Asian Journal of Research in Social Sciences and Humanities
ISSN: 2249-7315 Vol. 12, Issue 02, February 2022 SJIF 2022 = 8.625
A peer reviewed journal

DIMENSIONS OF FINANCIAL LITERACY AMONG GRADUATES - A STUDY IN VISAKHAPATNAM CITY

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DOI: 10.5958/2249-7315.2022.00067.3

ABSTRACT

Financial literacy is essential for both the individual and community as well. Financial decisions by individuals play a crucial role in their well-being and also it is essential for the composition of domestic investment. One's financial decisions are influenced by financial knowledge, financial behaviour and attitude. All these three together are termed as financial literacy. Major objective of the present paper is to assess and compare the financial literacy levels among Arts, Science and Engineering graduates in Visakhapatnam City. It is found that the average scores of financial knowledge, financial behaviour and financial attitude of all graduates are 5.0,5.3, and 3.2 respectively. Financial literacy score of all the graduates is 13.5 which average in the study area.

KEYWORDS: *Financial Literacy, Financial Knowledge, Financial Behaviour, Financial Attitudes Background Of The Study.*

1. INTRODUCTION

Financial literacy is very crucial for the individual as well as community as a whole. At individual level, financial literacy helps to understand the complex financial system and improve their financial decision-making ability which will improve their wellbeing. At National level, financial literacy helps to accumulate household savings and convert these savings into domestic investment in productive sectors. The Organization for Economic Co-operation and Development (OECD) has defined financial literacy as "a combination of awareness, knowledge, skill, attitude and behaviour necessary to make sound financial decisions and ultimately achieve individual wellbeing".

There are two major studies conducted on financial literacy in India at National level in 2019, namely National Centre for Financial Education (NCFE) and Global Financial Literacy Excellence Centre (GFLEC), the NCFE (2019) **[1,2]** study reveals that only 20 percent of the Indian households are financially literate of which 25 percent of urban households and 15 percent of rural households are financially literate, and the other study found that only 24 percent of the Indian adult population is financially literate. It clearly shows that financial literacy in India is at a very low level. The NCFE study found that literates were having comparatively higher level of financial literacy than the illiterates. Among literates, graduates and post graduates were better off,

but not adequate when compared to the global level of financial literacy among graduates.

According 2011 Census 8.15 % of Indians are graduates and enrolment in the higher education has been increasing from year to year. Graduates in India will be key workforce in the coming future, so that, this group's financial decisions are not only important for their own wellbeing but also significantly important for the composition of domestic investment and financial markets in India at present as well as in the future. Their financial decisions are influenced by financial knowledge, behaviour, and attitude, so, these three together are considered as financial literacy. This paper aims to assess and compare the financial knowledge, behaviour and attitude among graduates of the three different streams, namely, Arts, Engineering and Science.

1.2 Objectives

The main objective of this paper is to access and compare the financial knowledge, financial behaviour and financial attitude across Arts, Science and Engineering graduates.

The specific objectives of paper are:

1) To find out financial knowledge of Arts, Science and Engineering graduates in Visakhapatnam City.
2) To analyse the financial behaviour across the three types of Graduates and
3) To examine the financial attitude towards savings, investment and consumption among the three streams.

1.3 The following hypotheses framed and tested by using primary data

It is hypothesized that there is no association between graduation streams and financial knowledge It is assumed that there is no relation between graduation streams and financial behaviour There is no association between graduation streams and financial attitude

2. METHODOLOGY

The study covered graduates of three streams viz. Ats, Science and Engineering streams in Visakhapatnam city. From each stream 33 graduates were selected and all together 99 graduates were selected from whom data was collected through e-mails using a pre-tested questionnaire. The data for this study was collected by using OECD International Network on Financial Education (INFE) (2011) questionnaire. OECD/INFE toolkit (2018) method used for the scoring and categorization of the response variable.

Data tabulated in the excel spread sheets, The hypothesis of this study has been tested with the help of Chi-square test at 5% significance level. The chi-square test is a non-parametric test used to compare more than two variables. In this study, the chi-square analysis was utilized to find a significant association between the graduation stream and financial literacy.

The formula for the Chi-square static used in this test

$$x^2 = \frac{(O_i - E_i)^2}{E_i}$$

, where X^2represents Chi-Square

O_i = Observed Value and E_i = Expected Value

2.1 Measurement of Financial Literacy

There are several definitions to define the financial literacy, where majority of them agreed that financial literacy is the ability of the individual to obtain, understand, and analyze information for

the making financial decisions for their wellbeing. After reviewing the different views on financial literacy, the OECD definition of financial literacy's combination of awareness, knowledge, skill, attitude and behaviour necessary to make sound financial decisions and ultimately achieve individual financial wellbeing". is the most feasible for the field research, was adopted for the study. **[3]**

A set of eight questions were used for the measuring financial knowledge, these questions are related to the numeracy, relationship between inflation and returns, inflation and prices, calculating simple interest rate and compound interest rate, portfolio diversification and risk, different stock market products and risk-return-tradeoff. For each particular question, a correct response is assigned a score of one and an incorrect response is assigned a score of zero. Respondents with a cumulative score of 7 or above is classified as high financial knowledge individuals, respondents with a cumulative score of 6-4 are classified as average financial knowledge individuals, and remaining come under the poor financial knowledge. **[4]**

Financial behaviour is measured by responses to questions regarding how they deal with money in their daily lives. Eight factors were used to determine the respondent's financial behavior. They are related to expenditure, on time payment of bills, long term financial planning, making household budget, habitual engagement of savings and borrowings and make efforts to evaluate financial products. If the response indicates desirable financial behavior, it's assigned a score of one; otherwise, zero. Six and above scored respondents are classified as good financial behaviour, respondents with scores of four and five are classified as average financial behaviour, the remaining respondents classified as indifferent financial behaviour. **[5]**

Three variables were used to assess financial attitude of the respondents: their belief in the planning, towards spending money and towards saving money. The five-pointlikert scale from strongly disagree to strongly agree has been used to measure the responses. Five indicating the positive financial attitude, three and above score indicating average financial attitude, two or less scores are classified as indifferent financial attitude. **[6]**

Financial knowledge, financial behaviour and financial attitude are the three different components of the financial literacy. The OECD INFE study measures financial literacy as sum of the scores of these three dimensions. For measuring financial literacy this study used the composite score. The maximum possible score is 21 and minimum is zero (eight for financial knowledge, eight for financial behaviour, and five for financial attitude), 13.07 score is considered as average level of financial literacy, which is average score of 14 countries OECD INFE study. **[7]**

3. RESULTS AND DISCUSSION

TABLE 1: AVERAGE SCORES OF FINANCIAL LITERACY AMONG GRADUATES

		Average Scores			Composite Score
Variable	**Number**	**Financial Knowledge**	**Financial Behaviour**	**Financial Attitude**	**Financial Literacy**
Arts	33	5.0	5.2	4.0	14.2
Science	33	4.7	4.6	2.6	12.0
Engineering	33	5.4	6.0	3.0	14.4
Total Graduates	99	5.0	5.3	3.2	13.5

Table 1 gives the information on financial knowledge, financial behaviour and financial attitude among graduates in Visakhapatnam city. The data reveals that, graduates from arts courses having the average score of financial knowledge is at 5.0, financial behaviour 5.2 and financial attitude 4.0, while the corresponding figures for the science stream are 4.7, 4.6 and 2.6 respectively and

among engineering graduates they are 5.4, 6.0 and 3.0. The average scores of engineering graduates of financial behaviour (6.0) is significantly higher than the arts and science graduates, and financial knowledge of the engineering graduates (5.4) is slightly higher when compared to Arts (5.0) and Science (4.7) graduates. It is interesting to note that financial attitude of Arts graduates (4.0) is considerably higher than that of the other streams. Among the three streams of graduates, Science graduates reported lower scores in all the three aspects of financial literacy. The average scores of the financial knowledge, financial behaviour and financial attitude of the all graduates are 5.0,5.3 and 3.2 respectively. The composite scores of the three components of the financial literacy among the Arts (14.2), Science (12.0) and Engineering (14.4). This clearly shows that the total score is higher in arts and engineering graduates when compared to science graduates in the study area. This means financial literacy is lower among science graduates compared with engineering and arts graduates and average score of financial literacy of the all graduates combined is 13.5 which indicates that the financial literacy of graduates in Visakhapatnam City is at an average level.

TABLE 2: PERCENTAGE DISTRIBUTION OF GRADUATES BY FINANCIAL LITERACY

Financial Knowledge %			
Graduation Stream	**Low level**	**Average level**	**High level**
Arts	12.1	78.8	9.1
Engineering	15.2	48.5	36.3
Science	24.2	63.6	12.2
Financial Behaviour %			
	Indifferent	**Average**	**Good**
Arts	9.1	60.6	30.3
Engineering	6.1	45.4	48.5
Science	27.3	57.6	15.1
Financial Attitude %			
	Indifferent	**Average**	**Positive**
Arts	7.1	9.1	83.8
Engineering	27.3	45.5	27.2
Science	39.4	51.5	9.1

TABLE3 CHI-SQUARE TEST VALUES

	Rejection Region	**Chi – Square Value**	**P – Value**
Financial Knowledge	9.48	11.59	0.020
Financial Behaviour	9.48	12.79	0.012
Financial Attitude	9.48	40.32	0.00

Table 2 shows that, financial knowledge is classified into high level, average level and low level. A higher proportion of engineering graduates (36.3%) were having high level of financial knowledge followed by science graduates (12.2%) and arts graduates (9.1). 78.8 % of the arts graduates are having average financial knowledge followed by science graduates (63.3%) and engineering graduates (48.5%). 24.2 percent among science graduates followed by engineering graduates (15.2%) and arts graduates (12.1%) are having low level of financial knowledge.

Chi-square test is used for the testing the first hypothesis at 5% significance level, the rejection region for the test is 9.48, the Chi-square and P-Values are 11.59 and 0.020 respectively, thus the null-hypothesis has been rejected and there is enough evidence for the association of graduation stream and financial knowledge.

Financial behaviour is classified as Good, average and indifferent. The data on financial behavior indicates that, 48.5 percent graduates from engineering reported to have good financial behavior while 30.3 percent of Arts graduates and 15.1 percent of science graduates are reported to be good. 60% of arts graduates, 57.6% of science graduates and 45.4 % of engineering graduated are reported to be having average financial behavior, while indifferent financial behaviour is significantly higher among science graduates (27.3%) compared with the other two groups.

Chi-square test was used for the testing of second hypothesis at 5% significance level, the rejection region for the test is 9.48, the Chi-square and P-Values are 12.79 and 0.010 respectively. The null hypothesis was rejected and there is enough evidence for the association of graduation stream and financial behaviour.

Financial attitude also has been classified into positive, average and indifferent categories, the data reveals that, a significant proportion of arts graduates (83.8%)reported positive financial attitude while 27.2 engineering graduates and only 9.1% of the science graduates have positive financial attitude. More than 51 percent of science graduates, 45 percent of engineering graduates and 9.1 % of arts graduates come under having average financial attitude. Indifferent financial attitude is higher among science graduates (39.4 percent) followed by engineering graduates (27.3) arts graduates (7.1) percent.

For testing of third hypothesis Chi-square test was used at significance level of 5%, the rejection region for the test is 9.48, the Chi-square and P-values are 40.32 and 0.00 respectively, hence the null hypothesis was rejected. There is enough evidence for the dependency of graduation stream and financial attitude.

It is observed from this study that, engineering graduates reported high level of financial knowledge (36.3%), good financial behaviour (48.5%). In case of arts graduate having the highest positive financial attitude (83.8%) while average financial attitude and indifferent towards financial attitude is also higher among science and engineering graduates.

TABLE 4: COMPARISON AMONG ARTS, SCIENCE AND ENGINEERING GRADUATES

Question	Arts	Science	Engineering	Total Graduates
Financial Knowledge (% Correct Answers)				
Simple Interest rate	57.5	54.5	63.6	58.5
Compound Interest rate	30.3	36.4	57.5	41.4
Time value of money	56.6	52.5	62.8	57.3
Diversification	60.5	56.5	69.5	62.1
Inflation	52.7	49.6	58.8	53.7
Risk-return	66.6	68.8	78.8	71.4
Stock market products	54.5	48.4	60.6	54.5
Risk and Financial Assets	69.6	51.5	72.7	64.6
Financial Behaviour (% Correct Answers)				
Savings	39.3	31.4	54.5	41.7
Borrowing	66.6	66.6	69.6	67.6
Bill payments on time	63.6	54.5	57.5	58.5
Household Budget	60.6	57.5	66.6	61.5
Experts' advices	48.4	45.4	54.5	49.4
Affordability	60.6	57.5	66.6	61.5
Financial monitoring	42.4	33.3	78.7	51.4

Investment	54.5	39.3	63.6	52.4
Financial Attitude (Indicating Positive Attitude)				
Towards spending money	57.5	21.2	9.1	30.3
Consideration of Risk	84.8	33.3	54.5	60.6
Importance of Planning	87.8	22.5	45.4	51.9

Table 4 depicts the graduates' performance on many areas of financial knowledge, financial behaviour, and financial attitude along with weighted average scores calculated for all the three streams. According to the findings, only 36.4 percent of science graduates and 30.3 percent of arts graduates can calculate compound interest, while more than 40 percent of graduates from both streams cannot compute simple interest. In total, over 40 percent of graduates still don't understand the time value of money, inflation, and stock market products. Engineering graduates excelled in all aspects of financial knowledge.

According to this data, just about 41.7 percent of all graduates have a good savings behaviour, when it comes to dealing with money, more than half of graduates do not consider the advice of financial experts. Nearly 60 percent of arts and 70 percent of science graduates do not monitor their financial activities whereas the engineering graduates seem to have good financial behaviour in all dimensions than the arts and science graduates.

This data reveals that 57 percent of arts graduates have a positive attitude towards propensity to consume, whereas only 9.1 percent of engineering graduates and 21.2 percent of science graduates have a positive attitude towards propensity to consume. Surprisingly, more than 80% of arts graduates have a positive attitude towards financial planning and risk management. However, just 45.5 percent of engineering graduates have a positive attitude towards financial planning and 54.5 percent have a positive attitude towards risk management. Positive financial attitude of science graduates towards risk management and financial planning is at a very low level, with scores of 33.3 and 22.5, respectively. Financial attitude of the arts graduates is significantly higher than their counterparts.

4. CONCLUSION

Financial literacy includes three important components viz., financial knowledge, financial behaviour and financial attitude. Among Arts graduates positive financial attitude (83.8%) is recorded at high level but at the same time good financial behavior (30.3 %) and high financial knowledge (9.1%) is not at adequate level. The Engineering graduates are having high financial knowledge (36.3%) and good financial behaviour (48.5%) but their positive financial attitude (27.2%) is not at encouraging level and Science graduates who have high financial knowledge (12.2%), good financial behaviour (15.1%) and positive financial attitude (9.1%) are significantly low among all the graduates. Because all the respondents are graduates, it was expected that they would have a high level of financial literacy, but this was not the case. Financial literacy score of the all graduates is 13.5 which indicates that the financial literacy of the graduates in the study area is at average level. Therefore, financial literacy should become a part of the curriculum at graduation level irrespective of graduation stream, so that, it enhances all the three components of financial literacy and training programmes have to be conducted with practical sessions. **[8]** This will help young graduates to become financially wise and invest their incomes in an organized way. This not only helps the economy grow but will also make the financial markets stronger. Becoming money-wise is a sure way to achieve overall well-being.

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