

# A STUDY ON BEHAVIOURAL FACTORS INFLUENCING THE DECISION OF INDIVIDUAL INVESTORS IN ODISHA WITH SPECIAL REFERNCE TO STOCK MARKET

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## ABSTRACT

Individual investor behaviour is motivated by a variety of psychological heuristics and biases. The traditional finance theory says that the investors behave rationally, however the modern finance theory disproved the same as the individual investors are irrational when they make investment decisions. From the extensive literature review, it was found that there is no single factor which influences the investment decisions of an individual. Moreover factors influencing investment decision

Varies from time to time, place to place, person to person, securities to securities etc. In this attempt the researchers conducted this research to mainly identify and prioritize the objectives behind investment and the source of information that influence investor's decision making process. This study is an exploratory in nature used the primary data collected from five different clusters in Odisha namely; Cuttack, Bhubaneswar, Berhampur, Rourkela and Sambalpur through a structured questionnaire from 504 individual investors.

**Keywords:** individual investor, behavior pattern, psychological heuristics, Information

## INTRODUCTION

The growth of economy depends on the capital formation which in turn depends on the investment made by individual investors, financial institutions, Government Agencies, Industries etc. It is therefore very essential for any country to provide a conducive and productive climate to promote investments by setting up a system which provides all inputs required by an individual for making investments. An individual sacrifices his present consumption to generate savings which in turn are invested in various investment opportunities. It is very essential for any individual to have proper insight to all the relevant issue which can have bearing on his investment decisions. Investment is the sacrifice of certain present value for the uncertain future reward. Every person wants to see the growth of his capital at the rate which is at least greater than the rate of inflation so that at the end of any period, he can enough funds to purchase the goods which he sacrificed earlier, i.e. Investment requires sacrifice of present consumption for future return.

Saving and investment habit of individual household in any economy plays a vital role in the development of economic activities, The growth of any economy can not be studied without studying the public and private investment activities in the economy, For studying investment activity the behavior of individual investor needs to be analysed. An important feature of the financial market is the depth and breadth of public participation in the market. Millions of households and individual investors provide a pool of capital and a diversity of decision-making that creates liquidity in the market and makes it dynamic. Thus, the number of households and individual stock holders are the two most important players in financial market denoting the breadth of stock ownership in the population.

### **Investment Behavior of Individual Investors**

An important feature of the financial markets is the depth and breadth of public participation (i.e. individual investors) in the market. Millions of households and individual investors provide a pool of capital and a diversity of decision making that creates liquidity in markets and makes it dynamic. Thus the number of household and individual stock holders, fix-deposit holders in bank and post-office, Bond holders or investors in different mutual-funds, insurance-linked investment plans is most commonly cited summary statistics denoting the breadth of investors in the population. These statistics are useful tools for understanding the changes that take place in the financial markets and also for policy formulation.

At the macro level the behavior of individual saving and investments is primarily related to the nation's marginal propensity to consume, which in turn depends upon the level of income of the investor. Secondly it can be considerably influenced by the incentive structure provided by the authorities, fiscal or otherwise. While providing incentives there are two approaches, first the income oriented approaches and the second one is the price oriented approach. Income oriented approach include changing the monetary and fiscal policy mix by lowering government and private consumption while stimulating investment through lower interest rates. Price oriented approach include rising the rate of return to the investor or saving by lowering the tax rate or raising the reward for investments by offering investments and additional depreciation allowances.

At the micro level, the behavior of individual investor saving and investments is a very complex phenomenon and can only be determined through the study of various factors. Several econometric studies have recently attempted to identify determinants of the Indian saving rate, using a standard life-cycle approach, ordinary least-squares methods were employed to derive the broad results. The complexity of the study of individuals saving behavior can reasonably explained by the emotional and sentimental behavior of individual towards saving and investments. In India the cultural aspect also plays an important role in saving and investment of Indian individual investor. The result of few of the studies which have conducted on Indian households, it was found that GDP growth has had no significant impact on the saving rate. Rising per-capita income, however, was found to have a weak positive effect on household saving. The agricultural sector in India has a lower propensity to save compared to other sector, so that a diminishing share of

agriculture in GDP raises the saving rate. The effects of taxation on saving have been weakly negative. A higher real interest rate has apparently increased saving surprisingly.

## LITERATURE REVIEW

Shannugam (2000) conducted a survey of 201 individual investors to study the information sourcing by investors, their perceptions of various investment strategy dimensions and the factors motivating share investment decisions, and reports that among the various factors Psychological and Sociological factors dominated the economic factors in share investment decision.

Furqan Qamar (2003) This paper is an exploratory study that seeks to analyze the saving behaviour and investment preferences among average urban middle class people in Delhi. Despite the financial sector reforms and entry of private domestic and foreign banks into the country, the nationalized commercial banks seem to be the favourite choice of an average household. Capital market imperfections and associated risk have not been a deterrent for many households, as they are found investing in debentures and shares either directly or through mutual funds. The saving behaviours and investment preferences of average urban households seem to be significantly influenced by the level of educational attainments and income of the respondents.

Ansari A A and Jana S (2009) in their article “Stock Price Decision of Indian Investors” published in The Indian journal of commerce, July-September 2009 concluded that there will be two kinds of investors – rational traders and noise traders. His study shows that rational traders are using both fundamental analysis and technical analysis as stock selection tools. In an uncertain situation decision making process of noise trader will go through mental biases – self attribution bias, loss aversion bias, confirmation bias and overconfidence bias. As a result the noise traders will believe that some irrelevant information will be more important for price decision and they will trade more. This study has proved that some of the rational trader’s decision process also guided by all these biases.

Ramprasath S & Karthikeyan K (2013) in his research paper on individual investors’ behavior towards selected investments, states that the majority of the investors are giving much importance for the factor “safety”. Similarly investment avenues such as Bank deposits, LIC policies and Bullion has been preferred by the individual investors. Similarly the majority of the investors are periodically evaluating the performance of their investment avenues.

Panda B.N. & Panda J.K (2013) made an analytical study on perception of risk and return for individual investment which aims to put on some knowledge about key factors that influence investment behavior and ways these factors impact investment risk tolerance and decision making process in this analysis it was presented that higher returns are expected on Mutual Fund followed by Postal deposits and Insurance Schemes than other types of investment.

## OBJECTIVE OF THE STUDY

- To identify the most common objectives behind the investment preferred by investors.
- To trace common information source accessed by investors to collect information regarding investment avenue

## HYPOTHESES

H<sub>0</sub>1: There is no significant difference between investors' preference for different investment objectives.

H<sub>0</sub>2: There is no significant difference between popularity of different source of information used by the investors.

## Methods of Data Collection

In pursuit of the above objectives, an exhaustive study and opinions of investors from Cuttack, Bhubaneswar, Berhampur, Rourkela and Sambalpur is considered the sample frame for the study. The collection of data for the purpose of the study is aimed at getting investors' perception on different aspects of investment in the capital market. Therefore, data is obtained to justify the above said objectives through only primary sources.

**Sample Domain:** It was not possible to collect data throughout Odisha. To avoid this limitation a sample domain was formed. Localities of Cuttack, Bhubaneswar, Berhampur, Rourkela and Sambalpur were included under the sample domain.

**Sample Description:** The present study 'Share market as an investment avenue; a study on investors perception in Odisha' is purely related to behavioral finance. The investors' psychology is the important factor of data collection. Further, the perception of investors on different aspects of capital market requires specific knowledge on capital market and investment avenues. On the above basis, the investors having experience in capital market were considered as respondents. Different objectives of current research were measured from the opinion of respondents. The respondents selected with different demographic character like; gender, education, habitation, profession, age and experience. The purpose of this demographic segregation was to identify impact of these characteristic on investors' perception towards capital market.

**Sample Units:** The aim of the research is to know the perception of investors on different aspects of capital market and to identify factors that have impact on the popularity of stock market instrument. Enough provisions have been made for protection against biased and maximized reliability. Individuals having experience in stock market at selected sample domain, was the population for the study. 504 respondents selected randomly as the sample respondents. The data collected from five different clusters in Odisha namely; Cuttack, Bhubaneswar, Berhampur, Rourkela and Sambalpur. All these clusters show the diversity of the State as well as economically developed areas of the state. From the above mention

clusters 50% of the questionnaires were collected disproportionately through Direct Personal Interview (DPI) method and rest were collected through snow ball sampling.

The researcher has distributed 600 closed ended questionnaires. These questionnaires were distributed disproportionately over the five clusters. Direct Personal Interview (DPI) and snow ball sampling method was applied for the data collection. Using Direct Personal Interview method 252 questionnaires were distributed and collected. Out of which all the questionnaires were filled up in every respect. 348 questionnaires were distributed and collected by using snow ball sampling method. Out of 700 questionnaires distributed, 100 questionnaires did not co-operate which is 14.28% of the total questionnaires distributed. This indicates the efficiency of the researcher. Out of 348 questionnaires collected using snow ball sampling method, 252 questionnaires were filled up in every respect. Only 96 questionnaires found not to be filled up in every respect. These 96 questionnaires were rejected. By this process, the researcher disproportionately collected the samples which add up to the total mentioned above.

## LIMITATIONS OF THE STUDY

The perception of respondent on different aspects was collected. As a research exercise, the study has dealt with sizeable samples of 504 respondents. Being stock market participation is limited; selection of respondents requires more precaution. The participation in stock market in developed countries like United States of America and European Countries is high whereas in a developing country like India it is maximum up to 2%. In a state like Odisha which is one of the backward states of India, the stock market participation is much less. In this context collecting 504 complete questionnaires is a great challenge.

Another practical problem to conduct research on this topic is collection of Primary data. Since individuals don't prefer to disclose details of their investment, collection of primary data became very difficult.

The present dissertation is confined to only five cities of Odisha and only 2% of the investors have been studied, so the limitation of small samples is applicable.

## Data Analysis and Interpretation

### Demographic Characteristic of Respondents

CATEGORY	SUB-CATEGORY	FREQUENCY	PERCENT
AGE (Years)	Bellow 30	96	19.0
	30-39	195	38.7
	40-49	153	30.4
	50-59	42	8.3
	Above 60	18	3.6
	<b>Total</b>	<b>504</b>	<b>100.0</b>
GENDER	Female	138	27.4
	Male	366	72.6
	<b>Total</b>	<b>504</b>	<b>100.0</b>
MARITAL STATUS	Married	375	74.4

	Un married	129	25.6
	<b>Total</b>	<b>504</b>	<b>100.0</b>
<b>RESIDENCY</b>	Rural	90	17.9
	Semi urban	192	38.1
	Urban	222	44.0
	<b>Total</b>	<b>504</b>	<b>100.0</b>
<b>EDUCATIONAL LEVEL</b>	Under Graduate	60	11.9
	Graduate	177	35.1
	Post- Graduate	216	42.9
	Above Post- Graduate	51	10.1
	<b>Total</b>	<b>504</b>	<b>100.0</b>
<b>EDUCATION TYPE</b>	General	235	46.6
	Professional	156	31.0
	Technical	113	22.4
	<b>Total</b>	<b>504</b>	<b>100.0</b>
<b>EXPERIENCE (Years)</b>	0-5	135	26.8
	6-10	141	28.0
	11-15	138	27.4
	16-20	51	10.1
	Above 20	39	7.7
	<b>Total</b>	<b>504</b>	<b>100.0</b>
<b>INCOME (in Rs per Month)</b>	10,000-20,000	57	11.3
	20,001-30,000	153	30.4
	30,001-40,000	141	28.0
	40,001-50,000	60	11.9
	Above 50,001	93	18.5
	<b>Total</b>	<b>504</b>	<b>100.0</b>
<b>TAX</b>	Not tax payer	195	38.7
	Tax Payee	309	61.3
	<b>Total</b>	<b>504</b>	<b>100.0</b>

### Purpose of Investment of Investor

DETAILS	N	MEAN	STD. DEV	SKEW	KURT	RANK
Meet Health Care Expenses	504	4.2143	.94043	-1.130	.758	1
Future Personal Obligation	504	3.8929	1.08139	-.638	-.552	2
Source of Income Generation	504	3.8571	1.16758	-.691	-.553	3
Acquisition of Land/House	504	3.8155	1.08472	-.416	-.921	4
Working Capital Generation	504	3.7679	1.05310	-.602	-.243	5
Tax Relief /Benefits	504	3.7679	1.31049	-.730	-.741	6
Social obligation like education of children marriage	504	3.7143	1.20210	-.636	-.528	7



Acquisition of house hold Assets excluding Land / Building	504	3.4762	1.09736	-.347	-.444	8
Acquisition of Jewellery (Gold/ Silver etc)	504	3.3333	1.23887	-.295	-.868	9
Retirement Plan	504	3.3095	1.31494	-.301	-1.049	10

From the above table, it was clear that the highest value of mean was 4.2143(Meet Health Care Expenses) and the lowest value of mean was 3.3095(Retirement Plan). Importance of each variable assigned on the basis of mean score. The mean score of Meet Health Care Expenses, Future Personal Obligation, Source of Income Generation, Acquisition of Land/House, Working Capital Generation, Tax Relief /Benefits, Social obligation like education of children marriage etc, Acquisition of house hold Assets excluding Land / Building, Acquisition of Jewellery (Gold/ Silver etc) and Retirement Plan was 4.2143, 3.8929, 3.8571, 3.8155, 3.7679, 3.7679, 3.7143, 3.4762, 3.3333 and 3.3095 respectively. The standard deviation value of Meet Health Care Expenses was 0.94043 which is minimum among all variables whereas the standard deviation value of Retirement Plan (1.31494) was maximum among all variables. Smallest standard deviation with the highest mean for the variable Meet Health Care Expenses conform the rank 1 more precisely. The skewness score of all 10 variables were negative. Except the skewness result of Meet Health Care Expenses, rest all are greater than -1, whereas the skewness result of Health Care Expenses was -1.130 indicate the mean score < Median value and most of the values are in the upper portion of the distribution. As the skewness value between +3 to -3, the variables under the study were considered excellent for most psychometric purposes.

The kurtosis value of 9 variables under study was negative whereas the kurtosis value of Health Care Expenses was positive. As the kurtosis value between of all 10 variables found +3 to -3, the variables under the study were considered excellent for most psychometric purposes and form a distribution that was flatter than bell shaped distribution.

On the basis of mean value, most important five purpose of investment were Meet Health Care Expenses, Future Personal Obligation, Source of Income Generation, Acquisition of Land/House and Working Capital Generation.

#### Details of Sources of Information used by Investors

DETAILS	N	MEAN	STD. DEV	SKEW	KURT	RANK
Advertisements in Electronic Media	504	3.9643	1.10786	-.828	-.287	1
Advertisements in Print Media	504	3.5655	1.11187	-.283	-.723	2
Independent Financial Advisor	504	3.5595	1.21963	-.238	-1.080	3
Tax Consultants	504	3.5536	1.24411	-.412	-.833	4

Company based websites	504	3.5000	1.02455	-.418	-.205	5
Satisfied Customer	504	3.4583	1.15510	-.050	-1.211	6
Financial Journals	504	3.4345	1.12255	-.153	-.963	7
Syndicated websites	504	3.4286	.98642	-.343	-.068	8
Point of Sale	504	3.3452	1.18131	-.106	-.883	9
Investment based programs on Electronic/ Print media	504	3.3333	1.19973	-.248	-.779	10
Editorials in business magazines /newspapers	504	3.3155	1.09294	-.100	-.568	11
Friends	504	3.2857	1.12522	-.075	-.769	12
Company's Financial Advisor	504	3.2083	1.14472	-.079	-.761	13
Internet/ Virtual advisors	504	3.1786	1.15751	-.144	-.727	14
Relatives	504	3.1369	1.09177	.030	-.584	15
Brochure	504	3.1012	1.21933	.083	-.895	16
Hoardings and other displays	504	3.0298	1.22803	-.057	-.880	17
Poster	504	2.8393	1.34798	.119	-1.122	18
Companies Tele-Caller	504	2.6607	1.17545	.197	-.839	19

From the above table, it was evidenced that Advertisements in Electronic Media is most preferred source of information. The mean score of Advertisements in Electronic Media was 3.9643 which was highest among all variables and the mean score of value of Companies Tele-Caller was 2.6607 which was the lowest among all variables. The mean score of Advertisements in Print Media, Independent Financial Advisor, Tax Consultants, Company based websites, Satisfied Customer, Financial Journals, Syndicated websites, Point of Sale, Investment based programs on Electronic/ Print media, Editorials in business magazines/ newspapers, Friends, Company's Financial Advisor, Internet/ Virtual advisors, Relatives, Brochure, Hoardings and other displays and Poster 3.5655, 3.5595, 3.5536, 3.5000, 3.4583, 3.4345, 3.4286, 3.3452, 3.3333, 3.3155, 3.2857, 3.2083, 3.1786, 3.1369, 3.1012, 3.0298, and 2.8393.

The skewness score of all 19 variables were close to zero and vary with a range of -0.828 to 0.197 whereas the kurtosis value of 19 variables under study was negative and varies in a range of -1.122 to -0.030. As the skewness and kurtosis value between +1 to -1 the variables under the study were considered excellent for most psychometric purposes and form a distribution that was flatter than bell shaped distribution.

## HYPOTHESES TESTING

**H<sub>0</sub>4:** There is no significant difference between investors' preference for different investment objectives.



**ANOVA Summary for Comparison of Preference for different Investment Objectives**

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	344.695	9	38.299	28.725	0.000
Within Groups	6,706.589	5,030	1.333		
Total	7,051.284	5,039			

The obtained value of 'F' for different investment objectives was 28.725. The calculated value F was obtain at 9(n1) and 5,030 (n2) degrees of freedom at 95% confidence level. The p-value was 0.0001 which was less than 0.05. Since the p value < significance level (0.05), the preference of investors for different investment objectives was statistically significantly different. So the null hypothesis 'there is no significant difference between investors' preference for different investment objectives' is rejected with 95% confidence.

**H<sub>0</sub>2:** There is no significant difference between popularity of different source of information used by investors.

19 different source of information such as Advertisements in Electronic Media, Advertisements in Electronic Media, Advertisements in Print Media, Independent Financial Advisor, Tax Consultants, Company based websites, Satisfied Customer, Financial Journals, Syndicated websites, Point of Sale, Investment based programs on Electronic/ Print media, Editorials in business magazines/ newspapers, Friends, Company's Financial Advisor, Internet/ Virtual advisors, Relatives, Brochure, Hoardings and other displays, Poster and Companies Tele-Caller was put together to know the investors preference. The mean score of top five variables were 3.9643, 3.5655, 3.5595, 3.5536 and 3.5000. The closeness among the top five source crated confusion in assigning the ranks with confidence. To come out of this ANOVA was applied to know whether the difference was significant or not.

**ANOVA Summary for Comparison of Preference for different Source of Information used by Investors for collecting details about Investment**

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	770.045	18	42.780	31.942	0.000
Within Groups	12,799.946	9,557	1.339		
Total	13,569.992	9,575			

The obtained value of 'F' for different investment objectives was 31.942. The calculated value F was obtain at 18(n1) and 9557 (n2) degrees of freedom at 95% confidence level. The p-value was 0.0001 which was less than 0.05. Since the p value < significance level (0.05), the preference of investors for different source of information was statistically significantly different. So the null hypothesis 'There is no

significant difference between popularity of different source of information used by investors' preference for different investment objectives' is rejected with 95% confidence.

## FINDINGS

With regard to the purpose of investment, it is identified that Meeting Health Care Expenses was the most important purpose of investment followed by the purpose 'Future Personal Obligation'. The 3<sup>rd</sup> most important purpose of investment was Source of Income Generation whereas the 4<sup>th</sup> important purpose is the acquisition of Land/House. The assigned ranks were confirmed as the mean score of these purposes were statistically different.

To elicit the most preferred sources of information used by investors different sources of information used. It was confirmed that the investors in Odisha more dependent on Advertisements in Electronic Media. The 2<sup>nd</sup> most important sources of information was Advertisements in Print Media. Independent Financial Advisor as a source of information placed in 3<sup>rd</sup> position. Tax Consultants and Company based websites individually place at 4<sup>th</sup> and 5<sup>th</sup> position.

## SUGGESTION

The main recommendation for investors is to make constant attempts to increase their awareness on behavioral finance by educating themselves on the field. Studying about the biases, and reflecting on their decisions are likely to help achieve better self-understanding of to extent and manner to which they gets influenced by emotions while making financial decisions under uncertainty. Even after satisfactory awareness is achieved it is highly recommended that they maintain a chart of the behavioral biases they are likely to be vulnerable to. This should be reviewed periodically in order to recollect and refresh their memory thus giving themselves a better chance to make improved financial decisions in the stock market. Most essentially, what remains unanswered is whether greater awareness of investors about behavioral biases is likely to increase the market efficiency. Awareness about behavioral biases and its application in the course of making investment decision would be increasing the rationality of investment decisions thus making way for higher market efficiency. The study pointed out that people buy stock on seeing the electronic and print media. Since these two modes influence much, these need to be vigoured. Stock market authorities should use these two media in order to woo the public in favour of Stock market.

## CONCLUSION

Indian stock market is semi-efficient by nature and, is considered as one of the most respected stock markets, where information is quickly and widely disseminated, thereby allowing each security's price to adjust rapidly in an unbiased manner to new information so that, it reflects the nearest investment value. After introduction of electronic trading system, the information flow has become much faster. But sometimes, in developing countries like India, sentiments play major role in price movements, where

investors find it difficult to predict the future with certainty. Some of these events affect economy as a whole, while some events are sector specific. Even in one particular sector, some companies or major market players are more sensitive than others. So, the new investors taking exposure in the market should be well aware of the market risks.

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