

Determinants of Financial Literacy of university students in Ethiopia

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Abstract: This study has been undertaken to examine the financial literacy of public university students in Ethiopia. The study used primary source of data from a sample of 382 students using probabilistic and non probabilistic sampling methods. The survey used a questionnaire on general financial knowledge, saving and borrowing, investment and insurance. To test whether there is significant difference among the students based on their demographic characteristics ANOVA is used. The variables include gender, field of study, specialization and year of study. The results indicates that there is significant difference in financial knowledge among the students based on their gender, field of study and year of study and there is no significant difference in financial knowledge based on specialization under business and economics field.

Key words: financial literacy, financial knowledge, gender, field of study, specialization, year of study

1. INTRODUCTION

Financial literacy is the capability of understanding, analyzing, interpreting and using financial matters for daily life. It is the talent of individuals to read, analyze and use about financial matters that affect the life of very day. It may include the skills of consumers to ascertain the choices, bargain in prices of items, understand terms of finance, and apply the skill in making the day to day decisions without any difficulty. Financial literacy is closely connected to an individual's emotional, personal, social, economic, and employment success. The knowledge in finance issues helps individuals to respond and make easy decisions to life events that are crucial even for accumulation of wealth. Vitt et al. (2000) Today's financial world is highly complex when compared with that of a generation ago. 40 years ago, a simple understanding of how to maintain a current and savings account at local banks and savings institutions may have been sufficient.

2. DEFINITION OF FINANCIAL LITERACY

The President's Advisory Council on Financial Literacy in the US (PACFL, 2008), defined financial literacy as the ability to use knowledge and skills to manage financial resources effectively for a lifetime for one's financial well-being. It is the knowledge of basic economic and financial concepts, as well as the ability to use that knowledge and other financial skills to manage financial resources effectively for lifetime of financial well-being. Financial literacy skills enable individuals to navigate the financial world, make informed decisions about their money and minimize their chances of being misled on financial matters (Beal and Delpachitra, 2003). Also the definition of Financial Literacy used by the New America foundation and

cited by Vitt et al. (2000) is “the ability to read, analyze, manage and write about the personal financial conditions that affect material well-being. It 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’s financial decisions, including events in the general economy” (Parrish and Servon, 2006)

3. IMPORTANCE OF FINANCIAL LITERACY

The importance of being financially literate includes retirement preparedness, able to make better investment decision, increase the capability of risk management, be confident in financial market activities etc. To be financially literate is to mean financially knowledgeable to know how to money efficiently. This means learning how to pay your expenses, how to borrow and save money knowingly, how and why to invest and plan for retirement and how and when to insurance to minimize risks. To be free from financial stress individuals should be financially literate by learning the basics of money management and upgrading in to a complex finance issues. Considering financial development improves financial decision making ability. Managing money is a personal ability which benefits throughout the life for consumers. Financially illiterate individuals may be in doubt with their income and expense, with charges and fees for invoices and bills not paid on time and other financial decisions about saving, purchasing and investment activities.

Financial literacy is very important in our modern era for many reasons. First, the recent financial crisis has reduced access to credit and increased its cost in many developing-country markets, just as it already has in the United States and Europe. Second, financial literacy helps consumers to prepare during difficulty in financial matters, by designing ways to minimize risk through diversification or insurance finally, financial literacy can strengthen behaviors such as onetime payment of bills (World Bank 2009). Understanding some principles such as setting financial goals, budgeting, investing and understanding money management helps individuals to live sustainably without difficulty to make choices among different alternatives. Financial literacy is important for so many reasons. Some of the benefits financial to consumers, community and the broader economy are shown below. This study aims at assessing the level of awareness of financial literacy among university students.

4. REVIEW OF LITERATURE

Chen and Volpe (1998) made a survey of 924 college students from 13 colleges to examine their personal financial literacy; the relationship between financial literacy and students ‘characteristics and impact of financial literacy on students’ opinions and decisions. They found that high school and college students in the US are not receiving good education in personal financial fundamentals and have poor knowledge. Personal finance skills and knowledge are

inadequate; with the overall median percentage of correct scores was 55.56 percent. This study concluded that students with less knowledge were more likely to hold wrong opinions and make incorrect financial decisions and college students are not knowledgeable about personal finance. The low level of knowledge limits

their ability to make informed decisions. The study also concluded that the level of an individual's financial knowledge tends to influence attitudes that in turn affect the individual's financial behavior. Princeton Survey Research Associates (1997) surveyed 1,770 households nationwide on their financial knowledge and the result shows that household financial decision makers do not have a good grasp of basic finance concepts the average correct score was 42%. This indicates that poor personal financial knowledge. Danes and Hira (1987) surveyed 323 college students Iowa University and find that participants had a low level of knowledge regarding overall money management. There was a fairly healthy attitude towards basic money management and financial planning matters and respondents recognized the importance of financial planning even they used financial planning for their personal matters. The study finds that many respondents do not manage and plan their finances in a disciplined or structured manner (The Media Research Consultants Ltd 2005).

Financial literacy among the youth in Germany is low that only less than one-third of young adults were found with basic knowledge of interest rates, inflation, and risk diversification. Lusardi et al. (2010). Jorgensen (2007) investigated the personal finance and found low score of the students in financial knowledge, attitude, and behavior but significantly increasing each year from freshman to masters. Further, it also revealed that students who were financially influenced by their parents had higher financial knowledge, attitude, and behavior scores and students with higher financial knowledge also had higher financial attitude and behavior scores. In this section a detailed review of students general knowledge in personal finance; knowledge in savings and borrowings; investment and insurance which are the knowledge based theme of this research.

5. OBJECTIVE OF STUDY

The study is carried out to achieve the following objectives;

1. To examine students knowledge in money management, savings and borrowing, investment and insurance.
2. To examine whether some group of students are relatively more financially literate than other students.

6. RESEARCH HYPOTHESIS

The study examined whether there is significant difference among the students financial literacy level. The hypothesis of the study was:

H1: there is significant difference in the levels of financial literacy based on their gender.

H2: There are significant differences in the levels of financial literacy among students based on their field of study.

- a. Business and Economics students are more likely to be financially literate than non-business and Economics students.
- b. Accounting and finance students are more likely to be financially literate than management and economics students.

H3: There are significant differences in the levels of financial literacy of students based on their year of study.

7. RESEARCH DESIGN

Research design is the conceptual structure within which research is conducted; it constitutes the blueprint for the collection, measurement and analysis of data. As such the design includes an outline of what the researcher will do from writing the hypothesis and its operational implications to the final analysis of data. (Kothari, C. R,2004 Research design provides empirical and logical basis for drawing conclusions and gaining perfect knowledge.

7.1.SAMPLING AND DATA COLLECTION

A sample of 382 was used out of 53,174 students from four public universities in Ethiopia by using both probability and non-probability sampling techniques. Purposive sampling technique was used to select the four public universities. Stratified random sampling technique is used to select the students for this study. Stratified random sampling is a modification of random sampling in which the researcher groups the population into two or more strata based on one or a number of features. This technique was chosen primarily based on the objectives and hypotheses set out in this study. The population was first divided into two strata based on the area of specialization of the students. The students were grouped under business and economics and other than business and economics. After the first stratification, the population was regrouped based on the level of study of the students, namely first year, second year and third year.

The validity of a research instrument refers to how well the instrument measures what it is supposed to measure (Crocker and Algina, 1986). One of the ways employed to achieve validity, was the adaptation of

research instrument used by researchers such as Chen and Volpe (1998) and of Lusardi, Mitchell and Curto (2010). Due to the differences in socio economic context, the questionnaire was pilot tested on ten individuals. As a result of the pilot test, it was modified before being administered.

7.2.METHODS OF DATA ANALYSIS

The literacy level of students' in general personal financial knowledge, financial knowledge on savings and borrowing, financial knowledge on investment and financial knowledge on insurance; and analysis of differences in the financial literacy level among subgroup of students is covered under the descriptive analysis of the sample. The difference in the level of financial literacy among the different sub groups was tested using ANOVA.

8. FINDINGS

After gathering the data the researcher had observed it carefully and entered in to Statistical Package for Social Sciences version 21.0 and MS-Excel for analysis purpose. .

8.1.DEMOGRAPHIC CHARACTERSTICS OF THE RESPONDENTS

The sample was designed to be representative of the university student population in Ethiopia as shown in detail in the methodology part. The students in business and non business field of study, and different specialization area were adequately represented in the study.The demographic characteristics of the respondents such as gender, field of study and specialization are presented in Table 1 below.

Table 1.Demographic Characteristics of the Respondents in percentage

	Frequency	Percentage
1. Gender		
a. Male	195	51.0
b. Female	187	49.0
Total	382	100.0
2. Field of study		
a. Business and Economics	192	50.3
b. Non Business and Economics	190	49.7
total	382	100
3. Specialization under business and Economics		
a. Accounting and finance	65	33.9
b. Management	63	32.8

c. Economics	64	33.3
Total	198	100.0
4. year of study		
a. First year	124	32.5
b. Second year	128	33.5
c. Third year	130	34.0
Total	198	100.0

Source: Developed for the research from field work 2018

8.1.1. GENDER OF THE RESPONDENTS

As shown in the above table 1, the gender distribution of the respondents is almost equal which are 195(51%) male and the remaining 187(49%) female. Even though the proportion of the students in the university shows that female students are less than male students for this study the researcher systematically gathers the information with the intention of equal distribution. These gender distributions were very helpful for comparing the literacy level taking gender as a variable for comparison.

8.1.2. FIELD OF STUDY OF THE RESPONDENTS

Regarding their field of study 192(50.3%) of the respondents were from business and economics and the remaining 190(50.3%) were from other than business and economics. The table also indicate the students area of specialization under business and economics field and reveals that 65(33.9%) from accounting and finance department, 63(32.8) from management department and the remaining 64(33.3%) from economics department.

8.1.3. YEAR OF STUDY OF THE RESPONDENTS

The above table1 shows about area of specialization under business and economics field of the university. 124(32.5%), 128(33.5%) and 130(34% of the students were from first year, second year and third year respectively. This indicates that there was fair proportion among the respondents year of study.

8.2. DESCRIPTIVE STATISTICS

The descriptive statistics section of this study shows the mean correct scores of the respondents' in general financial knowledge, saving and borrowing, investment and insurance. The results are summarized below in table2.

Table 2. Mean % of Correct Responses by Characteristics

Characteristics	General	Saving and borrowing	Investment	Insurance	financial literacy
a. Gender					
1. Male	50.8	49.1	47.9	51.3	49.8

2. Female	46.1	43.4	44.7	44.8	44.8
b. Field of study					
1. Business and economics	56.3	49.6	52.6	56.8	53.8
2. Other than business and economics	40.6	43	40	41.5	41.3
3. Specialization under business and economics					
1. Accounting	56.4	47.7	53.5	54.5	53
2. Management	57.7	51.5	54.9	57.8	55.5
3. Economics	54.7	49.8	49.4	56.7	52.6
4. Year of study					
a. First year	39.7	37.4	37.6	43.1	39.4
b. Second year	47	44.9	44.8	46.3	45.7
c. Third year	60	56.2	56.4	55	56.9

Source: Developed for the research from field work 2018

8.2.1. FINANCIAL LITERACY AND GENDER

The results presented in Table2, show that respondents' financial literacy level in gender wise. The mean percentage score on general financial knowledge, knowledge on saving and borrowing, knowledge on investment and knowledge on insurance for males were 50.8, 49.1, 47.9 and 51.3 respectively and for female respondents 46.1, 43.4, 44.7 and 45.1 respectively. males students scores on average 5.2%,5.3%,5.2% and 5.3% greater than female students on general financial knowledge, knowledge on saving and borrowing, knowledge on investment and knowledge on insurance respectively.

The average overall score of male students is greater than that of female students. On average on the four financial literacy dimensions namely general financial knowledge, knowledge on saving and borrowing, knowledge on investment and knowledge on insurance, males respondents scores 49.8% and female respondents' scores 44.8%.Thus male respondents scored on average about 5.1 percentage points higher than female respondents.

The average overall score of male students is greater than that of female students. On average on the four financial literacy dimensions namely general financial knowledge, knowledge on saving and borrowing, knowledge on investment and knowledge on insurance, males respondents scores 47.8% and female respondents' scores 45.5%.Thus male respondents scored on average about 5.3 percentage points higher than female respondents.

8.2.2. FINANCIAL LITERACY AND FIELD OF STUDY OF THE RESPONDENTS

The above table2 shows also the mean correct scores of students based on their field of study. The students were classified in to two categories as business and Economics and other than business and Economics. On average, business and economics answered correctly 56.3% on general knowledge test, 49.6% on the savings and borrowing test, 52.6% on the investment test and 56.8% on the insurance test. The other than that of business and economics, however, on average recorded correct scores of 40.6% for general knowledge test , 43% for savings and borrowing test, 40% for investment test and 41.5% for insurance test. Clearly, the average score of the business and economics students for the four financial literacy tests were higher than non business and economics students. Business and economics student's scores on average 5.8%, 5.4%, 5.7% and 5.8% greater than that of non business and economics students on general financial knowledge, knowledge on saving and borrowing, knowledge on investment and knowledge on insurance respectively.

The overall survey results indicates that those students from business and economics field scores on average 53.8% and those other than business and economics students scores 41.2%. Business and economics students scores 5.7% greater than that of non business and economics students.

8.2.3. FINANCIAL LITERACY AND SPECIALIZATION

Business and economics students specializing in accounting AND finance answered correctly 56.4% of the general financial knowledge questions, 47.7% of the savings and borrowing questions, 53.5% of the investment questions and 54.5% of the insurance questions. Management students answered correctly 57.7% of the general knowledge questions, 51.5% of the savings and borrowing questions, 54.9% of the investment questions and 57.8% of the insurance questions. Economics students answered correctly 54.7%, 49.8%, 49.4% and 56.7% of the general knowledge questions, the savings and borrowing questions the investment questions and of the insurance questions.

8.2.4. FINANCIAL LITERACY AND YEAR OF STUDY

The survey shows respondents result using year of study. Under this students were categorized in to three as first year, second year and third year students. First year students answered mean correct scores of 39.7% in general knowledge questions, 37.4% savings and borrowing questions 37.6% investment questions and 43.1% in insurance questions. Second year students 47%, 44.9%, 44.8% and 46.3% in general knowledge, savings and borrowing, investment and insurance respectively. third year students scored 60%,56.2%,56.4% and 55% in general knowledge, savings and borrowing, investment and insurance respectively. In the four financial literacy dimensions higher class ranks were more knowledgeable than those lower class ranks.

Third year students were more knowledgeable than the first year and second year students and second year students were more knowledgeable than first year students.

The gap in the correct response rate between first year and third year students were 6%, 6%, 6% and 5.6%, for questions on general financial knowledge, savings and borrowing and investment insurance respectively. The gap in the correct response rate between second year and third year students were 5.6%, 5.5%, 5.6% and 5.4%, for questions on general financial knowledge, savings and borrowing and investment insurance respectively. The gap in the correct response rate between first year and second year students were 5.4%, 5.5%, 5.4% and 5.2%, for questions on general knowledge, savings and borrowing and investment insurance respectively.

For the entire survey, first year, second year and third year answered 39.4%, 45.7% and 56.9% mean correct responses respectively. The overall gap in the correct response rate between first year and third year students, second year and third year students and first year and second year students were 5.9%, 5.5% and 5.4% respectively.

9. RESULT OF ANOVA TEST

In order to test whether there is a significant difference of financial literacy level among the respondents based on their gender, field of study and specialization ANOVA test was applied and the results are shown below.

9.1. FINANCIAL LITERACY LEVEL DIFFERENCE BETWEEN MALES AND FEMALES

Table 3. ANOVA test between the Financial Literacy Level and the Respondent's Gender

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	180.012	1	180.012	8.994	.003
Within Groups	7605.278	380	20.014		
Total	7785.291	381			

Source: Developed for the research from field work 2018

The above table 3 shows that F statistic result is 8.994 and the significance value is 0.003, which is less than the 0.05 at the 5% significance level, so there is a significant difference between the financial literacy level and the respondent's gender. From the previous table 2 in cross tabulation, taking gender as a variable to show the difference in financial knowledge indicates that, male respondents are more knowledgeable (49.8%) than that of female respondents (44.8%). The differences for all the dimensions are statistically significant. The overall survey indicates that males are more likely to be financially literate than females at the 0.05 level. Hence, the hypothesis that there is a significant difference in the level of financial literacy of students based on their gender is accepted.

The finding that males are more financially knowledgeable than females is consistent with existing literature (Chen & Volpe, 1998; Danes & Haberman, 2007; Manton et al., 2006; Peng et al., 2007; Volpe et al., 1996, Bumcrot et al., 2011; Al-Tamimi and Kalli, 2009; and Beal and Delpachitra, 2002).

9.2.DIFFERENCE IN FINANCIAL LITERACY LEVEL BETWEEN BUSINESS AND ECONOMICS AND NON BUSINESS AND ECONOMICS STUDENTS

Table4. ANOVA test between the Financial Literacy Level and the Respondents' field of study

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1610.295	1	1610.295	99.095	.000
Within Groups	6174.996	380	16.250		
Total	7785.291	381			

Source: Developed for the research from field work 2018

The above table 4 shows that F statistic result is 99.095 and the significance value is 0.000, which is less than the 0.05 at the 5% significance level. This result shows that, there is a significant difference in the levels of financial literacy among students based on their field of study. Consistent with the previous cross tabulation table, the results suggest that business and economics students are more likely to be financially knowledgeable than non business and economics students. As shown from the above table 2 the difference in means of financial literacy level between business and economics students and non business and economics students is significant at 5% level for general finance issues, saving and borrowing, investment, insurance and for the overall financial literacy knowledge. Therefore, the hypothesis that there is a significant difference in the level of financial literacy of students based on their field of study is accepted. The finding that business and economics students are more financially knowledgeable is consistent with findings of previous studies (Lusardi and Mitchell, 2007b; and Chen and Volpe, 2002, 1998). Beal & Delpachitra (2003), Chen & Volpe (1998), Peng et al. (2007), Robb & Sharpe (2009) and Volpe et al. (1996),

9.3.DIFFERENCE IN FINANCIAL LITERACY LEVEL BASED ON SPECIALIZATION

Table 5. ANOVA test between the Financial Literacy Level and the Respondents' specialization under business and Economics

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	18.610	2	9.305	.482	.618
Within Groups	3645.307	189	19.287		

Total	3663.917	191			
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Source: Developed for the research from field work 2018

Based on table 5 the F-statistic is 0.482 and the significance value is 0.618, which is greater than 0.05 at the 5% significance level. The students' knowledge in genial finance issues, saving and borrowing, investment and insurance doesn't have significant difference based on their specialization. The average scores of the students specializing accounting and finance, management and economics for all the financial literacy dimensions were almost similar as we can see from the cross tabulation. The finding that financial literacy is similar among accounting and finance, management and economics students is because of the students under the business and economics takes courses related to finance. Hence, the hypothesis that Accounting and finance students are more likely to be financially literate than management and economics students is rejected.

9.4.DIFFERENCE IN FINANCIAL LITERACY LEVEL BASED ON YEAR OF STUDY

Table 6. ANOVA test between the Financial Literacy Level and the Respondents' year of study

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1272.538	2	636.269	37.027	.000
Within Groups	6512.753	379	17.184		
Total	7785.291	381			

Source: Developed for the research from field work 2018

The above table 6 The result of ANOVA on financial literacy and students year of study shows F-statistic result of 37.027 and the significance value is 0.000, which is less than 0.05 at the 5% significance level. Consistent with the previous table of cross tabulation, the result indicates there is significant difference among students based on their class mark in all the financial literacy dimensions. As we can see from table 6 the tests on general finance issues, saving and borrowing, investment, insurance and for the entire survey are significant at 5% significance level. The third year students are more financially knowledgeable than second year and first year students and the second year students are more financially literate that first year students. This is because of the this is because of the third year and second year students takes more finance courses as compared to the first year students. In the other direction one can understand from this education is one way that helps in upgrading the financial knowledge. This implies that year of study has a significant impact on the financial knowledge of students. So, the hypothesis that there is a significant difference in the level of financial literacy of students based on their year of study is accepted. This finding is consistent with other

studies that found differences in financial literacy according to class rank of university students (Chen and Volpe, 2002; and Chen and Volpe, 1998).

10. SUMMERY OF THE TESTED HYPOTHESIS

Table6. Results of tested of Hypotheses

Hypothesis	Decision	Significance level	Expected sign
H1. There is significant difference in the levels of financial literacy based on their gender.	Accepted	.003	Positive
H2. There is a significant difference in the levels of financial literacy among students based on their field of study.	Accepted	.000	Positive
H3. There is a significant difference in the levels of financial literacy among students based on their field of study.	Rejected	.618	Negative
There is a significant difference in the levels of financial literacy among students based year of study	Accepted	0.000	Positive

Source: Developed for the research

11. CONCLUSIONS AND RECOMMENDATIONS

Financial literacy is very important life ability for all the people regardless of any difference. This study examines financial literacy of university students in Ethiopia by investigating the knowledge of student's in general financial issues, saving and borrowing, investment and insurance.

Generally, the overall level of financial literacy of the students is low. There is significant difference in financial literacy levels of the students based on their gender. Males are more financially literate than females.

The results for the survey on field of study also indicate that students in the business and economics field are more financially literate than the non business and economics students.

This is because of business and economics students take finance and finance related courses.

Regarding the specialization of the students under business and economics field, there is no significant difference among the students. Whether the students are specializing in accounting and finance,

management or economics their financial knowledge doesn't vary. This is because of the students in this field study finance courses.

There is also significant difference in the financial literacy level of the students based on their year of study and annual personal income. The third year students are more financially literate than first year and second year students and the second year students are more financially literate than first year students. This is because of third year students study more course than first year and second year students.

The results shows that those students under business and economics field are more financially knowledgeable that other students. This is because of the courses they study. Therefore, the university students in Ethiopia should study some basic finance courses regardless of their field. With regard to the female students special attention should be given to improve their knowledge in finance by organizing training centers.

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