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Determinants of Financial Literacy among Undergraduate Students

Dhaval Ramnikbhai Thesia[1], Dr. Narendra Singh Chawda[2]

[1]Research Scholar, Faculty of Commerce & Management, Pacific Academy of Higher Education & Research University, Udaipur, Rajasthan, India

[2]Assistant Professor, Faculty of Commerce & Management, Pacific Academy of Higher Education & Research University, Udaipur, Rajasthan, India
Corresponding Author Email: *dhavalptl00[at]gmail.com*

Abstract: ***Financial literacy has emerged as a critical life skill in both developed and developing economies, particularly in the context of increasing financial complexity and expanding access to formal financial services. In India, where a large proportion of the population comprises young adults, understanding the financial literacy levels of undergraduate students assumes special significance. The present study examines the determinants of financial literacy among undergraduate students, with specific emphasis on socio-economic and demographic factors influencing their financial knowledge and practices. Primary data were collected from 460 undergraduate students using a structured questionnaire through convenience sampling. Financial literacy was assessed using practical indicators such as the ability to transfer money, fill bank forms, understand bank statements, and track account balances. To identify the determinants of financial literacy, multinomial logistic regression analysis was employed, with socio-economic demographic variables serving as explanatory factors. The empirical results reveal that age, gender, education level, family type, location, sources of financial learning, and usage of financial services significantly influence students' financial literacy levels. Students aged above 20 years, males, graduates, those belonging to joint families, and students enrolled in universities abroad exhibit higher levels of financial literacy. Learning money management through parents and the combined use of debit cards, banking services, and mobile transactions are also found to positively impact financial literacy. The findings further suggest that reliance on a single source of financial information is insufficient; rather, a combination of experiential learning and financial engagement enhances financial capability. The study concludes that financial literacy among undergraduate students is shaped by a multidimensional set of socio-economic factors, highlighting the need for targeted financial education initiatives within higher education institutions. Strengthening financial literacy at the undergraduate level can contribute significantly to improved financial decision-making and long-term financial well-being, thereby supporting inclusive economic development.***

Keywords: Financial Literacy; Undergraduate Students; Socio-Economic Determinants; Financial Education; Money Management; Multinomial Logistic Regression; India

1. Introduction

Policy makers in both developing and developed countries are increasingly acknowledging the significance of financial literacy and of investing in financial education programmes. In the current global world, where in the economy have integrated and are dependent upon each other for every kind of support, student exchange programmes Are gaining widespread popularity in schools and colleges of India. The importance of financial literacy cannot be neglected, henceforth. But before discussing the importance of financial literacy, let's first dive into the concept of financial literacy. The term encloses varied concepts of financial knowledge and awareness of different financial products, concepts, skills and institutions. The skills such as the ability of any individual to calculate interest, compound interest; to have in-depth knowledge of the concept of inflation and deflation; to know about the rate of return and gross profit ratio concepts; capability of any individual to manage money and do budgetary family planning. However, impractical, day-to-day life, these concepts overlap each other.

The concepts vary according to the subject involved in research; it may be dependent upon the income level of the respondent, income, level of the family, educational level of the respondent, educational level of the family members et cetera. One of the main aim of financial education is to therefore provide individual with the capability to steer oneself within complex array of financial products and to make informed financial decisions. But, the importance of financial literacy has its branches among various policy makers of developing and developed nations, yet the number of financial illiterate goes on increasing. Especially in low income countries, financial outreach is much more limited and complex financial products are typically accessible to only a small percentage of population.

According to the World Bank (Xu and Zia, 2012), in order to improve financial literacy, the ways to measure it must be devised. Firstly, why do we think financial education is necessary to any individual? Survey and researches indicate that financial literacy are very low in high income countries also. However, the data pertaining to low and middle income countries is very less in order to tap financial literacy levels. Adverse financial literacy convert into adverse financial outcomes. Hence it becomes important to understand financial literacy among undergraduate students who are the future of a developing nation like India. More informed the students are regarding financial products and concepts more confidence. They will have in future to make financial decisions and improve their financial well-being. therefore, the present paper makes an attempt to analyse various determinant of financial literacy among undergraduate students.

2. Review of Literature

The following section deals with measurement of financial literacy and its correlates:

Michael et. al. (2010), To understand the basic financial issues financial literacy plays an important role in our society most of individuals and families must deal with financial issues in their life. (Lusardi and Mitchell, 2011), 'It is an important task to evaluate financial literacy of people, but in practice, it is rather difficult to investigate how people process information and make informed financial decisions.' As we have discussed in the above paragraph that financial literacy encompasses numerous concepts such as related to financial knowledge and skills And capability, it is very difficult to capture all these qualitative variables. A wide array of proxy must be available in order to measure the qualitative available, which tells us about the level of financial literacy of any individual. (Lusardi and Mitchell, 2011) developed a series of questions which they used for American health and retirement study in 2004 to measure financial literacy. The question revolve around the basic understanding of interest rate, compounding, interest rate, inflation and risk diversification. The concepts of interest and compound interest rate required basic numerical skills, however, the concept of inflation and risk diversification involves similarity with the concepts of equity, shares, bonds, and debentures. The series of questions have been undertaken into the research by various authors (Fornero and Monticone, 2011) studied financial literacy and pension plan in Italy. It was found out through their research that individuals do not have proper understanding of the concepts of inflation and interest rates. Male population, the educated people and those who reside in Centre North part of Italy possess higher financial literacy levels. (Bucher-Koenen and Lusardi, 2011) used the three basic indicators and studied the relationship between financial literacy and retirement planning in Germany. They found out that women population, less educated people and those residing in East Germany have lower levels of financial literacy, the results are in accordance with the previous study conducted by authors in Italy. Other studies include by (Sekita, 2011) in Japan, (Crossan et.al.,2011) in New Zealand, (Klapper and Panos, 2011) in Russia. Tomaskova et. al. (2011), finances are important part of everyday life and financial literacy is the best way to prevent over-indebtedness of citizens. Bonte and Filipiak (2012), Financial knowledge helps in to maintain financial stability and hedging risk in financial system. Better knowledge about the elements of financial literacy and investment behavior is of utmost importance for development of sound policy.

In our present study, financial literacy among young adults have been examined. The following section deals with financial literacy among young adults/undergraduate students in India and other countries.

Beal and Delpachitra (2003), surveyed student of Australian university and found financial decision making skills as low as 47% and only 46% of the students had knowledge regarding insurance. The study also found that students were well aware about simple concepts of financial literacy. However, questions relating to compound interest were answered by only 52.9% of the respondents. Lusardi and Mitchell (2009), financial literacy of individuals has been measured in various studies based on a standardized questionnaire which includes three dimensions of financial literacy i.e. financial attitude, financial knowledge and financial behaviour and covers areas such as inflation, compound interest, rate of returns, prices, household finance, diversification of interest, etc. Borodich et. al. (2010), carried a cross country comparative analysis in the USA, Belarus and Japan founded that Belarusian students outscored American and Japanese high school students. Students demonstrated highest achievement on topics of earning income and lowest achievement on the subject of savings. Kaur et. al. (2013), survey suggested that high financial knowledge is not pervasive among Indians. It was found that out of 1001 student respondents, about one-fourth were unable to give answers of more than 2 questions and about 7% are not able to answer any question correctly. It was also found that when financial knowledge was measured on a scale of 5, around 50% of the students scored very low which account to score 1 or 2. Apart from this, the study was found that, 78% of the students were able to give correct answer to the question on simple interest, whereas, only 45% give correct response to the question on compound interest. The lack of understanding about compound interest, which universally underlies the evaluation of investment opportunities or debt products, does not seem to reflect a very high level of financial numeracy among the surveyed students. Thomas and Subhashree (2020), carried a study to explore the factor that affect financial literacy among engineering students of India. The results so obtained, reveal that financial attitude, financial knowledge, financial influence and peer group influence are factors that affect financial literacy by 50% as seen by adjusted R squared value of 0.515. In a study by (Ansar et. al., 2023) using data from Global Findex 2021 survey for 79 middle and low income countries, financial literacy of young adults who do not have bank accounts and on adults whose bank accounts are inactive was examined. In previous literature, it has been found out that higher the financial education higher the likeliness of them to save and invest, which leads to higher participation in financial markets and higher is the probability to make greater informed financial decisions (Cole et. al., 2014).

3. Need of the Study

Since, the advent of liberalisation, privatisation and globalisation policies (1991) of India, the country's economic and financial base has been strengthening up. Financial education is one of the crucial element in RBI's developmental role in India (Reserve Bank of India). RBI and National Centre for Financial Education, India have launched various campaigns in order to boost financial education in India to empower its citizens. The aim is to empower and upgrade the financial knowledge and skills of the population of the country (Ministry of Finance, 2025). Financial educated citizens are regarded as a boon for macroeconomic effects carried in the nation (OECD, 2015). India has a large and dynamic youth population, age between 15-29 years making up nearly 40% of the country's total population. This is the most vibrant and dynamic segment of country's population which is the most potential human resource (Department of Youth Affairs, 2025). To tap the financial

literacy levels of undergraduate students prove out be an important area of research. Hence, the present study makes and attempt to explore the determinants of financial literacy among undergraduate students.

4. Research Objective

To explore the determinants of financial literacy among undergraduate students.

Research Hypothesis

The socio economic demographic indicators have an impact on financial literacy status of undergraduate students.

Methodology

The data was collected through convenience sampling. A total of 460 questionnaires were completed and collected, multinomial logistic regression was used as analysis tool. Respondents socio-economic demographic indicators was used as explanatory variables. To gauge the financial literacy of students questions such as whether they make a money transfer? Do they know how to fill the forms at bank?; Do they understand banking statements?; Whether they keep track of account balance? How do they transfer money?

If the dependent variable has more than two outcome categories, then Multinomial Logistic regression or Multinomial logit model is used. However, the independent variable in both the cases can be either numerical or categorical. The dependent variable, although, has to be categorical so that it is possible to divide the responses into categories. According to (Fox, 1984 and Klienbaum, 1994) the data need not to have a normal distribution, no linear relationship and no equality of variances.

Logistic regression models are suitable when response variable is qualitative and a non-linear relationship can be established between the response variable and the qualitative and quantitative factors affecting it. In the current study, logistic regression is used to estimate the financial literacy level of students. Therefore, the dependent variable are parameters of financial literacy in the present study.

General equation of the function is:

$Yi = F(X_1, X_2, ..., X_n)$

Where, Yi denotes financial literacy level of students

$X_1, X_2, ...,X_n$ represent various predictor factors leading to financial literacy levels among students.

$y_i^* = b_0 + SbX_{ij} + e_i$

where y_i is not observed. It is a dummy variable. y_i is defined by,

$y_i = 1$, if $y_i^* > 0$

$= 0$ otherwise

y is equal to 1 if the students have increased digital financial literacy and 0 if he/she does not have these above. Therefore, if the dummy variable is 1 that is students are financially literate and if the variable takes the value 0 then it says students are not financially literate. Therefore, the variable was derived from a quality variable, to proceed in analysis. Data on students studying of qualitative nature, i.e., it is assigned the value as 0 and 1.

The logistic regression model below shows the probabilities that can be modelled with one predictor variable:

$p = P(Y = 1/X = x) = 1/(1+e^{-Z})$

where $z = b_0 + b_1x$, and e is the base of the natural logarithm. Thus for more than one (say r) explanatory variables, the probability p is modelled as $p = P(Y = 1/X_1 = x_1.....X_r = x_r) = 1/(1+e^{-z})$

where $z = b_0 + b_1x_1 + ...+b_rx_r$

with X explanatory variables. The regression may be derived from the logistic probability equation:

$Ln (P/1-P) = -bX_i$

Let:

$P_i = P_r(Y = 1/ X=X_i)$

The we can rewrite the model as:

$P_i/(1-P_i) = \exp(b_0 + b_1X_i)$

Analysis

Table: Analysis of Financial Literacy of Students with Socio – Economic Demographic Variables –

Independent Variables	Financial Literacy of Students		
	Co-efficient estimates	Standard error	Odds ratio
Age: Below 20 years(ref)			
Above 20 years	.605	.240**	1.83
Gender: Female(ref)	.635	.643	1.88
Education: 10th pass(ref)			
Senior Secondary	.287	.866	1.32
Graduation	1.074	.359*	2.91
Family type: Nuclear (ref)	1.214	.729*	3.35
Location: India(ref)	2.233	1.091**	9.29
Learning money management: Internet (ref)			
Parents	1.183	.675*	3.25
School/College	-.980	.645*	2.66
Information on money matters such as banking, spending etc: Internet (ref)			
Parents	-2.467	1.089*	11.70
Teachers	1.252	1.118	3.49
Finance handling: Debit/bank/mobile(ref)	1.791	.731**	5.98

*, **, &*** p-values significant at 10%, 5% and 1% respectively

Financial literacy of the students are gauged through instruments like money transfer, filling out forms at bank, understanding bank statement and keeping track of bank balance.

The age group shows a positive and significant relation with the dependent variable; financial literacy. The coefficient estimates of the age group tells us that with one unit increase in age group from below 20 years to above 20 years, there is an increased probability of having increased financial literacy by .605 points. Students who are of age 20 years and above are more likely to have increased financial literacy by 1.83 times. The students who tend to fall in age group of above 20 years said to have more practical knowledge of going to physical banks, filling out forms, checking their bank balance.

The coefficient estimates of gender tells us that as compare to female students, male students have increased probability of having increased financial literacy by .635 points. The odds ratio tells us that as compare to female students, male students are 1.88 times more likely to have increased financial literacy. The reason can be attributed to the nature of male students as compare to female students. A male students is well equipped to go to physical banks and undertake transactions.

The coefficient estimate of education level tells us that with one unit increase in education level of students, that is, moving from senior secondary level of education to graduation level of education. There is a increased probability of 1.074 points to have increased financial literacy. The odds ratio tells us that, as compared to students with senior secondary level of education, the students who are graduates are more likely to have increased financial literacy by 2.91 times. The determinant shows a positive but in significant relation with the dependent variable.

The explanatory variables, family type show positive and significant relation with the dependent variable. The coefficient estimates show that with one unit increase in family type, that is, moving from nuclear family to joint family, students have increased probability of having increased financial literacy by 1.214 points. The odds ratio tells us that, students who live in joint family vis a vis who live in nuclear family are more likely to have increased financial literacy by 3.35 times.

The explanatory variables, location show positive and significant relation by 5% confidence interval with the dependent variable. The coefficient estimates show that with one unit increase in location, that is, moving from Indian universities to universities located abroad, students have increased probability of having increased financial literacy by 2.233 points. The odds ratio tells us that, students who are enrolled in universities abroad vis a vis students who are enrolled in Indian universities are 9.29 times more likely to have increased financial literacy. The reason can be credited to the reason that students who are located abroad are less dependent on their family and peers to carry out financial decisions regarding banking. They themselves have to keep a track of their bank balance, fill out forms to deposit and withdraw money and undertake other financial banking decisions.

The coefficient estimates of learning money management from internet, parents, and teachers, show that with one unit increase in students who learn money management from parents as compare to teachers and internet are have increased probability of 1.183 points to have increased financial literacy. The odds ratio tells us that students who learn money management from parents as compared to school or college are 3.25 times more likely to have increased financial literacy. The students are said to have increased knowledge of financial literacy as they accompany their parents to bank and other financial institutions so that they can gather their financial banking knowledge.

The next explanatory variable which is information on money matters, such as banking, spending, et cetera acquired through three sources, namely internet, parents and teachers. The explanatory shows a negatively significant relation with dependent variable of students who acquire information through their parents on money matters such as spending, investing etc. with one unit increase in students who acquire information through parents have 2.46 points decreased probability to have increased financial literacy. The odds ratio represent that by acquiring information through parents, students are 11.70 times less likely to have increased financial literacy.

The coefficient estimates of the explanatory variable finance handling through three instruments, combined, namely, debit card, and mobile. It is observed from the analysis that with one unit increase in students who use all these three instruments combined have an increased probability of having increased financial literacy by 1.791 points. The explanatory variable show positive and significant relation with the dependent variable. The odd ratio depicts that students who use three instruments combined are 5.98 times more likely to have increased financial literacy as compared to students who use either one instrument or two instruments combined.

5. Conclusion

It can be seen from the above analysis that any one indicator or explanation variable cannot bring about a change in financial literacy, levels of undergraduate students. A mix of socio economic demographic variables have an effect on increasing the financial literacy level of students. The results of multinomial logistic regression reveals that higher the age higher the financial literacy level of the students. It was further revealed that the students who have attained graduation level of education are better often in making financial decisions like going to the bank, filling out withdrawal and deposit slip, checking out bank balances.

In addition to the above indicators, some of the other indicators which have proof to be positively significant were family type and location. It was seen that undergraduate students who are enrolled in universities abroad are more financial literate has compared to the student studying in Indian universities. The reason for this can be accredited to the fact that students in abroad are independent and do not rely on their parents for any banking activity. They visit the bank themselves and make withdrawals, deposit money, check balances and maintain account statement themselves. It

was further revealed that money management regarding various financial concepts can be learnt through three sources, which are internet, parents and school/college. The results found out that students who learn money management from their parents are more financial literate as compare to the students who learn money management from other sources. A positive and direct relation between learning money, management and financial literacy was established through logistic regression analysis. another significant indicator which came out from analysis is the use of financial services. Undergraduate students who use debit card, bank, and mobile collectively for managing their finances, seem to have more financial knowledge and increased financial literacy.

References

[1] Ansar, S., Klapper, L., & Singer, D. (2023). The importance of financial education for the effective use of formal financial services. *Journal of Financial Literacy and Wellbeing*, *1*(1), 28-46.
[2] Beal, D., & Delpachitra, S. (2003). Financial literacy among Australian university students. *Economic Papers: A journal of applied economics and policy*, *22*(1), 65-78.
[3] Borodich, S., Deplazes, S., Kardash, N., & Kovzik, A. (2010). Comparative analysis of the levels of financial literacy among students in the US, Belarus, and Japan. *Journal of Economics & Economic Education Research*, *11*(3).
[4] Bönte, W., & Filipiak, U. (2012). Financial literacy, information flows, and caste affiliation: Empirical evidence from India. *Journal of Banking & Finance*, *36*(12), 3399-3414.
[5] Bucher-Koenen, T., & Lusardi, A. (2011). Financial literacy and retirement planning in Germany. *Journal of Pension Economics & Finance*, *10*(4), 565-584.
[6] Chen, H., & Volpe, R. P. (1998). An analysis of personal financial literacy among college students. *Financial services review*, *7*(2), 107-128.
[7] Chen, H., & Volpe, R. P. (2002). Gender differences in personal financial literacy among college students. *Financial services review*, *11*(3), 289-307.
[8] Cole, S., Paulson, A., & Shastry, G. K. (2014). Smart money? The effect of education on financial outcomes. *The Review of Financial Studies*, *27*(7), 2022-2051.
[9] Crossan, D., Feslier, D., & Hurnard, R. (2011). Financial literacy and retirement planning in New Zealand. *Journal of Pension Economics & Finance*, *10*(4), 619-635.
[10] Fornero, E., & Monticone, C. (2011). Financial literacy and pension plan participation in Italy. *Journal of Pension Economics & Finance*, *10*(4), 547-564.
[11] Kaur, A., Mittal, N., & Agarwal, S. (2013). Financial Literacy of New Job Entrants.
[12] Klapper, L. F., & Panos, G. A. (2011). Financial literacy and retirement planning in view of a growing youth demographic: The Russian case.
[13] Lusardi, A., & Mitchell, O. S. (2011). *The outlook for financial literacy* (No. w17077). National Bureau of Economic Research.
[14] OECD, P. (2017). Results (Volume IV): Students' Financial Literacy. *París, PISA, OECD Publishing*.
[15] Sekita, S. (2011). Financial literacy and retirement planning in Japan. *Journal of Pension Economics & Finance*, *10*(4), 637-656.
[16] Xu, L., & Zia, B. (2012). Financial literacy around the world: an overview of the evidence with practical suggestions for the way forward. *World Bank Policy Research Working Paper*, (6107).
[17] Thomas, B., & Subhashree, P. (2020). Factors that influence the financial literacy among engineering students. *Procedia Computer Science*, *172*, 480-487.