

## Academic Status Differences in Financial Literacy among Albanian University Students

Dorjana Nano<sup>1</sup>, Antoneta Polo<sup>2</sup>

**Abstract:** This paper investigates the differences in Financial Literacy among Albanian university students based on their academic status ranking. The main objectives of the current research are: i) firstly, to evaluate the three components of financial literacy and to make comparison among master and bachelor students; ii) secondly, to calculate an overall score of financial literacy and to reveal whether master students are more financial literate than bachelor ones; iii) finally, to provide some conclusions and recommendation in order to help students improve their financial skills. Data for this research are collected from 607 students from five public and three private universities in Albania. The reliability analyses and the one way Welch Anova technique are utilized to analyze the data. The outcome reveals no differences on financial attitude and behaviour among master and bachelor students, although mater students are shown to be more financially knowledgeable. This study also suggests that both students' categories are not financially literate. This study will be useful for practitioners and educational institutions in order to improve their curricula and help students to be more financially capable.

**Keywords:** personal finances, financial behaviour, attitudes, knowledge.

### 1 Introduction

Financial literacy is shown to become ever more vital for people, since it affects their lifestyle and financial wellbeing. Individuals must settle on a balance between short term needs and wants and long term urgencies and plans. Despite the importance of financial literacy, studies continually report an inadequate capability of personal finances. In particular, researches have examined financial literacy in universities (Danes et al., 1987; Volpe et al., 1996; Delpachitra, 2003; Murphy, 2005; Machtmes, 2006; Janke & Trechter, 2012) and alarm for deficiency in financial capability among university students. They fail to take healthy financial decisions because the lack of a sound personal financial education (Hira et al., 1993).

Although students' financial literacy is widely researched in other countries, only few studies are conducted on this topic in Albania. The OECD International Network on Financial Education (2012) conducted a survey to measure financial literacy in 14 countries, including Albania. They designed a questionnaire comprising questions testing financial behaviour, knowledge and attitude socio-demographic characteristics. Results of the research revealed Albanian people to be financially incapable. It was found that Albania has a relatively large proportion of the population scoring between 0 and 2 in the financial knowledge component, although it shows positive financial attitudes. Furthermore, this study showed Albania to be ranked in the tenth place in a total of 14 countries.

Two years later, Agalliu (2014) conducted a research to capture students' financial culture and its impact on the economy. He employed the statistics provided by the OECD to explore the relationship between students' financial culture and certain socio-demographic variables like: gender, region, area

<sup>1</sup> University of Shkodra "Luigj Gurakuqi", Shkodra, Albania, nano.dori@yahoo.com.

<sup>2</sup> University of Shkodra "Luigj Gurakuqi", Shkodra, Albania, antoneta\_polo@yahoo.com.

of study and status of employment. In addition, he examined the role of parents on students' financial culture and students' financial knowledge about some basic financial concepts. Description examination and linear regression method of study were utilized to analyse the data. Agalliu revealed a lack of communication about financial matters between parents and their children. In addition, students were found to be familiar with most of the financial concepts, but they could not explain the deeper. Furthermore, men and students of economy were found to have better financial knowledge.

Although the prior researches have provided rich information about individuals' financial literacy and helped us to better understand the matter, they suffer from several limitations. In particular, the first study falls into the "one size fits all" problem, since it is not targeted to a particular segment of population. According to Angelo et al., (2011), a "one size fits all" measure provides more strength to certain characteristics; thereby do not contribute uniformly to all the demographics. The second study, considers the classical linear regression approach, but do not perform analysis about the fulfilment of the basic regression assumptions. Conducting a regression model does not automatically provide reliable results, unless it meets some fundamental assumptions regarding linearity, unbiasedness, heteroskedasticity, multicollinearity, etc. Both studies conclude that one of the main factors explaining financial illiteracy is the lack of a sound financial educational program. Anyway, none of the previous studies have investigated how effective are schools educational program in equipping students with the necessary financial knowledge.

This study investigates the efficacy of the universities programs and it is focused only on university students in Albania. This research completes the prior study conducted to measure students' financial literacy based on their financial education (Nano & Cani., 2013). The prior study was focused on measuring the effectiveness of the financial program based on the fact whether students have taken or not a course in personal finances. While the current research attempts to explore deeper into the educational program efficiency, by considering differences in students' financial literacy based on their academic status. Differently from the former, this study utilizes the mean percentage of the correct score instead of the mean financial score. Considering the mean percentage of the correct score is a better evaluation for making adequate assessment based on the Albanian university system evaluation. This study will be useful in order to identify whether master programs improve students' financial skills and behaviour, or whether attending a master program is not helpful for life. Results of this research will be valuable for educational institutions and practitioners for implementing relevant policies in order to develop healthy financial habits. Without adequate knowledge students are more likely to make mistakes in the real world.

## **2. Research Objectives**

### **2.1. The Main Objectives of This Study Are:**

- i. Firstly, to evaluate the three components of financial literacy: financial behaviour, attitude and knowledge of students in Albania and to examine the differences between students attending a bachelor degree and those attend a master one.
- ii. Secondly, to calculate an indicator of financial literacy and to explore whether master students are more financially literate compare to bachelor ones.
- iii. Finally, to provide some conclusions and recommendations in order to help educational institutions and practitioners taking relevant policies.

## 2.1 Definition of Terms

**Financial Literacy:** The ability to read, analyze, manage, and communicate about the personal financial conditions that affect material well being. Financial literacy includes the ability to discern financial choices, discuss money and financial issues without (or despite) discomfort, plan for the future, and respond competently to life events that affect every day financial decisions, including events in the general economy [Vitt et al., 2000 (p. xii)].

**Financial Behaviour:** is rooted in how one thinks, and then behaves, relative to the use of money.

**Financial Knowledge:** what one knows about personal finance issues, measured in this study by student' own perceptions of their knowledge level regarding various personal finance concepts (Brent Marsh, 2006).

**Financial Attitude:** refer to how one feels about personal finance issues, measured in this study by responses to opinion statements (Brent Marsh, 2006).

**Personal Finance:** also referred to as money management or consumer finance includes individual financial issues such as cash flow plans, credit, insurance, investments, mortgages, and savings (Brent Marsh, 2006).

**High Level of Financial Literacy:** Earning a score of 65% or more on the questionnaire. A score of 65% is viewed as an average grade in Albanian university system evaluation. A score of 65% or higher represent a high level of financial literacy

**Low Level of Financial Literacy:** Earning a score of less than 65% in the questionnaire. A score of less than 65% is viewed as a unsatisfactory grade. A score below 65% in this questionnaire represents a low level of financial literacy.

## 3 Research Methodology

### 3.1 Questionnaire Design and Data Collection Method

The database of this study is provided by a research project conducted to measure the financial literacy of Albanian students. The survey is undertaken on 637 students from eight universities in Albania, but the usable cases were 607. Students are asked to complete a questionnaire consisting of 34 content questions and 17 personal characteristic items. Questions were grouped into four categories (i.e. attitude, behaviour, and knowledge and as well student characteristics. The financial attitude section comprised 11 questions testing students' thoughts and beliefs about money management. Participants were asked to rate the items using the Likert scale ranging from 1 – not important, 2-somewhat important, 3-not sure, 4-somewhat important, 5-very important. The financial behaviour section contains 8 questions. Participants were asked to rate items using a scale of 1-5 (1-not at all true of me, to 5-very true of me). The financial knowledge section has 15 questions on general financial knowledge, investment and saving, borrowing and insurance. In the final part, students provided personal characteristics.

In order to provide a score for financial attitude and financial behaviour and to incorporate these measures into an overall score of financial literacy we count 1 point for respondents who selected 4 or 5 on the scale and 0 for any other selection. In addition, to estimate a financial knowledge score and to

include it in the financial literacy score, we assigned 1 point for correct response and 0 in all other cases.

### 3.2 Data Analysis Techniques

This study considers different techniques in order to address the purpose of the paper. Hence, the reliability analysis is being useful to identify the underline dimensions of financial literacy. In addition, descriptive statistics helps to explore the sample profile. Finally, the one way ANOVA analysis is utilized for investigating the differences in financial literacy based on students' academic status.

### 4. Results

The consistency of the questionnaire is tested based on value of the Cronbach's Alpha index provided by the reliability analysis. A reliability coefficient of 0.70 or higher is considered "acceptable" as recommended by Cavana et al., (2001). Table 1 below represents the Cronbach's Alpha coefficient of financial attitude, financial behavior and financial knowledge subscales, and of the overall survey. From the table of statistics it can be observed that every subscale and the overall survey display a moderately high internal consistency.

**Table 1. Reliability Analysis**

Subscales	$\alpha$	Nº of items
Financial Attitude	0.701	11
Financial Behavior	0.717	8
Financial Knowledge	0.7	23
Overall survey	0.76	42

#### *Sample profile*

Based on the frequency analysis in table 2 below, it can be observed that out of the 607 students who responded to the survey, 78.4% attend a bachelor program, 70.7% are business majors, studying mainly in public universities in the area of Management, Finance, or Economics and mostly taken a money management course. Male participants represent about 71% of the sample. About 93.1% of students are from 18 to 29 years of age. Only 39.5% of the respondents have learned in school about money management, and the rest have learned from other sources like friends' conversations, in their family, from experience, etc. Most participants have less than two years of work experience.

**Table 2. Characteristics of the Sample**

	Frequency	Percentage
<b>A. EDUCATION</b>		
<b>1. Academic Status</b>	<b>607</b>	<b>100%</b>
a) Bachelor	421	78.4%
b) Master	186	21.6%
<b>2. Academic Disciplines</b>	<b>607</b>	<b>100%</b>
a) Business	429	70.7%
b) Non business	178	29.3%
<b>3. Area of Study</b>	<b>607</b>	<b>100%</b>
a) Finance	74	12.2%
b) Management	197	32.5%
c) Tourism	18	3%
d) History	34	5.6%
e) Agribusiness	59	9.7%
f) Economics	85	14%
g) Medicine	71	11.7%
h) Journalism	17	2.8%
i) Law	52	8.6%
<b>4. University</b>	<b>607</b>	<b>100%</b>
a) Public	582	95.9%
b) Private	25	4.1%
<b>5. Personal finance course</b>	<b>607</b>	<b>100%</b>
a) Yes	476	78.4%
b) No	131	21.6%
<b>B. OTHER CHARACTERISTICS</b>		
<b>1. Gender</b>	<b>607</b>	<b>100%</b>
a) Female	176	29%
b) Male	431	71%
<b>2. Years of Age</b>	<b>606</b>	<b>99.8%</b>
a) 18 to 22	439	72.3%
b) 23 to 29	126	20.8%
c) 30 to 39	37	6.1%
d) 39 and over	4	0.7%
<b>3. Money Management Learning</b>	<b>604</b>	<b>99.5%</b>
a) In my family	176	29%
b) In the school	239	39.5%
c) Conversation with friends	21	3.5%
d) Media	33	5.4%
e) Experience	135	22.2%
<b>4. Work Experience</b>	<b>607</b>	<b>100%</b>
a) None	291	47.9%
b) Less than two years	137	22.6%
c) Two to less than four years	78	12.9%
d) Four to less than six years	40	6.6%
e) Six years or more	56	9.2%

In order to identify if any difference existed in the financial literacy level and its component of bachelor university students and master university students, an analysis of variance (ANOVA) is conducted. The distribution of the financial literacy scores is examined separately for bachelor and master students.

Table 3 below provides information including the mean, standard deviation, skewness and kurtosis of master' and bachelor' students. The skewness of both bachelor ( $S = -0.261$ ) and master' students ( $S = -0.333$ ) is close enough to zero. Additionally, the kurtosis of both categories ( $kb = 0.106$ ,  $km = -0.404$ ) are almost zero, for the distribution to be viewed as normal.

**Table 3. Reliability Analysis**

	N	Mean	Standard Deviation	Skewness	Kurtosis
Bachelor	421	59%	5.296	-0.261	0.106
Master	186	60%	5.445	-0.333	-0.404

Due to the differing sample size a Welch's variance-weighted Analysis of Variance (ANOVA) is used to evaluate the level of financial attitude, financial behaviour, financial knowledge and financial literacy of bachelor' and master' students. Table 4 below illustrates a summary of the ANOVA.

The results emerged a non- statistically significant difference in the overall score of financial literacy among bachelor and non-master students, although a significant variation appears in financial behaviour and financial knowledge. In closer inspection of the data it can be observed that bachelor students yielded 3.62 in financial behaviour, whereas master students scored to some extent less with 9 points. This is a statistically significant difference based on the significance of the Fisher test ( $p = 0.023$ ), which is less than Type I error ( $\alpha = 0.05$ ). Both categories of students yielded the same score ( $M = 3.95$ ) in financial attitude. Different from the first two components, financial knowledge is revealed to differ significantly among the two groups of students. Results of mean comparison demonstrates that master students are more financially knowledgeable ( $M = 12.44$ ) than their counterparts ( $M = 11.87$ ). This difference is explored to be significant at 0.01 or greater level of significance ( $p = .001$ ).

Based on the results of the overall score of financial literacy, revealed that bachelor students scored slightly less ( $M = 59%$ ) compare to the masters ones ( $M = 60%$ ). Findings of the F-test examined this discrepancy to be non-statistically significant ( $p = 0.189$ ) at 5% level of significance using the predetermined Type I error rate of  $\alpha = 0.05$ . This would indicate that a master degree help to improve the financial knowledge, but it does not impact students' financial literacy.

**Table 4. Welch ANOVA for Academic Status**

	Financial Attitude	Financial Behavior	Financial Knowledge	Financial Literacy MPCS
<b>Academic Status</b>				
Bachelor	3.95	3.62	11.87	59%
Master	3.95	3.53	12.44	60%
<i>F</i>	0.043	5.176	11.886	1.727
<i>p</i>	0.835	0.023	0.001	0.189

Finally, given the results of the overall survey, it can be concluded that there is a low level of financial literacy among bachelor and master students. The mean percentage of correct score for both groups is shown to be considerably low (MPCS1 = 59%, MPCS2 = 60%) in comparison with the threshold criteria of 65%.

## 5. Conclusions

This study surveys 607 students from multiple universities across the country. It reveals the discrepancy in financial literacy among Albanian university students based on their academic status. Results of this research reveal master students to be more financially knowledgeable than bachelor ones, even though they do not appear to have better financial behaviour. However, statistics of the financial attitude indicate no differences in the financial attitude score between the two groups of students. Considering all the three components together, it is found evidence that both students' categories are not financially capable.

The results of this survey can be mainly explained by the ineffectiveness of the personal finance education programs. The lack of a sound financial educational curriculum has costly consequences since affects students to not manage efficiently their finances. The mismanagement of personal finances has an enormous micro and macro impact in short and long term. Hence, it is very important for educational institutions to include a module in personal finances in their curricula and as well to modify their programs in order to be more practical and useful for students.

## 6 References

- Agalliu, A. (2014). Financial Culture among Albanian Young People and Its Impact on the Economy. *Mediterranean Journal of Social Sciences*, 5(23), 690.
- Beal, D. J. & Delpachitra, S. B. (2003). Financial literacy among Australian university students. *Economic Papers: A journal of applied economics and policy*, 22(1), 65-78.
- Capuano, A. & Ramsay, I. (2011). What causes suboptimal financial behaviour? An exploration of financial literacy, social influences and behavioural economics. *An Exploration of Financial Literacy, Social Influences and Behavioural Economics (March 23, 2011)*. U of Melbourne Legal Studies Research Paper, (540).
- Cavana, R.; Delahaye, B. & Sekaran, U. (2001). *Applied Business Research: Qualitative and Quantitative Methods* (3rd ed.) John Wiley & Sons Australia, Ltd.
- Danes, S. M. & Hira, T. K. (1987). Money Management Knowledge of College Students. *Journal of Student Financial Aid*, 17(1), 4-16.
- Henry, R. A.; Weber, J. G. & Yarbrough, D. (2001). Money Management Practices Of College Students. *College Student Journal*, 35(2), 244-249.
- Hira, T. K. & Loibl, C. (2005). Understanding the impact of employer-provided financial education on workplace satisfaction. *Journal of Consumer Affairs*, 39(1), 173-194.
- Huston, S. J. (2010). Measuring financial literacy. *Journal of Consumer Affairs*, 44(2), 296-316.
- Janke, J. & Trechter, D. (2012). Student Financial Literacy Survey. *Survey Research Report, June, 2012*, University of Wisconsin, River Falls, Global Innovative Excellent. Accessed online in July 2013 from: <http://digital.library.wisc.edu/1793/65738>.
- Cude, B.; Lawrence, F.; Lyons, A.; Metzger, K.; LeJeune, E.; Marks, L. & Machtmes, K. (2006). College students and financial literacy: What they know and what we need to learn. *Proceedings of the Eastern Family Economics and Resource Management Association*, 102-109.



- Mandell, L. & Klein, L. S. (2009). The impact of financial literacy education on subsequent financial behavior. *Journal of Financial Counseling and Planning*, 20(1).
- Marsh, B. A. (2006). *Examining the personal finance attitudes, behaviors, and knowledge levels of first-year and senior students at Baptist universities in the state of Texas* (Doctoral dissertation, Bowling Green State University).
- Murphy, A. J. (2005). Money, money, money: An exploratory study on the financial literacy of black college students. *College Student Journal*, 39(3), 478.
- Nano, D. & Cani, S. (2013). The Differences in Students' Financial Literacy based on Financial Education. *Academicus International Scientific Journal*, (8), 149-160.
- Servon, L. J. & Kaestner, R. (2008). Consumer financial literacy and the impact of online banking on the financial behavior of lower-income bank customers. *Journal of Consumer Affairs*, 42(2), 271-305.
- Vitt, L.; Anderson, C. Kent, J.; Lyter, D.; Siegenthaler, J. & Ward, J. (2000). Personal Finance and the Rush to Competence: Financial Literacy Education in the US. *National Field Study Commissioned by the Fannie Mae Foundation, Institute for Socio-Financial Studies*.
- Siegenthaler, J. K.; Anderson, C.; Lyter, D. M.; Kent, J. & Ward, J. (2000). Personal Finance and the Rush to Competence: Financial Literacy Education in the US. *Child & Youth Finance International*.
- Volpe, R. P.; Chen, H. & Pavlicko, J. J. (1996). Personal investment literacy among college students: A survey. *Financial Practice and Education*, 6(2), 86-94.