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Financial Literacy in Micro-Scale Enterprises Operating in Forest Products Sector: Sample of Gumushane, Turkey

Financijska pismenost u mikropoduzećima sektora prerade drva: provincija Gumushane, Turska

ABSTRACT • *Enterprises are one of the main components of the economic system and they are indispensable for maintaining the sustainability of economic activities. The majority of these enterprises are small and medium-sized enterprises (SMEs). Sustainability of SMEs depends on their good financial management. Inadequate financial literacy causes SMEs' owners to make inaccurate financial decisions. The forest products sector is mostly composed of micro-scale enterprises in which financial problems are common. Therefore, this study aims to reveal the financial literacy status of the owners of micro-scale and wood-processing enterprises. For this purpose, 78 enterprises were selected as study population. Data were collected by applying a structured questionnaire to 43 of these companies by the face-to-face interview method. The structured questionnaire consisted of multiple-choice and open-ended questions and statements prepared on the Five Likert scales. Data were analysed by using the Independent-Sample T-Test, Mann-Whitney U-Test and correlation test. The reliability coefficient of the data was found to be 0.791. Of the enterprises, 58 % produced in the furniture sub-sector and 42 % in the wood products sub-sector. This study provides evidence that there was no statistically significant difference between the knowledge means of economics and financial behaviour of the furniture and wood products sectors. However, the enterprise owners' knowledge of financial analysis positively affected their financial literacy and financial behaviour.*

KEYWORDS: *wood products; financial literacy; micro-sized enterprises; furniture*

SAŽETAK • *Jedna od glavnih sastavnica gospodarskog sustava jesu poduzeća kao komponenta neophodna za održivost gospodarskih aktivnosti. Većina njih su mala i srednja poduzeća. Održivost malih i srednjih poduzeća ovisi o njihovu dobrom financijskom upravljanju. Neadekvatna financijska pismenost vlasnika tih poduzeća nerijetko je uzrok donošenja pogrešnih financijskih odluka. Sektor prerade i obrade drva većinom se sastoji od mikropoduzeća u kojima su financijski problemi uobičajeni. Stoga je cilj ovog rada bio otkriti razinu financijske pismenosti vlasnika mikropoduzeća za preradu drva, zbog čega je istraženo 78 poduzeća. Podatci su prikupljeni unutar 43 poduzeća uz pomoć strukturiranog upitnika, metodom osobnog intervjua. Upitnik se sastojao od otvorenih pitanja i pitanja s višestrukim odgovorima te tvrdnji pripremljenih na Likertovoj ljestvici s pet stupnjeva.*

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Rezultati su analizirani primjenom T-testa, Mann-Whitneyjeva U-testa i korelacijskog testa. Utvrđeno je da je koeficijent pouzdanosti podataka 0,791. Podsektoru proizvodnje namještaja pripadalo je 58 % poduzeća, a podsektoru proizvoda od drva 42 % njih. Ova je studija pokazala da nema statistički značajne razlike u znanju iz ekonomije i financijskog ponašanja između poduzeća u podsektoru proizvodnje namještaja i onih u podsektoru proizvoda od drva. Međutim, poznavanje financijske analize vlasnika poduzeća pozitivno je utjecalo na njihovu financijsku pismenost i financijsko ponašanje.

KLJUČNE RIJEČI: *proizvodi od drva; financijska pismenost; mikropoduzeća; namještaj*

1 INTRODUCTION
1. UVOD

An economic system consists of three main units: household, enterprise and the state. Enterprises perform the most important duty in the continuation of economic activities in this system. Especially small and medium-sized enterprises (SMEs) need to be well managed financially to ensure the sustainability of their activities. In general, SMEs are managed by owners that take all business decisions and for this reason, the financial literacy level of the enterprise owners has a far-reaching effect especially on the success of SMEs.

Management of limited financial resources is important for SMEs. Successful financial management requires having a certain level of financial knowledge. Persons who access, interpret and use financial knowledge are called financial literate. The most important concept of financial literacy is knowledge. SME owners, who are likely to experience economic difficulties, should have financial knowledge, such as credit, interest, capital, budget management, balance sheet, inflation and risk management. The lack of financial information and financial management will make the owner/manager take inaccurate, incomplete and ineffective financial decisions (Agyapong and Attram, 2019).

Enterprises should observe and analyse the inside and outside environmental conditions of their enterprises while making decisions about their economic future. In this context, financial knowledge enables the interpretation of internal unit activities of enterprises as well as read the external environmental economic indicators. Persons with low financial literacy can make mistakes in their finance-related decisions and thus waste their scarce resources (Şahin and Serin, 2018). Entrepreneurs with knowledge about basic financial concepts such as budgeting, savings, borrowing and investment and the ability to use this information in their decisions (Banks Association of Turkey, 2020) can use their scarce resources more rationally. Karadağ (2015) reported that financial difficulties are common for the majority of the SMEs in Turkey as in many developing countries and that the past experiences and knowledge of owners have an important role in solving financial problems.

SMEs[1] constitute the largest part of the total number of enterprises in the countries where they are located. For example, in countries such as America, Germany, Japan and South Korea, SMEs comprise 97.2 %, 99.8 %, 99.4 % and 97.8 % of the total number of enterprises, respectively (Demir and Sütçü, 2002). Micro-sized enterprises (1-9 employees) constitute the majority of the SMEs and consist of the micro, small and medium-scale enterprises. The micro-sized enterprises in Turkey comprised 96 % of all sized enterprises according to result of the latest census of industry and business carried out in 2002 (Anonym, 2006). SMEs account for 99 % of all businesses in 28 countries of the European Union (EU). Of these 99 %, 93 % are micro, less than 6 % are small and less than 1% are medium-sized businesses (Rotar *et al.*, 2019). Micro-sized enterprises in the EU account for about 30 % of total employment and therefore play an important role in creating economic growth and employment (Rotar *et al.*, 2019).

The mortality rate of small and medium enterprises is very high. In Turkey, 109 722 enterprises were opened and 33 094 enterprises were closed in total in all sectors in 2019. The ratio of closed businesses to opened businesses was 30 %. In other words, 10 enterprises were opened while 3 were closed in 2019. In the manufacturing sector, which is a subsector of all sectors, 16 332 enterprises were opened and 3 227 enterprises were closed in the same year. The ratio of enterprises closed was 19.7 % in the manufacturing sector. The rate of closure in the manufacturing sector, which also includes the forest products sector, was less than the overall rate (The Union of Chambers and Commodity Exchanges of Turkey, 2020). 80 % of enterprises established in Turkey were closed within the first 5 years and 96 % of them within the first 10 years. The failure of getting new technologies and low cost finance were in the first place among factors that shorten the life of SMEs (Capital, 2007). This situation is not unique to Turkey. For ex-

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[1] "The category of micro, small and medium-sized enterprises (SMEs) is made up of enterprises which employ fewer than 250 persons and which have an annual turnover not exceeding EUR 50 million, and/or an annual balance sheet total not exceeding EUR 43 million" as defined by European Commission (2003/361/EC).

ample, in Nigeria, 80 % of SMEs are closed within the first five years and some are closed within 6 to 10 years. Only 5-10 % of these businesses survive, grow and reach maturity. This means that the survival rate of SMEs in Nigeria is less than 5 %. There are various reasons for the high mortality rates of enterprises in Nigeria, but the "lack of financing" is one of these reasons (Sharma, 2019).

Studies on financial literacy was focused on three main cases: (i) measuring the level of financial literacy in a country, (ii) determining how financial literacy affects financial decisions, and (iii) determining the relationship between financial literacy and financial education (Shen *et al.*, 2016). This study has the characteristics of the first case (i) and the third case (iii) according to the above classifications. However, the subject of this study was not a country but two sub-sectors of the manufacturing industry. Micro-sized enterprises, which are considered to be more important in having financial literacy, were selected within these sub-sectors. Hakim *et al.* (2017) reported that there is a large number of studies on factors that contribute to financial literacy, whereas research on the financial literacy levels of small and medium-sized business owners is still limited (Hakim *et al.*, 2017).

According to the Industry Report of the Turkish Furniture Products Assembly, financial difficulties and high credit costs are one of the important issues faced by enterprises in this sector and it is considered among the 10 main issues which should be solved to gain a place in the international markets in the long term (The Union of Chambers and Commodity Exchanges of Turkey, 2012). Akyüz *et al*. (2004) examined the financial structure of 14 sectors making up the manufacturing sector and found that the wood products and furniture industries, which make up the forest products industry, were in the last place in terms of financial structure. In a SWOT analysis carried out for the furniture sector, capital and financing limitations were found to be one of the weaknesses of the sector (Istanbul Chamber of Industry, 2015). Özgülbaş and Koyuncugil (2011) reported that 36 % of the enterprises in the furniture sector perceived funding problems as the biggest issue. The shortness of capital was found to be the most frequent problem faced by enterprises operating in forest products sectors in Gumushane with 28.1 % (Top *et al*., 2014). In this context, the primary aim of this study was to measure and compare financial analysis, general economy, financial behaviour and financial literacy knowledge of micro-sized business owners manufacturing furniture and wood products. The second aim was to investigate the bilateral correlations between business owners' financial analysis, general economy, financial behaviour and financial literacy knowledge, without discriminating the sector.

2 MATERIALS AND METHODS
2. MATERIJALI I METODE

2.1 Materials
2.1. Materijali

The International Standard Industrial Classification of All Economic Activities Rev.4 (ISIC Rev.4) consists of 21 sectors and 99 sub-sectors. The manufacturing sector, which is one of these 21 sectors and coded with C, consists of the sub-sectors arranged from 10 to 33. Forest products sectors are also classified as 3 different sub-sectors within the manufacturing sector, which are (i) Manufacture of wood and of products of wood and cork (C16), (ii) Manufacture of paper and paper products (C17) and (iii) Manufacture of furniture (C31) (United Nations, 2008).

In this study, micro-sized enterprises producing furniture and wood products in the Gumushane province were selected for analysis. The Gumushane province is located in the north of Turkey, as shown in Figure 1, and is one of Turkey's 81 provinces. Its surface area covers 6575 km² of which about 29 % is forested. Its population was 141702 in 2020. Enterprises in sectors C16 and C31 in Gumushane constituted 0.12 % and 0.1 % of the number and employment in sectors C16 and C31 in Turkey, respectively (Top *et al.*, 2014). There is no company that manufactures paper and paper products in Gumushane. In terms of employment, the total of sectors C16 and C31 constituted 26.8 % of the manufacturing sector employment and 4.4 % of the total of all sectors in Gumushane (Anonym, 2006). The enterprises that make up the forest products sector in Gumushane were divided into scale groups as follows: all 46 enterprises in C16 were included in the micro-sized group and 32 of 33 enterprises in C31 were micro-sized (96.9 %) and 1 out of 33 enterprises was in medium-sized (3.1 %) group (Anonym, 2006). However, one enterprise in the medium-sized group was

Figure 1 Geographical settlement of Gumushane province
Slika 1. Zemljopisni položaj provincije Gumushane

Table 1 The number of enterprises and employments by economic activity (ISIC Rev.4), country and size
Tablica 1. Broj poduzeća i zaposlenost prema gospodarskim djelatnostima (ISIC Rev.4), zemlji i veličini poduzeća

Number of *Broj*	Sector *Sektor*	Country *Zemlja*	Size class *Razred veličine*	Year / *Godina*			
				2014	2015	2016	2017
Enterprises *Poduzeća*	C16	Turkey	1-249 (SMEs)	23 923	23 182	23 003	23 185
			250+ (Large enterprises)	20	19	23	22
		Croatia	1-249 (SMEs)	1 713	1 674	1 624	1 623
			250+ (Large enterprises)	5	6	7	7
	C31	Turkey	1-249 (SMEs)	35 682	35 972	37 168	38 426
			250+ (Large enterprises)	52	57	54	51
		Croatia	1-249 (SMEs)	943	930	941	959
			250+ (Large enterprises)	6	7	7	8
Total Employments *Ukupna zaposlenost*	C16	Turkey	1-9 (Micro enterprises)	41 570	40 499	40 181	40 381
			1-249 (SMEs)	74 251	74 073	71 691	73 234
			250+ (Large enterprises)	12 338	12 621	14 067	14 106
		Croatia	1-9 (Micro enterprises)	3 665	3 361	3 310	3 386
			1-249 (SMEs)	14 465	14 079	13 982	14 874
			250+ (Large enterprises)	1 935	2 578	2 998	3 124
	C31	Turkey	1-9 (Micro enterprises)	74 081	75 162	76 807	79 252
			1-249 (SMEs)	174 417	177 637	176 955	178 593
			250+ (Large enterprises)	32 366	34 034	32 176	31 475
		Croatia	1-9 (Micro enterprises)	2 006	1 985	1 990	2 036
			1-249 (SMEs)	6 793	6 656	7 165	6 959
			250+ (Large enterprises)	2 928	3 173	3 605	3 876

closed on 7 April 2004 by the Privatization Department (Gumushane Expres, 2019).

Micro-scale enterprises are important for the country's economy. The number of micro-sized enterprises, their contribution to employment and other characteristics may be similar or different between countries. For example, when the number of enterprises and employment in Turkey and Croatia (Organization for Economic Co-operation and Development, 2021) in Table 1 are evaluated, it is seen that the rates of micro-scale enterprises in the total sector are different. According to Table 1, the ratio of employment created by micro-scale enterprises in Croatia accounted for 20.6 % of the total employment created by all size enterprises in the sector C31 in 2014, while the employment ratio created by enterprises in the same sector in Turkey was 35.8 %. Micro-scale enterprises operating in the sector C16 in 2017 constituted 18.8 % and 46.2 % of the employment created by all enterprises in this sector in Croatia and Turkey, respectively.

2.2 Method
2.2. Metoda

2.2.1 Data collection
2.2.1. Prikupljanje podataka

The face to face interview method, which is a type of survey method, was used as a data collection tool. The structured questionnaire was applied to 43 enterprises that made up 55 % of the study population in the time between March and April, 2020. Previous studies have been used in the preparation of survey questions (Serin *et al.*, 2016; Danışman *et al.*, 2016; Özbek, 2019). The questionnaire consisted of multiple-choice and open-ended questions related to the demographic structures of the enterprises as part one, 32 statements in Table 2 prepared on a five-point Likert scale as part two and ability of calculation of inflation and interest and risk reduction as part three. Participants rated whether they agree with the statements presented to them about knowledge of financial analysis, knowledge of general economics, knowledge of financial behaviour, and knowledge of financial literacy. The rating was designed as «I totally agree» (1), «I agree» (2), «I am indecisive» (3), «I disagree» (4) and «I strongly disagree» (5). Simple random sampling method was used in the determination of the enterprises to be surveyed.

2.2.2 Data analyses
2.2.2. Analiza podataka

In order to examine statistical differences between the averages of forest products sub-sectors, the following analyses were performed. First, it was tested whether the distribution of variables approximated the normal distribution. Those satisfying the normal distribution were then tested for homogeneity of variance. The comparison of the averages of the variables that met these two conditions was made according to the Independent-Sample T-Test. In cases where the normal distribution and variance homogeneity condition were not met, the Mann-Whitney U-Test, which is the non-parametric equivalent of Independent-Sample T-Test,

Table 2 Statements used to survey the knowledge of finance
Tablica 2. Izjave korištene u anketi o financijskim znanjima

Questions *Pitanja*	Knowledge of / *Znanje*			
	Financial analysis *O financijskoj analizi*	Economics *O ekonomiji*	Financial behaviour *O financijskom ponašanju*	Financial literacy *O financijskoj pismenosti*
Q1	I compare the cost and benefit of my economic choices	I understand the effect of the stock market on economy	I plan what the money will be paid for	Inflation is the increase in the general level of prices
Q2	I make realistic choices by using my financial resources	I understand the effects of international economic resources on the market	I spend the money according to needs (raw materials, machinery, etc.)	The risk of a highly profitable investment is high
Q3	I understand the difference between profit and cost	I describe the change in inflation rates	I take note of where and how much money has been paid	Inflation reduces the purchasing power of money
Q4	I organise my general consumption expenditures in accordance with my income	I interpret the effects of the economic crisis on unemployment	I save money for a rainy day	The speed of converting an asset with high liquidity into money without losing value is high
Q5	I interpret the effect of increase and decrease in the amount of product on market prices	I evaluate the benefits and costs of economic policies.	I control my income and expense constantly	Having a credit card increases one's purchasing power
Q6	I can understand how the lack of supply and demand reflects on prices	I understand the effect of interest rates on the market	I control whether I act on plan with my income	I consider the risk in my business-related decisions
Q7	I make realistic choices by evaluating my resources	I interpret the reasons for the changes in foreign exchange and gold prices	I fulfill my urgent cash needs with a bank loan	
Q8	I consider my needs while deciding on a product		I regularly save money for investment	
Q9			I fulfill my urgent cash needs with my saving	
Q10			I sell and buy resources without researching prices	
Q11			Before I borrow money, I take into account its cost	

was performed for comparison. The suitability of the data for normal distribution was determined according to the Shapiro-Wilk test. The Levene test was used for the homogeneity test of variances. In these tests, the H_o hypothesis is accepted if the p value is greater than 0.05 and rejected if it is smaller than 0.05. The Cronbach Alpha coefficient was calculated for the reliability of the data. All analyses were carried out for the 0.05 significance level. To investigate the relationships between variables, the Pearson correlation coefficient was used to analyse normally distributed data and the Spearman correlation coefficient was calculated for non-normally distributed data (Bursal, 2017).

2.2.3 Model and hypotheses
2.2.3. Model i hipoteze

The model used to measure the correlations between variables was designed as in Figure 2. In this model, no sector distinction was made. The model has two independent variables such as knowledge of financial analysis and economics of enterprise owners, an intermediary variable such as knowledge of financial literacy and a dependent variable such as financial behaviour.

3 RESULTS AND DISCUSSION
3. REZULTATI I RASPRAVA

To determine whether the data collected were reliable, the Cronbach Alpha Test was performed and the reliability coefficient was found to be α = 0.791. Since this coefficient (α) was greater than 0.70, the data were accepted as reliable (Bursal, 2017). Serin *et al.* (2016) reported a reliability coefficient of 0.76 in their research to determine the economic literacy levels of the forest products industry (Serin *et al.*, 2016).

The demographic values of the enterprise owners regarding age, working year in the sector and monthly income were found as shown in Table 3. According to this table, 58 % of the researched enterprises were ac-
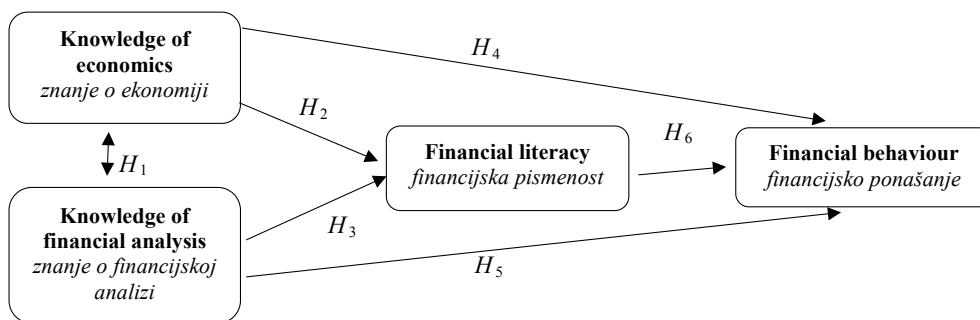
Figure 2 Model used to present correlation between variables
Slika 2. Model primijenjen za prikaz korelacije među varijablama

Depending on the model, the following hypotheses were tested:

H_1: General economic knowledge levels of enterprise owners affect financial analysis knowledge positively.

H_2: General economic knowledge levels of enterprise owners affect financial literacy levels positively.

H_3: Financial analysis information of enterprise owners affects financial literacy levels positively.

H_4: General economic knowledge levels of enterprise owners affect their financial behaviour positively.

H_5: Financial analysis knowledge levels of enterprise owners affect their financial behaviour positively.

H_6: Financial literacy levels of enterprise owners affect their financial behaviour positively.

tive in the furniture manufacturing sector and 42 % of enterprises were active in the wood products sector. The average age of the enterprise owners operating in the wood products and furniture manufacturing sectors was 41.33 and 37.96, respectively. In a similar study, Şahin and Serin (2018) reported that 53.3 % of employees were in the 36 to 45 age range. Our findings regarding the average age of the owners are in line with the values reported by Şahin and Serin (2018). The ratio of micro-sized enterprises surveyed by Şahin and Serin (2018) within the total was 76.7 %. In other words, not all of the enterprises included in their research are micro-scale.

The education levels of enterprise owners by sectors were found as in Table 4. Approximately half of the total number of enterprise owners were high school graduates (44.2 %) and constituted the largest category. Top *et al.* (2014) found in enterprises, where the structural attitudes of forestry products industry in the Gumushane province were examined, that the largest group of enterprise owners had high school education. These two studies are similar in this respect. However, Şahin and Serin (2018) found that 66.7 % of enterprise

owners were high school graduates in the study in which the financial literacy level of furniture industry in the Gaziantep province was investigated. This percentage was considerably higher than reported in our study. Özgülbaş and Koyuncugil (2011) reported in a furniture and shoemaking sector analysis study that 91.2 % of the manager positions in the furniture sector were at high school level and under. Of the enterprises studied by Özgülbaş and Koyuncugil (2011), 81.8 % were micro-sized enterprises. The observed difference between our findings may be due to the fact that their study included enterprises in a different sector than the forest products sector, such as shoemaking, and the geographical region differences. Another reason for the huge difference between our and their results (44.2 % and 91.2 %, respectively) is that they gathered primary, secondary and high school graduates under one group as "high school level and under". However, in our study, each school type is considered separately.

The averages of the analysed variables, including financial analysis, economy, financial behaviour and financial literacy knowledge are summarised in terms of sectors in Table 5. Means with a value less than 2.5

Table 3 Some demographic values of enterprise owners
Tablica 3. Neke demografske vrijednosti vlasnika poduzeća

Sectors (sample size) *Sektori (veličina uzorka)*	Age of enterprise owners *Starost vlasnika poduzeća*		Working year in sectors *Radni staž u sektoru*		Monthly income, EUR *Mjesečni dohodak,* EUR	
	Mean *Srednja vrijednost*	**Stdev** *Stand. devijacija*	**Mean** *Srednja vrijednost*	**Stdev** *Stand. devijacija*	**Mean** *Srednja vrijednost*	**Stdev** *Stand. devijacija*
C16 (18)	41.33	11.02	17.61	7.08	761.63	373.64
C31 (25)	37.96	9.23	16.76	8.71	559.57	328.92

Table 4 Level of education of enterprise owners by sectors
Tablica 4. Razina obrazovanja vlasnika poduzeća prema sektorima

Sectors *Sektori*	School type graduated / *Završena škola*				Total *Ukupno*
	Primary *Osnovna*	Middle *Srednja*	High *Visoka*	More *Više*	
C16	0	6	7	5	18
C31	5	3	12	5	25
Total	5	9	19	10	43

are interpreted as high level of knowledge and the correct answer rate to the questions. The knowledge of financial analysis showed the highest average values and the level of economic knowledge the lowest. In a study investigating financial literacy in the furniture industry, Şahin and Serin (2018) used the 5 point Likert scale and interpreted their findings as percentage of data frequency. In our study, the results were interpreted using means. The level of the economic knowledge was found to be the lowest with mean values of 2.611 and 2.421 among the other variables. In their study, Şahin and Serin (2018) reported a higher level of economic knowledge of enterprise owners. The difference may be due to the fact that approximately 25 % of the enterprises in their study were large-sized and not micro-sized enterprises. All of the enterprises investigated in our study are micro-scale. Agyapong and Attram (2019) report that surveys conducted before revealed that few owner managers of SMEs were able to understand basic financial concepts. This result is not in line with our findings. In our survey, only the level of economic knowledge of owners in the furniture sector was found below the average. Topimin and Hashim (2020) revealed that micro-scale businesses have a low financial literacy level and that the majority of them are not familiar with the basic financial terminology. These results are not in line with ours and Topimin and Hashim (2020) provided no information on the sector in question in their survey.

Tests were performed to see if the difference between the sector means of each variable in Table 5 was statistically significant. For this, we first tested whether the variable data followed a normal distribution. The results are presented in Table 6. Since the sub-sector degrees of freedom (*df*) were less than 30, the decision was made according to the Shapiro-Wilk Test result (Bursal, 2017). Accordingly, at least one of the p-values of economic (p=0.021) and financial behaviour knowledge (p=0.014) belonging to sectors was less than 0.05, and therefore did not meet the normal distribution condition. Since the p-values of financial analysis and financial literacy data were p>0.05, they were found to meet the normal distribution requirement.

Data of financial analysis and financial literacy variables, which comply with the normal distribution between sectors, should secondly meet the condition of homogeneous variances between sectors. If this condition was met, an Independent-sample T-test could be

Table 5 Means and standard deviations of variables by sectors
Tablica 5. Srednje vrijednosti i standardne devijacije varijabli prema sektorima

Sectors (sample size) *Sektori (veličina uzorka)*	Knowledge of / *Znanje*							
	Financial analysis *O financijskoj analizi*		Economics *O ekonomiji*		Financial behaviour *O financijskom ponašanju*		Financial literacy *O financijskoj pismenosti*	
	Mean	Stdev	Mean	Stdev	Mean	Stdev	Mean	Stdev
C16 (18)	1.715	0.406	2.421	1.054	1.793	0.453	2.065	0.555
C31 (25)	1.685	0.401	2.611	0.741	2.087	0.704	1.900	0.644

Table 6 Normality analysis for sub-sectors
Tablica 6. Analiza normalnosti za podsektore

	Sectors *Sektori*	Kolmogorov-Smirnov			Shapiro-Wilk		
		Statistic	*df*	Sig.	Statistic	*df*	Sig.
Knowledge of financial analysis *Znanje o financijskoj analizi*	C16	0.133	18	0.200*	0.951	18	0.436
	C31	0.122	25	0.200*	0.968	25	0.589
Knowledge of economics *Znanje o ekonomiji*	C16	0.165	18	0.200*	0.874	18	0.021
	C31	0.125	25	0.200*	0.958	25	0.368
Knowledge of financial behaviour *Znanje o ekonomskom ponašanju*	C16	0.144	18	0.200*	0.933	18	0.216
	C31	0.167	25	0.072	0.894	25	0.014
Knowledge of financial literacy *Znanje o financijskoj pismenosti*	C16	0.213	18	0.030	0.930	18	0.196
	C31	0.122	25	0.200*	0.936	25	0.120

Table 7 Equality test of financial analysis and financial literacy and *T*-test
Tablica 7. Test jednakosti financijske analize i financijske pismenosti te *T*-test

		Levene's test for equality of variances *Levinov test jednakosti varijanci*		T test for equality of means / *T-test jednakosti srednjih vrijednosti*						
		F	Sig.	t	df	Sig. (2-tailed)	Mean difference	Std. error difference	95 % confidence interval of the difference	
									Lower	Upper
Financial analysis *Financijska analiza*	Equal variances *jednake varijance*	0.245	0.623	0.243	41	0.809	-0.0303	0.1245	-0.2818	0.2212
	Not Equal *različite varijance*			-0.243	36.458	0.810	-0.0303	0.1248	-0.2833	0.2228
Financial literacy *Financijska pismenost*	Equal variances *jednake varijance*	0.937	0.339	-0.876	41	0.386	-0.1648	0.1881	-0.5446	0.2150
	Not Equal *različite varijance*			-0.898	39.588	0.374	-0.1648	0.1835	-0.5358	0.2061

applied (Pallant, 2017). The test result showing that the variances of the sectors for these two variables were homogeneous are summarised in Table 7. The Levene's Test resulted in a $p>0.05$ for the knowledge of financial analysis ($p=0.623$) and $p>0.05$ for the knowledge of financial literacy ($p=0.339$). Therefore, the condition of homogeneity of variances was met.

According to the T-test values in Table 7, the equality of means under the H_o hypothesis was accepted since the p value of financial analysis ($p=0.809$) was $p>0.05$ and the p value ($p=0.386$) of financial literacy was $p>0.05$. There was no further significant difference between the financial analysis knowledge and financial literacy averages of the sectors. In other words, the differences between the financial analysis knowledge mean of the furniture manufacturing enterprise owners and the financial analysis knowledge mean of the wood products manufacturing enterprise owners were not statistically significant. The same result was true for financial literacy.

The economic and financial behaviour knowledge variables of the sectors did not show a normal distribution. Therefore, a Mann-Whitney U-Test was

used to investigate whether there were differences between the means of these variables and results are shown in Table 8. According to these results, neither economic knowledge ($p=0.261$) nor financial behaviour knowledge ($p=0.152$) in terms of sector were statistically significant ($p>0.05$).

According to the results of the Independent-Sample T-test and Mann-Whitney U-Test, the difference between the means of financial analysis, financial literacy, financial behaviour and economic knowledge of furniture and wood products enterprises' owners was not statistically significant. In other words, the owners of the enterprises in the furniture and wood products sectors are similar in terms of the knowledge mentioned above or they belong to the same population.

Correlation analyses between financial analysis, financial literacy, economy and financial behaviour knowledge variables were also conducted. The correlation between financial analysis and financial literacy knowledge, both following a normal distribution, were tested using the Pearson's correlation coefficient. Non-normally distributed variables were analysed by Spearman correlation as shown in Table 9.

Correlation analysis between financial analysis and financial behaviour resulted in $p=0.013$. Therefore, the H_5 hypothesis was accepted and it was concluded that there was a significant relationship between these two variables. According to the Spearman's correlation coefficient $r_s= 0.376$, the relationship was positive and of medium strength. In addition, due to $p=0.002$ for the relationship analysis between economics and financial behaviour knowledge, the H_4 hypothesis was accepted. This means that there was a significant relationship between these two variables. According to the Spearman's correlation coefficient $r_s=0.450$, the relationship was positive and of medium strength. According to the

Table 8 Significance test of the difference between means
Tablica 8. Test značajnosti razlika među srednjim vrijednostima

	Economic knowledge *Znanje o ekonomiji*	Financial behaviour knowledge *Znanje o ekonomskom ponašanju*
Mann-Whitney U	179.500	167
Wilcoxon W	350.500	338
Z	-1.123	-1.433
Asymp. Sig. (2-tailed)	0.261	0.152

Table 9 Spearman's correlation test results between variables
Tablica 9. Spearmanova korelacija među varijablama

			Financial analysis *Financij-ska analiza*	Economic informa-tion *Ekonomske informacije*	Financial behaviour *Financijsko ponašanje*	Financial literacy *Financij-ska pismenost*
Spearman's rho *Spearmanov koeficijent korelacije*	Financial analysis information *Informacije o financijskoj analizi*	Correlation Coefficient	1.000	0.255	0.376*	0.359*
		Sig. (2-tailed)	.	0.099	0.013	0.018
		N	43	43	43	43
	General economic knowledge *Osnovno ekonomsko znanje*	Correlation Coefficient	0.255	1.000	0.450**	0.151
		Sig. (2-tailed)	0.099	.	0.002	0.333
		N	43	43	43	43
	Financial behaviour knowl-edge *Znanje o financijskom ponašanju*	Correlation Coefficient	0.376*	0.450**	1.000	0.221
		Sig. (2-tailed)	0.013	0.002	.	0.154
		N	43	43	43	43
	Financial literacy knowledge *Znanje o financijskoj pismenosti*	Correlation Coefficient	0.359*	0.151	0.221	1.000
		Sig. (2-tailed)	0.018	0.333	0.154	.
		N	43	43	43	43

Table 10 Pearson correlation test of financial analysis and financial literacy
Tablica 10. Pearsonova korelacija između financijske analize i financijske pismenosti

		Financial analysis *Financijska analiza*	Financial literacy *Financijska pismenost*
Financial analysis *Financijska analiza*	Pearson correlation	1	0.402
	Sig. (2-tailed)		0.008
	N	43	43
Financial literacy *Financijska pismenost*	Pearson correlation	0.402	1
	Sig. (2-tailed)	0.008	
	N	43	43

Spearman's correlation coefficients between financial analysis and economic knowledge ($p=0.099$), financial literacy and economic knowledge ($p=0.333$) and financial literacy and financial behaviour knowledge ($p=0.154$), no relation was found for these parameters ($p>0.05$). For this reason, the H_1, H_2 and H_6 hypotheses were rejected.

The relationship between financial analysis and financial literacy variables was determined according to Pearson's correlation coefficient, since these two variables met the normality requirement. As summarised in Table 10, the value of $p=0.008$ was smaller than 0.05 and for this reason, the H_3 hypothesis was accepted. It was concluded that there was a significant positive relationship between these two variables. According to correlation coefficient $r_s=0.402$, the relationship was positive and of medium strength.

It was also tested whether there was a significant relationship between variables and sectors. The Spearman correlation test was used to investigate the effect of the sector on the variable, since the sector variable is of the ordered data type. There was no significant relationship between sector and financial analysis ($p>0.05$); sector and financial literacy ($p>0.05$); sector and economy ($p>0.05$) and sector and financial behaviour ($p>0.05$). Mashizha et al. (2019) found that there was a significant difference in the mean scores between sector and financial literacy. These findings are different from our study, which may be due to the fact that Mashizha *et al*. (2019) surveyed SMEs operating in 10 different sectors.

Business owners were asked for a simple interest account and 95.3 % of the participants chose the correct answer. 32.6 % of enterprise owners answered correctly the question of whether or not investing in different assets would increase the risk of losing money. 44.2 % of the enterprise owners indicated that this would increase the risk. In a circle where the annual inflation rate is 10 %, the question about the purchasing power of money invested in the bank for one year with 6 % interest, 83.7 % of the participants correctly chose to decrease the purchasing power of the money. Mashizha *et al.* (2019) revealed that ratios of respondents' knowledge of interest, risk reduction and inflation were 74.5 %, 68.7 %, and 71.6 % respectively. Considering the sector and scale differences, it can be said that these rates are close to our values. In addition, the fact that the knowledge of interest calculation is the highest and the risk distribution is the lowest is the common point of our and their results.

4 CONCLUSIONS
4. ZAKLJUČAK

Scarce resources require economic units to be cautious in their decisions related to finance. Therefore, especially micro-scale enterprises need to be more sensitive to working environment and analyse this environment well. The financial skills of business managers are important in outsourcing and capital procurement, inventory management and determining real needs.

In the current study, financial literacy levels of business owners operating in the forest products sector were determined, while knowledge of financial analysis and general economic and financial behaviour patterns were evaluated. The mean of financial analysis knowledge levels of business owners was the highest. The mean of general economy knowledge levels was the lowest among other factors. However, if the mean of general knowledge levels was less than 2.5, this would mean that the knowledge level of the business owners operating in the micro-scale forest products sector was sufficient. Therefore, it can be concluded that the lack of knowledge of business owners was not the basis of the financing problems common in the forest products sector in literature.

It was investigated whether the differences among the averages of financial analysis, economy, financial behaviour and financial literacy knowledge levels between wood products and furniture sub-sectors were significant and whether there was a correlation between these knowledge levels and the sectors. It was concluded that the differences between knowledge levels by sectors were not significant. In other words, there was no difference between the financial analysis, economy, financial behaviour and financial literacy knowledge of the furniture and wood products sector business owners. It can be concluded that business owners in both sectors belong to the same universe. In addition, no correlation was observed between knowledge levels and sectors. In other words, there was no correlation between, for example, the knowledge means of the financial behaviour of the wood products industry and the furniture industry. The same results were valid for knowledge means of the general economy, financial analysis and financial behaviour.

When correlations among knowledge levels were investigated, regardless of sectors, positive and moderate correlations were obtained between some of the variables. There was no correlation between some variables. Financial analysis information of the business owners positively affects their financial literacy and financial behaviour. Again, economic information of business owners has a positive effect on their financial behaviour. However, there was no relationship between financial literacy and financial behaviour. Financial literacy of business owners is not always reflected on their financial behaviour.

Business owners can accurately calculate the simple interest calculation and the depreciation of money against inflation at a very high rate. However, the ability to analyse requires the basic knowledge, and knowledge is one of the most important components of financial literacy. If it is stated that business owners within the scope of our study have an average of 17 years of work experience, showing that they can obtain enough information about their market. Therefore, this information gained through experience affects positively both financial literacy levels and financial behaviour pattern of business owners. Considering that financial behaviour and financial literacy are affected by two channels such as education and financial socialization, it can be concluded that micro-scale business owners operating in the forest products sector have strong financial socialization aspects. Enterprises surveyed by this study were able to analyse their environment well while continuing their activities and made the right financial decisions with this analysis capability.

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