

AN EMPIRICAL INVESTIGATION OF PRIMARY DATA ON THE SAVINGS AND INVESTMENT BEHAVIOR OF INDIAN HOUSEHOLDS

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Abstract: Several financial products have recently been introduced to the Indian market. Each of these financial instruments offers a variety of advantages and possibilities regarding interest rates, risk exposure, contract duration, fees, etc. Due to a lack of financial literacy, the majority of individuals are unable to take advantage of the greater returns given by these products. In order to invest in these financial instruments, they must be educated about the risk and return characteristics of these products through a suitable financial education programme. The results of the survey indicate that respondents are well-informed about traditional and secure financial products, whereas the majority of the population has a poor degree of knowledge about modern financial products. Also, the majority of respondents place their funds in traditional and secure investment vehicles. In order to increase financial inclusion in India, the government should amend the Income Tax Act 1961 by adding a debt-linked savings scheme (DLSS) and an index fund to the list of investment options available under section 80C. This will enable the Indian financial market to withstand any outflow of foreign funds.

Keywords: Saving and Investment, Behavioural Biases, Indian stock market, Households

1. Introduction

According to a recent report by S&P Global and Morgan Stanley, India is on course to become the world's third largest economy by 2027, surpassing Japan and Germany, and to have the third largest stock market by 2030. India recently overtook the United Kingdom to become the world's fifth largest economy. If we study the growth of Sensex, which is regarded as the heartbeat of the Indian stock market, we see that it has expanded substantially over time. The index was trading at 3,000 points in October 2002. In October 2012, after ten years, the Sensex posted multi-bagger gains and topped 19,000 points.

In October of 2018, the index was at 34,000, whereas it is now around 60,000. The Sensex has increased from 3,000 to 60,000 over the course of the past two decades. The Sensex would cross 1 lakh in less than four years, according to Kamlesh Shah, president of the Association of National Exchanges Members of India, if the market increases at the predicted rate of 15% (ANMI).

Further, by analysing the pattern of savings and investment among Indian households, we discovered a major shift from a predominance of physical to financial assets in the savings and investment patterns of Indian households. According to the annual reports of the Reserve Bank of India, the percentage of families with net financial savings increased from 33% in fiscal year 2013 to 40% in fiscal year 2020. Nonetheless, up to forty percent of these investments continue

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to be held in low-yielding bank accounts. Four percent of the portfolio directly and indirectly invested in higher-yielding equities and bonds. For investors to see larger returns, this must alter. In addition, increased family investments in market-linked products will further stimulate the markets.

In order to mobilise household funds and direct them toward the most lucrative investment options, the financial services industry has expanded, offering investors a huge choice of investment opportunities. With proper investment strategies and financial planning, investors can increase their personal wealth, so contributing to economic growth. The standard of living in a country is significantly influenced by economic growth. The three variables that quantify economic growth are investment, savings, and income. Without investment in productive assets or capital goods, savings are ineffective. Investing in productive areas raises the standard of living of the investor and boosts the gross domestic product or per capita income. Therefore, individual savings and investments are crucial for both financial security and economic growth.

The present study aims to comprehend the saving and investment behaviour of households in the national capital region, as well as to identify the behavioural and psychological biases that appear to influence the individual investment decision.

2. Review of Literature

Numerous research studies have been conducted in India and overseas in order to determine the saving and investment behaviour of retail investors and households. Collins (1989) analysed the saving behaviour of nine Asian emerging nations and found that the countries with the highest saving rates in the 1980s also had the highest real growth rates from 1960 to 1984. Athukorala and Sen (2004) analysed the drivers of the private saving rate in India from 1954 to 1998 and discovered that the saving rate increases with both the level and the rate of growth of disposable income. Rajarajan (2003) and Kiran and Rao (2004) discovered a high correlation between the demographic profile of investors and their risk tolerance. According to Banu et al. (2008), respondents evaluate the attributes of financial products as follows: principal safety, liquidity, income stability, capital growth, tax advantage, inflation resilience, and conceivability. In 2011, the National council of applied economic research conducted a national survey of household income and expenditure and discovered that safety and liquidity are the major factors households evaluate when selecting a financial instrument. Mishra et al. (2010) and Digal and Chakraborty (2012) examined the impact of demographic variables, such as age, gender, income, education, and experience, on the behaviour of individual investors. Bhushan (2014) and Matharu et al. (2015) reported that investors choose classic and secure products. Raheja and Lambeth (2014) found that investment objectives and lifetime characteristics influence the selection of investment vehicles.

In addition, Girdhari and Satya (2011) analysed the investment preferences of metropolitan Orrisa residents (one of the states in India). According to their research, the saving and investing decisions of households get influenced by their age, gender, marital status, income and education. Male investors were shown to be more risk-seeking than their female counterparts. Das (2011) analysed the household investment preferences in the Assam district of Nagaon. The study's findings indicate that insurance products are the most popular

investment vehicles among families. This research was conducted using a structured questionnaire. Education levels, knowledge of the financial system, and the age of investors were found to be the most influential elements in investing decision making. It was also discovered that higher-income groups have a relatively strong preference for investing in the stock market, but lower and middle-income groups have a strong preference for insurance and banks as the most favoured investment vehicles. Samudra and Burghate (2012) investigated the investment patterns of middle-class households in Nagpur. The most common form of investment was found to be bank savings, followed by insurance. The third recommended investing choice of households in Nagpur is a small savings plan, such as a PPF or Post Office savings deposit. Among the criteria that influence the decision to invest in a given instrument, return on investment was found to be the most important.

Moverover, Chaturvedi and Khare (2012) investigated the investment behaviour and knowledge of Indian investors regarding various investment products. The results indicate that an individual's age, education, occupation, and income level influence their investment behaviour. Traditional investment choices are far more familiar to respondents than corporate securities, mutual funds, equity shares, and preference shares. Jain and Manoot (2012) investigated the effect of demographic characteristics on the investment decisions of investors residing in Rajasthan, India. For the purpose of this study, a questionnaire was devised, and a total sample of 200 investors from various cities in Rajasthan was collected. The study concludes that demographic factors such as age, gender, married status, income level, and the level of education have a significant influence on the investing decisions of Rajasthan investors. Bashir et al. (2013) examined the investing choices and risk tolerance of salaried people in the Pakistani provinces of Gujrat and Sialkot. The study indicates that males have a greater risk tolerance than females, despite the fact that young and educated individuals are more attracted to risky investment options and prefer to invest in these instruments, but also hesitate due to limited resources, a lack of investment alternatives, and the absence of investing trends. Bhushan and Medury (2013) examined gender differences in the investment patterns of Himachal Pradesh, India's university employees. They discovered that staff of several colleges in Himachal Pradesh invests in nearly all investment opportunities. The general tendency is to invest in safe investment instruments. There are substantial gender inequalities in health insurance, fixed deposits, and stock market investments.

After reviewing the literature on financial products, one may infer that in India, awareness of traditional investment alternatives is far greater than that of equity shares, mutual funds and corporate securities. Households choose post office saving schemes, insurance products and bank deposits over other types of investments.

3. Objectives of the Study

The two broad objectives of the study are:

1. To understand the saving and investment pattern of households residing in the national capital region.
2. To identify the behavioral and psychological biases that appears to influence the individual investment decision.

4. Research Methodology

This study employed the Survey Research Method to detect behavioural biases among the households. This section describes the sample size, questionnaire, and methodology utilised for the survey's intended purpose and method of analysis.

4.1 Sample Size

To acquire primary data from households, the Survey-Based Technique was utilised. The targeted respondents were the residents of the Delhi region. The sample size was determined using the Convenience Sampling Techniques. The survey was administered individually. In total, five hundred and seventy (570) respondents were asked to fill out questionnaires, while the responses of 70 respondents were incomplete. There was an 87.71% response rate.

4.2 Survey Instrument

On the basis of previous research, a standardised questionnaire was created to identify the behavioural biases that influence households. Three components were contained on a three-page questionnaire. The first segment consists of nine elements that indicate the socio-demographic characteristics of the households. The second component has eight items detailing the saving and investing profile of investors. The concluding and most important section has twenty-one statements. These statements are scenario-based questions that assisted respondents in relating to the hypothetical situations. These questions were designed to generate responses that reflect the underlying behavioural biases. Three of the twenty-one assertions relate to anchoring bias, three to regret aversion, three to mental accounting, three to herd behaviour, three to cognitive dissonance, three to the status quo, and three to overconfidence. Using a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5), these statements were evaluated (Strongly agree). Because of its simplicity and dependability, the Likert scale was chosen over alternative measurements.

4.3 Survey Procedures

The questionnaire was administered to a sample of fifty households for pilot testing. As a consequence of a preliminary analysis of the pilot survey, the questionnaire's assertions were improved. The questionnaire was then hand-delivered to the participants, and both in-person and telephone interviews were undertaken.

4.4 Methods of Analysis

4.4.1 One Sample t-test

It is a parametric test that compares the sample data's mean to a predefined value. This test is utilised when the same individuals participated in two experimental settings. In the present study, a one-sample t-test was applied to all statements containing behavioural biases to see whether the mean response substantially differs from the neutral response. Using a sample t-test, the respondents' underlying biases have been determined. The null hypothesis (H_0) and alternative (two-tailed) hypothesis (H_1) are depicted as follows for the one-sample t-test.

$H_0: \mu=3$ ("the sample mean equals the sample test value" on a 5-point Likert scale).

$H_a: \mu \neq 3$ ("the sample mean does not equal the sample test value" on a 5-point Likert scale).

$$t = \frac{\bar{X} - \mu}{\frac{S}{\sqrt{N}}} \quad \text{eq.-(1) Where,}$$

μ = Proposed constant for the population mean, \bar{x} = Sample mean, N= Sample size, S=Sample standard deviation

4.4.2 One-way ANOVA

ANOVA is a parametric test that identifies statistically significant differences between the means of three or more independent groups. In particular, the hypothesis is examined.

$$H_0: \mu_1 = \mu_2 = \mu_3 = \dots = \mu_N \quad \text{eq. - (2)}$$

In the present investigation, this test is utilised to establish whether the impact of behavioural biases is the same for all respondents in terms of gender and household income.

4.4.3 Post-Hoc test

In variance analysis, post-hoc tests have been utilized. This test was conducted after evaluating the discrepancies between the means. The method of analysis of variance (ANOVA) was used to compare the means of three or more groups. If the differences between the means are statistically significant, a post hoc test identifies which means are statistically distinct from one another. There are numerous types of post-hoc tests. In this investigation, the following post-hoc tests are employed:

i) Tukey test- John W. Tukey originally created this test in 1953. It has been employed in situations with unequal sample sizes and homogeneous variances. It does numerous comparisons in one step. It can be applied to raw data or in conjunction with ANOVA to evaluate if the means are significantly different. The test is commonly known as Tukey's HSD (truly significant difference) test. The formula for Tukey's test is:

$$HSD = q \sqrt{MSE / n^*} \quad \text{eq. - (3)}$$

Where q = the relevant critical value of the studentized range statistic and n* is the number of scores used in calculating the group means of interest.

5. Results and Discussions

Using the SPSS (26.0) software package, the following results were obtained after entering and scoring the survey data acquired by questionnaire for computer-based analysis:

Table 1 Socio-demographic profile of respondents

Demographics Variables	Category	No. of respondents	Percentage (%)
Gender	Male	345	69%
	Female	155	31%
Age	18-24	50	10%
	25-34	125	25%
	35-44	200	40

AN EMPIRICAL INVESTIGATION OF PRIMARY DATA ON THE SAVINGS AND INVESTMENT BEHAVIOR OF INDIAN HOUSEHOLDS

	45-59	75	15%
	60-79	35	7%
	Above 80	15	3%
Marital and Family Status	Single	90	18%
	Married without Children	90	18%
	Family with dependent Children	295	59%
	Family without dependent Children	25	5%
Employment Status	Student	30	6%
	Government Job	315	63%
	Private Job	70	14%
	Business	20	4%
	Self- Employed	15	3%
	Retired	15	3%
	Any other	35	7%
Monthly Income	Less than Rs. 20,000 per month	20	4%
	Rs.20,000-50,000 per month	145	29%
	Rs 50,000-Rs.1,00,000 per month	235	47%
	More than Rs 1,00,000 per month	100	20%
Educational Qualification	Non-Matriculate	10	2%
	Matriculate (10 th Class)	5	1%
	High School (12 th Class)	60	12%
	Bachelor's Degree	265	53%
	Master Degree	70	14%
	Professional Degree	50	10%
	Doctorate Degree	40	8%

Source: Research findings

Table 1 displays the respondents' demographic information. 69% of respondents are male, while 31% of respondents are female. In the nation's capital, the proportion of female investors is fewer than that of men. Nonetheless, individuals of all ages save and invest.

Table 2 Awareness of Financial Products

NA-Not at all aware, SLA-Slightly aware, SOA-Somewhat aware, MA-Moderately aware, EA- Extremely aware

Investment Instrument	NA		SLA		SOA		MA		EA	
	Cou nt	Perc ent	Cou nt	Perc ent	Cou nt	Perc ent	Cou nt	Perc ent	Cou nt	Perc ent

AN EMPIRICAL INVESTIGATION OF PRIMARY DATA ON THE SAVINGS AND INVESTMENT BEHAVIOR OF INDIAN HOUSEHOLDS

Bank Deposits (Savings/Recurring/Fixed)	-	-	-	-	-	-	-	-	500	100
Post office Savings Scheme (KVP/ NSC etc.)	100	20	45	9	55	11	65	13	235	47
Precious Metals (Gold/ Silver etc.)	-	-	-	-	-	-	-	-	500	100
Pension Schemes	180	36	62	12.4	78	15.6	100	20	80	16
Derivatives (Currency/ Equity)	280	56	50	10	57	11.4	63	12.6	50	10
Bonds/ Debentures	267	53.4	64	12.8	48	9.6	52	10.4	69	13.8
Commodities Futures	347	69.4	45	9	23	4.6	40	8	45	9
Company Deposits	380	76	45	9	15	3	40	8	20	4
SIPs/ Mutual Funds	190	38	82	16.4	95	19	33	6.6	100	20
Shares/ Stocks/ Equity	120	24	49	9.8	162	32.4	89	17.8	80	16

Source: Research findings

The households are most aware of bank deposits, followed by precious metals and post office savings, as seen in Table 2. Yet, the amount of awareness regarding stock market investment is lower. Consequently, it is evident that respondents have a high degree of familiarity with traditional and secure financial products, whereas the population has a low level of familiarity with innovative financial products. Due to a lack of knowledge, individuals are unable to take advantage of the numerous financial solutions offered on the market. In their study of Indian investors, Geetha and Vimala (2014) discovered that respondents' understanding of traditional investment alternatives is significantly greater than that of corporate securities, mutual funds, equity shares, and preference shares. So, in order to enhance our financial system, it is necessary to educate the public on the characteristics of modern financial instruments. For individuals to invest in these financial instruments, they must be informed about the risk and return characteristics of these products. This will bolster the financial system. Individuals would also be able to invest in a variety of financial goods, so enhancing their chances of earning greater returns on their investments.

Table 3 Investment in Financial Products

AN EMPIRICAL INVESTIGATION OF PRIMARY DATA ON THE SAVINGS AND INVESTMENT BEHAVIOR OF INDIAN HOUSEHOLDS

Investment Instrument	Put a tick if you own it	Percent of Cases
Bank Deposits (Recurring Deposits / Fixed Deposits)	490	98%
Post office Savings schemes like NSC etc	306	61.2%
Life Insurance Policies	401	80.2%
Precious Metals (Gold/ Silver etc.)	273	54.6%
Pension scheme like NPS etc	127	25.4%
Debentures/ Bonds	11	2.2%
Commodities Future	6	1.2%
Derivatives (Equity/ Currency)	5	1%
Company Deposits	NIL	NIL
Mutual Funds/ SIPs	150	30%
Equities/ Shares/ Stocks	40	8%
Public Provident Fund (PPF)	348	69.6%
Real Estate	142	28.4%

Source: Research findings

The information in Table 3 pertains to all financial products in which households invest their money. According to their responses, nearly 98 percent of respondents invest their money in bank fixed deposits, followed by 80.2 percent who invest in life insurance. Around 61.2% of respondents invest in post office savings programmes, while 69.6% invest in the state provident fund. No respondents invest in corporate deposits, while just 8% of respondents invest in the stock market. The results are in agreement with Matharu et al (2015). In their study of the investing patterns of middle-class households in Nagpur, they found that bank deposits were the most common investment vehicle, followed by insurance. According to Gotllieb (2012), insurance products are the most popular investment vehicles among families.

5.1 Reliability of Scale

Internal consistency is typically determined using the Cronbach Alpha. This test is designed to establish whether or not the measurements can be depended upon for future uses. A coefficient greater than or equal to 0.5 is generally regarded as acceptable and a good indicator of the reliability of a structure.

Table 4. Reliability Test

Cronbach's Alpha
0.809

Source: Research findings

Table 4 provides the value of Cronbach's Alpha, which was used to examine the reliability of 21 statements used in the questionnaire to measure the impact of behavioural biases on household investment decisions. These claims have been divided into seven categories: anchoring bias, regret aversion, mental accounting, herd behaviour, cognitive dissonance, status quo, and overconfidence. It has been determined that the Cronbach's Alpha for each of the 21 qualities is 0.809, which is a reliable indicator of construct dependability.

5.2 Descriptive Statistics

The behavioural biases under consideration have been ranked on the basis of mean value in Table 5.

Table 5. Behavioral Bias in Insurance Decision Making

S. No.	Biases	Mean	Rank
1.	Anchoring bias	3.467	1
2.	Regret aversion	3.040	7
3.	Mental accounting	3.127	6
4.	Herd behaviour	3.375	3
5.	Cognitive dissonance	3.166	5
6.	Status quo	3.269	4
7.	Overconfidence	3.459	2

Source: Research findings

Table 5 ranks the most prominent behavioural biases among insurance purchasers. The results indicate that anchoring bias have the greatest influence on people, followed by overconfidence and Herd behaviour. However, regret aversion has been demonstrated to have a smaller impact on households compared to other biases.

5.3 One Sample T Test

Table 6. One Sample T Test

	Test Value = 3					
	T Value	df	Sig. (Two-Tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper

AN EMPIRICAL INVESTIGATION OF PRIMARY DATA ON THE SAVINGS AND INVESTMENT BEHAVIOR OF INDIAN HOUSEHOLDS

Anchoring bias	93.787	499	.000	3.46667	3.3940	3.5393
Regret aversion	72.310	499	.000	3.04000	2.9574	3.1226
Mental Accounting	69.368	499	.000	3.12733	3.0388	3.2159
Herd behaviour	78.345	499	.000	3.37467	3.2900	3.4593
Cognitive Dissonance	90.322	499	.000	3.16600	3.0971	3.2349
Status quo	84.649	499	.000	3.26933	3.1935	3.3452
Overconfidence	103.273	499	.000	3.45933	3.3935	3.5251

Source: Research findings

The results of the One Sample t-test for all behavioural biases are shown in Table 6. The test results reject the null hypothesis for all biases at a 5% level of statistical significance. The study shows that households are susceptible to anchoring bias, regret aversion, mental accounting, herd behaviour, cognitive dissonance, status quo and overconfidence.

Table 7 One Way ANOVA with regard to Gender

Anchoring Bias		Sum of Squares	df	Mean Square	F	Sig.
	Between Groups	1.273	1	1.273	1.866	.173
	Within Groups	339.616	498	.682		
	Total	340.889	499			
Regret Aversion	Between Groups	.135	1	.135	.153	.696
	Within Groups	440.843	498	.885		
	Total	440.978	499			
Herd Behaviour	Between Groups	.745	1	.745	.803	.371
	Within Groups	462.178	498	.928		

AN EMPIRICAL INVESTIGATION OF PRIMARY DATA ON THE SAVINGS AND INVESTMENT BEHAVIOR OF INDIAN HOUSEHOLDS

	Total	462.924	499			
Cognitive Bias	Between Groups	.154	1	.154	.251	.617
	Within Groups	306.401	498	.615		
	Total	306.555	499			
Status Quo Bias	Between Groups	3.770	1	3.770	5.096	.024
	Within Groups	368.404	498	.740		
	Total	372.174	499			
Mental Accounting	Between Groups	2.832	1	2.832	2.797	.095
	Within Groups	504.283	498	1.013		
	Total	507.115	499			
Overconfidence	Between Groups	2.873	1	2.873	5.164	.023
	Within Groups	277.078	498	.556		
	Total	279.951	499			

Source: Research findings

In terms of overconfidence and status quo bias, there are considerable differences across households of various genders, as seen in Table 7.

Table 8 One Way ANOVA with regard to Income

Anchoring Bias		Sum of Squares	df	Mean Square	F	Sig.
	Between Groups	3.004	3	1.001	1.470	.222
	Within Groups	337.885	496	.681		

**AN EMPIRICAL INVESTIGATION OF PRIMARY DATA ON THE SAVINGS AND INVESTMENT BEHAVIOR
OF INDIAN HOUSEHOLDS**

	Total	340.889	499			
Regret Aversion	Between Groups	6.993	3	2.331	2.664	.047
	Within Groups	433.985	496	.875		
	Total	440.978	499			
Herd Behaviour	Between Groups	7.017	3	2.339	2.545	.055
	Within Groups	455.906	496	.919		
	Total	462.924	499			
Cognitive Bias	Between Groups	3.329	3	1.110	1.815	.143
	Within Groups	303.226	496	.611		
	Total	306.555	499			
Status Quo Bias	Between Groups	7.431	3	2.477	3.368	.018
	Within Groups	364.743	496	.735		
	Total	372.174	499			
Mental Accounting	Between Groups	14.674	3	4.891	4.927	.002
	Within Groups	492.442	496	.993		
	Total	507.115	499			
Overconfidence	Between Groups	12.465	3	4.155	7.705	.000
	Within Groups	267.486	496	.539		
	Total	279.951	499			

Source: Research findings

Table 8 demonstrates that there are considerable differences in regret aversion, status quo bias, mental accounting, and overconfidence between households from different income groups.

Table 9 Multiple Comparisons of Households with respect to Income

Tukey HSD

Response Variable	(I) Income	(J) Income	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Anchoring Bias	Less than 20,000 per month	2.00	.01207	.19687	1.000	-.4954	.5196
		3.00	.16560	.19225	.825	-.3300	.6612
		4.00	.01000	.20217	1.000	-.5111	.5311
	20,000-50,000 per month	1.00	-.01207	.19687	1.000	-.5196	.4954
		3.00	.15353	.08716	.293	-.0711	.3782
		4.00	-.00207	.10729	1.000	-.2786	.2745
	50,000-1,00,000 per month	1.00	-.16560	.19225	.825	-.6612	.3300
		2.00	-.15353	.08716	.293	-.3782	.0711
		4.00	-.15560	.09854	.392	-.4096	.0984
	More than 1,00,00	1.00	-.01000	.20217	1.000	-.5311	.5111
		2.00	.00207	.10729	1.000	-.2745	.2786

**AN EMPIRICAL INVESTIGATION OF PRIMARY DATA ON THE SAVINGS AND INVESTMENT BEHAVIOR
OF INDIAN HOUSEHOLDS**

	0 per month	3.00	.15560	.0985 4	.392	-.0984	.4096
Regret Aversion	Less than 20,000 per month	2.00	-.30287	.2231 2	.527	-.8780	.2723
		3.00	-.38333	.2178 8	.294	-.9450	.1783
		4.00	-.11000	.2291 2	.963	-.7006	.4806
	20,000-50,000 per month	1.00	.30287	.2231 2	.527	-.2723	.8780
		3.00	-.08046	.0987 8	.848	-.3351	.1742
		4.00	.19287	.1215 9	.387	-.1206	.5063
	50,000-1,00,000 per month	1.00	.38333	.2178 8	.294	-.1783	.9450
		2.00	.08046	.0987 8	.848	-.1742	.3351
		4.00	.27333	.1116 8	.070	-.0146	.5612
	More than 1,00,000 per month	1.00	.11000	.2291 2	.963	-.4806	.7006
		2.00	-.19287	.1215 9	.387	-.5063	.1206
		3.00	-.27333	.1116 8	.070	-.5612	.0146
Herd Behaviour	Less than 20,000 per month	2.00	-.59770*	.2286 9	.045	- 1.187 2	-.0082
		3.00	-.58582*	.2233 2	.044	- 1.161 5	-.0102

AN EMPIRICAL INVESTIGATION OF PRIMARY DATA ON THE SAVINGS AND INVESTMENT BEHAVIOR OF INDIAN HOUSEHOLDS

		4.00	-.63000*	.2348 4	.038	- 1.235 4	-.0246
	20,000- 50,000 per month	1.00	.59770*	.2286 9	.045	.0082	1.187 2
		3.00	.01189	.1012 4	.999	-.2491	.2729
		4.00	-.03230	.1246 2	.994	-.3535	.2889
	50,000- 1,00,00 0 per month	1.00	.58582*	.2233 2	.044	.0102	1.161 5
		2.00	-.01189	.1012 4	.999	-.2729	.2491
		4.00	-.04418	.1144 7	.980	-.3393	.2509
	More than 1,00,00 0 per month	1.00	.63000*	.2348 4	.038	.0246	1.235 4
		2.00	.03230	.1246 2	.994	-.2889	.3535
		3.00	.04418	.1144 7	.980	-.2509	.3393
Cognitive Bias	Less than 20,000 per month	2.00	-.26034	.1865 0	.502	-.7411	.2204
		3.00	-.31028	.1821 2	.323	-.7798	.1592
		4.00	-.14000	.1915 2	.885	-.6337	.3537
	20,000- 50,000 per month	1.00	.26034	.1865 0	.502	-.2204	.7411
		3.00	-.04994	.0825 7	.931	-.2628	.1629
		4.00	.12034	.1016 3	.637	-.1416	.3823

AN EMPIRICAL INVESTIGATION OF PRIMARY DATA ON THE SAVINGS AND INVESTMENT BEHAVIOR OF INDIAN HOUSEHOLDS

	50,000-1,00,000 per month	1.00	.31028	.1821 2	.323	-.1592	.7798
		2.00	.04994	.0825 7	.931	-.1629	.2628
		4.00	.17028	.0933 5	.263	-.0704	.4109
	More than 1,00,000 per month	1.00	.14000	.1915 2	.885	-.3537	.6337
		2.00	-.12034	.1016 3	.637	-.3823	.1416
		3.00	-.17028	.0933 5	.263	-.4109	.0704
Status Bias	Less than 20,000 per month	2.00	-.08161	.2045 5	.978	-.6089	.4457
		3.00	.07589	.1997 4	.981	-.4390	.5908
		4.00	-.24000	.2100 5	.663	-.7815	.3015
	20,000-50,000 per month	1.00	.08161	.2045 5	.978	-.4457	.6089
		3.00	.15750	.0905 6	.304	-.0759	.3909
		4.00	-.15839	.1114 7	.487	-.4457	.1289
	50,000-1,00,000 per month	1.00	-.07589	.1997 4	.981	-.5908	.4390
		2.00	-.15750	.0905 6	.304	-.3909	.0759
		4.00	-.31589*	.1023 9	.012	-.5798	-.0520
	More than	1.00	.24000	.2100 5	.663	-.3015	.7815

AN EMPIRICAL INVESTIGATION OF PRIMARY DATA ON THE SAVINGS AND INVESTMENT BEHAVIOR OF INDIAN HOUSEHOLDS

	1,00,000 per month	2.00	.15839	.11147	.487	-.1289	.4457
		3.00	.31589*	.10239	.012	.0520	.5798
Mental Accounting	Less than 20,000 per month	2.00	.20345	.23767	.827	-.4092	.8161
		3.00	.39787	.23209	.317	-.2004	.9961
		4.00	-.03333	.24407	.999	-.6625	.5958
	20,000-50,000 per month	1.00	-.20345	.23767	.827	-.8161	.4092
		3.00	.19442	.10522	.252	-.0768	.4657
		4.00	-.23678	.12952	.261	-.5707	.0971
	50,000-1,00,000 per month	1.00	-.39787	.23209	.317	-.9961	.2004
		2.00	-.19442	.10522	.252	-.4657	.0768
		4.00	-.43121*	.11897	.002	-.7379	-.1245
	More than 1,00,000 per month	1.00	.03333	.24407	.999	-.5958	.6625
		2.00	.23678	.12952	.261	-.0971	.5707
		3.00	.43121*	.11897	.002	.1245	.7379
Overconfidence	Less than 20,000	2.00	-.02471	.17517	.999	-.4763	.4268
		3.00	.25496	.17105	.444	-.1860	.6959

AN EMPIRICAL INVESTIGATION OF PRIMARY DATA ON THE SAVINGS AND INVESTMENT BEHAVIOR OF INDIAN HOUSEHOLDS

	per month	4.00	-.11000	.1798 8	.928	-.5737	.3537
	20,000-50,000 per month	1.00	.02471	.1751 7	.999	-.4268	.4763
		3.00	.27968*	.0775 5	.002	.0798	.4796
		4.00	-.08529	.0954 6	.808	-.3314	.1608
	50,000-1,00,000 per month	1.00	-.25496	.1710 5	.444	-.6959	.1860
		2.00	-.27968*	.0775 5	.002	-.4796	-.0798
		4.00	-.36496*	.0876 8	.000	-.5910	-.1389
	More than 1,00,000 per month	1.00	.11000	.1798 8	.928	-.3537	.5737
		2.00	.08529	.0954 6	.808	-.1608	.3314
		3.00	.36496*	.0876 8	.000	.1389	.5910

Source: Research findings

Table 9 shows that the impact of behavioural biases i.e. Overconfidence and mental accounting, which increases with the income of the households. However, those households whose income lies within the lower income bracket prefer to follow other for taking their saving and investment decision and suffer from herd bias.

Conclusion

It has been determined that households have a high level of awareness regarding traditional and secure financial products, whereas the population has a low level of awareness regarding new financial instruments. The majority of respondents invest in conventional and secure financial vehicles. Overall, the results indicate that individuals must be made more aware of the various investing alternatives available in the market. They must be well educated on new financial instruments available in the market so that they can make bigger returns. The Indian government should also take initiatives to expand financial inclusion in the country by providing investors with sufficient possibilities for savings and investment. This will assist investors in capitalising on the country's thriving and expanding capital market and will also

minimise the strain placed on the government to finance economic expansion. It will also deepen the markets, which will make the economy sufficiently robust to resist any outflow of foreign funds. Under section 80C of the Income Tax Act of 1961, the government currently offers households the opportunity to reduce their income tax liability by making tax-advantaged investments. There is an urgent need to reform this legislation by implementing a debt-linked savings scheme (DLSS) akin to an equity-linked savings scheme (ELSS) that provides tax benefits under Section 80C of the Income Tax Act. In addition to bolstering the anaemic corporate bond market, this will draw more retail investors to the debt market. In order to boost participation in the stock market, the government should also include index funds among the section 80C investing alternatives.

In addition, the empirical findings of this study reveal that, according to traditional financial theories, households do not always behave rationally when making saving and investment decisions. Many biases are pervasive in the behaviour of households, and these biases play a significant influence in their decision-making. Before making any investment decision, it is advised that all individuals examine these biases as risk factors associated with their financial decisions and create a check list of these characteristics. The research described above can be extended to other regions of the country and other biases can be taken into account.

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References

- Athukorala, P.C., & Sen, K. (2004). The determinants of private saving in India. *World Development*, Elsevier, 32(3), 491–503. <https://doi.org/10.1016/j.worlddev.2003.07.008>
- Bashir, T., Ahmed, H. R., Jahangir, S., Zaigam, S., Saeed, H., & Shafi, S. (2013). Investment preferences and risk level: Behaviour of salaried individuals. *IOSR Journal of Business and Management*, 10(1), 68-78.
- Bhushan, P. (2014). Insights into awareness level and Investment Behaviour of salaried individuals towards Financial Products. *International Journal of Engineering, Business and Enterprise Applications*, 8(1), 53–57.
- Bhushan, P., & Medury, Y. (2013). Gender differences in investment behaviour among employees. *Asian Journal of Research in Business Economics and Management*. 3(12), 147-157
- Chakraborty, S., & Digal, S. K. (2011). A study of saving and investment behaviour of individual households – an empirical evidence from Orissa. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.2168305>

Chaturvedi, M., & Khare, S. (2012). Study of saving pattern and investment preferences of individual household in India. *International Journal of Research in Commerce and Management*, 3(5), 115-120.

Collins, S. M. (1989). *Savings behavior in ten developing countries*. The Institute, Cambridge, MA.

Das, S.K. (2011). An Empirical analysis on preferred investment avenues among rural and semi-urban households. *Journal of Frontline Research in Arts and Science*, 1, 26-36.

Geetha, S. N., & Vimala, K. (2014). Perception of household individual investors towards selected financial investment avenues (with reference to investors in Chennai City). *Procedia Economics and Finance*, 11, 360–374. [https://doi.org/10.1016/s2212-5671\(14\)00204-4](https://doi.org/10.1016/s2212-5671(14)00204-4)

Girdhari, M., & Sathya, S.D. (2011). A study on investment preferences among urban investors in Orrisa. *Prerna, – Journal of Management Thoughts and Practices*, 3(1), 1-9.

Gottlieb, D. (2012). Prospect Theory, Life Insurance, and Annuities. *Financial Literacy EJournal*, 1–42.

Jain, D., & Mandot, N. (2012). Impact of demographic factors on investment decision of investors in Rajasthan. *Researchers World – Journal of Arts, Science and Commerce*, 3(2), 81-92.

Kabra, G., Mishra, P. K., & Dash, M. (2010). Factors Influencing Investment Decision of Generations in India: An Econometric Study. *Asian Journal of Management Research*, 1(1), 308–328.

Kiran, D., & Rao, U. S. (2005). Identifying investor group segments based on demographic and psychographic characteristics. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.870749>

Matharu, S. K., Changle, R., & Verma, S. K. (2015). A study on investment behavior of middle class households in Indore. *Review of Professional Management- A Journal of New Delhi Institute of Management*, 13(2), 96. <https://doi.org/10.20968/rpm/2015/v13/i2/88691>

Matharu, S. K., Changle, R., & Verma, S. K. (2015). A study on investment behavior of middle class households in Indore. *Review of Professional Management- A Journal of New Delhi Institute of Management*, 13(2), 96-105. <https://doi.org/10.20968/rpm/2015/v13/i2/88691>

NCAER (2011). *Survey of Indian Investor Households*. Conducted by National Council of Applied Economics Research

**AN EMPIRICAL INVESTIGATION OF PRIMARY DATA ON THE SAVINGS AND INVESTMENT BEHAVIOR
OF INDIAN HOUSEHOLDS**

Ogaki, M., Ostry, J. D., & Reinhart, C. (1995). Saving behavior in low- and middle-income developing countries: A Comparison SSRN Electronic Journal. <https://doi.org/10.2139/ssrn.883153>

Raheja, S., & Lamba, B. (2011). Behaviour of investors towards investment. *Indian Journal of Applied Research*, 3(10), 1–2. <https://doi.org/10.15373/2249555x/oct2013/22>

Rajarajan, V., (2003). Investors' Demographics and risk bearing capacity. *Finance India*, 17(2), 565–576.

Samudra, A., & Burghate, M.A. (2012). A Study on investment behaviour of middle class households in Nagpur. *International Journal of Social Sciences and Interdisciplinary Research*, 1(5), 43-54.

Senthil Kumar, K., Vijaya Banu, C., & Gomathi Nayagam, V. L. (2008). Financial Product Preferences of Trichirapalli investors using Analytical Hierarchy process and fuzzy Multi Criteria Decision Making. *Investment Management and Financial Innovations*, 5(1), 66–73.