Financial Literacy and Investment Behaviour: A Study on the Working Age Population of India

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Abstract: Financial literacy means the knowledge and the efficient skills required for a person to make effectual and well-informed decisions regarding his personal finance. With the increasing number of new age financial products people sometimes it becomes difficult for a layman to assess and effectively understand the risks and returns associated with different types of instruments. Therefore, it is necessary for an individual to choose a well suited financial products by assessing its pros and cons. The paper seeks to assess and show the level of financial literacy and knowledge among the working age population of Delhi. This study also aims to find out whether there is a significant relationship between financial literacy and individual’s behavior towards investment in various products.

Keywords: Financial Literacy, Financial Products, Awareness, Investment Behavior, Stock Market Participation.

1. Introduction

The importance of Financial knowledge and literacy lies in the sense that it helps an individual to have basic knowledge of financial terms both basic and sophisticated and thus apply this knowledge in making effective and informed decisions about the personal finance. A well-informed investment decision ensures good returns in the future. Studies have recorded that individuals with remarkably lower levels of financial literacy face problems in financial planning for self and family, i.e., issues such as savings, borrowings & lending, inflation, time to money value, interest rate etc. which are essential for choosing well suited financial products. Overtime the Indian financial system has changed considerably as it has become more organized and complex. Indian financial system now possess complex and sophisticated financial products and it can sometimes prove to be a hindrance for a common man in assessing the risk linked with these new aged financial products. It shows that individuals and households and can make well informed decisions ensuring their long term wellbeing through higher and steady returns.

Behavior of an individual towards investment is usually the skills required to make right decisions while choosing a financial product or a mix of financial products. It has been observed from studies that investment always plays an important role in one’s life no matter of their sex, age, religion etc. since human differs in actions, same goes for the perception about investing their money. Different people have different wants and have different motives for their investments. People today can make a lot of choices of where to invest and how much to invest depending upon the different financial products today available in in the Indian and international financial markets.

So, now the questions arise as to what is the significance of the concept of financial literacy in India? In India or for that matter mostly people invest in plans that are short term in nature or buy assets in order fulfill their goals. However, these investments ends up giving them meager returns and therefore less benefits. In India according to a global survey, about 76% of the total population does not have basic financial knowledge i.e. non understanding of basic financial concepts. It has been observed that the overall financial literacy score is much less than the rest of the world and this trend is more or less consistent. However this can hamper the growth rate of an emerging country like India if people do not channelize their savings adequately.
Financial literacy as a concept has emerged as one of the topmost priorities of almost all the nations. This is because a knowledge of channelizing their income and turning these savings into high return incomes in turn ensure financial stability and economics growth of the entire country. In countries like America it is mandatory to have financial education since the year 1957. Countries like Australia and Singapore ensure financial education among the masses through their constant campaigns as the school and the college level. Also Indonesia is one of the among few countries in Asia with this type of initiatives.

So the question arises whether the working population possess adequate financial literacy? As given by Lusaardi and Mitchell (2006,2007a) there is lack of knowledge of finance among individuals and thus doesn’t have knowledge on basic concepts of economics finance. Similar is the view of studies conducted by National Council of Economics Education and Hilgert , Beverly in 2005 and 2003 respectively. According to Mitchell(2007b) and Campbell(2006) the households that do not save enough for retirement usually accumulate excessive debt. The studies also shows that people who do not possess basic financial literacy are not likely to plan out their retirement and ends up taking high interest loans. Berheim(1995),found and observed a household with significantly lower levels of literacy of finance meaning not able to perform basic calculations , their saving behavior is usually dominated by crude rules. Another study of the same type was conducted by Nga (2010) which suggested that demographic indicators highly influence financial knowledge and awareness of young population. Also they observed that male sample had a high level of financial knowledge than women sample.

This paper tries to asses the level of knowledge and literacy related to finance among the working population of Delhi lying in the age bracket of 18-65. Also this paper aims to find out a relationship between literacy and individuals investment behavior. To get answer to both of these questions will be found with the help of a list of questions including question regarding financial behavior, financial attitude, financial knowledge , financial skills and the investment of an individual in various products.

1.1 Objectives
a) To Assess the level overall financial literacy among the working population of Delhi.
b) To study how the level of financial literacy affects the investment behavior of the working population of Delhi.

2. Literature Review

As proposed by Mitchell and lusardi in 2006 in their paper where they used questions regarding basic concepts of finance and economics such as compound interest rates, price inflation concepts and risk behavior. The results of their study they got showed a remarkably lower level of financial knowledge among females and a age bracket of 50 and plus. Another result that was found was that people in these groups were having an access to basic products such as bank accounts, ,debit and credit cards. The target population for there paper was people with an age bracket of 50 and older with most of the people in these groups having access to basic financial products such as savings accounts, credit and debit cards etc. Hilgert and Hogarth (2002) also found out same results with a sample consisting of people from all age brackets. Similarly the national council of education & economics used a sample of students from high school to test the financial literacy which also showed widespread financial illiteracy. A study conducted on the data collected from USA showed that there was prevalent widespread illiteracy among people in certain specific groups. The study was done by Agnew, Madell and Szykman(2005).
However these results were not only prevalent in the US but similar results of the widespread illiteracy were found in other countries that were developed like some Euro countries, Australian continent and Japan, in a study conducted by OECD (2005). A similar finding were seen in the work of Jappelli, Padula and Christelis (2007) where they used a sample from Europe and find out that financial literacy was quite low. One of the reasons for low level of financial literacy is lack of a financial curriculum at the school level suggested by the study done by Beal an Delpachitra (2003) who conducted their research based on sample taken from USQ.

A research by Bernhriem(1995) shows that there is a significant affect of financial literacy on the financial decision making behavior of the households which ultimately affects their long term wellbeing. It was found crude rules dominated the households behavior which had lower levels of financial literacy. It was indicated in the studies of Berheim, Garrett and Amki (2001)(2003) that individuals who were exposed to the financial concepts at the school levels were likely to save more. If the individual s are not exposed to the basic concepts of finance and economics tends to not plan their retirement and therefore ends up accumulating less wealth as indicated by Lusardi and Mitchell(2006). A similar results was found out by the study of Stango an Zimman (2007) who indicated that people who were not able perform basic calculations about the interest rate payments borrowed at a high interest rates and therefore accumulate less wealth.

According to Agarwal, Gabaix and Laibson (2007) , the level of financial education is considerably lower among certain groups of the society such as young population and elderly population.

According to ANZ study (2003), Australian population was quite financially literate however there were certain groups who were exposed to certain challenges. People with lower levels of education, workers that were unskilled and people with lower levels of income and savings constituted these groups. A study undertaken by Al-Tamini (2009) indicated that individual retail investors were not able to perform simple calculations and found out that the degree of financial education of UAE investors was quite low as compared to what is needed. The result of their study was a prevalent or a significant relationship between the financial literacy and an investment behaviour of an individual.

Another study of the same type was conducted by Nga (2010) which suggested that demographic indicators highly influence financial knowledge and awareness of young population. An important result was that male respondents depicted higher financial knowledge. One more finding was that who took a course in finance and economics in high school level showed a higher level of literacy based on a sample collected from Malaysia. According to study conducted in India by Bushan an Medury(2013) the level of financial knowledge of working population in organized sector depends heavily on gender, income, education, and employment type.

Studies in the past showed a significant relationship between indicators such as income, marital status, age etc, and their knowledge of financial literacy. Also many of studies to test the link between the level of financial literacy and the investment behavior of individual retail investors. A result given by a study of Geeta an Ramesh in 2011) was that people were not at all knowledgeable about the different investment alternatives accessible to them. Samuddra and Bughate (2012) in their study found out that among the households under middle class category in Nagpur region people were inclined towards bank deposits and insurance among all financial products available to them. Also, third preference was post office savings and ppf schemes among these people. Another study was conducted by Chaturvedi and Kahre (2012) to know the investment behavior of Indian investors and there investment patterns in different available instruments. They found that factors such as nature of occupation, age of individual etc. of the individual highly affects their behavior towards investment. It has been recorded and observed that individual’s awareness and trust is highest towards the traditional financial products than products such as mutual funds, equity and preference. Another study from Sood and Medury found that the investment behavior is independent of demographic factors such as occupation, education, age, income and marital status. The study was based on the working population of Delhi, Noida and Gurgaon.
Behavior of an individual towards investment is usually the skills required to make right decisions while choosing a financial product or a mix of financial products. It has been observed from studies that investment always plays an important role in one’s lie no matter of their sex, age, region etc. since human differs in actions, same goes for the perception about investing their money. Different set of people have different wants and have different motives for their investments. People today can make a lot of choices of where to invest and how much to invest depending upon the different finance products today available in in the Indian and international financial markets. There is availability of various avenues where people having different income backgrounds can choose to invest in based upon there needs. According to Chakarboraty and Digi, 2011 the habits or different actions of an individual towards investing in various products depends upon the life cycle of these products. The significant reason behind the constant growth of an individual’s income and thereby their increasing contribution to the increase in the country’s GDP leads to increase in the saving and thereby attractive investing avenues for individuals and households as proposed by Chaturvedi and Kahr (2012). They also suggested that the decision to invest in products like stocks, bond, gold etc. heavily depends on one’s demographics such as age, level of education, level of income etc.

It has been constantly observed by the existing studies that individuals and households likes to invest in known and traditional investment avenues, also it has been found that individuals and households possess a much higher awareness of the known and traditional investment avenues rather than new and complex financial products available in the market such as mutual funds, corporate securities, equity and preference shares. A study conducted by Bhusan and medur (2013) gave a proposition that the factors that highly affect an individual’s preference and awareness about financial products are occupation, level of income, and level of education. They found in their study that in HP in an university most of the employess invested in almost all the open investment avenues to them, however a shocking result was that most of them preferred a safer option to invest in rather than taking a risk for higher return in the products like insurance, FD etc. Thulaspriya (2014) conducted a study and identifies various factor accounting or the level of investment. She identifies expenditure that has been don monthly, income received monthly, employment status and saving behaviour. All these factors are a higher contributor to the level of investment done by an individual or a household. Another insight that can be taken from her study was the biragation of investment level by involvement in investment by gender. It was found that a larger proportion of investment is usually being done male population rather than female population. It has also been observed from existing and ongoing literatures than the level of investment becomes significantly higher when there are more number of members who are earning. Bhusan (2014), in a study conducted found out that people in the higher age brackets proves to be the ones who like to take less or no risk. He found that people in their higher gar brackets tend to invest less in finan products like shares and are willing to investment in avenues like post office savings, insurance, bank deposits, FD’s etc. that are said to be a safe avenue. Bashir and Nasir (2013) gave a distinction between short term decision making and long term decision making depending upon the factors such as finance literac, information regarding accounts, and the return that is usually expected. People who have a high level of literact, financial knowledge and are ready to take risks are better able to apply these skills and make higher return worth short term investment decisions. These decisions ultimately proves to be a greater source of higher returns in a short time span than the products such as traditional products such as FD’s etc. Bashir and Nasir (2013) also suggested that people with a higher level of experience regarding financial investment are better able to make right choices for short term investment decision.

In another study conducted by Bhushan and Medury (2013) on the relationship between the gender and the investment behavior on a sample of Himachal Pradesh, India. A study conducted in Gujrat ad Sialkot in Pakistan by Bashir et al (2013) found that female participants were more risk averse as compared to the male counterparts. Another finding from the study was that people in young age brackets were more risk taking and wanted to invest in risky financial products with higher returns. Medury and Bhushan conducted their research in Himachal Pardesh with a target sample of people from universities. They suggested that employees in university were investing in all the financial products available to them both traditional and risky. However, people find the traditional investment options to be safer and the inclination towards them is quite high. Also,
there are significant gender inequalities where women find it more safer to invest in financial alternatives such as health insurance and FD. Sahu and Sarkar (2018) in their study suggested that behaviour towards investment can prove to way more productive if the individuals take out some time to improve their finance literc skills.

One of the gaps in existing studies is the stock market puzzle i.e why households shy away from investing in stocks. According to Haliassos and Bertaut 1995 suggested that income constraints, lack of awareness and utility maximization were some of the constraints for the household not investing in the stocks. Another result was that there are less avenues for young people to borrow and as a result they are not able to invest in stocks. Another reason for household not holding stocks is prevalence of different cultures an trust as proposed by Guiso, Apienza and Zingales(2005). Another reasons include the affect and impact of family, friends and neighbors (Hong Kubi (2004)). Other authors such as Shumway (2006) found that lack of financial literacy and awareness leads to lower level of stock holdings among the households. Van Rooij (2011) proposed from their study that a higher level of finance literacy ensures a significant increase in accumulation of wealth regardless of the factors like age, level of income, level of education, risk taking behavior and the level of patience. This has also proved to be the case where people possessing high level of knowledge are able to invest in stocks and start plan for long term very early in life thereby ensuring a steady level of return. It has been proved in the study of Wang & Laio 2013, that lack of finance Literacy can prove to be a major hindrance in the process of investing in stocks and shares. Another study conducted by Grohman, Kouwen and Menkoff (2015) proposed that individuals and households with a higher level of literacy were better able to keep a track on credit card bills and at the same time demanded more sensible financial products. it has also been observed that schools and family and has a greater role to play in building the literacy o the adults and students. According ti Abdeldayem (2016) induvial investors who posses a high level of finance literacy are better able to guide other investors in making both short term and long term investment decions. And also prove to be a grater source of advide in order to increase the returns for an individual.

After studying the above literature, it can be seen that not many studies have tried to find a relationship between financial education and investment behavior towards stock market. This study aims to bridge this particular gap.

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3. Research Methodology

For the purpose of this study the area of the study is Delhi. The working age bracket is considered i.e 18-65 age bracket. A questionnaire was prepared with a total of 40 questions including demographic factors such as gender, income, nature of occupation, type of family Joint, and qualification. By sing closed ended questions, attitudinal rating questions as well as knowledge testing questions. The questionnaire also includes questions relating to demographics and socioeconomic details.

In order to measure the level of financial literacy, OECD approach has been used in the study. The OECD approach is used since it is one of most accurate measure because it uses various dimensions of literacy – financial behaviour, financial attitude, financial knowledge and financial skills. Each of these dimensions were measured on a scale of 5 and added upto to get the overall financial literacy score. Financial knowledge has been calculated out of 7 and then scaled down to 5. Therefore overall financial literacy score can have a maximum of 20. SPSS 25.0 was used to analyze the data. T test and Chi- square test has been used. The total number Reponses through the questionnaire recorded are 171.
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4. Data Analysis

The data has been collected through a questionnaire prepared partially on the basis of OECD questionnaire on assessing the financial literacy score and partially by the questions developed by self. The questionnaire included demographic variables and statements like questions. The questionnaire was prepared keeping in mind the two objectives that were to be fulfilled that are, to assess the financial literacy of the working age population of the Delhi region i.e people lying in the age group of 18-65 that are working and the relationship between financial literacy and behavior regarding the investment of working age population. In other words whether there is any significant impact of financial knowledge, attitude, behaviour and skills are on the investment behaviour of an individual or an entire household. The other part of the questionnaire is prepared with the help of the literature that is already existing in this domain. The data that has been collected includes demographics such as gender, qualification the industry individuals are working in, the status of employment etc. Another important factor that needed to be asked in a study like this was whether the respondents have studied any subject related to economics, finance or commerce at any point of time throughout their formal education period.

The table below represents the demographics and socioeconomic details of the respondents. The number of female respondents is slightly higher than the male population. The respondents lying in the age bracket of 31-40 is the highest among all the age brackets, and the age of 60 and above constitutes the lowest proportion of 4.7%. The proportion of the unmarried respondents higher than that of unmarried. It can also be observed that the highest number of people are either graduate or postgraduate with the lowest number of respondents lying in the category of education level up to higher secondary education. Also, about 44.4% of the respondents have an income level of 2-5 lacs. The population consist of about 60.2% of the 171 respondents in the non-government sector along with 23.4% of the respondents related to the IT sector.
In order to examine the overall financial literacy score of the respondents four dimensions of financial literacy were taken into consideration namely, financial behaviour, financial attitude, financial knowledge and financial skills. According to the guide of survey given by OPEC to get the overall finance literacy score is to include knowledge, behavior and attitude. But this study tries to overcome the gap of the individuals to convert their behaviour into an actual finance skill. Therefore this study includes all four identified variables.

**Knowledge score**

The knowledge score is computed by adding the responses of the questions asked in the questions to test the financial knowledge of an individual. These questions included questions related time value for money, inflation, interest, bond prices etc. The questions were developed to assess both the basic and advance knowledge of the financial terms and procedures. This could take up to a value of 7 or less, not more than that. For every right answer a score 1 was given and for wrong answer a score of 0 was associated.

Behavior score The finance behavior score was computed by getting a mean of all the questions pertaining to this category. The questions included all the questions required to assess an individuals behaviour towards finance. The questions relating to saving behavior, budget preparation, keeping a track of expenses etc. were included. This score was to be within a scale of 1-5.
Attitude Score

The other important component of the overall literacy score is the finance attitude of an individual. To compute this all the questions pertaining to this category are summed up and then a mean is computed. This can go up to a scale of 9 or less. This category includes questions such as their attitudes towards day to day finances and their long-term goals and their interest in striving those goals.

Skill Score

The last component in measuring the overall score is to know the skill score that an individual have. This is measured on the scale of 1 to 5. This score is added to know whether the individual is able convert his behavior and attitude into reality. Under this all the questions are summed up and mean is computed.

For each dimension, questions were asked to the respondents and then were scaled down to a score of 5 so that when all the dimensions were added we get an overall financial score of maximum value. Hypothesis I has been tested using T-test and Hypothesis 2 has been tested using Chi-square test. Both the hypothesis has been tested at 5% level of significance.

In order to examine the financial literacy based upon the various considered dimensions the respondents were categorized in two groups namely “High Financial Literacy Group” and “Low Financial Literacy Group”. The respondents with less than the median overall financial literacy score were put under the head of “Low Financial Literacy Score” and respondents with higher than median score were categorized under “High Financial Literacy Score”. The median overall financial literacy score came out be 12.37/20. The number of respondents categorized under “Low Financial Literacy Group” were a total of 87 respondents and 84 respondents were categorized as “High Financial Literacy Group”. For the first hypothesis the means have been calculated and compared for both the groups. The mean value of the various dimensions have been calculated and compared for both the groups.

<table>
<thead>
<tr>
<th>Dimensions of Financial Literacy</th>
<th>High Financial Literacy Group</th>
<th>Low Financial Literacy Group</th>
<th>t - Value</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Behaviour</td>
<td>3.7</td>
<td>3.61</td>
<td>-1.12</td>
<td>0.264</td>
</tr>
<tr>
<td>Financial Attitude</td>
<td>2.87</td>
<td>2.74</td>
<td>-1.342</td>
<td>0.181</td>
</tr>
<tr>
<td>Financial Knowledge</td>
<td>4.4</td>
<td>1.617</td>
<td>-16.744</td>
<td>0</td>
</tr>
<tr>
<td>Financial Skill</td>
<td>3.48</td>
<td>2.94</td>
<td>-3.303</td>
<td>0.001</td>
</tr>
</tbody>
</table>

Table 4.2: Difference Between the Dimensions of Financial Literacy Score of The Two Groups

The above results show that at a significance level of 5%, there is no significant difference between the financial behaviour and attitude of both the groups. However there is a significant difference between the financial knowledge and financial skills of the two groups.
The highest discrepancy can be observed in the financial knowledge of the respondents categorized under two different heads. The financial knowledge of high literacy financial group is significantly higher than those categorized with having low level of literacy.

In order to fulfill the next objective of finding the relationship between the overall financial literacy and preferences of individuals towards investment preferences. Again for examination respondents were categorized into “High Financial Literacy Group” and “Low Financial Literacy Group” depending upon the median overall financial literacy score of 12.37. To fulfill this objective Chi-Square test was used to find the relationship between the financial literacy score and the preferences of an individual towards various financial products.

<table>
<thead>
<tr>
<th>Financial Products</th>
<th>Financial Behaviour</th>
<th>Financial Attitude</th>
<th>Financial Knowledge</th>
<th>Financial Skill</th>
<th>Chi Square Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Financial Literacy Group</td>
<td>Frequency</td>
<td>% of Cases</td>
<td>Frequency</td>
<td>% of Cases</td>
<td>% of Cases</td>
</tr>
<tr>
<td>Bank Deposits</td>
<td>69</td>
<td>94.5</td>
<td>83</td>
<td>95.4</td>
<td></td>
</tr>
<tr>
<td>Post office Savings</td>
<td>45</td>
<td>53.5</td>
<td>55</td>
<td>65</td>
<td></td>
</tr>
<tr>
<td>Mutual Funds</td>
<td>49</td>
<td>58.6</td>
<td>31</td>
<td>47.3</td>
<td></td>
</tr>
<tr>
<td>Stock Market</td>
<td>31</td>
<td>37.1</td>
<td>21</td>
<td>24.6</td>
<td></td>
</tr>
<tr>
<td>Debentures</td>
<td>2</td>
<td>2.7</td>
<td>1</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>Life Insurance</td>
<td>68</td>
<td>80.9</td>
<td>65</td>
<td>74.6</td>
<td></td>
</tr>
<tr>
<td>Bonds</td>
<td>11</td>
<td>13.3</td>
<td>6</td>
<td>6.9</td>
<td></td>
</tr>
<tr>
<td>Commodity Market</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1.4</td>
<td></td>
</tr>
<tr>
<td>Public Provident Funds</td>
<td>39</td>
<td>46.9</td>
<td>59</td>
<td>31.5</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.3: Investments Preferences Towards Financial Products of Both the Groups
The results clearly depict that more respondents of the high literacy group invest in financial products such as mutual funds, stock market, debentures, life insurance, ppf, bonds and commodity market. However respondents in the low financial literacy group showed more preference for bank deposits and post office savings that are considered as more traditional mode of investments. Chi-Square test was used to know whether financial literacy score has any effect on the investment preferences of the individuals. From the test which was run in SPSS 25.0 we got a Chi-Square value of 45.189 which is statistically significant at 5% level of significance. Therefore on the basis of Chi-Square test we can say that the investment behaviour of an individual depends upon the level of financial literacy of an individual.

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5. Conclusions

The median of overall financial literacy score is 12.37 out of a total of 20 based on the four dimensions of financial literacy. On the basis of this score the sample is divided into two groups i.e the “High Financial Literacy Group” and the other the “Low Financial Literacy Group”. From the independent t test results it can be observed that there significant difference between the financial knowledge and financial skill of both the groups. This means that people in the “high Financial Literacy Group” has more knowledge and skill as opposed to people categorized under the “Low Financial Literacy Group”. Also when running a Chi-square test to get the results for the second objective showed a high Chi-square score. This means that there is a very high relationship between the level of financial literacy and the choice of financial products. People in the low level of financial literacy group tends to invest more in the traditional financial products which are generally considered as risk free or less risk associated. On the other hand people in the high financial literacy group are able to convert their financial knowledge into investment in financial products that are quite risky.
and can give higher returns. Therefore from the results obtained it can be said that overall financial literacy have a significant impact on individual’s decision of choosing a financial products. It also implies that people with low financial literacy are not able to take advantage of new aged financial products which can ensure a higher rate of return. Therefore it is of immense importance that government and policy makers take necessary and measures and steps to inculcate financial literacy among the population.

6. Suggestions

The need of the hour is that conscious efforts should be put in order to improve financial knowledge which will in turn improve all the dimensions of financial literacy dimensions. The government in order to improve financial literacy should take measures to make financial subjects compulsory at the school level and college level. For achieving a higher financial literacy the government together with the financial institutions should set up for campaigns that can give free education on financial concepts. Government can reach out to post offices to increase the overall financial literacy through campaigns. Since there is a significant growth in the middle class families due to increasing income, measures should be taken to women and train them to be active investors. For working population it is important to channelize their saving in the best possible manner and there generate safer and higher returns for them. This requires training on how to generate money, the ways that are best to save money, and then invest that money to get the maximum returns possible.

References


