

A Study on Investor Buying Behavior and Financial Literacy in Urban India

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Research Article

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Abstract

Investor behaviour and financial literacy are some of the most discussed topics in modern times. In the present technology-driven setting understanding the above concerns could lead to major economic boosts for individuals as well as countries. This study treads on to explore these topics by developing a unique financial index based upon research-backed literature suited for the respondents residing in the urban cities of India and understanding investor behaviour through a series of questions. The paper studies the financial index developed with respect to the various demographic variables of the respondents trying to establish relations between them. The study finds that 43% of the respondents are financially literate while almost 10% are financially illiterate. We observe the relationships between age, gender, residence types, occupation, educational background, investment sizes, income and financial literacy scores. The study also in pursuance of understanding investor behaviour employs factor analysis techniques to the data gathered and recognizes that the same could be classified into four broad categories namely Active Investors, Proactive Investors, Dependent Investors and Cautious Investors. The analysis of preferences of the modern-day Indian investors through statistical methods reveal fixed deposits to be the most preferred vehicle closely followed by life insurance policies and mutual funds. Equity and Gold gain similar scores and one can conclude that the predominantly risk-averse Indian investors have shifted from investing in traditional avenues such as gold and real estate to more technical investment vehicles requiring a greater understanding of the world of finance.

1. Introduction

Financial literacy is a research field that has seen dramatic growth over the past few years. This is due to a lot of economic slowdowns, recessions and the like faced by individuals and economies as a whole. Household investors are trying to make use of their idle money for generation of passive and new income streams. The individuals are increasingly getting involved in making investment decisions based upon their own analysis rather than trusting an external source in hopes of understanding their finances better and staying away from the increasing scams and frauds that continue to provide shocks to the financial systems of the world. Technology has played a huge role in educating investors and increasing awareness among them regarding the different investment avenues available. Although, there is no concrete definition of financial literacy or how it is measured there have been loads of studies in this field. It has been defined as - "The ability to use knowledge and skills to manage financial resources effectively for a lifetime of financial well-being" (US FLEC 2009). Financial systems of a country are now faced with the risk of financially indebted consumers which represents a huge risk for the country's economy and thus it has become of paramount importance that it measure financial literacy levels of its citizens along with being able to understand investor behavior and the reasoning behind the same.

The growth in Indian economy is sustainable only if the retail consumer would invest in productive financial assets, rather than the unproductive physical assets. Simultaneously, the financial institutions

need to come forward and take the responsibility to educate the investor about the various nuances of the financial markets so that they can take the conscious decisions. The investor would feel confident to make investments if he himself is financial literate.

This paper aims to compute and evaluate the financial literacy levels of the respondents residing in urban areas of India and thus prepare a financial index to compare with the respondents' demographic profiles using appropriately designed surveys which include broad sets of items. Along with assessing the financial literacy levels the paper also embarks on understanding investor behavior regarding purchase of financial products for the same sample population and gaining insights as to the most preferred investment avenues of the individual investors as we assume that this could provide a wholesome view of the investors and investing behavior in India.

2. Literature Review, Objectives, Research Methodology, And Limitations Of Study

2.1 LITERATURE REVIEW:

Hastings, Madrian & Skimmyhorn (2013) in their study found that respondents possessing higher cognitive and numerical abilities were more likely to exhibit higher levels of financial literacy.

Atkinson and Messy (2012) mentalities are a fundamental segment of money related education and conduct and if people had a pessimistic demeanour towards investment funds they would be less disposed to direct conduct in pursuance of the same.

Barbic Lucic & Chen (2018) in their study on measuring responsible financial consumption behaviour found that financial decision making is a very complex field involving a load of variables, multiple motivations could be affecting purchase decisions.

Tatzel (2003) people that believe money represented power or status were more likely to engage in overspending or irresponsible consumption decisions as a result of the same.

Stolper & Walter (2017) in their study Financial Literacy, Financial Advice and Financial Behaviour have concluded that around the world financial literacy levels are highest among Germans but even in such a country, half of the respondents were not able to answer the Big Three questions (Lusardi and Mitchell, 2008) correctly which meant there was a massive room for improvement. They also summarized that in Germany and other countries least educated and lower income population were the ones with the least financial literacy and therefore were prone to making financial mistakes.

Visa Financial Literacy Survey (2012) found that Indians are among the least financially literate people across the globe under which the youngsters and women were the most illiterate with respect to financial literacy. The survey ranked India as 23rd out of 28 countries represented in the survey.

Parimalakanthi & Kumar (2015) observed that education of investors was an important aspect for investors in the city of Coimbatore as they wanted to gather as much information from sources like their friends, peers and investment experts as they could before arriving at an investment decision. Most of the investors invested in savings accounts followed by tangible instruments like Gold & Silver. They suggested that for many investors the investments were last resort rather than having a plan beforehand and investing according to it which was the reason for investments not doing very well.

Cornelia & Mihaela (2009) consumer behavior is structured in two components being buying and consumption behavior, which states all other advantages being equal the customer is likely to choose that investment that offers them the most gain. In addition to this, fear or regret is another factor that affects the behavior of the consumer which comes into play when the investor doesn't trust the information available with him/her and/or is not likely to be able to process such information. Apart from this demographic, cultural and economic factors also determined consumer behavior. The paper mentions that differences in the cultural values of investors in the European countries determine the investment behavior of the investors.

Sultana & Pardhasaradhi (2012) Indians are more likely to choose risk free investments even if they're well educated and have higher levels of income owing to the risk awareness inherent in the Indian mindset.

Geetha & Ramesh (2011) analyzed the investment choices of people in the city of Kurumbalur. The author noted that the respondents were not very aware of choices such as stock market, equity, bonds and debentures. They instead were aware of and gave more importance to traditional choices such as Life Insurance, PPF, NSC, and bank deposits along with small savings avenues such as post office savings. The author also notes that income levels play a huge role in consumers making safer choices like bank deposits, PPFs or higher risk avenues like stocks, mutual funds etc. In the work we also find that with age group of 51-60 years people preferred life insurance more than other avenues.

Charkha & Lanjhekar (2018) in their work involving studying the investment and saving patterns of privately employed Pune residents found that even though majority were well aware of the different investment avenues they preferred to invest in bank deposits and real estate as safety was a very important factor considered for investment as a result of which other avenues were less favourable. The author also notes that the city as such has a real estate market which was always on the up which meant people favoured investment in the same. The study also finds that there was a significant relationship between level of income and awareness of investment alternatives with higher income groups being more aware.

Bhushan, Puneet&Medury, Yajulu. (2012) focused on investment preferences by working adults and found that gender played a role in deciding investments as males preferred Mutual funds and Life Insurance policies whereas their counterparts preferred recurring deposits and Market Investments. The study also indicated that type of employment was a factor as privately employed individuals were less

risk averse as compared to government employees who played it safe. The study also found that married individuals preferred safer instruments even if they lacked returns.

Giri (2018) found that beliefs and subjective norms affect attitudes towards purchase behaviour. The purpose of buying insurance policies could be broken down into tax saving, bequest purposes or because of social influences.

Nor & Noryati (2012) higher income and greater investment experiences increases the level of risk the investors are willing to take and also increases their tolerance level of such risk and as the tolerance rises the investors end up choosing riskier investments.

2.2 OBEJCTIVES OF THE STUDY:

1. To develop a financial literacy index using the big three question model. (Lusardi & Mitchell, 2008)
2. To explore the role of financial literacy index on investment behaviour.
3. To explore the determinants of various investment behaviour of respondents.
4. To understand the preference of the respondents amongst several financial products.

2.3 RESEARCH METHODOLOGY:

2.3.1 Sample:

The sample was drawn primarily from occupants of metro cities being Kolkata, Mumbai, Delhi and Chennai apart from which responses were received from residents of other cities including Hyderabad, Bengaluru, Ludhiana and Bhubaneswar.

2.3.2 Sampling Technique:

The study used convenience sampling techniques for collection of primary data.

2.3.3 Sample Size:

A total of 100 responses were received which were complete and ready to be analysed for the purposes of this paper.

2.3.4 Data Collection:

The primary data in a survey model was collected through the use of Google forms which were sent to random groups of people through the use of social media platforms. The paper utilizes a descriptive research method. The respondents

2.3.5 Questionnaire:

The survey form was split into four sections to enhance the respondents' accuracy. In the first section of the survey, the respondents were asked simple questions relating to their demographic details, their type of residence, number of members in the household, occupation, income levels and were asked to give an estimate as to the portion of their income which they use to invest in various investment avenues.

The second section was targeted at attaining information as to the Investment choices of the investor. For this, the respondents were asked to rank their investment preferences based on their actual investments. The choices for which were Fixed Deposits, Mutual Funds, Life Insurance, Shares, Debentures, Corporate Fixed Deposits, Gold and other avenues which was left open for the respondents to reply in which they stated other investment avenues like Real Estate and Provident Funds.

The third section of the survey was targeted at measuring the levels of financial literacy of the respondents. There exists no universal definition of financial literacy and how its measured. Therefore this research adopts a module which has been devised based upon the big 3 questions (Lusardi & Mitchell ,2008) as it is a widely popular measure of financial literacy as has been seen in many studies conducted all over the world that have tried to measure the financial literacy.

The questions involved elementary calculations related to concepts of

1. Interest compounding
2. Understanding how inflation works
3. Understanding risk diversification.

The questions are fairly simple and straight forward and thus are an appropriate measure. A version of the big 3 questions more suitable for the Indian respondents was designed for this paper and thus the 3 questions that were asked.

In the final section they were asked 19 questions to understand their investment behaviour represented on a Likert Scale with options being, 'strongly agree', 'agree', 'neutral', 'disagree' and 'strongly disagree'.

2.3.6 Statistical Tools and Technique:

Factor analysis technique has been used to study investor behaviour which primarily involves data reduction and summarization on the lot of correlated variables/attributes being studied using the IBM SPSS Statistics Package. The relationships among the attributes are analyzed and represented in terms of the underlying factors.

Chi – Square test was applied in testing hypothesis at 5% level of significance. Descriptive analysis was utilized. Data was tabulated and analyzed using Microsoft Excel, 2013.

Garret Ranking technique was used to determine the preference based ranking of several investment products. The respondents were asked to rank their investment preferences which were transformed into unit scores by using the following formula

Per cent position = $100 (R_{ij} - 0.50) / N_j$

Where,

R_{ij} - Rank given for the i th investment by the j th respondent

N_j - Number of investment ranked by the j th respondent

The percent position is converted into scores on the basis of the table formulated (Garett & Woodworth, 1969). The next step includes for each factor the scores of the individual respondents' being summed, then divided by total number of respondents for whom scores were added. These mean scores for all the factors were arranged in descending order and thus ranked. (Garret HE, 1981)

2.4 LIMITATIONS OF THE STUDY:

This research has its set of constraints that range from its methodology to its scope.

The financial literacy tests incorporates 'the big-3'. The benefits to the big – 3 question model in assessing financial literacy include the ease of adding it to questionnaires and assessing the degree of knowledge of general financial principles and elementary calculations of the investors however this is in no way a complete measure of precisely measuring the financial literacy levels as there are many other questions and measures one must embrace to accurately ascertain the financial literacy levels.

The sample size of 100 respondents though large is still insignificant when compared with the 1.2 billion population of India with different demographic aspects unique to the country. The results are location specific to metro cities and certain urban cities which the respondents belong to, thus not representative of the different socio economic variables existing in India.

The Big-3 questions could be built upon by adding other elements to further researches including dimensions such as retirement planning, tax and legal implications, risk taking ability among others.

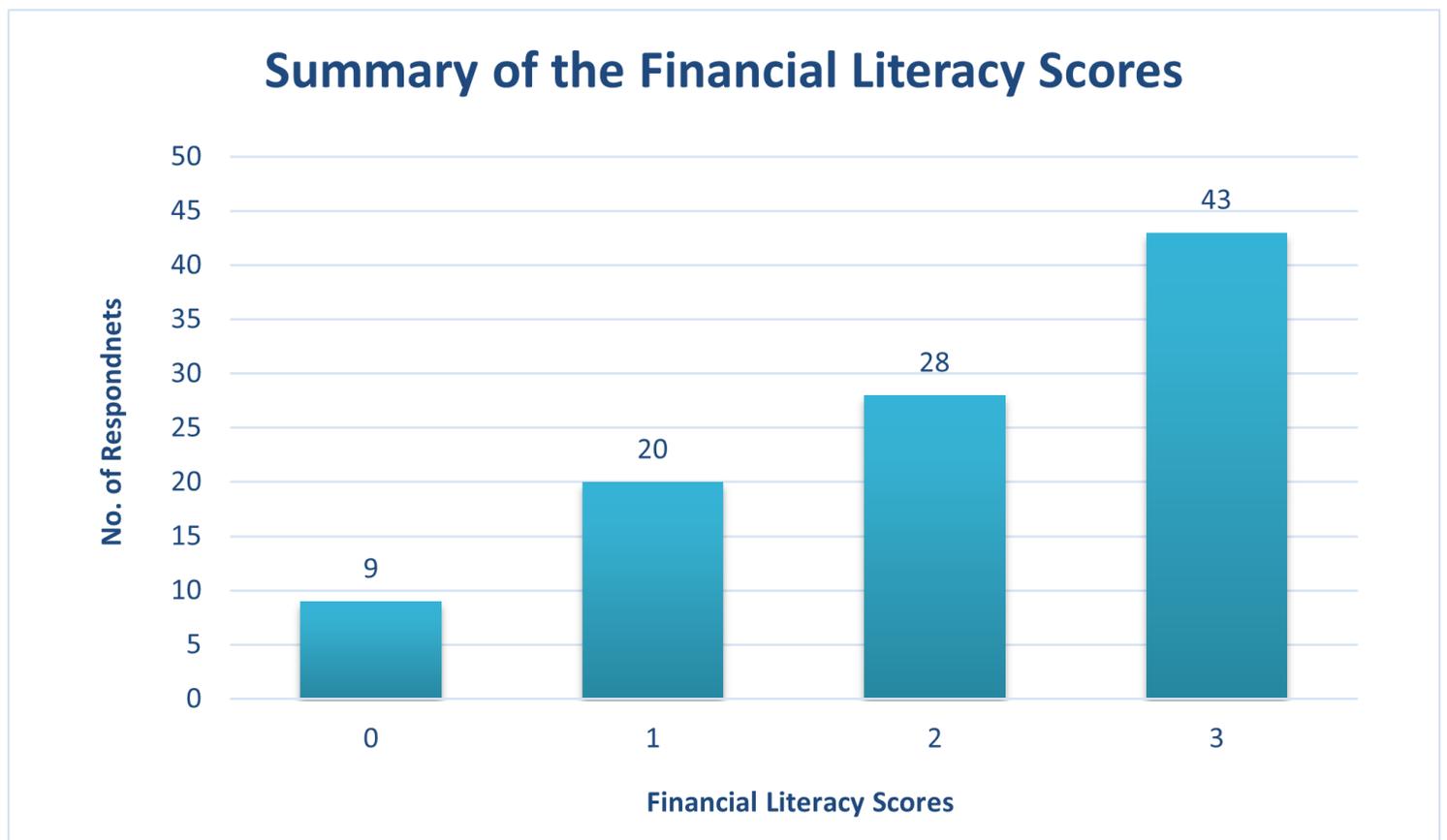
In determining the investor behavior in pursuit of an investing decision into financial products a set of 19 questions were asked in this study. However, there are many other questions that could be asked of the respondents which would give a complete picture of the investor behavior and just like in assessing financial literacy this aspect as well could be made even more representative of real world scenarios by asking further questions related to this topic.

3. Analysis Of Data

3.1 FINANCIAL LITERACY INDEX

A financial literacy index was prepared to be analysed with the demographic factors using testing of hypothesis and analysis of variance. The mean financial literacy score was 2.05 with a standard deviation of 0.998737 and the median score was observed to be 2. The respondents were classified on the basis of the Lusardi & Mitchell questions into four categories as - the ones who got none of the questions right scoring a 0 to be 'Financially Illiterate', getting one answer right as 'Somewhat Financially Illiterate', getting two questions right as 'Somewhat Financially Literate' and getting all the questions right as 'Financially Literate' and the same is represented in Table-1.

Table 1 – Financial Literacy Scores



It can be observed that 43% of the respondents were declared as financially literate getting all the questions right whereas 28% of the respondents got one question wrong and 20% and 9% of the respondents got two and all three questions wrong respectively. Thus, 9% of the respondents were declared as financially illiterate.

Next, these scores are analysed with the demographic variables of the respondents and the same is represented in Table-2.

- Age

Majority of the respondents (54%) fell in the category of age under 25 out of which 23 (43%) obtained scores of 3 which indicate that majority of the respondents under age of 25 are financially literate. On the other hand 5 (9%) respondents under the age of 25 scored 0 and thus were classified as financially illiterate. The highest financially literates were observed in the 36-45 years category (50%) and thus one may conclude that these individuals are more likely to have enough income to invest along with greater understanding of the financial systems as they also had just 7% being declared financially illiterate.

- **Gender**

The table 2 shows that male respondents (61%) have lower financial literacy levels as compared to female respondents (39%) as 44% of female respondents scored 3 compared to 43% of male respondents scoring 3 and 31% female respondents scored 2 as compared to 26% male respondents scoring 2 marks. Male respondents were also lesser as compared to female respondents in scoring 1 with 15% as compared to 23% respectively. Although more female respondents were financially illiterate (10%) compared to males (8%)

- **Education**

It is observed that education played a crucial role in determining financial literacy as respondents having education of graduate and above showed highest levels of financial literacy (56%) as compared to graduates (33%), respondents with primary schooling (50%) and respondents with up to secondary schooling (50%). Although it is observed that majority of the financially illiterate respondents (66.67%) belonged to graduate level of education. With only (11.11%) belonging to lesser than graduate levels of education.

- **City**

Majority of the respondents belonged to metro cities with Kolkata having the most respondents (66%) as compared to Chennai (12%), Delhi (6%), Mumbai (6%) and other urban cities (10%). Kolkata also showed highest levels of financial literacy with 42% scoring 3, 32% scoring 2, 21% scoring 1 and only 5% scoring 0 classified as financially illiterate.

- **Residence Type**

It can be said that residence type plays a role in determining financial literacy as respondents living in rented homes had more financially literate population (57%) than those respondents belonging in self owned homes (39%), although they did have more financially illiterate population (13%) as compared to the (8%) but scores of 2 and 1 on the financial index were higher for self owned home residents (30% & 23%.) as compared to (22% and 9%) for rented home residents respectively.

- **Household Size**

Upon observation of Table 2, it is seen that the highest financial literacy scores were observed with households having 4-6 members (49%) followed by households with more than 6 members (41%) which can translate to one needing more sources of income to feed and provide for more members of the household. Residents of households with more than 6 members saw none of them being financial literate (0%) on the contrary 18% of the respondents belonging to households of 1-3 members were declared financially illiterate.

- **Occupation**

Analysis of the table 2 reveals that the most financially literate respondents 22 (52%) belonged to privately employed category (42) followed by self employed respondents 17 (40%) of 43 respondents and the most financially illiterate population 2 (20%) out of 10 belonged to the homemaker category followed by self employed (9%) with 4 out of 43 respondents.

- **Monthly Income**

The analysis of the table 2 shows that income levels go a long way in determining financial literacy levels as of the 14 respondents in the highest earnings category, 9 (64%) were classified as financially literate with none being financially illiterate. Of the 17 respondents earning in the Rs. 25,000- Rs.50,000 category, 9 (53%) were classified as financially literate obtaining a score of 3 with none of them being financially illiterate. The most financially illiterate respondents were seen in the lowest income category of below Rs. 25,000 having 4 respondents (44.44%).

- **Invested Size**

This compares financial literacy levels on the basis of the actual investment size as a proportion of the respondent's earnings. The analysis reveals that invested size plays a significant role in determining the financial literacy levels as the respondents belonging to the highest band of investment size that is 'Above 25%' scored highest on the financial literacy index with 6 out of 6 respondents having a score of 3 and perfect (100%) financial literacy. The most financially illiterate scores were seen in the investment size bands of 8-12% and 2-5% both having 15% respondents scoring a 0 and being classified as financially illiterate. The most 'somewhat financially literate' with score of 2 were seen in the less than 2% invested band being 35% of the total.

H_0 : 'Financial literacy index is independent of demographic variables.'

H_1 : 'Financial literacy index is dependent on demographic variables.'

The above is the null and alternate hypothesis for the demographic variables as compared to the financial index individually and not all the demographic variables taken as a whole being compared to the financial index.

Using the chi squared test analysis it is seen that none of the demographic variables show a p value of less than 0.05 at 5% level of significance, since the p values are all greater than 0.05 it indicates that at 5% level of significance we fail to reject the null hypothesis and thus can conclude that Financial literacy is independent of the demographic variables being considered in this paper.

Table 2 - Demographic Profiling With Respect To Financial Literacy Index

Category	Sub Categories	0-Financially Illiterate		1-Somewhat Financially Illiterate		2-Somewhat Financially Literate		3-Financially Literate		Grand Total		χ^2 (p value)
		#	%	#	%	#	%	#	%	#	%	
Age	<25 years	5	9%	12	22%	14	26%	23	43%	54	54%	0.9595503 0.6310615
	25-35 years	1	5%	4	20%	6	30%	9	45%	20	20%	
	36-45 years	1	7%	1	7%	5	36%	7	50%	14	14%	
	46-60 years	1	11%	2	22%	3	33%	3	33%	9	9%	
	Above 60 years	1	33%	1	33%	0	0%	1	33%	3	3%	
Gender	Female	4	10%	6	15%	12	31%	17	44%	39	39%	0.8076948 0.059244
	Male	5	8%	14	23%	16	26%	26	43%	61	61%	
Education	Graduate	6	12%	13	25%	16	31%	17	33%	52	52%	0.6430294 1.6726586
	Graduate and above	2	6%	4	11%	10	28%	20	56%	36	36%	
	Upto Primary Schooling	0	0%	1	50%	0	0%	1	50%	2	2%	
	Upto Secondary Schooling	1	10%	2	20%	2	20%	5	50%	10	10%	
City	Chennai	4	33%	2	17%	1	8%	5	42%	12	12%	0.2411855 5.483479
	Delhi	1	17%	2	33%	2	33%	1	17%	6	6%	
	Kolkata	3	5%	14	21%	21	32%	28	42%	66	66%	
	Mumbai	0	0%	2	33%	1	17%	3	50%	6	6%	
	Other City	1	10%	0	0%	3	30%	6	60%	10	10%	
Residence Type	Own	6	8%	18	23%	23	30%	30	39%	77	77%	0.2467984 1.3413364
	Rented	3	13%	2	9%	5	22%	13	57%	23	23%	
Household Size	1-3 members	5	18%	3	11%	11	39%	9	32%	28	28%	0.2096629 3.1245089
	4-6 members	4	7%	13	24%	11	20%	27	49%	55	55%	
	Above 6 members	0	0%	4	24%	6	35%	7	41%	17	17%	
Occupation	Government Employed	0	0%	1	20%	3	60%	1	20%	5	5%	0.7333793 2.012937
	Homemaker	2	20%	2	20%	3	30%	3	30%	10	10%	
	Privately Employed	3	7%	7	17%	10	24%	22	52%	42	42%	
	Self Employed	4	9%	10	23%	12	28%	17	40%	43	43%	
Monthly Income	Above Rs. 100000	0	0%	1	7%	4	29%	9	64%	14	14%	0.8956591 1.0912431
	Below Rs. 25000	4	12%	7	21%	10	29%	13	38%	34	34%	
	Rs. 25000-Rs. 50000	0	0%	4	24%	4	24%	9	53%	17	17%	
	Rs. 50000-Rs. 75000	3	13%	6	26%	7	30%	7	30%	23	23%	
	Rs. 75000-Rs. 100000	2	17%	2	17%	3	25%	5	42%	12	12%	
Invested Size (%)	12-18%	1	10%	4	40%	3	30%	2	20%	10	10%	0.6774932 3.1459694
	18-25%	0	0%	1	13%	3	38%	4	50%	8	8%	
	2-5%	2	15%	3	23%	4	31%	4	31%	13	13%	
	5-8%	0	0%	2	29%	1	14%	4	57%	7	7%	
	8-12%	2	15%	3	23%	2	15%	6	46%	13	13%	
	Above 25%	0	0%	0	0%	0	0%	6	100%	6	6%	
	Less than 2%	4	9%	7	16%	15	35%	17	40%	43	43%	

Source -Primary Data collected and compiled by the researcher for the purposes of this study

3.2 FACTORS INFLUENCING INVESTOR BEHAVIOUR: EXPLORATORY FACTOR ANALYSIS

The appropriateness of factor analysis was assessed by checking the significance of 'Bartlett test of Sphericity' along with examining sampling adequacy through 'Kaiser-Meyer- Olkin (KMO) Measure of Sampling Adequacy' (Hair, et al, 2006), Kaiser & Rice (1974) accept values greater than 0.5. The data gathered represents the value as 0.797, hence classified as good and its interpretation is that there is no error in the 79.7% of the sample. There could be a possibility of error in the rest 21.3% of the sample. 'Bartlett's Test of Sphericity' is significant (.000) and supports the validity of the factor analysis of the data set. All of the above are tabulated under Table-3.

Table 3: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.797
Bartlett's Test of Sphericity	Approx. Chi-Square	613.131
	Df	171
	Sig.	.000

Principal component analysis with Varimax rotation was utilized for extracting factors reasonable to the sample. The common factors with an Eigenvalue greater than 1 were to be considered, Kaiser and Rice (1974), retaining only the factors with Eigen values greater than one and employing Varimax Rotation with Kaiser Normalisation, four factors have emerged. The total variance accounted for four factors with Eigen value greater than 1 was 54.410%. The rest of the variance was displayed by other factors (Table 4). The table also shows that only four components show Eigen value more than one. These explain 54.410% of the variance. Under un-rotated loading first factor has explained 29.944% variance and 9.995%, 7.756% and 7.115 variances have been explained by second, third and fourth variable respectively.

Table 4: Extraction Method: Principal Component Analysis Total variance Explained

Component	'Initial Eigenvalues'			'Rotation Sums of Squared Loadings'		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.689	29.944	29.944	3.138	16.515	16.515
2	1.823	9.595	39.539	2.894	15.232	31.747
3	1.474	7.756	47.295	2.195	11.553	43.299
4	1.352	7.115	54.410	2.111	11.110	54.410
5	.975	5.134	59.543			
6	.913	4.807	64.351			
7	.823	4.330	68.681			
8	.773	4.069	72.749			
9	.760	4.001	76.751			
10	.670	3.527	80.277			
11	.636	3.349	83.626			
12	.594	3.124	86.750			
13	.560	2.950	89.700			
14	.416	2.189	91.889			
15	.410	2.157	94.046			
16	.363	1.908	95.954			
17	.310	1.630	97.584			
18	.252	1.328	98.912			
19	.207	1.088	100.000			

Each factor is comprised of all of those variables that have factor loadings greater than or equivalent to 0.4 as are depicted in Table-5. Then Varimax method is utilized to redistribute the variance so that the factor loading pattern and percentage of variance of the factors is different as shown in Table-5.

Table 5: Rotated Component Matrix

	Component			
	1	2	3	4
Reliance on intermediaries for investments (IBQ1_grp)	.114	.113	.194	.692
Low transaction costs preferred (IBQ2_grp)	.518	.198	.313	.074
Tenure based Investment (IBQ3_grp)	.583	.264	.144	.296
Investor regularly monitors investments (IBQ4_grp)	.405	.592	-.108	.368
Investor has diversified portfolio (IBQ5_grp)	.318	.715	.143	.089
Investor regularly analyzes investments (IBQ6_grp)	.490	.141	-.103	.409
Investments are made for tax saving (IBQ7_grp)	.348	.340	.400	.106
Investments are a security (IBQ8_grp)	.715	.010	-.089	.156
Advertisement influences investor (IBQ9_grp)	-.126	.031	.707	.375
Liquid investments are preferred (IBQ10_grp)	.401	.272	.058	.403
Colleagues influence investor (IBQ11_grp)	.078	.089	.700	.041
Investments increase prestige (IBQ12_grp)	-.255	.523	.469	.151
Investor takes high risks (IBQ13_grp)	.081	.686	.075	-.101
Difficulty in reading investments' documents (IBQ14_grp)	.435	-.014	.595	-.027
Only savings are used for investment (IBQ15_grp)	.150	-.021	.173	.708
Satisfied with investment choices (IBQ16_grp)	.253	.496	-.155	.497
Higher returns with more financial knowledge (IBQ17_grp)	.786	.118	.128	.077
Technology has made investing easy (IBQ18_grp)	.481	.555	.426	-.102
Investing is easy for investor (IBQ19_grp)	.025	.617	.066	.298
<i>Extraction Method: Principal Component Analysis.</i>				
<i>Rotation Method: Varimax with Kaiser Normalization.</i>				
<i>Rotation converged in 8 iterations.</i>				

By considering the factor loadings, it can be observed that all the variables we had in the first place have been loaded on the four factors that were derived. Factor loadings of all the variables/characteristics on each of the four factors have been depicted in and the loadings with the greatest value in all the columns

are marked (Table-5). Each of the four factors are labeled on the basis of variables included in each case as–

First Factor – Factors that suggest Active Investor Behavior

Second Factor – Factors that suggest Proactive Investor Behavior

Third factor – Factors that suggest Dependent Investor Influenced Behavior

Fourth Factor – Factors that suggest Cautious Investor Behavior

The detailed analysis of the above stated factors follows.

First Factor – Factors that suggest Active Investor Behavior

This factor includes five variables which are loaded on to it. The variables along with the factor loadings and labels are shown in Table 6. The table indicates that the Investors could get higher returns with more financial knowledge has got the highest loading of 0.786 on the first factor followed by the variable 'Investments are considered a security' (0.715), 'Tenure based Investments' (0.583), 'Low transactions costs preferred' (0.518) and lastly 'Regularly analyzes investments' (0.490)

Table 6: Variables in Factor – Active Investor Behavior

Factors	Loadings
Higher returns with more financial knowledge (IBQ17-grp)	0.786
Investments are considered a security (IBQ8_grp)	0.715
Tenure based Investment (IBQ3_grp)	0.583
Low transaction costs preferred (IBQ2_grp)	0.518
Regularly analyzes investments (IBQ6_grp)	0.490

These variables point to the fact that the investor as a whole has an active behavior in investing their money. The table implies financial knowledge plays a significant role in making financial investments and this is observed to be true as it has the highest factor loading for the first factor.

Second Factor – Factors that suggest Proactive Investor Behavior

The second factor suggests proactive investor behavior in relation to the variables as presented in the Table 7 along with the factor loadings and labels. The table reveals that the variables in the second factor point to a proactive approach taken by the investor in their investing decisions indicated by

'Investors have a diversified portfolio' having the highest factor loading score (0.715) followed by 'Investor takes high risk' (0.686), 'Investing is easy' (0.617), 'Regularly monitors investments' (0.592), 'Technology has made investing easy' (0.555) and lastly 'Investments increase prestige' (0.523).

Table 7: Variables in Factor – Proactive Investor Behavior

Factors	Loadings
Investor has a diversified portfolio (IBQ5_grp)	0.715
Investor takes high risk (IBQ13_grp)	0.686
Investing is easy for investor (IBQ19_grp)	0.617
Regularly monitors investments (IBQ4_grp)	0.592
Technology has made investing easy (IBQ18_grp)	0.555
Investments increase prestige (IBQ12_grp)	0.523

Third factor – Factors that suggest Dependent Investor Influenced Behavior

The third factor is labeled as Dependent investor influenced behavior. The variables along with factor loadings 'Advertisements influences investor' (0.707) followed by 'Colleagues influence investor' (0.700), 'Investor finds difficulty in reading investment documents' (0.595) and 'Investments are made for tax saving' (0.400) are indicative that the investor is largely influenced by external forces in their investing decisions.

Table 8: Variables in Factor – Dependent Investor Influenced Behavior

Factors	Loadings
Advertisement influences investor (IBQ9_grp)	0.707
Colleagues influence investor (IBQ11_grp)	0.700
Investor finds difficulty in reading investment documents (IBQ14_grp)	0.595
Investments are made for tax saving (IBQ7_grp)	0.400

Fourth Factor – Factors that suggest Cautious Investor Behavior

The fourth factor represents Cautious investor behavior which includes four variables that are shown in Table 9 along with their factor loadings and labels.

Table 9: Variables in Factor – Cautious Investor Behavior

Factors	Loadings
Only savings are used for investment (IBQ15_grp)	0.708
Reliance on intermediaries (IBQ1_grp)	0.692
Satisfied with investment choices (IBQ16_grp)	0.497
Liquid investments are preferred (IBQ10_grp)	0.403

The table reveals that ‘Only savings are used for investment’ (0.708) followed by ‘Reliance on intermediaries’ (0.692) , ‘Satisfied with investment choices’ (0.497) and ‘Liquid investments are preferred’ (0.403) all have a significant impact on suggesting a cautious investor.

3.3 INVESTOR PREFERENCES OF DIFFERENT INVESTMENT AVENUES

The preference and ranking of different investment avenues by the respondents are analysed using the Garret Ranking technique.

The table reveals that Fixed Deposits were the investments with most of the number first ranks given by the respondents at 24 while on the other hand Corporate fixed deposits and Debentures were ranked first by just two investors each. Fixed deposits had the highest mean score of (58.87) followed by LIC (57.73), Mutual Funds (57.17), Gold (53.46), Shares (53.2), Corporate Fixed Deposits (41.24), Debentures (39.39) and lastly Other Avenues (38.94), accordingly ranks have been given.

Table 10 – Garret Ranking of Investment Preferences of Respondents

S.No.	FACTORS	RANKS								No. Of Respondents	Total Score	Mean Score	Rank
		1	2	3	4	5	6	7	8				
1	Fixed Deposits	24	24	15	7	9	9	5	7	100	5887	58.87	1
2	Mutual Funds	20	13	19	16	18	4	4	6	100	5717	57.17	3
3	LIC	21	18	15	17	7	10	9	3	100	5773	57.73	2
4	Shares	12	18	13	12	19	13	5	8	100	5320	53.2	5
5	Debentures	2	3	10	9	11	16	28	21	100	3939	39.39	7
6	Corporate FDs	2	6	7	10	16	21	20	18	100	4124	41.24	6
7	Gold	14	14	16	20	10	10	6	10	100	5346	53.46	4
8	Other Avenues	5	4	5	9	10	17	23	27	100	3894	38.94	8

3.4 FINDINGS:

- Financial literacy levels of the respondents were analysed by preparing a financial literacy index by scoring the respondents on a scale of 0-3 on the basis of the answers provided to the big three questions. It was noted that none of the p values obtained for each of the demographic variables when computed along with the financial literacy scores were less than 0.05 at 5% level of significance and thus it was concluded that financial literacy is independent of the demographic variables being considered in this study.

Although for the data collected it was observed that gender, age, city, residence types, household size, income levels, invested size, occupation and education levels showed significant levels of significance with the Financial Literacy scores. These variables are important considerations for understanding the financial literacy index as has been shown under the analysis in Table-2.

- Out of the sample size of 100 respondents we observed that Fixed Deposits were the most preferred investment avenue followed by LIC , Mutual Funds, Gold, Shares, Corporate Fixed Deposits, Debentures and Other avenues respectively which were all ranked using Garret ranking table. 24% of the respondents ranked Fixed deposits to be there number one preference closely followed by Life Insurance and Mutual Funds at 21 and 20 first ranks respectively. It can be thus said that Indians are risk averse investors as the above investment avenues have relatively low risk as compared to other avenues such as Shares or Debentures which were ranked 5th and 7th It was also observed that Life insurance was ranked 8th by only 3% of the respondents and thus one may infer that an overwhelming majority of investors do own life insurance schemes as investment, the same could also be the case for mutual funds with only 6%of the respondents ranking it as the least preferred investment avenue. It is interesting to note that Shares and Gold were quite close having mean ranks

of 53.46 and 53.2 and ranks 5th and 6th respectively that contrary to empirical evidence regarding Indian investors are moving away from preferring gold as the most favoured investment avenue.

- For understanding Investor Behaviour a five point likert scale analysis was used and the observed Cronbach Alpha value determined was (0.86423) which shows a high level of reliability. Hence, all the 19 factors underwent the principal component analysis. Using the factor analysis it was concluded that Indian investor behaviour could be classified into four factors as -

1. a) Active Investor Behaviour
2. b) Proactive Investor Behaviour
3. c) Dependent Investor Influenced Behaviour
4. d) Cautious Investor Behaviour

All of these suggest different mindsets of the investor. The respondents were classified into the above stated categories based on their answers to the behavioural questions which underwent factor analysis.

4. Recommendations

From our analysis and findings of investor behaviour we could see the four broad categories of investor types. These majorly point to the trust investors place in the financial market to give them returns. This trust could make a person a very sound investor. But the trust has to be created and the same can only be done if the general public is aware of the options available to them and if they see the benefits associated with those options bearing relatively manageable levels of risk which is possible if they are financially literate.

Indian investors have to move away from only investing in traditional areas such as gold, real estate and fixed deposits. India has emerged from having a very shaky financial economy with very little focus on financial markets as a real area of earning a livelihood. Investing in the stock markets is still seen as a taboo in certain households because of the uncertainty or memories of financial shocks that are present in the minds of the people. However, the country has now moved on from those times and the financial markets are much more inviting and accessible to the general public. The general people must spend more time and effort on understanding the financial options available to them. As there are financial products that certain people must have never even heard about at first there might be a lot of resistance but this is where the government must step in. The institutions could easily inculcate this investing behaviour by adding tax benefits. Indians generally have a tendency of investing just for tax saving purposes and the same could be exploited by the government in coming out with modern taxation systems. The tax regulations should also incentivize the retail investors who invest for long term in equities. The government must develop vocational courses regarding financial literacy and take financially sound decisions prevents huge financial shocks to the country.

Private funds, institutional investors, all kinds of banks must follow greater transparency in their processes. Documentation process must be simplified as to be understandable in layman terms as this

improves the level of trust. People are scared to enter into purchases as they are scared of what the fine-lines might say and this is a problem which is easily solvable. There should be emphasis on regulation of financial markets and on educating the prospective investor about the financial products available.

The consumers must understand the benefits of portfolio investing by spreading the risk of their investments across different kinds of products yielding different risk portfolios and not parking their funds in one investment vehicle. The use of equity as an investment could be used to beat inflation in the long run. The consumers could easily start the habit of investing into mutual funds by utilizing financial products like SIPs (Systematic Investment Planning) which one could invest with as low as Rs. 500. Many of the stock SIP agents also showcase the top invested funds and show graphs that are easily understandable by the general public and with this information have their money invested into the markets instead of sitting idle, hence give them more returns.

The implications of the results of this study lead one to believe that policy makers, academics and officials involved in the field of financial education are the ones that most benefit from this paper. There are other technical tools available to proceed to the next stage of study on financial literacy which can be adopted by academia to arrive at useful results for their areas of study

5. Conclusion

The study focused on understanding the financial literacy levels and investor behaviour of residents from majorly metro cities of India and some other urban cities. The financial index developed in this study indicates that only 43% of the respondents could be classified as financially literate getting all the 'Big-3' questions right. Almost, 10% of the respondents were classified as financially illiterate answering none of the questions right. These are manageable figures and the financial literacy could very well in fact be increased by taking just a few key steps.

The study finds that fixed deposits are still the most preferred investment vehicle but mutual funds and shares are closely following the trend and this could be attributed to the fact that investors are more aware about their investing options due to wider financial knowledge and inclusion supplemented by technology available at the fingertips of every individual. This is a very healthy trend as more and more people are looking at mutual funds as relatively safe investments as compared to equities and debentures among others. Gold and shares almost gained the same mean scores and thus it can be said that Indians are moving away from traditional investment avenues.

The study also finds that there is a pattern to inexplicable investor behaviour and investors could be classified into four categories based upon their investing attitudes and behaviours namely, Active Investors, Proactive Investors, Dependent Investors and Cautious Investors, each one of them having very different financial portfolios. The aim of the country must be to have as many active investors as

possible and the classification makes it much easier to form policies or take decisions keeping the interests of each group parallel.

India can be seen moving to relatively higher levels of financial literacy which could mean strengthening of the financial backbone of the country, thus each individual being able to have an active role in determining the stock market behaviour rather than the reverse.

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Surpassing milestones towards a mission sometimes gives us such a degree of jubilation that we tend to forfeit the precious guidance and help extended by the people to whom the success of mission is solely dedicated.'

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7. Conflicts Of Interest

The author declares that there is no conflict of interest.

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