MEASUREMENT OF FINANCIAL LITERACY

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ABSTRACT

The need for financial literacy has become increasingly significant with the deregulation of financial markets and the easier access to credit; the ready issue of credit cards; the rapid growth in marketing of financial products and the government's encouragement for people to take more responsibility for their retirement incomes. This paper reports the influence of various socio-demographic factors on different dimensions of financial literacy among the working population in urban India. The study also investigates the relationship between the dimensions of financial literacy. A survey method was employed using a sample of 230 respondents of Tricity. Hypothesis testing was conducted using one way annova test. By identifying the specific areas where financial literacy may be lacking, the paper may assist educators, regulators and financial institutions to design financial planning courses in helping youths to achieve greater financial freedom and be better equipped for retirement.

Keywords: Financial Literacy, socio demographic factors, adults, annova, chi square, India

INTRODUCTION

Financial literacy skills enable individuals to navigate the financial world, make informed decisions about their money and minimise their chances of being misled on financial matters (Beal and Delpachitra, 2003; CBF, 2004b; Raven, 2005). The need for financial literacy has become significant with the deregulation of financial markets and the easier access to credit as financial institutions compete strongly with each other for market share, the rapid growth in development and marketing of financial products, and the Government's encouragement for people to take more responsibility for their retirement incomes.

The seminal definition of financial literacy was 'the ability to make informed judgments and to take effective decisions regarding the use and management of money' (Noctor et al, 1992). Later research has adopted this definition and extended it to incorporate a more detailed description of the components underlying their concepts of what it means to be financially literate. For example, "the ability to balance a bank account, prepare budgets, save for the future and learn strategies to manage or avoid debt" (CBF, 2004a, p. 1) and "enabling people to make informed and confident decisions regarding all aspects of their budgeting, spending and saving and their use of financial products and services, from everyday banking through to borrowing, investing and planning for the future" (RMR, 2003, p. 1).

OECD definition of financial literacy was adopted for the study, which defines it as, "A combination of awareness, knowledge, skill, attitude and behaviour necessary to make sound financial decisions and ultimately achieve individual financial wellbeing." (OECD INFE, 2011).

Young people in particular must understand the basics of investing and planning for the future, including the relationship between risk and return and the diversity between short-term and long-term investments, and the implication of not planning adequately for their retirement.

Having financial literacy skills is an essential basis for both avoiding and solving financial problems, which, in turn, are vital to living a prosperous, healthy and happy life (CBF, 2005b, p. 4). Further, the high number of people with low levels of financial literacy presents a serious problem for both the economic well-being of nations and the personal well-being of such individuals (CBF, 2004a; Morton, 2005; RMR, 2003)

The effort to enhance financial literacy in India over the last decade has also been given an impetus by the country's central banker, the Reserve Bank of India has mandated that banks take the initiative to enhance financial inclusion and financial literacy in the country. A draft national strategy for financial education was prepared and released by RBI in July 2012 (RBI 2012). The strategy includes observations on not only the role of the banks but also the need for financial education in schools.

Objectives of the Study

1) To measure the Financial Literacy of individuals;

2) To evaluate the influence of various demographic factors like age, gender, education level, income level, occupation , marital status on the level of financial literacy;

3) To give recommendations to improve financial literacy.

II LITERATURE REVIEW

Financial literacy has been studied in many countries from different aspects. Government entities and private organizations in developed nations have conducted surveys to measure the financial literacy level of their population.

II.a Financial Literacy and Demographic Factors

ACNielsen Research (2005) Australia's first national survey on financial literacy was conducted on behalf of the ANZ bank (RMR, 2003). There were two parts of components to the study: a telephone survey of 3548 adults and an in-depth survey of 202 adults which included a self completion component and an interview conducted a national survey of adult financial literacy in Australia. The researchers decided that knowledge should only be tested against an individual's needs and circumstances and hence not all respondents were asked all of the questions. Ten levels of financial literacy were combined to form financial literacy quintiles and the results were presented in terms of correlations, averages and percentages. The main results of this survey indicated that the lowest levels of financial literacy were associated with people who have lower education, unemployed or unskilled workers, and people with low income, single people, and those at both extremes of the age profile. On the other hand, the 2005 results showed an overall improvement in the financial literacy of Australians.

Al-Tamini (2009) examined the financial literacy level of UAE individual investors and the factors that influence their investment decision were examined. A convenient sample of 290 UAE national investors is used. They found that financial literacy is far from the needed level and were found to be affected by income level, education level and workplace activity. A significant difference in the level of financial literacy was found as well as between the respondents according to their gender. There is significant relationship between financial literacy and investment decisions. They also found that investors were more knowledgeable about the benefits of diversification while they were least knowledgeable about the type of UAE financial market indices.

US research

One of the earliest studies on financial literacy in the US was a national survey conducted by Cutler (1997) who concluded that the American public was not well informed about financial matters, in particular, insurance, social security and health care. Mandell (1997), Huddleston-Casas et al (1999), Williams-Harold (1999), the National Council on Economic Education (NCEE, 2005) and the Jump$tart Coalition (2005, 2006) investigated financial literacy levels among US high school students and concluded that they demonstrated a lack of both personal financial skills and knowledge. Studies have also shown that university students in the US have inadequate knowledge on personal finance.

Chen and Volpe (1998) examined the personal financial literacy of 924 college students from 13 campuses located in the USA. In addition, they investigated the relationship between the financial literacy level and gender, age, nationality, race, income, work experience, academic discipline, and class rank. They used analysis of variance techniques to demonstrate the variation in the levels of financial literacy among subgroups of students. The overall mean percentage of correct scores was just 52.87 percent. The results of the study indicated that subgroups of academic discipline, class rank, and years of work experience were significantly different in terms of financial literacy level. Non-business majors, students in the lower class ranks, and those with little work experience had lower levels of financial literacy. Less knowledgeable students tend to hold wrong opinions and make incorrect decisions. It is concluded that college students are not knowledgeable about personal finance. The low level of knowledge will limit their ability to make informed decisions.

Chen and Volpe (2005) A recent study on the financial literacy of US workers found that they too, had inadequate financial skills and knowledge. The results showed that participants ranked all of the surveyed personal finance topics as important and that they believed that employees did not have adequate knowledge about these topics. Retirement planning was ranked as being the most important topic, followed by personal finance basics, insurance, company benefit plans, taxes, investments and estate planning. Results of the survey also showed that respondents believed that outsourcing to outside financial planners was the most effective approach to educating employees on personal finance. Chen and Volpe argued that for employees to be 'better off', they must be financially knowledgeable in order to make informed investment decisions and take advantage of investment opportunities. The result

suggests that educational programmes should focus on improving employee's knowledge in areas where deficiencies exist.

Mandell,(2008) jump start coalition found that the financial literacy of high school students has fallen to the lowest level ever and that of college graduates are "close to being financially literate". However, with only 25% of young Americans graduating from college, the other 75% will lack the skills to make beneficial financial decisions throughout their adult lives.

Mirshekary and Saudagaran (2005) assessed how different users of financial statements use the information items disclosed in the annual reports, as well as the importance of different sources of information in making investment decisions. They distributed a questionnaire to seven different groups of users of financial statements in Tehran including stockbrokers, bank investment officers, and institutional investors. In general, respondents ranked the annual reports as the main influential source of information.

Lusardi and Mitchell (2007c) show that financial literacy is highly correlated with exposure to economics in school. Those who studied economics (in high school, college, or at higher levels) were much more likely to display higher levels of financial literacy later in life, a finding which is also present in data from other countries

Molly (2010) assessed financial literacy activities and information resources. They examined the complex intermingling of economic policies with perceived need for improved financial literacy. The study identified the organizations providing financial literacy and education, with their corresponding agendas and available information resources. They reviewed the effectiveness of sample financial education programs for adults and K-12. They saw community as the locus for increasing the availability of financial education for both adults and children, and identified gaps in best practices.

United Kingdom (Financial Service Authority) the survey consisted of 5328 people aged 18-40. It assessed patterns of attitude and behaviour and also included a 'money quiz". The survey represented financial capability as encompassed by four different areas like managing money, planning ahead, making choices and getting help, many people are failing to plan ahead and many people are taking on financial risks without realizing it. Younger people are on average less financially capable than their elders. One in twelve people in the United

kingdom do not have access to a bank account ,so they have limited financial choices and incur higher costs.

Volpe et al. (2002) argued that online investors should have more knowledge than normal investors to succeed in the securities markets, because they are more likely to be surrounded by financial misinformation and manipulation. Therefore, the authors examined investment literacy of 530 online investors and the difference in the literacy level among various groups of participants using age, income, gender, education, and previous online trading experience as variables. The study demonstrated that the level of financial literacy varied with people's education, experience, age, income, and gender. Particularly, women had much lower financial literacy than men and older participants performed better than younger participants. As well, online traders had higher knowledge than others. Moreover, investors with higher income had more knowledge in investment than those with lower income, and investors with college or higher degree performed better than those with low education.

Volpe (**2006)** identifies the important questions in personal financial literacy and the deficiencies in employees' knowledge in those areas. Surveying benefit administrators at 212 U.S. companies, they found that the participants rate retirement planning and personal finance basics as two important topics where there are deficiencies in employees' knowledge. In contrast, employees are relatively well informed about company benefits. The result suggests that educational programmes should focus on improving employee's knowledge in areas where deficiencies exist.

OECD (2005) reviewed financial literacy in 12 countries including the USA, the UK, European countries, Australia, and Japan. The study found that all of the surveys conducted in those countries concluded that financial literacy is very low for most respondents even when the financial markets are well developed. Further, across these countries, older population believes itself well informed, though it is less informed than average, women are less financially literate than men. More educated people are more informed, yet education is far from perfect proxy for literacy.

VISA (2012) study ranks India at the 23-rd position among the 28 countries surveyed. Their study found that the children and the young have significantly lower level of literacy compared to adults. The findings suggest that high financial knowledge is not widespread

among Indians. Less than one-fourth rank among the highly knowledgeable by the OECD approach. The financial knowledge among Indians appears to be low by global standards. The basic principles of money and household finance, such as compound interest, impact of inflation on rates of return and prices, and the role of diversification are not well understood. As most personal financial decisions involve these concepts, their limited understanding is a serious matter.

Agarwall Sobhesh et.al. (2012) this study is an attempt to understand the financial literacy levels of three important demographic groups, young working adults, retired and students in India. The employed and retired are surveyed on financial knowledge, behaviour and attitude. The students are surveyed only on financial knowledge as they might not have significant direct exposure in dealing with personal or household finance. The survey involves nearly 3,000 respondents from the three groups distributed across the country. The influence of socio-demographic variables on the three response variables namely, financial knowledge, financial behavior and financial attitude was separately analyzed using ordered multinomial logistic regression. Despite the education levels of the respondents in the sample being high (large proportion being graduate and post-graduate), that does not translate into adequate financial literacy. This is likely to be due to absence of inputs relevant to financial literacy in the general education process,

General conclusions that emerge from this literature review are:

There is evidence provided by researchers that woman is less literate than men in financial matters. Besides, that, less educated individuals and those at the lower end of the income distribution are less literate about financial matters.In general, studies have shown that individuals with a higher level of education have higher levels of financial literacy; although all studies conducted specifically targeting university students have actually revealed that these students have low levels of financial literacy.

Financial literacy surveys in many developed nations show that consumers are poorly informed about financial products and practices. This is troubling, in that financial illiteracy may stunt peoples' ability to save and invest for retirement, undermining their well-being in old age. It is also a matter of significant concern that these deficiencies are concentrated among particular population subgroups—those with low income and low education,

minorities, and women— where being financially illiterate may render them most vulnerable to economic hardship in retirement.

Gaps in the financial literacy research

Most of these studies cover limited number of questions. Very few surveys had taken place in developing countries. To my knowledge a few studies were conducted in India as the concept is relatively new, therefore, an attempt is made to study the level of financial literacy of adults in Tricity.

This study attempts to answer the following questions:

1. What is the financial literacy level of adults in Tricity?
2. What is the effect of demographic factors on the financial literacy?

Hypothesis of the Study

Based on the second question of the study the following hypotheses are formulated:

Effect of demographic variables on financial literacy:

Following Null hypotheses was made for the study: For the second objective, the following hypothesis are framed

H1. There is a positive significant relationship between financial literacy and age, gender, family income, occupation and education level.

H2. There is no significant difference between the levels of financial literacy of Tricity investors based on their gender.

H3. There is no significant difference between the levels of financial literacy of Tricity investors based on their age.

H4. There is no significant difference between the levels of financial literacy of Tricity investors based on their family income

H5. There is no significant difference between the levels of financial literacy of Tricity investors based on their education level.

H6. There is no significant difference between the levels of financial literacy of Tricity investors based on their occupation

H7. There is no significant difference between the levels of financial literacy of tricity investors based on their Marital status.

These hypotheses have been formulated to examine the financial literacy level of tricity investors (Chandigarh, Panchkula, Mohali). How may it be improved? For financial literacy

improvement, what is the educational program most needed, and at whom should it be directed? For example, do women need more financial education than men .For financial literacy improvement, it is also might be important to consider the effect of education level, the type of work, and employment status.

III Research Methodology

Sampling and Data Collection

A convenient sample of 300 individuals was taken. The population from which a sample was selected, consists of middle class and lower middle class working in different organizations in the area of Panchkula, Chandigarh and Mohali (Tricity). The respondents in our sample are by and large educated, compared to the general level of education in the country. Only 230 questionnaires can be collected back. Response rate was 76.6%.

The attributes on which data was collected were gender, age, level of education, marital status, occupation and family income, financial decision making process. Our objective financial literacy score is based on answers to 20 exam type questions with options of answers given. Subjects were asked to indicate the correct answer.

The level of financial knowledge was measured using a set of eight questions to capture their basic numeracy and understanding of computation of simple and compound interest (time value of money), relationship between inflation and return, inflation and prices, risk and return, and the role of diversification in risk reduction. The financial knowledge scoring adopted by the study followed the approach recommended by the OECD and used by Atkinson and Messy (2012) for measuring financial literacy across 14 countries. Each correct answer was given a score of one. Respondents with score of 11 and above were categorized as individuals possessing high financial knowledge;

III b Measurement of Financial Literacy Level

The information about these questions is summarized in to financial literacy index and the index is decided on the basis of mean and standard deviation of total questions. Individuals who have scored mean minus S.D are put in low category and Mean plus SD are put in high Financial literacy category (F.L.C) and rest are put in average category.

III .c Profile of Study Respondents

An analysis of findings of demographic analysis of investors depicts that maximum number of investors are in the category 18-25 years old (29.6%) in our sample followed by 36-45 age group (26%) and least in the age group of 55 and above (4.4%). There are more males (145) that accounts for 63% of the total respondents in comparison to females that are 37%. Maximum number of respondents is 31.3% i.e. (72) falls in to the income group of 2 lakh - 5 lakh and 23.55 falls in the income group of above 10 lakh. 36.5% are postgraduates followed graduates 27.4% (63) and undergraduates 21.7% (50). In regards to household composition 73.9 % (170) of respondents are married. 24.35% (56) of respondents are from business category and 19.6% are from education and banking respectively.

IV Data Analysis

A Effect of Demographic Variables on Financial Literacy

One of the objectives of the study is to determine if there is a significant difference in financial literacy level among different group of respondents according to their age, gender, family income, education level and occupation and in order to test H_1 through H_6 one way ANOVA was ran.

Demographic factors such as age, gender, education level, family income, marital status have been found to influence consumer behavior in the marketing of financial services (Perry, 2008; Phau and Woo, 2008; Worthington, 2006; Dellande and Saporoschenko, 2004, Chen and Volpe ,2002)

A.1 Financial Literacy and Gender

Gender

Females have often been found to possess less financial knowledge and interests compared to males **(Chen and Volpe, 2002, Worthington, 2006 Chen and Volpe, 1998)**. Females are intrinsically right brain thinker which serves them better in nurturing role as wives, mothers and homemakers rather than financial matters (Worthington, 2008). Despite being responsive to financial education, females were found to possess a lower retirement age and income goals **(Clark et al, 2006)**. Females also tend to be risk adverse in financial choices **(Dellande and Saporoschenko, 2004)**.

$H_{1:}$ There is no significant relationship between gender and financial literacy of respondents.

As a test of hypothesis that financial literacy and gender has no significant relationship, an independent sample t-test was conducted. To specify which gender has the lowest financial literacy (FL) level, cross tabulations statistic between the financial literacy level and gender was done. It was found that women have lower financial literacy than men.

The test was found to be statistically significant, $t(228)=172$, $p<.05$.Table 4.a shows that an independent sample t-test was conducted to compare financial literacy among males and females. The sample included 230 respondents of which 145 are males and 85 are females.There was significant difference in the scores for Males (M=13.96) S.D= 2.39 and Females M=13.29, S.D= 2.47 *t* (228) tell you the degrees of freedom $p\leq .05$ indicates that difference is significant. Null hypothesis is rejected and there is a difference between gender and financial literacy.

Table 4.a: t-test Results Comparing Males and Females on Knowledge of Financial Literacy

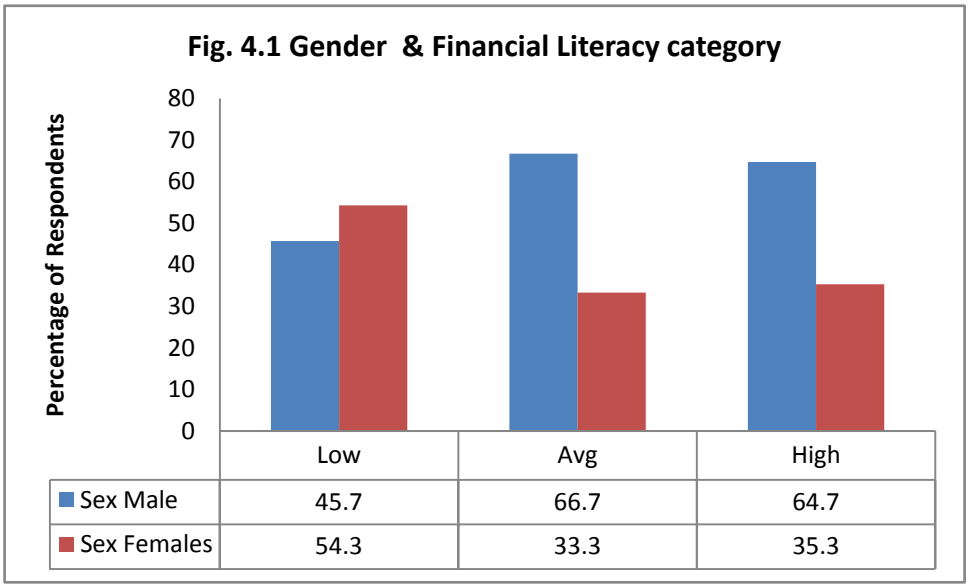
Financial literacy	Gender	N	Mean	Std. Deviation	**t value**	**P value**
	M	145	13.9655	2.39911	2.025	**.044***
	F	85	13.2941	2.47282	2.009	

Gender and financial literacy category:-

Figure 4.1 illustrates that females were more likely to be in the lowest financial category as depicted by the results, 54.3% of females are in low F.L. category while 45.7% are males. While 64.7% of those in high F.L category are males and another 66.7% of avg. F.L. are also males. The reason for low F.L in women is mainly due to the fact that they have more household responsibilities, looking after children and family members than males. Women may find difficult to catch up with economic and financial development than men do.

The association between gender and financial literacy category was found to be **not significant**.

$\chi^2=5.383$, $p=.068$



B. F.L. and Marital Status

H2 : There is no significant difference / relationship between the level of financial literacy of investors based on their Marital status (MS).

Table 4.b illustrates that there was a statistically significant difference between financial literacy and Marital status. Married (M=13.45, SD=2.39) and unmarried (M=14.45, SD=2.45) , *t* (228)=-2.47, p<.05(.007)

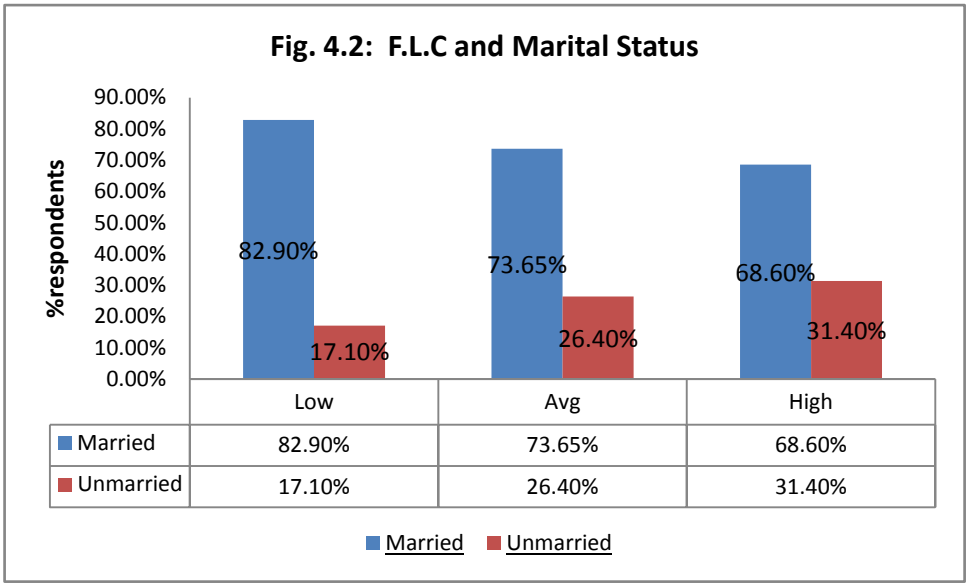
With married having high F.L. than unmarried people. 170 married participants had mean financial literacy of 13.45. Null hypothesis is rejected. It indicates that married people are more financially literate than unmarried**.**

Table 4. b: t-test Results Comparing Marital Status on Knowledge of Financial Literacy

Financial literacy	MS	N	Mean	Std. Deviation	**t value**	**P value**
	M	170	13.45	2.39	-2.740	.007
	UM	60	14.45	2.45	-2.703	

Financial literacy category and marital status

Figure 4.2 shows that out of 230 respondents around 80% are married rest are unmarried .F.L is more likely to be high in married than unmarried as indicated by results. The percentage of respondents in high category is more in married than unmarried .The relationship between the two variables is not found to be significant.



C. Financial Literacy and Age

Generally, older individuals are more conservative and risk adverse (Dellande and Saporochenko, 2004). The deeper life experiences may encourage the acquisition of skills to secure their financial aspirations (Worthington, 2008).

H 3: There is no significant difference /relationship between the levels of financial literacy of Investors based on their age.

The descriptive table (below 4.C) provides some very useful descriptive statistics , including the mean, standard deviation and 95% confidence interval for the dependent variable (Financial literacy for each separate group (<25, 26-35, 36-45, 45-55 and >55) as well as when all the groups are combined (Total).

This is the table that shows the output of the ANOVA analysis and whether we have a statistical significant difference between our group means. These result indicate that the significant *level p* =.03 which is below 0.05 and there four statistically significant difference in financial literacy and difference age groups. Null hypothesis is rejected.

Table 4.c: One-Way ANOVA of Age and Financial Literacy

Financial literacy	Age	N	Mean	Std. Deviation	F value	P value
	< 25	68	14.3235	2.54770	2.676	.033*
	26-35	42	13.8810	2.40124		
	36-45	60	13.6000	2.50559		
	46-55	50	12.8800	2.13465		
	>55	10	13.8000	2.09762		

NOTE p<.05, 5% Significance

D Financial literacy and Education

H4: There is a no significant diff/relationship between the financial literacy of investor based on the **education.**

A one way between subjects ANOVA was conducted to know that significant difference exist between the levels of financial literacy of investors based on their education level (Graduate. Post graduate, professional and under graduate).There was a significant effect of education on financial literacy at the *p*= (.016) for the three condition F(3,226)=3.523 P=.016 (Table 4.8).

Table 4.D: One Way ANOVA Comparing Education on Knowledge of Financial Literacy

Financial literacy	N	Mean	Std. Deviation	F value	P value
				3.523	.016*
	PG	84	14.3214		
	PROFN	33	13.5758		
	UG	50	12.9600		
	Total	230	13.7174		

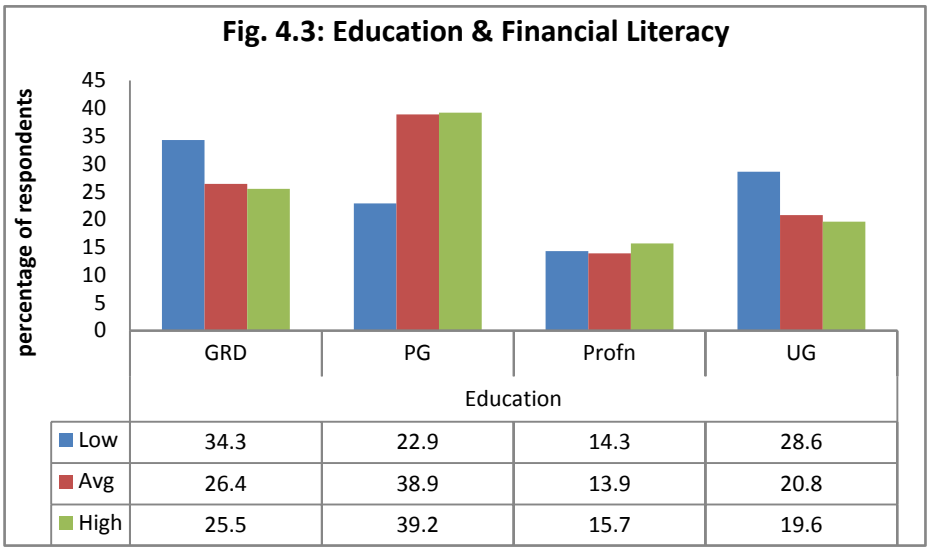
NOTE p<.05

Hence the null hypothesis is rejected and higher education has its effect on financial literacy of the persons.

E Financial Literacy Category & Education

The association between education qualification and financial literacy category was examined using chi-square analysis. The relationship between the two variable were not statistically significant at 5% level χ^2=3.837, p=.699. Figure 4.E shows that those with highest level of financial literacy category were more likely to have higher level of education. 39.2% of respondents in high F.L. category are post graduation and 15.7% are professional compared to 25.5% are graduate and 19.6% are under graduate in high F.L. Category.

It is not the level of education but the type of education which makes the person more financially literate. Our curriculum of arts and science stream at the undergraduate and post graduate levels does not include financial topics. Not even awareness about money management like how to open bank account, save money, what is time value of money and risks associated with financial products like credit card and internet banking are given at the school level as well as graduation level.



F Financial Literacy and Family Income

A one way analysis of variance (ANOVA) was calculated to know that significant difference exist between the levels of financial literacy of investors based on their annual family income. The analysis was not significant F (.786 P=.504.) Hence the null hypothesis is accepted and income does not play any role in financial literacy (Table 4.F).

Table 4.F: ANOVAs Results Comparing Income on Knowledge of Financial Literacy

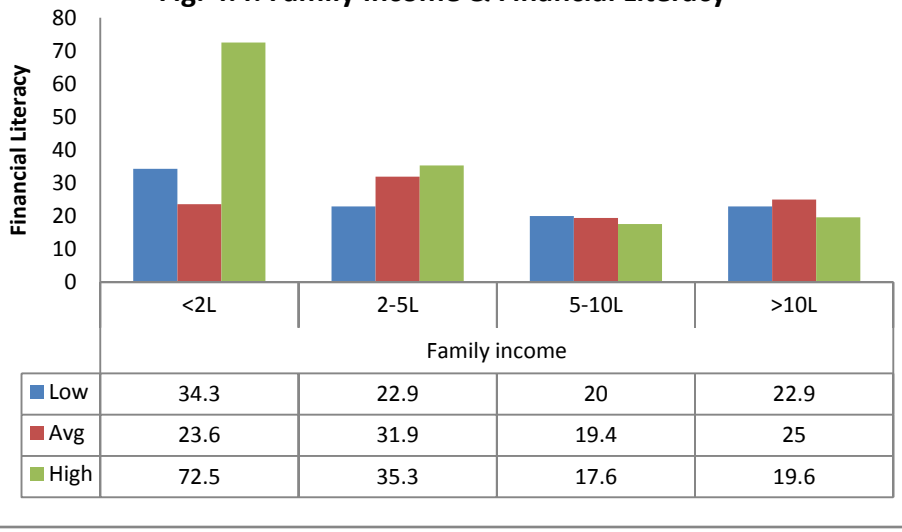
Financial Literacy					
Income	**N**	**Mean**	**Std. Deviation**	**F value**	**P value**
< 2L	60	13.5667	2.49994	.783	.504(NS)
2-5L	72	14.0833	2.45953		
5-10L	44	13.5455	2.42520		
> 10 L	54	13.5370	2.38480		
Total	230	13.7174	2.44291		

Financial Literacy Category and Family Income

Figure 4.4 illustrates that those with the lowest level of financial literacy are more likely to have lower level of family income (less than 2 lakh) 34.3% of those in low category respondents.

The association between family income category and financial literacy category was examined using a chi-square analysis the relationship between the two variable were not statistically significant at 5% level. χ^2=2.906, p=.821. It is not the family income which is significant but the occupation and financial knowledge of the people which determines the financial literacy level.

Fig. 4.4: Family Income & Financial Literacy



	<2L	2-5L	5-10L	>10L
Low	34.3	22.9	20	22.9
Avg	23.6	31.9	19.4	25
High	72.5	35.3	17.6	19.6

G. Financial Literacy and Occupation

A one way analysis of variance (ANOVA) was calculated to know whether significant difference exist between the levels of financial literacy of investors based on occupation. . The analysis was not significant F (P 2.24.) Hence the null hypothesis is accepted and occupation does not play any role in financial literacy (Table 4.G).

Table 4.G : ANOVA Results comparing effect of Occupation on Financial Literacy

Occupation	N	Mean value	Std.deviation	F-value
Education	45	13.31	2.31	
Banking	44	14.65	2.02	2.24

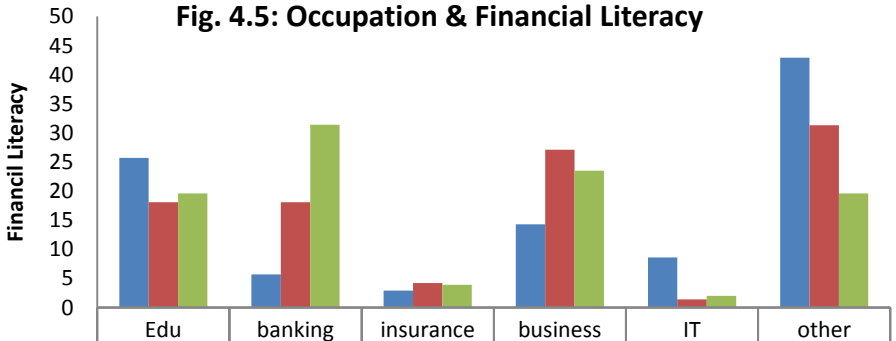
Insurance	9	14.33	2.73	
business	56	13.71	2.38	
IT	6	12.5	2.88	
Others	70	13.41	2.62	

Financial Literacy Category: Occupation

Figure 4.5 shows that those with the banking, insurance and business profession were more likely to have higher level of financial literacy 31.4% and 23.5% respectively, than respondents from IT sector or Education sector and in IT sector more people are likely to be in lower financial literacy category, followed by others and education.

Figure 4.5 shows the association between occupation and financial literacy category was examined using chi-square analysis. The relationship between the two variable was statistically significant n=230 at .05 or 5% level χ^2=19.699, p=.032 and we are able to reject the null hypothesis. This means that the variables have a low chance of being independent or occupation affects the financial literacy level of the person. Banking people deal more with numbers and money and their understanding of finance is high and people in business deal daily with financial matters themselves and their own money is at stake, so they are likely to be more aware of financial product and services. The graph of FLC and occupation is given below:

Fig. 4.5: Occupation & Financial Literacy



	Edu	banking	insurance	business	IT	other
Low	25.7	5.7	2.9	14.3	8.6	42.9
Avg	18.1	18.1	4.2	27.1	1.4	31.3
High	19.6	31.4	3.9	23.5	2	19.6

The relation between demographic variables and F.L .C was examined using chi-square analysis as indicated in the table below. The different categories used in the chi-square analysis are depicted in the Table 4. I shown along with the explanation.

Occupation and financial literacy category(FLC) was found to be significant at 5% level, no significant association was found between FLC and other demographic variables.

Table 4. I: Financial Literacy Category and Demographic Variables

Financial Literacy Category	**Occupation**	**Gender**	**Age**	**Family income**	**Education qualification**	**Marital Status**
Chi sq df *p*	**19.699** **.032***	5.383 2 .068(NS)	2.593 8 .957(NS)	2.906 6 .821(NS)	3.837 6 .699(NS)	2.198 2 .356(NS)

FLC was not associated with education as it is only the finance and banking professionals that are relatively more likely to be competent in financial understanding and responsibility.

Hence our discussion illustrate that demographic variables like gender, age, education, marital status, occupation have significant effect on financial literacy. Income does not play positive role in enhancing financial literacy. The findings of the effect of gender and age on financial literacy are consistent with previous studies (**Alexander et al, 1997; Chen and Volpe, 1998 Volpe, 1996; Volpe et al, 20002).**

V Findings of the study

Findings of effect of Demographic Variables on Financial Literacy

The findings illustrate that there is significant difference in the financial literacy based on gender, age, education level, and marital status.

- Financial literacy improves with age and is at peak at middle age.
- Women tend to have lower financial literacy than men.
- Educated people are more financially literate than uneducated.
- Married people are more likely to be financially literate than unmarried.
- Income does not play an important role in improving financial literacy.

- People working in finance and banking industry are likely to be more financially literate than IT and education sector.

Demographic variables and financial literacy level

- Occupation plays an important role in enhancing financial literacy. Occupation and financial literacy category(FLC) was found to be significant at 5% level,
- No significant association was found between FLC and other age, gender, education and marital status.
- FLC was not associated with education as it is only the finance and banking professionals that are relatively more likely to be competent in financial understanding and responsibility.
- Financial literacy is therefore acquired through experience as well as formal instructions.

Measurement of Financial Literacy Level

- More than 80% of respondents are aware of basic financial literacy concepts like Numeracy, average, monthly rent, discount, time value of money, money illusion, simple interest, compound interest.
- The knowledge of stocks, bonds and mutual funds is less than 20%.
- Only 5 % of respondents are correct about the relationship between bond prices and interest rates. Not only do a sizeable proportion of respondents answer these questions incorrectly, but also many respondents state they do not know the answers to these questions.
- There is also a chance that many respondents may not have understood the meaning of these questions correctly and may have given answers randomly or many of them may have consulted someone while giving answers.
- Overall 15% of the people are in low financial literacy category, majority of them are in average financial literacy level (62.17%), and 21.7% in high financial literacy category. These findings may be due to the fact that in our sample most of the people are educated, only 21% of respondents are under graduated.
- More males (65%) are in high financial literacy category than females (35%).

Conclusion

This study also identifies areas where financial literacy may be lacking. More than 80% of respondents are aware of basic financial literacy concepts like Numeracy, average, monthly rent, discount, time value of money, money illusion, simple interest, compound interest. The knowledge of stocks, bonds and mutual funds is less than 20%.

Overall 15% of the people are in low financial literacy category, majority of them 62.17%, is in average financial literacy level and 21.7% in high financial literacy. These findings may be due to the fact that in our sample most of the people are educated, only 21% of respondents are under graduate.

Financial literacy improves with age and is at peak at middle age. Educated people are more financially literate than uneducated. Married people are more likely to be financially literate than unmarried. Income does not play an important role in improving financial literacy. Women generally have poorer financial understanding than men or they lack confidence about financial matters. Income does not play an important role in financial literacy.

In order to enhance financial literacy the curriculum should provide financial management skills to students and it should be dynamic in providing practical experience. Positive financial behaviors translate to greater satisfaction in life and achievement of better academic performance (Xiao et al.,2008). Banks can play a proactive role and socially responsible role by undertaking product awareness programmes designed to educate people as a part of their relationship marketing strategy.

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