177	
boes the gender of officer serving you at the bank matter to you:	Female	54	1.6852	.46880	1.303	00.711	. 177	
Does the age of officer serving you at the bank matter to you?	Male	346	1.7457	.43612	1.400	67.238	.166	
boes the age of officer serving you at the bank matter to you:	Female	54	1.6481	.48203	1.400	07.230	. 100	
Does it matter to you whether the officer serving you at bank is	Male	346	1.5780	.49459	457	398	.648	
from Kastamonu?	Female	54	1.6111	.49208	437	370	.040	
Do you use online banking?	Male	346	1.6879	.46404	-4.032	92.723	000	
bo you use offine banking:	Female	54	1.8889	.31722	-4.032	72.723	.000	
Do you uso mobile hanking via your mobile phone?	Male	346	1.7052	.45661	<b>57</b> 4	398	547	
Do you use mobile banking via your mobile phone?	Female	54	1.6667	.47583	.574	390	567	
Do you have a private retirement fund or a health insurance at a	Male	346	1.6908	.46285	2 250	47.440	02	
bank?	Female	54	1.5185	.50435	2.359	67.669	.021	
Are you familiar with the North Anatolian Development Agency		346	1.7110	.45396	2 157	70.202	Λ2	
and its activities?	Female	54	1.8333	.37618	-2.157	79.202	.034	
Are you familiar with the Institution for Supporting Agriculture	Male	346	1.3584	.48022	2 700	200	00	
and Rural Development and its activities?	Female	54	1.5556	.50157	-2.789	398	.006	

According to the T test table regarding the opinions of participants in terms of banking sector associated with gender variable; while male clients make their bank choices mostly based on the interest rates, female clients make their bank choices based on variables such as the attention of personnel and number of branches. While male clients are more interested in loan transactions, female clients are more interested in money deposit and withdrawal transactions. The level of awareness of male clients regarding whether an annual operating fee is cut is lower compared to female clients. According to the data regarding in what way the bank clients receive their receipts; while male clients mostly prefer receipts sent by mail, female clients mostly prefer electronic receipts. It has been determined that male clients personally attend to bank transactions of their businesses but female clients prefer other people. The level of knowledge of male

participants about Credit Bureau and Findeks is higher compared to female participants. According to the averages of situations regarding whether the clients have an active loan payments; it has been determined that male clients have more loan payments than female clients. According to the averages regarding the use of Internet banking by bank clients; it has been determined that male clients use Internet banking more than female clients do. It is observed that more female bank clients are included in private retirement funds or health insurances than male bank clients. It is seen that male participants are aware of NADA's (North Anatolian Development Agency) activities more than female participants are. Male participants are aware of institutions that provide support for development, such as the Institution for Supporting Agriculture and Rural Development, more than female participants are.

Table 4. ANOVA test regarding age variable

		N	Χ̄	Standard Deviation	Sum of Squares	df	Average of Squares	F	р
	Ages 18 - 30	23	2.6957	1.42812					
	Ages 31 - 45	169	2.0118	1.33179	24 042*				
What transaction do you do	Ages 46 - 55	103	2.2816	1.45128	21.043* 715.854**	4 395	5.261	2.903	ດວວ
the most?	Ages 56 - 65	49	1.9184	1.30443	736.898***	399	1.812	2.903	.022
	Age 65 and above	56	1.7500	1.17937	730.070	3//			
	Total	400	2.0725	1.35899					
	Ages 18 - 30	23	3.0000	1.95402					
What is the most significant	Ages 31 - 45	169	1.9822	1.69900	44 505				
problem that you have	Ages 46 - 55	103	1.6602	1.31770	41.595 947.115	4 395	10.399	4.337	002
experienced with your	Ages 56 - 65	49	1.5306	1.11993	988.710	399	2.398	4.337	.002
bank?	Age 65 and above	56	1.8571	1.60032	700.710	377			
	Total	400	1.8850	1.57416					
	Ages 18 - 30	23	1.6522	.71406					
	Ages 31 - 45	169	1.7574	.77557	0.500	4			
	Ages 46 - 55	103	1.8252	.82161	8.599	4 205	2.150	2 264	042
when you do purchases with	Ages 56 - 65	49	2.1837	.88208	260.401 269.000	395 399	.659	3.261	.012
your credit card?	Age 65 and above	56	1.9643	.87312	207.000	377			
	Total	400	1.8500	.82109					
	Ages 18 - 30	23	1.5652	.84348					
What type of loans do you	Ages 31 - 45	169	1.8284	.74011	F 070				
	Ages 46 - 55	103	2.0194	.69987	5.979 197.599	4 395	1.495	2.988	010
prefer most frequently?	Ages 56 - 65	49	2.0204	.59476	203.578	399	.500	2.900	.019
	Age 65 and above	56	1.9821	.64642	203.376	377			
	Total	400	1.9075	.71430					
	Ages 18 - 30	23	1.1739	.38755					
	Ages 31 - 45	169	1.4970	.50148	<b>7</b> 0 4 0				
Do you know where to apply	Ages 46 - 55	103	1.7282	.44709	7.269	4	1.817	7 074	000
when you have a problem with banks?	Ages 56 - 65	49	1.6327	.48708	91.168 98.437	395 399	.231	7.874	.000
with ballks:	Age 65 and above	56	1.5536	.50162	70.437	377			
	Total	400	1.5625	.49670					
	Ages 18 - 30	23	1.5217	.51075					
	Ages 31 - 45	169	1.9231	.26726	2 204	4			
Do you know what Credit	Ages 46 - 55	103	1.8350	.37304	3.386	4 205	.847	7 740	000
Bureau or Findeks are?	Ages 56 - 65	49	1.8776	.33120	43.324 46.710	395 399	.110	7.719	.000
	Age 65 and above	56	1.8750	.33371	40.710	377			
	Total	400	1.8650	.34215					
	Ages 18 - 30	23	1.4783	.51075					
	Ages 31 - 45	169	1.3195	.46768	2.440				
Do you have any existing	Ages 46 - 55	103	1.2233	.41849	3.160	4	.790	2 (47	007
loans?	Ages 56 - 65	49	1.4286	.50000	86.277	395 399	.218	3.617	.007
	Age 65 and above	56	1.4643	.50324	89.438	277			
	Total	400	1.3375	.47345					
	Ages 18 - 30	23	1.8261	.38755					
Do you benefit from capital	Ages 31 - 45	169	1.9349	.24742					
o you believe it out cupicat	Ages 46 - 55	103	1.9612	.19415	1.591	4	.398		
stock bonds and securities	Ages 56 - 65	49	1.7959	.40721	33.607	395	.085	4.675	.001
etc.?	Age 65 and above		1.8214	.38646	35.198	399			
			1.9025	.500 10					

Table 4. (continued)

		N	Χ̄	Standard Deviation	Sum of Squares	df	Average of Squares	F	р
Do you read the documents that you sign at banks?	Ages 18 - 30	23	1.2609	.44898	•	4 395 399	1.441 .221		
	Ages 31 - 45	169	1.5680	.49682	E =40				
	Ages 46 - 55	103	1.7379	.44195	5.763 87.215 92.978				
	Ages 56 - 65	49	1.6939	.46566					.001
	Age 65 and above	56	1.7321	.44685		3//			
	Total	400	1.6325	.48273					
	Ages 18 - 30	23	1.6522	.48698	3.161 75.217 78.378	4 395 399	.790 .190	4.150	
Dana tha and of officer	Ages 31 - 45	169	1.6391	.48170					.001
Does the age of officer	Ages 46 - 55	103	1.8058	.39750					
serving you at the bank matter to you?	Ages 56 - 65	49	1.8163	.39123					
matter to you.	Age 65 and above	56	1.8393	.37059					
	Total	400	1.7325	.44321					
	Ages 18 - 30	23	1.1739	.38755	7.767 73.743 81.510	4 395 399	1.942 .187	10.401	.003
	Ages 31 - 45	169	1.7041	.45778					
Do you use online banking?	Ages 46 - 55	103	1.7961	.40485					
bo you use offine banking:	Ages 56 - 65	49	1.7755	.42157					
	Age 65 and above	56	1.7679	.42602	01.510				
	Total	400	1.7150	.45198					
	Ages 18 - 30	23	1.3478	.48698			1.403 .198		
	Ages 31 - 45	169	1.6450	.47994	E 412	4			
Do you use mobile banking	Ages 46 - 55	103	1.7282	.44709	5.612 78.388	4 395		.198	.001
via your mobile phone?	Ages 56 - 65	49	1.7959	.40721	84.000	399		. 170	.001
	Age 65 and above	56	1.8750	.33371	0 1.000	3//			
	Total	400	1.7000	.45883					

<sup>\*</sup> Intergroup \*\* Intragroup \*\*\* Total (p<0.05).

As a result of the variance analysis conducted for investigating the bank attitudes of bank clients from different age groups; It was determined that the average of the group aged 65 and above has the lowest result compared to other groups. When the reasons for preference and group averages are correlated, it has been concluded that the group aged 65 and above are more interested in loan transactions. According to the data regarding the most significant problems that clients experience with banks; it is clearly seen that the bank clients aged between 18 - 30 experience more problems than other groups do. Based on the group averages, it has been concluded that the more the age level is the less the slips given after shopping are checked. According to the group averages regarding the type of loans preferred by clients most frequently; it has been determined that the bank clients aged between 18 - 30 use more consumer's loan compared to other age groups. According to the group averages regarding whether the bank clients know where to apply when they have problems with banks; it has been concluded that the bank clients in age groups of 18 - 30 and 46 - 55 have less knowledge compared to

the clients in other age groups. It has been determined that the bank clients in the age group of 15 - 30 are more aware of the credit rating agencies than the bank clients in other age groups are. It has been determined that the bank clients aged between 46-55 have more loan payments compared to bank clients in other age groups. It has been determined that the bank clients aged between 56-65 benefit from capital market instruments provided to them by banks, such as equity shares, securities etc., more than the bank clients in other age groups do. It has been determined that the bank clients aged below 45 read the documents that they sign at banks more than the bank clients aged above 45 are. It has been concluded that the clients aged 31 - 45 are more interested in the age of bank personnel serving them than the clients in other age groups are. According to the group averages of customers; it has been determined that the clients aged 18 - 30 use internet banking more than the clients in other age groups do. It has been determined that the clients aged 18 - 30 use mobile banking more than the clients in other age groups do.

Table 5. ANOVA test regarding educational status

				Sum of Squares	df	Average of Squares	F	р
•			1.48784	44,000				
-		2.2159	1.60064		4			
High School	118	2.9407	1.86874			16.500	6.113	.000
Associate Degree	5					2.699		
License	14	2.5000	1.95133	11321100	377			
Total	400	2.3600	1.68449					
Primary School	175	2.1543						
Secondary school	88	1.6136		22 020	4			
High School	118	1.5932				8.207	13.726	.000
Associate Degree	5	1.0000	.00000			.598		
License	14	2.0000	.67937	207.000	377			
Total	400	1.8500	.82109					
Primary School	175	1.7429	.43831					
Secondary school	88	1.5455	.50078	13.240 85.197	4 395 399			
High School	118	1.3729	.48563			3.310 .216	15.347	.000
Associate Degree	5	1.0000	.00000					
License	14	1.2143	.42582	70.430				
Total	400	1.5625	.49670					
Primary School	175	1.6857	.46556	2.562 90.416	4 395 399	.640 .229		
Secondary school	88	1.6364	.48380					
-	118	1.5254	.50148				2.798	.026
-	5	1.6000	.54772					
License	14	1.8571	.36314	92.977				
Total	400		.48273					
	175							
Secondary school	88	1.6932	.46382					.000
,	118	1.6949	.46241			1.138	5.338	
	5	2.0000	.00000			.213		
-	14			88.777	399			
	175	1.8343	.37289		4			
,	88	1.6818	.46844					
						1 367	7 313	.00
-							7.3.3	
-				79.298	399			
Total	400	1.7275	.44580					
	175	1.3943	.49010					
Primary School	1/7							
Primary School								
Secondary school	88	1.5114	.50274	2.751	4	688	2 054	024
Secondary school High School	88 118	1.5114 1.2966	.50274 .45871	91.959	395	.688 233	2.954	.020
Secondary school	88	1.5114	.50274		-	.688 .233	2.954	.020
	License Total Primary School Secondary school High School Associate Degree License Total Primary School Secondary school High School Associate Degree License Total Primary School Associate Degree License Total Primary School Associate Degree License Total Primary School	Secondary school 88 High School 118 Associate Degree 5 License 14 Total 400 Primary School 175 Secondary school 118 Associate Degree 5 License 14 Total 400 Primary School 175 Secondary school 175 Secondary school 175 Secondary school 175 Secondary school 118 Associate Degree 5 License 14 Total 400 Primary School 175 Secondary school 118 Associate Degree 5 License 14 Total 400 Primary School 175 Secondary school 118 Associate Degree 5	Primary School         175         2.0686           Secondary school         88         2.2159           High School         118         2.9407           Associate Degree         5         1.0000           License         14         2.5000           Total         400         2.3600           Primary School         175         2.1543           Secondary school         88         1.6136           High School         118         1.5932           Associate Degree         5         1.0000           License         14         2.0000           Total         400         1.8500           Primary School         175         1.7429           Secondary school         88         1.5455           High School         118         1.3729           Associate Degree         5         1.0000           License         14         1.2143           Total         400         1.5625           Primary School         175         1.6857           Secondary school         88         1.6364           High School         118         1.5254           Associate Degree         5         1.6000	Primary School         175         2.0686         1.48784           Secondary school         88         2.2159         1.60064           High School         118         2.9407         1.86874           Associate Degree         5         1.0000         .00000           License         14         2.5000         1.95133           Total         400         2.3600         1.68449           Primary School         175         2.1543         .83334           Secondary school         88         1.6136         .73394           High School         118         1.5932         .73073           Associate Degree         5         1.0000         .00000           License         14         2.0000         .67937           Total         400         1.8500         .82109           Primary School         175         1.7429         .43831           Secondary school         88         1.5455         .50078           High School         118         1.3729         .48563           Associate Degree         5         1.0000         .00000           License         14         1.2143         .42582           Total         400	Primary School         175         2.0686         1.48784           Secondary school         88         2.2159         1.60064           High School         118         2.9407         1.86874         1066.160           Associate Degree         5         1.0000         .00000         1132.160           License         14         2.5000         1.98449         1132.160           Primary School         175         2.1543         .83334         54           Secondary school         88         1.6136         .73394         73073         32.828           High School         118         1.5932         .73073         32.828         326.172           Associate Degree         5         1.0000         .00000         269.000           License         14         2.0000         .67937         77           Total         400         1.8500         .82109         8269.000           Primary School         175         1.7429         .43831         32.40           Secondary school         88         1.5455         .50078         13.240           High School         118         1.3729         .48563         85.197           Primary School         17	Primary School         175         2.0686         1.48784           Secondary school         88         2.2159         1.60064           High School         118         2.9407         1.86874         66.000         4           Associate Degree         5         1.0000         .00000         1066.160         395           License         14         2.5000         1.95133         1132.160         399           Primary School         175         2.1543         .83334         56         56         56         56         56         56         57         394         47         32.828         4         49	Primary School   88   2.2159   1.60064	Primary School   175   2.0686   1.48784   Secondary school   88   2.2159   1.60064   High School   118   2.9407   1.86874   66.000   4   1066.160   395   16.500   6.113   6

(p<0.05)

According to the ANOVA test table regarding the investigation and correlation of educational status and bank clients' behavior; It has been determined that the clients with primary and secondary educational status are more interested in interest rates than the clients in other groups are. According to the group averages of the bank clients; when the educational status and the shopping slip checking situation are correlated, it has been concluded that the more the educational level is the more the slip checking rate increases. When the bank clients' educational status and behavior regarding where to apply when they have problems with banks are correlated, it has been determined that the more the educational level is the more the awareness level of clients increases. It has been determined that the more the educational level of bank clients is the more they read the documents that they sign. It has been determined that the participants with license degrees benefit from services at banks more, such as private retirement funds or health insurances. It has been concluded that the participants with license degrees are more aware of NADA (North Anatolian

Development Agency). Moreover, it has been concluded that the participants with license degrees are more aware of the Institution for Supporting Agriculture and Rural Development and its activities.

#### Conclusion

As a result of our study that aims to measure the banking sector literacy of bank clients based in Kastamonu city, who have the right to take individual, commercial and agricultural loans, have accounts at banks and operate in agricultural products industry, it is seen that the farmers operating in agricultural products industry have an active interaction with banking sector. In the light of the answers given to the questions in the survey and the data in the frequency tables, it is seen that the farmers take rational decisions and act in accordance with their own prosperity.

Their preferences that they direct with specific decisions, such as the banks they work with, the criteria that they

consider when choosing a bank, the types of credit cards and the purpose of using credit cards, indicate that the farmers are actively benefiting from the banking sector. They have headed towards bank loans, sometimes to relieve themselves during difficult economic periods, and sometimes to move their businesses to an advanced position.

The fact that all farmers participating in the study are literate indicates that the educational level of those who operate in agricultural products industry has increased. All farmers in our sample, who conduct activities regarding agricultural products, have received education at different levels and applied to banking sector by their own decision.

When the results of the data are compared with similar studies, the results obtained from Kastamonu city show similarities with certain results obtained throughout Turkey. In rural regions where the livestock breeding is very common and the same products of the same bank are demanded, our farmers who do not want to use information technologies, even today's technologies such as ATM and Mobile banking, desire to carry out their banking transactions through their acquaintances and face-to-face, if possible. Suggestions are given as follows:

- It is necessary to conduct a perception analysis regarding agricultural industry by banks on real persons carrying out small-scale businesses as well as the largescaled companies.
- The necessity of the roles of banks in improving both the quality of raw materials and products and the quality of service by advancing the knowledge that those who work at this sector had inherited from their ancestors.
- The banks are expected to create awareness not only with their products but also by including the subjects, which would help the stakeholders in their decision making processes, in their advertisements while providing funds.
- The government subsidies not spreading on every field increase the need for those operating in the industry to incur liabilities; and the adaptation of villagers who cannot bring enough income, especially in villages, to the changing conditions of banking is highly important.

The survey data indicate that the farmers are not attending to the banking sector at a professional level. The purpose appears to be the success of short-term plans and seasonal activities. In order to ensure the farmers to benefit from banking sector at a higher level, it is necessary to increase the communication between banks and farmer unions. In order to restore the agricultural industry, which had a big share in our country's economy during the Republic Period but has weakened within the time passed until today, it is necessary for banks to regulate their credit policies and provide convenience to agriculture entrepreneurs at all sizes, regardless of their scales. For our farmers with low educational level not to become distanced from the sector, what opinion comes into prominence is that there can be organized some enlightening and encouraging seminar activities by banks and that deposit surplus at banks can act as a driving force in agricultural economy.

#### References

- Akdağ, G. (2018). Financial literacy of individual investors in TR 81 level 2 region (Bartın, Karabük, Zonguldak) and the factors that directs individuals in taking financial investment decision (Master's thesis, Bartın University, Institute of Social Sciences).
- Aksu, E. (2012). Causal relationships between the agricultural loans and agricultural industry between 2003 2011 (Master's thesis, ESOGÜ, Institute of Social Sciences).
- Aydın, Ü., & Büşra, AĞAN (2018). The Effect of Irrational Decisions on the Financial Investment Preferences: An Implementation within the Frame of Behavioral Finance. Ekonomik Ve Sosyal Araştırmalar Dergisi (Journal of Economic and Social Researches).
- Bayrak, A. Z., & PELENK, S. E. (2018). The Determination of Financial Literacy Levels and Proactive Personalities of University Students: Recep Tayyip Erdoğan University Fındıklı Applied Sciences Vocational School Case The Determination of Financial Literacy Levels and Proactive Personalit. In ICPESS (International Congress on Politic, Economic and Social Studies) (No. 4).
- Bayrakdaroğlu, A., & Bilge, S.(2018) A Study on the Effect of Financial Education on Financial Literacy in Women. Sosyal Ve Beşeri Bilimler Araştırmaları Dergisi (Journal of Social and Human Sciences Researches, 19(42 Kadın Çalışmaları Özel Sayısı (Special Issue for Women's Researches)), 97-120.
- Berekeci, N. E., & Ayrıçay, Y.(2018) Islamic Financial Literacy:
  A Field Study at Kahramanmaraş Sütçü İmam
  University. Pamukkale Üniversitesi Sosyal Bilimler
  Enstitüsü Dergisi (Journal of Pamukkale University
  Institute of Social Sciences), (33), 45-60.
- Cole, S. A., Sampson, T. A., & Zia, B. H. (2009). Financial literacy, financial decisions, and the demand for financial services: evidence from India and Indonesia (pp. 09-117). Cambridge, MA: Harvard Business School.
- Contuk, F. Y. (2018). A Study on the Factors Affecting the Financial Literacy Status of University Students: Muğla Sıtkı Koçman University Case. Muhasebe ve Finansman Dergisi (Journal of Accounting and Financing), (77).
- Das, S. (2016). Financial literacy: measurement and determinants. Age, 18, 20.
- Durmuş, M. E., & Yardimcioğlu, F. (2018). How Financial Literate are the Theology Students?. Siyaset, Ekonomi ve Yönetim Araştırmaları Dergisi (Journal of Researches of Politics, Economy and Management), 6(1).
- Gaurav, S., & Singh, A. (2012). An inquiry into the financial literacy and cognitive ability of farmers: Evidence from

- rural India. Oxford Development Studies, 40(3), 358-380.
- Güney, S., & Tanyıldızı, H. Financial Literacy: A Study Regarding the Merchants and Craftsmen in Ağrı. Econharran, 2(2), 1-21.
- Kanmaz, A. (2018). A Study on the Financial Literacy Levels of Individual Equity Share Investors: İzmir Case (Master's Thesis, İzmir Katip Çelebi University Institute of Social Sciences).
- Karyağdı, N. G. (2018). An Implementation on Bitlis Eren University SBMYO Students Regarding Determination of Financial Literacy and Awareness. *The Journal Of Business*, (2/91), 104.
- Kofarmata, I. Y. (2016). An economic analysis of participation in credit market and credit rationing among farmers in Kano State, Nigeria (Doctoral dissertation, Universiti Utara Malaysia).
- Lalrinmawia, M., & Gupta, H. (2015). Literacy and Knowledge: Farmers' Financial Inclusion Feasibility. SCMS Journal of Indian Management, 12(3).
- Lusardi, A., Mitchell, O. S., & Curto, V. (2010). Financial literacy among the young. Journal of consumer affairs, 44(2), 358-380.
- Özçelik, A. Güneş, E. Artukluoğlu, MM. (2005), "Agricultural Loan in Turkey: Loan Applications through Contracted Agriculture and Manufacturer Unions" Agricultural Engineering VI. Technical Congress, Ankara 961-985.
- Sakınç, S. Ö. (2018). The Significance of Financial Literacy in Evaluating Savings and an Implementation. *Journal Of Social Sciences Institute/Sosyal Bilimler Enstitüsü Dergisi*, 8(16).
- Schuchardt, J., Hanna, S., Hira, T. K., Lyons, A., Palmer, L., & Xiao, J. J. (2009). Financial literacy and education research priorities.
- Sebetçi, Ö., Karabıyık, C., & Karabıyık, B. K. (2018) The Effect of Mobile Applications Developed in the Field of Finance on Financial Literacy.
- Sparks, J.N. (1963). Expository notes on the problem of making multiple comparisons in a completely randomized design. *Journal of Experimental Education*, 31, 343-349.