

**FINANCIAL LITERACY AND STOCK MARKET PARTICIPATION**

**RESEARCH REPORT**

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# Abstract

This study examines the relation between financial literacy and stock market participation. This current study is based on the survey targeting the people of India who are from different backgrounds and different cultures. The results show that financial literacy significantly improves stock market participation by considering the demographic, socio-economic, and psychological factors. The influence of financial literacy on stock market participation is robust against the measurement of financial literacy, investment in risky assets, and investors’ risk aversion. The results imply that most of the individuals participate in financial markets and lack of financial literacy could be one of the reasons behind people who do not participate in financial markets in India.

# Background

The recent times of COVID 19 pandemic has affected many countries around the globe and the individuals, financially and gave rise to requirement for passive income opportunities. Individuals who have financial literacy started participating in stock markets and the individuals who do not have any financial literacy are left behind. Individuals who do not have financial knowledge lose a lot in stock markets due to competition and lack of financial knowledge. Without proper analysis, participants lose a lot and the experienced take the advantage and gain. This could have an adverse effect and cause financial instability. The current study examines how financial literacy and stock market participation are inter-related. This essay is mainly focused on how different demographic, psychological factors, and different levels of financial literacy effect stock market participation in India.

There are various and wide studies done by experts, in field of financial literacy, stock markets in many developed and developing countries and could not specific or accurate reasons for stock market fluctuations due to level of financial literacy in participants. The current report mainly focuses on the relationship between financial literacy in Indian people and their preference in risky or risk-free opportunities/investments and also focus on how individuals with different backgrounds have financial literacy.

# Research Questions, aims, and objectives

‘How does financial literacy effects stock market participation?’ is the main research question examined in this report. To understand the level financial knowledge in an individual, the following questions have been formulated. These questions help in understanding the level of financial literacy and decision-making ability of an individual.

* An individual has INR 1000 in savings account and the interest rate is 5% per year and interest is payable at end of the year. If the amount is not withdrawn from the account, how much would that person have in his account at the end of the year?
* What would be riskier – buying company stocks or investing in mutual funds?
* What would be the impact on bond prices if the interest rate of the bond is expected to fall?

The first question explains the basic understanding of finance and can be answered by anyone who has basic understanding in finance and the next two questions explain the level of understanding and financial knowledge in an individual.

# Literature review

Different studies have been made and most of the authors considered the topics of risk aversion, borrowing costs, differences between lending and borrowing costs, minimum investment requirements, etc..., but could not find any evidence that these factors affect stock market participation. Various studies in different countries make an effort to explain the reasons for lack of participation in past few years but could not provide accurate outcomes. Although individuals are showing interests in stock market, the participation rate is still low and previous studies provide few reasons behind low participation rates.

Investigations made by some of authors explain that households in U.S do not invest in share market even though risky securities provide higher premiums (Haliassos, Bertaut 1995, p.110-1129). The authors examined the reasons for such low market participation even after higher premiums and examined topics like risk aversions, habits, beliefs, borrowing rates but could not find any empirical results that explains that these factors affect stock market participation. They concluded that household tend to invest in low risky assets and maintain a safe position that do not risk their lifestyle. These reasons explain why households invest less in stocks and other securities. Few studies have been made on choice of securities in a portfolio and entrepreneurial income risk. the authors found out that household people hold less securities, who have variable income sources, than the households who have high incomes and wealth (Heaton, Lucas 2000, p.1163-1198).

Some authors have studied on tax implications and market participation (Poterba et al.1995). They found out that tax considerations have a major impact on the securities owned by wealthy investors. Participation costs and transaction costs also play an important role in market participation. Investors prefer securities with lower transaction costs as the investors cost effective. The level of income also affects the investments in financial securities. Individuals with higher cost of living and lower level of income cannot invest in the financial securities. Hence, the level of income and cost of living effects the amount of investments.

Few studies discuss about the demographic features of investors such as gender, age, level of education, level of income to discuss about the relation between these feature and market participation (Almenberg, Drebe, 2015, p140–142). Level of education helps the individuals in understanding and implementation in stock markets. Studies suggest that wealthy people who are male and educated are more likely invest in stock market. Age of the investors plays an important role as the younger people are more likely to invest in risky assets and securities than the older investors. Retired and aged investors mainly focus on risk free investments as they would not risk their savings. These studies do not provide an accurate outcome on how financial literacy affects market participation. Financial knowledge and level of confidence also effects the stock market participation (Alessie et al. 2021).

Psychology and behavior of the investors also plays an important role in decision making and market participation. If the investors feel and believe the markets are going to perform well, then they are determined to participate, and this also applies vice-versa. Trust also plays an important role in amount of investments. The level of trust on the financial brokers and financial advisors affects the market participation. Investors always have a benefit of doubt on the brokers and other financial advisors and could reduce the market participation (GUISO et al.2008, pp. 2557–2600)

Even though there are many studies on various factors that could affect the market participation, there are limited resources and studies proving that specific reasons affect market participation.

# Hypothesis

Different studies by various experts and authors have provided relationship between various factors on financial literacy, financial markets, and the market participation. In spite of many studies, most of the studies do not explain the accurate reasons for individuals market participation. The current report is mainly focused on the individuals of India who are from different background and do not have any relation between one another. From the current report it is expected to find out the level of financial literacy among different individuals and how different factors affect their level of market participation. Due to increase in opportunities to earn passive incomes, the financial literacy among the individuals has increased in recent times especially in India. Different factors like age, marital status, education level, income level of the individual effects the level of market participation. It is expected that in spite of various factors affecting the market participation, individual in recent times are more interested to increase their financial knowledge and participate in different financial markets.

The survey is based on independent individuals and one’s opinions do not affect the opinions of others. It is expected to understand the relation between different financial concepts like various financial securities, inflation, peer investing overall explaining financial literacy and participation in markets.

# Research method and data analysis.

The current research is mainly focused on the people of India, their level of financial literacy and market participation. There are various cultural and demographic differences in India and the results could vary. By considering the studies and research made by various experts and authors, the current research data is collected by a survey which focuses on the individuals in India. The current report is based on the survey results from 132 individuals. The individual in the population belongs to different age groups, different income levels, The research questions are mainly targeted on both financial and non-financial individuals. The research questions formulated explains the percentage of people who have financial literacy and the level of financial literacy in the individual with finance education. The survey has the basic demographic questions and financial questions. The following are the questions in the survey.

* Age
* Gender
* Marital status
* If married, number of children
* Education level
* Income level
* An individual has INR 1000 in savings account and the interest rate is 5% per year and interest is payable at end of the year. If the amount is not withdrawn from the account, how much would that person have in his account at the end of the year?
* What would be riskier – buying company stocks or investing in mutual funds?
* What would be the impact on bond prices if the interest rate of the bond is expected to fall?
* Would you invest if your friends or peers invest in stock markets?
* Would you invest in stocks or real estate or bullion?
* Does inflation affect you to invest?

The above research questions have been formulated and surveyed in such a way that all the individuals in the survey could answer the questions. In the above research questions, few questions can be correctly answered by the individuals who have financial knowledge. These specific questions provide the level of financial knowledge and the participation in financial markets.

Based on the above survey questions and the results from 132 individuals the following results have been discussed.

Chart, pie chart

Description automatically generated

Figure 1

The first question is regarding the age of the individual. From the above Figure 1, it can be observed that around 47.7% of the total survey population are aged between 26 to 35 years. Followed by 28.8% of the total survey population aged between 15 to 25 years.

Chart, pie chart

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Figure 2

Figure 2 explains about the gender of the individuals, and it can be observed that 73.5% of the individuals are male and 25.8% are Females.

Chart, pie chart

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Figure 3

The figure 3 explains about the marital status of the individuals. From the survey, it is observed that 55.3% of the individuals are Single and 40.2% are married.

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Figure 4

Figure 4 explains about the individual with children. The number of children also affects the participation of the individuals in the stock markets. From the figure 4 it can be observed that there are 56.1% of the individual without children followed by 19.7% of individuals with two children.

Chart, pie chart

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Figure 5

Figure 5 explains the education level of the individuals. Around 60.6% individuals pursued post-graduation and 33.3% have completed under-graduation. The education level directly affects the market participation. It is observed that the individuals with higher education levels have greater financial knowledge and participate in stock markets.

The next survey question explains the income level of the individuals.

Chart, pie chart

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Figure 6

Figure 6 explains the income level of the individuals in the survey. It can be observed that approximately 33.3% individuals have an income ranging from INR 5 lakhs to INR 10 lakhs. Followed by 32.6% individuals have income ranging between INR 10 lakhs and INR 15 lakhs. The income level of an individual explain about the amount of investments in markets. It is observed that individuals with higher income participate more in stock markets.

The following survey questions explain the level of financial knowledge in the individuals.

An individual has INR 1000 in savings account and the interest rate is 5% per year and interest is payable at end of the year. If the amount is not withdrawn from the account, how much would that person have in his account at the end of the year?

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Figure 7

The question in the above figure 7 can be answered by any individual with basic financial knowledge. It can be observed that approximately 83.3% individuals opted for the correct answer and based on this, it can be understood that 83.3% individuals have basic financial knowledge.

The following question tends towards technical side in finance and the following questions can be answered by the individuals who have deeper understanding and financial knowledge.

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Figure 8

The question in the above figure 8 can be answered by the individual who has knowledge in stocks, and mutual funds. It can be observed that approximately 72.7% individuals opted company stocks and 8.3% individuals do not know the correct answer.

The next question deals with bonds prices and interest rates.

Chart, pie chart

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Figure 9

The above question in figure 9 explains about the impact on bond prices when the interest rate of the bond is expected to fall. This question can be answered by the individual with greater understanding in finance and financial markets. It can be observed that approximately 45.5% individuals have opted for the correct answer and approximately 25% individuals do not have knowledge about the impact.

The following question explains the psychology of the individual.

Chart, pie chart

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Figure 10

The above figure 10 explains the psychology of the individuals. It can be observed that approximately 43.9% individuals opted for the option ‘may be’ and approximately 40.9% individuals opted for yes. It can be observed that more people invest when their friends or peers invest in the markets. It can also be observed that individuals with financial knowledge are more interested in investments in financial markets.

Chart, pie chart

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Figure 11

The above figure 11 explains about investment options in the markets. Approximately 48.5% individuals would like to invest in stocks and 22.7% individuals would invest in real estate and followed by 15.9% individuals invest in bullion. The balance 12.9% individual do not invest in any of the options. It can be observed that most of the individuals are interested to invest in risky options and are risk takers.

The final question discusses about Inflation. This question can be answered only by the individual who has financial knowledge and who participates in financial markets.

Chart, pie chart

Description automatically generated

Figure 12

From the above figure 12, it can be observed that approximately 67.4% individual understand the concept of inflation and agree that inflation affects their investments.

From figure 7 to figure 9, the percentage of individuals who do not know the question has gradually increased. This shows the level of financial knowledge in the individuals. As the questions get deeper into financial concepts, the level of financial literacy is reduced.

From figure 11, it can be observed that approximately 87% individuals invest in either stocks, real estate, or bullion. Only approximately 13% individuals do not invest in any. The reason could lack of basic understanding and deeper knowledge of securities and financial markets. Even though the financial knowledge and deeper financial understandings are decreasing, as observed in figures 7 to 9, approximately 87% individuals participate in markets.

From figure 5 and 6, it can be observed that the education level and income level effects the level financial literacy and market participation. If the income of the individual is high, there are more chances of investing in financial markets. The marital status and number of children and level of income explain the level of savings by the individual and the amount available for investment opportunities. The individuals who are single and who do not have any children tend to invest more financial markets. Individuals who are married and have children are less likely to invest in financial markets due to their responsibilities towards family. They are less likely to take risks and if they invest, they are less likely to invest in risky financial securities.

In figure 12, approximately 81% individuals have understanding of the concepts of inflation and how inflation effects the standard of living. Most of the individuals agree that inflation effects their investment opportunities and only approximately 19% individuals do not know have understanding of inflation.

# Conclusion and implications

Identifying the accurate reasons for lack of financial market participation is still a struggle in India and based on many studies by various experts the current report is formulated. Based on the survey results and data analysis, it can be understood that the level of financial literacy have been gradually increasing considering the recent times of Covid 19 pandemic. The results show that the financial literacy significantly improves stock market participation by considering the demographic, socio-economic, and psychological factors like age, marital status of the individual, number of children, education level and income level directly affect the level of financial literacy which ultimately affect the participation level in various markets. Most of the individuals who participated in the current survey have basic understanding of financial concepts, time, and money management skills. As the survey questions get deeper into financial concepts, most of the individuals opted correct answers and are aware of financial concepts. In earlier times, investing in stock markets is considered to be risky and most of the individuals used to avoid investing. But in recent times, it can be observed that people are hugely interested in earning by taking risks and increase their knowledge in finance especially in India. This can increase the standard of living of the individuals and Indian economy. The influence of financial literacy on stock market participation is robust against the measurement of financial literacy, investment in risky assets, and investors’ risk aversion. In spite of increasing financial literacy, there are certain group of individuals who do not participate in financial markets and the reasons could not be accurately figured out. There could be many reasons for non-participation like family responsibilities, psychological beliefs, traditional and religious beliefs. It is observed that most of the individuals participate in financial markets and lack of financial literacy could be one of the reasons behind the people who do not participate in financial markets in India.

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