



INTERNATIONAL JOURNAL OF ADVANCE RESEARCH, IDEAS AND INNOVATIONS IN TECHNOLOGY

ISSN: 2454-132X

Impact Factor: 6.078

(Volume 9, Issue 2 - V9I2-1179)

Available online at: <https://www.ijariit.com>

Study on financial literacy and its effects on investment decisions using the Likert scale

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ABSTRACT

Many people seek to educate themselves financially with the goal of saving money and taking advantage of financial products such as easy access to credit, profits gained in favorable circumstances, planning for retirement, and the ease of organizing property or land purchases, among other things. This goal is usually not met or only partly met due to a lack of financial literacy. As a result, we decided to conduct a study into how financially literate the Indian people are and whether financial literacy has anything to do with a person's financial decisions. The purpose of the study was to determine how financial education, financial behavior, financial attitude, and financial awareness affect investment decisions among the residents of Mumbai, India. This study was carried out through sampling, and structured questionnaires were used to acquire primary information.

Keywords: Financial Literacy, Financial Awareness, Investment Decisions, Inflation, Interest Rates, Stock Market, Banks, Credit Decisions Reserve Bank of India, GDP, Mutual Funds, Fixed Deposits, Chi-Square, Hypothesis, Likert Scale

1. INTRODUCTION

In recent years, there has been a rise in public concern over consumers' financial acumen, and governments and employers around the world have played a smaller role in safeguarding people's financial futures, particularly in emerging nations. This shift in social support networks comes at a time when people are living longer, healthcare costs are growing, and financial products are becoming more sophisticated. Many people lack a bank account and are unacquainted with basic financial terms and tools. Even individuals who are educated have large credit card balances, even when cheaper means of borrowing are available, they do not save wisely and do not plan for retirement, arriving with little or no savings. One of the key justifications for this behavior is a lack of financial literacy among consumers, who lack sufficient awareness about financial concepts and instruments to make informed financial decisions. (Agarwal &

Amromin, 2015).

Financial literacy is described as "possessing the skills and knowledge on financial affairs to confidently take effective action that best fulfils an individual's personal, family, and global community goals" by the National Financial Educators (Council, 2018).

An individual is considered financially literate when they have a thorough comprehension of ideas like inflation, risk diversification, and interest rates, according to earlier academics (Normawati, Rahayu, & Worokinasih, 2021). How someone acts with regard to their finances is influenced by their financial mindset. Additionally, it has an impact on their financial understanding because their attitude will determine how they interpret the data put in front of them (Panga, Malpani, & Malpani, 2018).

It is believed that a huge portion of India's population lacks the essential financial abilities required to make basic financial decisions. Only approximately 5% of Indian villages have a commercial bank branch, according to estimates. Similarly, over 40% of the adult population lacks a bank account, a figure that rises to over 60% in rural areas. In several areas, such as retirement planning, borrowing decisions, and stock market involvement, a lack of financial knowledge is linked to poor financial outcomes. As a result, developing a more nuanced grasp of the world of finance has become critical for individuals seeking to protect their financial future. Financial literacy studies from around the world, on the other hand, raises severe worries about people's ability to protect their financial well-being. (Sobesh Kumar Agarwalla, 2014).

The majority of Indian financial literacy studies show that the nation has low levels of financial literacy. Out of the 28 nations considered in the survey, India came in at number 23 (VISA, 2012). Many people in India are said to lack the fundamental financial skills needed to make simple financial decisions. A lack of financial literacy is associated with unfavorable financial results in a number of areas, including retirement planning, borrowing choices, and stock market participation. (Sobesh Kumar Agarwalla, 2014)

Financial Literacy and Counselling Centers (FLCC) has been formed to give customers the resources they need to make better credit decisions as a result of the Indian government's recent efforts to increase financial literacy, especially those of the Reserve Bank of India. (2015, Agarwal and Amromin)

Financial literacy and the need to make investment decisions have a negative link, according to study by (Kristanto, 2020) on how it affects investments and other financial decisions. This study uses stock market participation and pension plans as examples of financial literacy. On the other hand, Tabiani & Mahdzan (2013) looked into how financial literacy affected saving in Malaysia. Their findings showed a strong positive association between financial knowledge and the choice to save. We can therefore draw the conclusion that there is no consistent relationship between financial knowledge and investing choices. While some studies have found a negative impact (Kristanto, 2020), others have found a positive impact (Tabiani & Mahdzan, 2013), and there is also evidence of no correlation as well (Atakora, 2015). To prove the nature of this effect, of this relationship, more research is required. Which in turn identifies a gap for further research. (Tabiani & Mahdzan, 2013, Atakora, 2015, Kristanto, 2020)

Through this paper seeks to investigate the level of financial literacy and its effect on investment decisions made by the people of Mumbai, India. The study is highly relevant to India as it is a rapidly urbanizing nation, with more than 65% of its population below the age of 35. Moreover, India being the second most populous and the third largest country in terms of GDP in PPP terms in the world, the study is of relevance in the larger global context.

II. RESEARCH QUESTION

Does financial literacy affect investment decisions?

Problem Definition

In India, economic growth is highly staggered as people are not as financially literate as in developed countries leaving the countries' potential untapped. Even though several studies have been conducted all over the world on the factors affecting financial literacy, they have been concentrated on developed countries making it ambiguous whether they are applicable to a rapidly developing country like India. Among the research present also different researchers have formed opposing correlations with the factors affecting financial literacy, making the research inconclusive. Through this paper, we are trying to test the relationship between various factors, and their

influence on financial literacy while also ascertaining the relationship between Investment Decision Making and Financial Literacy in India.

Research objectives

To determine the effect of financial literacy on investment decisions.

To determine the impact of taking a financial course has on investment decisions.

To explore and investigate the sources of information used by the target population while making investment decisions.

Research Hypothesis

The following hypothesis was made and tested:

H1: Investing in the Stock Market is not significantly correlated to Financial Knowledge.

H2: Investing in Mutual Funds is not significantly correlated to Financial Knowledge.

H3: Investing in Fixed Deposits is not significantly correlated to Financial Knowledge.

Data Source

Primary Data Sources

In order to gather data from the source, a google form was circulated to the undergraduate students at NMIMS Mumbai Campus. This form included questionnaire that was meant to know the effect of financial literacy on investment decisions.

The questionnaire was designed in a way where we got information on the financial literacy level of a different individual and its effect on individual financial instrument choices like stocks, mutual funds, and fixed deposits, and we also got to know what sources they rely on to make their investment decision and how they make their investment decisions.

The google form contained the questions like Have you ever made an investment in the stock market or mutual funds, they were given different situations and on basis of the choices they had to rate them from 1 to 5 to the situation, through this we got to know their reaction to situations.

In order to test our hypotheses, we used the help of Real Statistics Add-In for excel. And we have used the Chi-Square test for the research paper.

Secondary Data Sources

Data here has been collected from several sources. Several published research papers, articles, and journals were consulted and referred to in order to gather useful data and evidence. Like A Review. Journal of Social Welfare and Management, 7, Financial Literacy and Financial Planning: Evidence from India. Retrieved from Research Gate, Research Methodology. Methods and Techniques. New Age International Publishers. New Delhi. India. And many more as mentioned in the references.

III. RESEARCH METHODOLOGY

Research Design

A structured questionnaire was circulated online on Google Forms to collect primary data from approximately 130 people above the age of 18 from Mumbai, India for all three objectives.

The questionnaire has questions based on the **Likert scale**. In its final form, the Likert scale is a five (or seven) point scale that is used to allow an individual to express how much they agree or disagree with a particular statement.

The Likert scale (typically) provides five possible answers to a statement or question that allows respondents to indicate their positive-to-negative strength of agreement or strength of feeling regarding the question or statement.

The respondents then responded to these questions by the means of a Likert Scale, where they chose 1 out of 4 or 5 options based on how true the statement was for them ranging from 1, i.e., Strongly Disagree to 5, i.e., Strongly Agree.

The first two objectives, that is “To examine the influence of financial knowledge financial behavior, and financial awareness on the investment decisions made by the people in Mumbai, India” and “To determine what impact taking financial course has on investment decisions” – A descriptive research design was carried out to perform multiple crosses – sectional study to analyze the quantitative data

For the third objective, ‘To explore and investigate the sources of information used by the target population while making investing decisions’- An exploratory research design was prepared based on the primary data of the structured questionnaire to analyze the

qualitative data.

Operational Definition of Research Variables:

Table 1: Operational definition of research variable

Variable	Measure	Attributes	Scale
Y	InvestmentDecisions	Awareness of various investment opportunities and decisions made	Simple Category Dichotomous Scale
X1	Financial Knowledge	Basic financial concepts such as inflation, time value of money, simple interest, diversification of risk	5-point Interval Likert Scale
X3	Financial Attitude	Judgement of a person regarding the management of their finances	5-point Interval Likert Scale

IV. DATA ANALYSIS

1. According to the responses we have found out how many respondents had knowledge about finance by the question, have they done any prior course in finance. The interpretation is as follows-

Course in Finance-			
taken up any courses related to finance?			
Row Labels			%
No		45	34%
Yes		87	66%
Grand Total		132	
Interpretation- So, out of our respondents we see that 66% have some knowledge about finance and have done a course on the same.			

2. Next, we asked if they had invested in 3 different places- Stock Market, Mutual Funds, and Fixed Account. The interpretation is as follows-

Row Labels	Saved money in a bank FD account?	Invested in stock market?	Invested in mutual funds?	%
No		49	49	37%
Yes		83	83	63%
Grand Total	132	132	132	
Interpretation- So, out of our respondents 63% people have actually invested in either mutual funds, stocks or FD.				

3. Next, according to their course in finance, we checked if they have any knowledge in this field. We asked our respondents a few technical questions and related them with if they have done any course or not. The interpretation is as follows-

Knowledge about finance-

Sum of If you were offered a sum of RS1,000 today or a year from today. You would rather choose to receive it today.

Row Labels	Financial Knowledge		Grand Total
	No	Yes	
1		6	7
2		10	8
3		18	27
4		12	68
5		125	250
Grand Total		171	360

Interpretation- So, here we see maximum people who have some prior knowledge about finance and have done a course on the same have chosen the correct or the most ideal situation here that is "5".

Sum of If you were to receive RS1,000 from a year from now, you would be able to buy more things than you would today.

Row Labels	Financial Knowledge		Grand Total
	No	Yes	
1		18	25
2		8	34
3		30	42
4		32	48
5		25	95
Grand Total		113	244

Interpretation- Again, people who have Knowledge about finance have chosen the correct or the most ideal answer here that is "5".

Count of If you were to save RS1,000 in a savings account today at the rate 5% (Simple Interest). The accumulated interest for this for 3 years would be RS150.

Row Labels	Financial Knowledge		Grand Total
	No	Yes	
Don't Know		13	12
FALSE		22	48
TRUE		10	27
Grand Total		45	87

Interpretation- Here the scenario is slightly different and most people have chosen "FALSE" instead of "TRUE", this shows that they do not have complete knowledge in this field.

4. Next, our question was on the basis that which source of information our respondents find most reliable in correlation with their knowledge of finance. The interpretation is as follows-

Newspaper as the most reliable source

Rank the most reliable source of information for NEWSPAPERS

Row Labels	Financial Knowledge		Grand Total
	No	Yes	
1		17	14
2		14	34

3	36	78	114
4	20	92	112
5	20	35	55
Grand Total	107	253	360

Interpretation- Most people who have knowledge about finance have rated Newspaper between 3-4 and they think it is reliable.

Family/ Relatives as the most reliable source

Rank the most reliable source of information for FAMILY/Relatives

Row Labels	Financial Knowledge		Grand Total
	No	Yes	
1	6	7	13
2	20	30	50
3	51	90	141
4	32	60	92
5	20	100	120
Grand Total	129	287	416

Interpretation- According to the responses, people who have knowledge have given a rating of "5 and 3" to information from relatives.

Friends/ Colleagues as the most reliable source

The most reliable source of information for FRIENDS/COLLEAGUES

Row Labels	Financial Knowledge		Grand Total
	No	Yes	
1	6	4	10
2	20	26	46
3	42	105	147
4	40	52	92
5	25	110	135
Grand Total	133	297	430

Interpretation- Similarly, most people have rated "3" to information from friends

Social Media as the most reliable source

Rank the most reliable source of information for SOCIALMEDIA.

Row Labels	Financial Knowledge		Grand Total
	No	Yes	
1	11	7	18
2	26	32	58
3	45	75	120
4	8	72	80
5	20	105	125
Grand Total	110	291	401

Interpretation- Most people have given a rating of "5" to social media as a reliable source of information

Financial Consultants as the most reliable source

Rank the most reliable source of information for financialconsultants

Row Labels	Financial Knowledge		Grand Total
	No	Yes	

1		7	7	14
2		12	24	36
3		30	93	123
4		28	36	64
5		75	140	215
Grand Total		152	300	452

Interpretation- Maximum people who have a financial background have given a rating of "5" to Financial consultants which is TRUE

5. Lastly, just to conclude which source is most reliable for our respondents, a table analysis was formed. The analysis is as follows-

Most Reliable source of information			
Row Labels	Newspapers	Row Labels	Social Media
5	55	5	125
Grand Total	55	Grand Total	125
Row Labels	Family/Relatives	Row Labels	Financial Consultants/ Experts
5	43	5	215
Grand Total	43	Grand Total	215
Row Labels	Friends/ Colleagues	Row Labels	Accountants/ Mentors
5	135	5	170
Grand Total	135	Grand Total	170

Interpretation- So, from the above data we see that most people find Financial consultants and Experts as the most reliable source of information

V. HYPOTHESIS TESTING

In order to test our hypotheses, we used the help of Real Statistics Add-In for excel.

For the purpose of our tests, we kept the level of significance tested at 5%, whereby if the p – value was less than 0.05, then there was enough evidence to reject the null hypothesis.

The area of Financial Literacy is becoming more and more powerful and broad. With the increased availability of Finance Courses; there has been a rise in Financial Literacy of people. People are more pro-actively attempting to educate themselves related to financials and hence make better decisions regarding investment. To see if this theory was correct, a test was run to see if there was any link between the two variables of taking Financial Courses and making Investment Decisions

H1: Investing in the Stock Market is not significantly associated to Financial Knowledge.

We can see the results of the Chi-Squared Test for our first hypothesis below.

Table 2: Relation between stock market and financial knowledge

Count of Have you ever invested in the stock market?	Column Labels			
Row Labels	No	Yes	(blank)	Grand Total
No	23	22		45
Yes	26	61		87
(blank)				

Grand Total	49	83	132
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Expected Values

16.70454545	28.2955	45
32.29545455	54.7045	87
49	83	132

Chi-Square Test

SUMMARY	Alpha	0.05
Count	Rows	Cols
132	2	2
		df
		1

CHI-SQUARE

	chi-sq	p-value	x-crit	sig	Cramer V	Odds Ratio
Pearson's	2.809703	0.093696	3.841459	no	0.145896	2.452797203
Max likelihood	2.807595	0.093696	3.841459	no	0.145841	2.452797203

Taking a course is one of the variables, and Investment in the Stock Market is taken as the othervariable. Looking at the results of the Chi-Squared Test from TABLE 2, we can say that there is a positive association. As the p-value is below 0.05 we can also conclude that the association issignificant. Therefore, we could conclude that taking a financial course has had a positive impact on investment in the Stock Market.

H2: Investing in Mutual Funds is not significantly associated with Financial Knowledge.

Looking at the Chi-Squared Test results below; we can see this shows a different result for thesame.

Table 3: Relation between mutual funds and financial knowledge

Count of Have you ever invested in mutual funds?	Column Labels			
Row Labels	No	Yes	(blank)	Grand Total
No	20	25		45
Yes	52	35		87
(blank)				
Grand Total	72	60		132

Expected Values

24.54545455	20.45455	45
47.45454545	39.54545	87
72	60	132

Chi-Square Test

SUMMARY		Alpha	0.05
Count	Rows	Cols	df
132	2	2	1

CHI-SQUARE

	chi-sq	p-value	x-crit	sig	Cramer V	Odds Ratio
Pearson's	2.809700	0.093696	3.841459	no	0.145896	0.53846154
Max likelihood	2.07590	0.093819	3.841459	no	0.145841	0.53846154

The results indicate that there is no significant association between financial literacy and investing in mutual funds. This is as the p-value is greater than 0.05; hence indicating that the hypotheses can be accepted. This hence indicates that financial literacy does not have a significant impact on investment in Mutual Funds.

The reason the association significance could be low is that people generally consider mutual funds to be safer and hence do not tend to need too much financial literacy as compared to otherways of investing.

H3: Investing in the Fixed Deposits are not significantly associated to FinancialKnowledge.

We can see below the Chi-Squared Test results below for H3.

Table 4: Relation between fixed deposits and financial knowledge

Count of Have you saved money in a bank FD account?	Column Labels			
Row Labels	No	Yes	(blank)	Grand Total
No	14	31		45
Yes	47	40		87
(blank)				
Grand Total	61	71		132

Expected Values

20.79545455	24.205	45
40.20454545	46.795	87
61	71	132

Chi-Square Test

SUMMARY		Alpha	0.05
Count	Rows	Cols	df
132	2	2	1

CHI-SQUARE

	<i>chi-sq</i>	<i>p-value</i>	<i>x-crit</i>	<i>sig</i>	<i>Cramer V</i>	<i>Odds Ratio</i>
Pearson's	6.263814	0.012323	3.841459	yes	0.217837	0.384351
Max likelihood	6.38996	0.011477	3.841459	yes	0.22002	0.384351

Looking at the results of the Chi-Squared Test, we can say that there is a positive association. As the p-value is below 0.05 we can also conclude that the association is significant. Therefore, we could conclude that taking a financial course has had a positive impact on savings in Fixed Deposit Accounts

VI. CONCLUSION

Financial literacy entails not only being literate but also acting literate. According to reports, over 60% of India's population is financially illiterate, relying on other sources for financial knowledge and making financial decisions on their behalf. As a result, it has become increasingly important in recent years to educate individuals and make them more financially literate by imparting financial knowledge, making them financially conscious, analyzing their financial behavior, and persuading them to adopt a sound financial attitude. According to our findings, people's financial behavior and knowledge had a high correlation with their investment decisions, however, their financial attitude had a poor link with their investment selections. This means that even if we have the best of our knowledge, a person needs more than that to make an investment. Although knowledge is one of the major contributing factors to financial literacy, to survive in the investment market, one must be tactful, aware, and willing to take chances. It was also observed that people invest in the financial market primarily based on advice that is not backed by any fundamentals. This is also why people without financial acumen lose a lot of money in the stock market since they don't undertake their own analysis and research. This is also one of the main consequences of not being financially literate. Financial Literacy is growing in India, thanks to the proliferation of financial courses that educate individuals about the numerous instruments and hazards that exist in the market. Financial Courses were also found to have a substantial positive link with people's investing decisions, demonstrating that these courses are beneficial in making people more financially literate and informed.

Recommendations

Higher education was found to enhance financial literacy, but it did not contribute to attaining an appropriate degree of financial literacy. In order to ensure acceptable levels of financial literacy, it is essential that students take a course on personal finance regardless of the educational program they choose (finance-related or not).

The training should aid in enhancing their financial literacy, increasing their financial awareness, cultivating a positive financial outlook, and assisting them in evaluating their financial behavior. Concepts like time value of money, interest, and principal calculation should be covered throughout the course.

It is recommended that the future researchers conduct similar research in different cities, villages, and towns around India. A deeper study into how different socio-demographic factors affect the levels on financial study should be carried out.

Limitations of the study

The research population only includes people that have access to an internet connection and can comprehend English.

The study population is relatively small, a larger population would lead to more accurate results.

Access to the respondents was not possible after the form was submitted as the form was anonymous.

The research was conducted over a short period of time, hence only covers problems faced at the time.

V. BIBLIOGRAPHY

1. Abhinandan, Asbahi, A. A., & Gamal, E. A. (2019). Analysis of Investment Pattern of Different Class of People: A Review. *Journal of Social Welfare and Management*, 7.
2. Agarwal, S., & Amromin, G. (2015). Financial Literacy and Financial Planning: Evidence from India. Retrieved from Research Gate:
3. https://www.researchgate.net/profile/Itzhak-Ben-David/publication/228292534_Financial_Literacy_and_Financial_Planning_Evidence_from_

4. Atakora, A. (2015). Measuring the Effectiveness of Financial Literacy Programs . International Journal Management Business Research, 135-148.
5. Bhushan, P. (2014). Relationship between Financial Literacy and Investment Behavior of Salaried Individuals. Journal of Business Management and Social Sciences Research.
6. Council. (2018). Retrieved from The National Financial Educators Council: <https://www.financialeducatorsCouncil.org/financial-literacy-definition/>
7. Garg, N., & Singh, S. (2017). Financial literacy among youth. International Journal of Social Economics, 173-186.
8. Kapoor, K. (2016). An Empirical Research on the Investment Behavior of Rural and Urban Investors Towards Various Investment Avenues: A Case Study of Moradabad Region. TMIMT International Journal, 21.
9. Kothari C. R. (2011). Research Methodology. Methods and Techniques. New Age International Publishers. New Delhi. India.
10. Kristanto, R. (2020). The Impact of Financial Literacy on Investment Decisions Between Saving and Credit. Journal of Economics and Business, 1456-1463.
11. Normawati, R. A., Rahayu, S. M., & Worokinasih, S. (2021). Financial Knowledge, Digital Financial Knowledge, Malang: Brawijaya University.
12. OECD. (2018). G20/OECD INFE Policy Guidance. Retrieved from OECD: <https://www.oecd.org/finance/G20-OECD-INFE-Policy-Guidance-Digitalisation-FinancialLiteracy-2018.pdf>
13. Padula, J. &. (2013). Investment in Financial Literacy and Saving Decisions. Journal of Banking & Finance, 2779-2792.
14. Panga, D., Malpani, A., & Malpani, A. (2018, June). A STUDY OF FACTORS AFFECTING INVESTORS' DECISION TOWARDS MAKING INVESTMENTS IN FINANCIAL
15. MARKET. Journal of Management, 5(3), 169-177. Retrieved from <http://www.iaeme.com/JOM/issues.asp?JType=JOM&VType=5&IType=3>
16. Samsuri, A., Ismiyanti, F., & Narsa, I. M. (2019). Effects of Risk Tolerance and Financial Literacy to Investment. International Journal of Innovation, Creativity and Change., 15.
17. Sobesh Kumar Agarwalla, J. J. (2014). Financial Literacy among Working Young in India. Retrieved from Elsevier: <http://dx.doi.org/10.1016/j.worlddev.2014.10.004>
18. Swamy, V. (2014). Financial Inclusion, Gender Dimension and Economic Impact of Poor Households in India. World Development, 1-15
19. Tabiani, S., & Mahdzan, N. (2013). The Impact of Financial Literacy on Individual Saving. Transformations in Business and Economics, 41-55.
20. VISA. (2012). Visa's International Financial Literacy Baromet