

DOES GENDER MATTER IN FINANCIAL LITERACY? A CASE STUDY OF YOUNG PEOPLE IN TIRANA

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***Abstract:** Financial literacy has become an important issue because many studies have established a connection between financial literacy and financial decision making for people. The aim of this study is to identify the differences in financial literacy based on the gender of young people in Tirana, Albania. A questionnaire was designed, covering financial knowledge, financial attitude and financial behaviour. Principal component analysis was performed to identify the main factors for both genders. Even though similarities were found, evidence reinforced the existence of the differences in gender regarding financial decision making as a consequence of financial literacy. Compared to young females, young males reflected to deal with risk, willingness to act and reading to improve financial knowledge. In contrast to this, young females were more concerned about money management and how to spend money related issues.*

***Keywords:** Financial Literacy: Knowledge, Attitude, Behaviour, Gender*

***JEL Classification:** D01, D14, G40.*

1. Introduction

Finance has become a complex labyrinth in which many people are faced with challenge of navigating successfully. Hence, financial literacy has become an important issue, not only in developing countries but also in the developed ones. Low levels of financial literacy have existed as a problem long before the global financial crisis occurred (Sherraden, 2013). At the beginning of the 2008 crisis, it was further emphasized that low levels of financial literacy were a barrier to economic growth both at national and international levels (Stolper and Walter, 2017). Thus, the wealth of a country is influenced, also by the financial literacy of its citizens. Among the factors that contributed to the 2008 financial crisis were a combination of risky and behaviour and inappropriate financial actions by individuals and businesses, as well as the lack of understanding of households on financial issues relating to credit and investments in particular. Consequently, individuals opted, sometimes unknowingly, to take more financial risks than what they could afford.

Following the economic, political and social changes that took place in Albania after the 1990s, the Albanian consumer was left unprepared to deal with a number of new and sophisticated products offered by the financial services firms. The Albanian consumer had to make important decisions about their personal finances, the effects of which did not only affect their purchasing ability, but at the same time had an extended impact on Albania's financial services industry and macroeconomic stability.

Studies have shown that consumer financial disability leads to personal financial mismanagement which in turn causes inefficiency in financial markets (Brown, 1993; Garman, 1998; Hira and Loibl, 2005). Also, scholars report that making a bad financial decision has a negative impact on the workplace, as therefore, financial education increases labour productivity (Garman et al., 1996, 1999; Joo and Grable,

2000). Financial literacy within a community has a positive impact on community development, and leads to a lower level of poverty (Chibba, 2009). When adults and children are taught good financial management skills, then the quality of these families and the community as a whole is strengthened, enabling them to pursue their desires and provide a successful financial future.

A growing number of countries have paid attention to the level of financial literacy of consumers and the public as a whole (Lusardi and Mitchell, 2011; Mitchell and Lusardi, 2011). The importance of good financial literacy has also been recognized by the European Union since 2007, this can be seen through the European Commission's adoption of a financial literacy issue that underlined its role in the domestic market policy and the benefits it brings to individuals, society and the economy in general. In 2008, the OECD created the International Financial Education Network with the objective of improving international co-operation on financial literacy issues around the world. In Albania, financial education has been in focus since 2006 by the Bank of Albania in cooperation with other governmental institutions, through the organization of activities aimed at raising public awareness of behaviours, attitudes and financial ability. Also, the Ministry of Education and Science and the Bank of Albania signed a memorandum of cooperation aimed at enhancing financial literacy. During this period, financial education activities were divided into five main categories: elementary school students, high school students, students, teachers and journalists.

The importance of financial education has increased in recent years as a result of financial market developments and demographic, economic and policy changes. Financial literacy can play an important role in the development of the Albanian financial system. In 2005, an OECD report showed that financial education can benefit consumers of all ages and income levels and that financially educated consumers can also benefit the economy, by demanding products more responsive to their needs, and encouraging providers to develop new products and services, thereby increasing competition in financial markets (OECD, 2005). According to the Financial System Stability Assessment 2, conducted by the IMF in 2005, the Albanian financial system is still in its early stages of development, as transactions in cash are still very common. Since Albania aspires to be a member of the European Union, the improvement in levels of financial literacy among its citizens should be as close as possible to European standards. As indicated by the report of the European Commission, progress has been made in improving financial education in Albania, but the quality of this education must be at the highest levels (EC, 2016). Financial education positively affects the financial system as a whole and the behaviours, attitudes and capabilities of consumers also. It can help develop the skills of future financiers. As a result, financial education is put in the spotlight during 2006 (Chionsini, 2012).

Based on the above discussions and the study of Potrich et al. (2016), the aim of this study is to analyse the financial literacy among young people living in Tirana and to investigate any difference between males and females in terms of the three main dimensions: financial behaviour, financial knowledge and financial attitudes.

2. Literature review

Many definitions have been offered for financial literacy as evident in several business and academic reports (Lusardi and Tufano, 2015; Mandell and Klein, 2007;

Moore, 2003). For the purpose of this study, financial literacy is defined as the ability to understand finances. More specifically, financial literacy refers to acquiring financial skills and knowledge that allow us to be better informed and to take effective decisions through our knowledge of finance. It also has to do with the individual basic level of financial affairs, the knowledge on how to manage budget and personal or family assets. According to Noctor et al. (1992: 29), “financial literacy is the ability to make informed financial predictions and make effective decisions regarding the use and management of money.” Financial literacy as a construct was modelled for the first time by the Jump\$tart Coalition for Personal Financial Literacy in 1997, which defined financial literacy as “the ability to use the knowledge and the ability to manage one another’s financial resources in the most effective way.” A more detailed definition is given by Tomášková et al. (2011). According to them, financial literacy is a concept that is used to refer to the body of knowledge, skills and attitudes of the citizens needed to financially secure themselves and their family. Individuals with good financial literacy have knowledge about money and pricing, they are prepared to effectively manage their personal or family budget by being able to manage their money and financial assets. Financial literacy is also related to mathematical knowledge, and the use of mathematical skills to solve numerical problems, knowledge in computing such as the ability to search, evaluate and use the information found and legal knowledge such as orientation with legal systems, rights and responsibilities of individuals (Tomášková et al., 2011). Financial literacy as part of personal or family financial management includes three components: monetary literacy, knowledge of prices and knowledge of the budget. Hung et al. (2009) reviewed the literature of this field and they defined: financial literacy as a specific form of knowledge, the ability to use that knowledge, good financial behaviour, and good financial attitudes and even financial experiences (for a review on measuring knowledge refer to Matošková (2016)). Moreover, Nguyen et al. (2017) found that financial knowledge had a positive relationship with regular personal saving.

Gender is a social phenomenon that refers to behavioural, social, and psychological characteristics of men and women. A review of current literature indicates that gender has been claimed to be a significant variable that affects the level of individual financial literacy (Hira and Mugenda, 2000). Even after controlling the impact of other factors, Chen and Volpe (2002) find that the gender factor is still statistically significant. Studies have shown that women are less knowledgeable about finance than men (Chen and Volpe, 1998; Lusardi and Mitchell, 2008; Mitchell and Lusardi, 2011). Not only older men are generally more financially knowledgeable than older women, but similar patterns also are shown up among younger respondents as well (Lusardi and Mitchell, 2014). In addition, according to a study report of the OECD in 2012, a larger proportion of male than female respondents gained high scores in knowledge in Albania. It appears that in almost all countries covered in that pilot study, where the average level of knowledge was relatively high, female respondents were less knowledgeable than male respondents (Atkinson and Messy, 2012). Belás et al. (2016) did a study comparing financial literacy among secondary school students in the Czech Republic and Slovakia based on their gender. The result of the study showed that, male and female subjects covered in the study were equally sound in making the right decisions regarding bank loan options available to them in both countries. Surprisingly, Cupák et al. (2018) found that the highest differences in gender referring

to financial literacy are in more developed countries. Therefore, they concluded that personal characteristics can explain some of these differences.

Furthermore, findings have suggested that women are more risk-averse than men; less confident when making financial decisions, and less knowledgeable in terms of financial literacy (Chen and Volpe, 2002). Lusardi and Mitchell (2007) studied whether people tried to figure out how much they need to save for retirement, whether they devised a plan, and whether they succeeded in the plan. They found that retirement calculations are not an easy task for respondents in general and for women in particular. The risk-averse behaviour of women in their retirement planning will likely result in significantly lower pension wealth than men (Chen and Volpe, 2002).

Analysis of the relationship between behaviour and knowledge suggests a positive relationship when knowledge increases so does the behaviour (Atkinson and Messy, 2012). Women are more likely than men to be satisfied with their level of savings. On the other hand, women are less likely than men to feel that their financial situation is better than that of others at the same socio-economic level (Hira and Mugenda, 2000). There is also a positive relationship between attitudes and behaviour (Lusardi, 2008). Atkinson and Messy (2012) reported that women were more likely than men to have high attitude scores showing that they typically had a more positive attitude in long-term. However, Hira and Mugenda (2000) found that women are less likely than men to be satisfied with their ability to meet long-term goals and women are far more likely than men to purchase unplanned items, so to buy without any need. Danes and Hira (1987) found that males know more about insurance and personal loans, but know less about overall financial management than females. In this context, Kozubíková et al. (2017) found evidence of gender on the perception of financial risk in small and medium-sized enterprises in the Czech Republic.

Despite the broad literature focusing on financial literacy, there is a lack of evidence of financial literacy for Albanian consumers. A research that has been conducted in Albania to measure the financial literacy was carried out at the national level in 2011. In addition, the OECD undertook a study in 2011 to measure the financial literacy of 14 countries in 4 continents, including Albania. Despite the great contribution to identifying the needs and shortcomings of the Albanian population in terms of financial literacy, this study addresses the problem of a “one size fits all” perspective as it is not focused in a particular segment of the population. It concluded that the level of financial knowledge, even when compared to other countries, was at the average level and that there is still a lot of work to be done. Appropriate good financial behaviour is mainly demonstrated by males, households, people within the 30-59 years old bracket, with a high level of education when compared to those with unsustainable incomes. Most respondents exhibited deficiencies in financial literacy and, as expected, knowledge, financial attitudes and behaviour positively affect the financial literacy (Ceca et al., 2014). Another study regarding financial literacy was carried out in 2014 by Nano and Cani (2013). They studied the financial literacy of students at public and private universities in Albania where the results revealed a low level of student financial ability. Despite positive attitudes towards personal finance, it was concluded that students did not possess the necessary financial knowledge and did not have good financial behaviour (Nano and Cani, 2013).

3. Aim, data, methods and procedures

The research unit in this study are the young people that live in Tirana, the capital city of Albania. The aim of the study is to investigate the differences between young females and males in their levels of financial literacy. Relevant literature suggests three main dimensions of the financial literacy: financial knowledge, financial behaviour and financial attitudes. We want to see whether these dimensions are the same for both young males and females in Tirana.

A questionnaire was designed using the OECD's (2005), Atkinson and Messy's (2012) and Ceca et al.'s (2014) suggestions and approaches as a reference, and it was distributed electronically. 23 questions related to the financial literacy dimensions were designed as Likert scale 1 to 5 ([1] Strongly disagree; [2] Disagree; [3] Neither disagree, nor agree; [4] Agree; [5] Strongly agree).

Tab. 1: Selected items to proceed with the analysis

Dimension	Item	Description (Statement)
Financial attitude	f_att1	I want to know more about money management
	f_att2	I find it more satisfying to spend money than to save it for long-term
	f_att3	I understand money management
	f_att4	I'm prepared to risk some of my own money in saving or doing an investment
	f_att5	I am keen on reading and learning more about financial literacy
	f_att6	I think money is there to be spent
	f_att7	I think I control my financial situation
	f_att8	I read to improve my knowledge in finance
Financial behaviour	f_beh1	Before I buy something I carefully consider whether I can afford it
	f_beh2	I keep a close personal look at my financial affairs
	f_beh4	I think creating a saving plan is important
	f_beh5	We pay our bills on time
	f_beh6	We make a plan to manage our revenues
	f_beh7	We plan our spending
	f_beh8	We control if the revenue and spending fits the budget
	Financial knowledge	f_knw10
f_knw11		If someone offers you the chance to make a lot of money it is likely that there is also a chance that you will lose a lot of money
f_knw12		High inflation means that the cost of living is increasing rapidly
f_knw13		It is usually possible to reduce the risk of investing in stock market by buying a wide range of stocks and shares
f_knw14		It is less likely that you will lose all of your money if you save them in more than one place
f_knw15		A credit card is safe and risk-free
f_knw16	If prices go up rapidly, the money people have in savings accounts could lose much of its value	

Source: Own processing.

Due to the fact that this study was focused on young people, a definition of young people was needed. Only respondents 18-35 years old were considered as young people. Only 148 responds had satisfied the age criteria, so the other respondents were removed from the dataset. In addition, the respondents' gender was imbalanced (70.9% females, 29.1% males). During the analysis process, the theoretical weighted approach was applied to weight the database by gender based on Tirana's population (51% females, 49% males). This type of procedure was applied to gender because the aim of this study is to see the differences between young males and females in

financial literacy. Because of this weighted database was used, the results are expected to be generalized for this city based on gender.

Exploratory factor analysis (EFA) was used to identify factors of financial literacy for both of the sub-samples. EFA is a statistical method used to describe variability among observed and correlated variables (items) in a way to reduce the number of unobserved variables also called factors or components. EFA aim is to find those factors known as independent unobserved variables also labelled as latent variables. The principal component analysis (PCA) was selected as the extraction method. The varimax rotation was applied, which is an orthogonal rotation. The eigenvalue criteria ($\lambda > 1$) was used to define the latent variables number for each sub-sample. During the iterative process, items with communality value smaller than 0.3, and items with cross-loadings above absolute value of 0.4 were removed. In addition, attention was paid to the absence of multicollinearity, the nonzero correlations between items and sampling adequacy, which they were controlled by the correlation matrix determinant that should be greater than 0.00001, the KMO statistic and Bartlett's test, respectively. Construct reliability of the items loading into a factor was estimated by Cronbach's alpha (CA). These rules on how to find the best solution are given by Tabachnick and Fidell (2013) and Field (2009). Analyses were computed using SPSS, version 23.

Having considered all the above principles and rules, it was found that 22 observed variables could be used to proceed with the analysis. The hypothesized financial literacy dimensions had 8, 7 and 7 items, respectively, as they are shown in Tab. 1.

4. Results

Basic socio-demographic variables were collected through the questionnaire, these included gender and age, and such information is available also for the Tirana's population and thereby comparisons were possible. The survey respondents' gender was imbalanced, which was surprisingly quite similar to the survey of Nano and Cani (2013). This issue was sorted out after the theoretical weighted procedure was applied. The age distribution of the respondents was: 35.9% of them were 18-21 years old, 44.5% of them were 22-24 years old, and the rest of them were 25-35 years old.

Tab. 2 summarises the main findings regarding the male sample. 17 observed variables (items) loaded on six components, factors or unobserved variables. Since the correlation matrix's determinant resulted bigger than 0.00001 (3.224E-5), then the absence of multicollinearity was considered as a fact. Also, the sampling adequacy was tested by Kaiser-Meyer-Olkin (KMO) statistic and its result (0.702) indicated that were sufficient items for each factor. Bartlett's test was significant (p-value less than 0.01), indicating that the correlation matrix is significantly different from an identity matrix, in which correlations between variables are all zero. The minimum communality value was 0.620 and its average among all items was 0.772, so the item variances accounted for by the factors were above 0.620. Variables are ordered and grouped by size of loading to facilitate interpretation.

For the male sample, six factors were extracted. The total variance explained by those factors after the rotation procedure was 77.24%, which is a considerable percentage. The first factor explained 18.54% of the variance and it was composed by five items related to the dimension of financial knowledge, in particular with those that were focused in the financial risk knowledge, thereby it was labelled 'dealing with

risk'. The average loading items' value was 0.740. Its internal consistency was high (CA = 0.829), indicating that the construct reliability was very good. The dimension of financial knowledge is consistent with the expatiations since its items were not allocated to other dimensions (all its items loaded under *Dealing with risk*).

The other two financial literacy dimensions were divided into five factors. The financial behaviour dimension was divided into two new factors that were labelled 'budgeting' and 'buying plans'. The label 'budgeting' was selected because the four items (f_beh7, f_beh8, f_beh6, f_beh5) that loaded on it were related to the budgeting process. The average loading items' value resulted in 0.808. This factor explained 17.33% of the variance, which is quite near to the first factor's percentage. For this reason, this factor was ranked as the second one. Its construct reliability (CA = 0.847) showed that the internal consistency was very good. The 'buying plans' factor was constructed by two items and it was ranked as the fourth factor since its variance's percentage was 9.78%. That label was selected for this factor because its two items statement were "Before I buy something I carefully consider whether I can afford it" and "I think creating a saving plan is important". Its CA resulted in 0.716, indicating that the internal consistency was acceptable.

Tab. 2: Results for the male sample

Factor	Item	Factor loading						Communality	Reliability
		1	2	3	4	5	6		
Financial Knowledge: <i>Dealing with risk</i>	f_knw10	.817						.795	.829
	f_knw11	.800						.735	
	f_knw13	.779						.650	
	f_knw15	.683						.647	
	f_knw16	.619						.620	
Financial Behaviour: <i>Budgeting</i>	f_beh7		.913					.906	.847
	f_beh8		.893					.901	
	f_beh6		.831					.860	
	f_beh5		.596					.822	
Financial Attitude: <i>Willingness to act</i>	f_att4			.813				.701	.756
	f_att1			.803				.760	
	f_att5			.728				.761	
Financial Behaviour: <i>Buying plans</i>	f_beh4				.888			.857	.716
	f_beh1				.645			.740	
Financial Attitude: <i>Money management</i>	f_att3					.830		.723	.699
	f_att7					.736		.790	
Financial Attitude: <i>Reading</i>	f_att8						.895	.862	–
Variance (%)		18.54	17.33	13.59	9.78	9.51	8.49	total variance = 77.24%	

Source: Own processing. Note: Correlation Matrix's Determinant = 3.224E-5; KMO Sampling Adequacy = 0.702; Bartlett's Test of Sphericity (Sig.) = 0.000; Coefficient loading displayed above |.42|; Extraction: PCA; Rotation: Varimax with Kaiser Normalization. Only Male cases are used.

The financial attitude dimension was divided into three new factors which were named 'willingness to act', 'money management' and 'reading'. 'Willingness to act' is labelled the factor that was loaded with three items (f_att4, f_att1, f_att5). Based on the percentage of the variance explained (13.59%), this factor was ranked as the third, with a clear difference between the second (3.74% = 17.33% – 13.59%) and fourth (3.81% = 13.59% – 9.78%) factors. The average loading items' value was 0.781 and the items internal consistency was acceptable because CA was 0.756. The 'money

management' factor, loaded with two items focusing on how to manage money, was ranked as the fifth by explaining 9.51% of the variance. The difference between it and the fourth factor was so narrow (0.13%) and a slightly bigger difference between it and the sixth factor (1.02% = 9.51% – 8.49%). The CA value was almost 0.7 (0.699). The last factor was 'reading', which was loaded with a single item with a value of 0.895 and its statement was "I read to improve my knowledge in finance". This factor explained 8.49% of the variance (refer to Tab. 2).

Tab. 3 shows the results of the female sample. The PCA with a varimax rotation was performed on 17 items. Findings were not affected by the multicollinearity, since the correlation matrix's determinant was 0.001. Our correlation matrix was significantly different from an identity matrix because Bartlett's test was significant (p-value < 0.01). The KMO statistic resulted in 0.735, showing that were sufficient items for each factor, so the sample was adequate. Although the average communality value of all items was 0.656, indeed the minimum item variance accounted for by the factors was 0.419 but this is considered enough to proceed further with the analysis.

Tab. 3: Results for the female sample

Factor	Item	Factor loading					Communality	Reliability
		1	2	3	4	5		
Financial Attitude: <i>Money management</i>	f_att7	.817					.697	.807
	f_att3	.771					.701	
	f_att5	.721					.629	
	f_att4	.695					.583	
	f_att8	.569					.419	
	f_att1	.533					.479	
Financial Behaviour: <i>Budgeting</i>	f_beh7		.889				.843	.879
	f_beh6		.853				.786	
	f_beh8		.797				.786	
Financial Knowledge: <i>Dealing with risk</i>	f_knw14			.782			.616	.648
	f_knw13			.702			.579	
	f_knw15			.644			.563	
	f_knw12			.575			.502	
Financial Behaviour: <i>Buying plans</i>	f_beh1				.847		.791	.838
	f_beh2				.782		.718	
Financial Attitude: <i>Spending money</i>	f_att2					.847	.767	.642
	f_att6					.782	.693	
Variance (%)		18.58	14.92	11.53	11.40	9.16	total variance = 65.59%	

Source: Own processing. Note: Correlation Matrix's Determinant = 0.001; KMO Sampling Adequacy = 0.735; Bartlett's Test of Sphericity (Sig.) = 0.000; Coefficient displayed above |.40|; Extraction: PCA; Rotation: Varimax with Kaiser Normalization. Only Female cases are used.

Five factors were extracted. Financial attitude dimension was divided into two new factors: 'money management' and 'spending money'. The first one was composed by six items and its variance was the highest among five factors (18.58%), whereas the 'spending money' factor was loaded with two items and it reflected the lowest percent of the variance (9.16%), ranking as the last factor. 14.92% of the variance was explained by the factor labelled 'budgeting', ranking it as the second factor. Three items part of the financial behaviour dimension loaded on it, whilst the two other items of this dimension constructed the 'buying plans' factor, which was ranked as the fourth factor (11.40%). Just with a very small difference, the 'dealing with risk' factor was

ranked as the third factor by explaining 0.13% more of the variance than ‘buying plans’ factor. Two out of five factors reflected a questionable internal reliability, whereas the other three had a good internal reliabilities (see Tab. 3).

5. Discussions

The differences among males and females have been noticed by many scholars, but only in terms of the financial literacy level (Chen and Volpe, 2002; Hira and Mugenda, 2000; Lusardi and Mitchell, 2014; Mitchell and Lusardi, 2011). In contrast to them, this research was focused on identifying the financial literacy factors of males and females separately, performing factor analysis on both genders.

In the light of the work conducted by Potrich et al. (2016), this paper went far in depth by identifying or exploring sub-factors within three dimensions of financial literacy: financial behaviour, financial knowledge and financial attitudes. In summary, it is important to emphasise that the observed variables loaded into the same hypothesised financial literacy dimensions, indicating consistency with the theory. All items constructed the ‘willingness to act’, ‘money management’, ‘reading’, and ‘spending money’ factors, originated from the hypothesised financial attitude dimension. On the other hand, the ‘budgeting’ and ‘buying plans’ factors were constructed by items that were assumed part of the financial behaviour dimension.

The improvement of financial education may prevent people from making wrong financial decisions. Hence, they will have a better understanding of issues regarding credit and investments, thereby reducing their appetite to a manageable level. The research of Huang et al. (2016) drew on Sherraden’s (2013) model, found empirical evidence that emphasize the importance of financial access for financial functioning, especially for populations that are vulnerable and with low income. The improvement of financial education suggestion is in line with the views of Stolper and Walter (2017), which is that associating peoples’ financial literacy with their everyday life financial decisions, is an accurate approach that might lead to an improvement of the quality of studies conducted in the financial literacy field.

Results of this research may lead to the modification of the models that are currently in use, in particular, those suggested by Sherraden (2013) and Potrich et al. (2016), and partially, the one developed by Fiksenbaum et al. (2017). For instance, financial behaviour can be analysed by two sub-dimensions, which this research suggest ‘budgeting’ and ‘buying plans’, and financial attitude can be breakdown into ‘willingness to act’, ‘money management’ and ‘reading on finance issues’.

6. Conclusions and policy implications

Evidence of the differences among young males and females was found in Tirana regarding financial literacy. The differences had been seen especially in terms of the number of composed factors and of their order by gender. Thus, six factors were found within the male sample, whilst the female sample had five factors. Even though four factors were extracted in both samples (dealing with risk, budgeting, buying plans, and money management), two of them had a different order. Hence, ‘dealing with risk’ was ranked as the first factor in case of the male sample, but it was the third one in female sample. Moreover, ‘money management’ was the first factor for females, but for male cases, it was the fifth factor. But in contrast to them, the ‘budgeting’ and

'buying plans' factors reflected the same order on both samples. The male sample had two other extra factors compared to female sample, which were 'willingness to act' and 'reading'. In this context, even female cases had an extra factor named 'spending money', which cannot be found in the male cases. This is consistency with the Hira and Mugenda (2000) findings.

It was noticed that the financial knowledge dimension was the main factor for males, identified by the 'dealing with risk' factor. The same factor was identified even for females but was not the main one for them. Also, the two factors that originated from the financial behaviour dimension were identified both in the male and female cases. It seems that young males appeared to be more apprehensive than young females about risk, and on the other hand, young females concerned more about the money management rather than males. In addition, young males compared to females had two extra factors originated from financial behaviour dimension, showing the willingness to act and to read about finance. Instead of these, young females paid special attention to spending money.

Modification of the actual conceptual framework of the financial literacy is the main remark of this study. Thus, financial behaviour can be analysed considering two constructs 'budgeting' and 'buying plans', and financial attitude can be decomposed into 'willingness to act', 'money management' and 'reading on finance issues'.

The results of this study are useful for designing policies with the main purpose of enhancing the knowledge and skills of young people living in Tirana, on the management of personal finances and to recommend a mechanism which should be used to ensure a satisfactory level of financial literacy. Study results are useful to policymakers since differences in financial literacy in term of gender among young people were identified. Therefore, policymakers should pay attention to differences in gender when they design the financial education policy.

Although the study has reached its aims, there were some limitations. First, even though it was applied the theoretical weighted procedure on gender according to Tirana's gender distribution, it would be preferred a larger sample size. Second, the study uses a sample of young people in Tirana, and this could raise the issue of external validity. Despite these limitations, the study makes a unique contribution to the literature by suggesting financial literacy's constructs depending on gender.

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References

- Atkinson A and Messy F-A (2012) *Measuring Financial Literacy*. 26 March. OECD Publishing. DOI: 10.1787/5k9csfs90fr4-en.
- Belás J, Nguyen A, Smrčka L, et al. (2016) Financial Literacy of Secondary School Students. Case Study from the Czech Republic and Slovakia. *Economics and Sociology* 9(4): 191–206. DOI: 10.14254/2071-789X.2016/9-4/12.
- Brown LD (1993) Earnings forecasting research: its implications for capital markets research. *International Journal of Forecasting* 9(3): 295–320. DOI: 10.1016/0169-2070(93)90023-G.
- Ceca K, Koleniço A, Isaku E, et al. (2014) *Financial literacy in Albania: Survey results for measuring*

financial literacy of the population, 2011. 50 11.

Chen H and Volpe RP (1998) An analysis of personal financial literacy among college students. *Financial Services Review* 7(2): 107–128. DOI: 10.1016/S1057-0810(99)80006-7.

Chen H and Volpe RP (2002) Gender differences in personal financial literacy among college students. *Financial Services Review*. DOI: 10.5897/AJBM10.1267.

Chibba M (2009) Financial Inclusion, Poverty Reduction and the Millennium Development Goals. *European Journal of Development Research* 21(2): 213–230. DOI: 10.1057/ejdr.2008.17.

Chionsini G (2012) Financial education and financial literacy in Albania: the state of play. In: *Building our future through financial literacy. Bank of Albania's 8th International Conference, 15 September 2011*, Tirana, 2012, pp. 101–118. Bank of Albania.

Cupák A, Fessler P, Schneebaum A, et al. (2018) Decomposing gender gaps in financial literacy: New international evidence. *Economics Letters* 168. North-Holland: 102–106. DOI: 10.1016/J.ECONLET.2018.04.004.

Danes SM and Hira TK (1987) Money management knowledge of college students. *The Journal of Students Financial Aid* 17(1): 4–16.

EC (2016) *Commission staff working document Albania 2016 Report*. European Commission, Brussel.

Field A (2009) *Discovering statistics using SPSS: (and sex, drugs and rock 'n' roll)*. 3rd ed. SAGE.

Fiksenbaum L, Marjanovic Z and Greenglass E (2017) Financial threat and individuals' willingness to change financial behavior. *Review of Behavioral Finance* 9(2): 128–147. DOI: 10.1108/RBF-09-2016-0056.

Garman ET (1998) Consumer Educators, Now Is The Time For A Paradigm Shift Toward Employee Financial Education. *Consumer Interests Annual* 44: 1–7.

Garman ET, Leech I and Grable J (1996) The Negative Impact Of Employee Poor Personal Financial Behaviors On Employers. *Association for Financial Counseling and Planning Education* 7(540): 157–168.

Garman ET, Kim J, Kratzer CY, et al. (1999) Workplace Financial Education Improves Personal Financial Wellness. *Association for Financial Counseling and Planning Education* (904): 79–88.

Hira TK and Loibl CC (2005) Understanding the impact of employer-provided financial education on workplace satisfaction. *Journal of Consumer Affairs* 39(1): 173–194. DOI: 10.1111/j.1745-6606.2005.00008.x.

Hira TK and Mugenda O (2000) Gender Differences in Financial Perceptions, Behaviors and Satisfaction. *Journal of Financial Planning-Denver* 13(2): 86–93.

Huang J, Nam Y, Sherraden M, et al. (2016) Improved Financial Capability Can Reduce Material Hardship among Mothers. *Social Work* 61(4). Oxford University Press: 313–320. DOI: 10.1093/sw/sww052.

Hung A, Parker AM and Yoong J (2009) *Defining and measuring financial literacy. RAND Working Paper 708*. DOI: 10.2139/ssrn.1498674.

Joo SH and Grable JE (2000) Improving employee productivity: The role of financial counseling and education. *Journal of Employment Counseling* 37(1): 2–15.

Kozubíková L, Homolka L and Kristalas D (2017) The Effect of Business Environment and Entrepreneurs' Gender on Perception of Financial Risk in The Smes Sector. *Journal of Competitiveness* 9(1): 36–50. DOI: 10.7441/joc.2017.01.03.

Lusardi A (2008) Household saving behavior: the role financial literacy, information and financial education programs. *NBER Working Paper Series* (February): 13824. DOI: 10.3386/w13824.

Lusardi A and Mitchell OS (2007) Financial Literacy and Retirement Preparedness: Evidence and Implications for Financial Education. *Business Economics* 42(1): 35–44. DOI: 10.2145/20070104.

Lusardi A and Mitchell OS (2008) Planning and financial literacy: How do women fare? In: *American Economic Review*, 2008, pp. 413–417. DOI: 10.1257/aer.98.2.413.

Lusardi A and Mitchell OS (2011) Financial literacy around the world: an overview. *Journal of Pension Economics and Finance* 10(04): 497–508. DOI: 10.1017/S1474747211000448.

Lusardi A and Mitchell S (2014) The Economic Importance of Financial Literacy: Theory and

- Evidence. *Journal of Economic Literature, American Economic Association* 52(1): 5–44. DOI: <http://dx.doi.org/10.1257/jel.52.1.1>.
- Lusardi A and Tufano P (2015) Debt literacy, financial experiences, and overindebtedness. *Journal of Pension Economics and Finance* 14(04): 332–368. DOI: 10.1017/S1474747215000232.
- Mandell L and Klein LS (2007) Motivation and financial literacy. *Financial Services Review* 16: 105–116.
- Matošková J (2016) Measuring Knowledge. *Journal of Competitiveness* 8(4): 5–29. DOI: 10.7441/joc.2016.04.01.
- Mitchell OS and Lusardi A (2011) Financial Literacy and Planning: Implications for Retirement Well-being. In: *Financial Literacy: Implications for Retirement Security and the Financial Marketplace*. DOI: 10.1093/acprof:oso/9780199696819.003.0002.
- Moore D (2003) Summary for Policymakers. In: Intergovernmental Panel on Climate Change (ed.) *Climate Change 2013 - The Physical Science Basis*. Cambridge: Cambridge University Press, pp. 1–30. DOI: 10.1017/CBO9781107415324.004.
- Nano D and Cani S (2013) The differences in students' financial literacy based on financial education. *Academicus- International Scientific Journal* 8: 149–160.
- Nguyen TAN, Rózsa Z, Belás J, et al. (2017) The effects of perceived and actual financial knowledge on regular personal savings: Case of Vietnam. *Journal of International Studies* 10(2): 278–291. DOI: 10.14254/2071-8330.2017/10-2/19.
- Noctor M, Stoney S and Stradling R (1992) *Financial literacy: a discussion of concepts and competences of financial literacy and opportunities for its introduction into young people's learning*. National Foundation for Educational Research.
- OECD (2005) *Improving Financial Literacy: Analysis of Issues and Policies*. Organisation for Economic Co-operation and Development. Mosco. DOI: 10.1787/fmt-v2005-art11-en.
- Potrich ACG, Vieira KM and Mendes-Da-Silva W (2016) Development of a financial literacy model for university students. *Management Research Review* 39(3). Emerald Group Publishing Ltd.: 356–376. DOI: 10.1108/MRR-06-2014-0143.
- Sherraden MS (2013) Building blocks of financial capability. In: Birkenmaier J, Sherraden M, and Curley J (eds) *Financial education and capability: Research, education, policy, and practice*. New York: Oxford University Press, pp. 3–43.
- Stolper OA and Walter A (2017) Financial literacy, financial advice, and financial behavior. *Journal of Business Economics* 87(5): 581–643. DOI: 10.1007/s11573-017-0853-9.
- Tabachnick BG and Fidell LS (2013) *Using multivariate statistics*. 6th ed. Boston: Pearson Education.
- Tomášková H, Mohelská H and Němcová Z (2011) Issues of Financial Literacy Education. *Procedia - Social and Behavioral Sciences* 28: 365–369. DOI: 10.1016/j.sbspro.2011.11.069.

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