

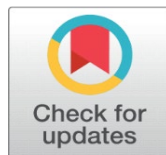
# ONLINE STOCK MARKET INFORMATION SEARCH BEHAVIOUR OF RETAIL INVESTORS: AN EMPIRICAL STUDY IN THE CONTEXT OF SOCIAL MEDIA SOURCES

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## ABSTRACT

Papers have investigated about perpetual experience of the retail investors of the stock market in India. It has been seen that there's a relationship between the demographic profile like gender, age, annual income, etc. with trade behaviour of retail investors. The aim of these studies is assessing the information of the investors and how they decide to invest in stock market. The information source, the information seeking techniques, type of info resources, content and usage of the information sought, issues faced by investors and other important factors for choosing information sources are some of the most important aspects. It has been seen that investors sought information about stock market from television, social media, etc. They apply this information to plans of stock investment. Although each problem of the information seeking is moderate, a lack of proper information search trainings is one of the biggest issues that the investors face while making an investment in the stock market. Sample of 263 respondents were surveyed to conduct the study and know the behaviour of retail investors while online stock market information search and the impact of social media platforms on their behaviour. Factor analysis was applied to analyse the data. It was concluded that different behaviours were found in retail investors while their online stock market information search and these behaviours are significantly influenced by social media sources.

**Keywords:** Stock Market, Investor Behaviour, Investment Pattern, BSE, NSE

## 1. INTRODUCTION

Investment signifies putting money in endeavours for extra income. It might look quite fascinating to a lot of individuals since through investment, their participation in decision taking becomes possible. The individuals can take decisions and therefore they may judge their capability of taking the right decision by assessing the results. The traditional theories of finance simply assume that investment market as well as its members are realistic as well as sensible and they are only looking at maximising their profits. However, on a lot of occasions, various factors such as previous experiences, feelings, beliefs, etc. impact the decision making power of the investor. Thus, the investors act unexpectedly, in an unwise and illogical manner (Raut, 2018). For understanding the influence of such elements on the decision of the investors a completely new field of finance has evolved. The new branch is called "Behavioural Finance". It's the effort of uniting the behavioural approach with traditional economics and finance theories. It helps in explaining the main reasons behind the irrationality of the investment choice of investors now a days. Behavioural finance basically deals with external and internal behaviour factors which affect the financial decision of an investor. Researchers discuss

the impact of different elements on the investment behaviour and thus it is related to the behavioural finance. It is a recently emerged domain of finance which indicates the observed outcomes of stock market apart from the impact of different types of psychological biases on attitude and behaviour of individuals who are involved in the investment decision. The risks that are faced by the investors while making the investments help in creating individual wealth. Because of uncertainty, investors face financial losses. These uncertainties of returns are lowered when the market information and data is obtained as well as managed properly (**Haifa and Boujelbene, 2015**).

The theory of taking risk develops plans for minimising the risks involved in investment decisions which includes looking for and also obtaining more information about the market for reducing the uncertainties of the decisions. Information search signifies seeking advice from different resources before making any decision. Information has an important role to play in the investment decision process for minimising the risk related to such decisions. More informed the investors are, better decisions they make and thus they try and look for better market information for lowering the uncertainties in the investment decisions. Well informed individuals are capable of handling risk more efficiently since it helps them in reducing the uncertainties in making investment in the stock market. The financial market as well as its products change rapidly and thus for making better financial decision, professional assistance is required for ensuring accuracy of the desired information (**Jana, 2016**).

## 2. LITERATURE REVIEW

Studies have reported how searching of information affects the investment decisions of individuals while a moderate impact of income maybe tested. The studies which study the behaviour of individual investors who have been investing in the stock market since past few years conclude that while advice seeking info search helps in improving it, it causes better investment by the investors with additional earnings in stock and options (**Frino et al., 2015**).

The mediating impact of information search between the earnings as well as behaviour of taking investment decisions have been studied in these papers. Heuristics, information searches and education show that they have a positive as well as a significant impact on the investment decision. Studies have also concluded that the wealthy investors are concerned about getting information from the financial experts (**Naik and Padhi, 2015**). On the contrary, the poor investors are not concerned about taking advice from the experts. Investments in the risky assets increase when they are able to get a better advice. The investment decision is uncertain as well as risky. An investigation of factors which determine risk taking ability of the investors was done. Studies have explored the importance of placing perception and propensity of risk in the model of investment decision (**Jongmoo et al., 2015**).

Some basic factors have also been investigated for checking their effect on the risky decision of the individuals. Outcomes of these studies indicate that there're certain factors which have an influence on risky financial options of people who are involved in the investment. Such factors comprise of policy related to distribution of dividends, the way shares of the company performed in past few years, the expected split of stock and increase in the bonus and capital of the firm, the future income of the firm as well as behaviour of the investor which shows their desire for becoming wealthy (**Gill et al., 2018**). The primary behavioural components are stated, influencing the choice of investment of the individuals who make investment. It has been found that the investors who are overconfident trade rapidly because of their experience, knowledge and skills. It was concluded that the efficiency of stock market isn't reduced because of irrational behaviour of investors (**Chih-Hsiang and Shih-JiaLin., 2015**).

Additional time along with additional resources is used for collecting extra information by the investors who may be overconfident. It has been seen that bias in terms of overconfidence occurs when investors take investmentrelated decisions. The capability of market as well as overconfidence of the investors while making investment show positive as well as significant association.

The effect of behaviour of the investors on the investment decision of the firm have also been explored. Overconfidence amongst the executives persuade an overestimation of different options of investment and it has also been found that external finance is quite expensive. They prefer making investment when the finance options are available internally (**Hou, 2015**).

The investment decision gets better return when the chief executive officer of the company is over confident. The relation between investments and return is prominently impacted by the other personal characteristics than overconfidence. These characteristics include the designation within the company, professional history as well as qualification. These studies also reveal that investment decision of investors aren't rational at all. A lot of external as well

as internal factors have an impact on such decisions. Just a couple of studies have assessed if information searches help in mediating the impact of such variables on the decision making behaviours. So researches have explored and examined the mediating impact of information search on the decision taking behaviour of investors through survey analysis (**Makarand et al., 2017**).

Stock exchange helps in easing channelization of the savings of the households for coping with financial needs of an economy specifically of the productive sectors that ensure transparent and fair process in the securities market and also enables liquid position of the market. Some of the papers have also investigated the psychological aspects which have a great impact on financial decision of the investors. They conclude that there's a relationship between the psychological components and decision making power of the investors in the stock market. The impact of the psychological aspects has also been studied regarding the stock exchange. Mainly 3 factors have been studied here which are conservatism, overconfidence as well as availability biasness. They impact the decision making aspect of the investors. Also, there's no prominent impact of herd behaviour (**Nagtilak & Kulkarni, 2015**).

The investor protection has also been studied and it was seen that income wise less percentage of the annual income was invested in the stock market. Just a couple of investors invest in the long term options. Few investors take the information from newspapers, television channels, internet, magazines, etc. while some studies also conclude that there's an optimum use of reliable data for the same (**Mishra et al., 2016**).

The reading habit of the investors isn't that effective since a number of investors aren't updated with regular updates. The investors monitor the trend of the stock before indulging in trade related activities but they don't try to get an in depth information about the company.

A very small part of the investors population is interested in getting the in depth reports of the company for ensuring about investment decision that shows a legitimate attitude of the participating investors (**Prasad, 2016**).

There has been an argument if the individual investor has an informational edge regarding the companies which are close to their location or in the industry in which they work. Some of the scholars also argue that the individual investors are well informed regarding the prospects of these kind of companies and thus the information advantage causes better investor decisions. Others also state that the individuals who over invest in the stock since they know and understand them, leads to under diversification as well as average and sometimes even below par return (**Islamoglu et al., 2015**).

The familiarity based investment helps the investors in earning high returns since the information benefits are conferred through familiarities. Also, some studies have documented the fact that the individual investors often tend to over weigh the local stock and they argue that return on the local stock is strong. This outcome isn't robust and it just leans on the faculty statistic methodologies (**Sangeeta et.al., 2015**).

Another demographic component which derives the behaviour of investors is education level. Education has a very positive relationship with the usage of internet. It has been stated by the researchers that the shoppers who shop online have high education level as compared to those who do not shop online. They have also assessed the way the demographics of the individuals might influence their choice of retail format. It was found that investors who might be using internet frequently often tend to have high education level. Finally, they have demonstrated that the participants of online auction tend to be better educated as well. Education also impacts the risk taking ability of an individual and their investment decision too.

Studies indicate that the education level of people positively influences their preference for risk taking, while others state that the individuals having a low education level tend to have fewer stocks (**Boda, 2017**).

Education is also related to the information search as well as information use behaviour of an individual. It has been seen that people who are more educated often engage into better usage and search of information. According to some researchers, people having a high level of education are likely to look for financial information and they would search the internet too. Considering the fact that looking for information is important for taking investment decision and one drawback for participation in the stock market is cost for information. It's not new that people having high education level are likely keep the stocks since they have all the knowledge for performing the info search tasks (**Sashikala & Girish, 2015**).

Without a specific level of education, it's just not possible for the consumers to engage into any online activity. A significant relationship has also been seen between income of individuals and the online information search behaviour of individuals. Results indicate that individuals who have a high level of income would participate in a number of online activities including shopping online, usage of internet, online information search, E-auction, etc. It's been found that

income that's related to level of risk tolerance amongst the individuals and the investment decision of the individuals. The level of income positively influences ability of tolerating risk of the individuals. Also, these individuals might have a high proportion of stock holdings along with an increase in the income (**Bhat, 2018**).

One reason for positive relation between usage of internet and shopping intentions of consumers for shopping online is that with an increase in use of internet, they also get more familiar as well as comfortable with internet. This increased internet familiarity causes a positive association like risk reduction and trustworthiness. The familiarity with the environment often tends to activate the affective response towards it. In an online environment, it has been seen that familiarity helps in building trust in online industry (**Aruna and Rajashekar, 2015**).

### 3. OBJECTIVES

- 1) To know the behavior of retail investors while online stock market information search
- 2) To know the impact of social media sources on the behavior of retail investors while online stock market information search.

### 4. RESEARCH METHODOLOGY

Sample of 263 people were surveyed with the help of a structured questionnaire in which retail investors of stock market were surveyed to know their behavior while online stock market information search and the impact of social media platforms on their behavior. The study is empirical in nature and primary data was collected through random sampling. Factor analysis was used as statistical tool to analyse the data with the help of IBM SPSS software.

### 5. FINDINGS OF THE STUDY

Table 1 demonstrates the general details of the respondents. Total 263 people were surveyed in which 62.7 percent are male and 37.3 percent are female. 30.8% were of the age group 30-35 years, 39.2% are 35-40 yrs of age and rest 30.0% of the respondents are above 40 yrs age. 26.2 percent of the investors invest in mutual funds, 24.7 % are interested to invest in exchange trade funds, 25.5% are investors of stocks and bonds and 23.6% are other retail investors. 27.4 percent of the respondents follow YouTube channels, 25.1% are following Facebook, 24.3% are on LinkedIn, and 23.2 percent are following other social media sources for their online stock market information search.

**Table 1: Profile of the respondents**

Variable	Respondents	Total percentage
<b>Gender</b>		
Male	165	62.7
Female	98	37.3
<b>Total</b>	<b>263</b>	<b>100</b>
<b>Age</b>		
30-35 yrs	81	30.8
35-40 yrs	103	39.2
Above 40 yrs	79	30.0
<b>Total</b>	<b>263</b>	<b>100</b>
<b>Retail investors</b>		
Mutual Funds	69	26.2
Exchange trade Funds	65	24.7
Stocks and bonds	67	25.5
Others	62	23.6

<b>Total</b>	<b>263</b>	<b>100</b>
<b>Social media sources</b>		
YouTube	72	27.4
Facebook	66	25.1
LinkedIn	64	24.3
Others	61	23.2
<b>Total</b>	<b>263</b>	<b>100</b>

**Factor Analysis:****Table 2: “KMO and Bartlett’s Test of Sphericity” and “Measure of Sampling Adequacy**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.859
Bartlett's Test of Sphericity	Approx. Chi-Square	3857.110
	df	136
	Sig.	.000

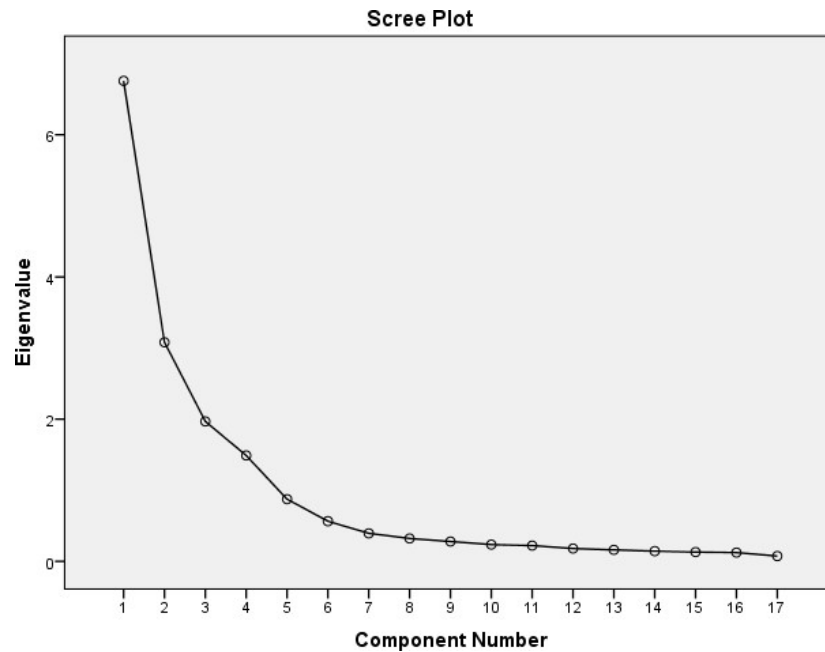
Table 2 shows that the KMO value is 0.859 which means that the sample size for Factor Analysis is adequate and the “Bartlett’s Test of Sphericity” is also significant.

**Table 3: Variance Extracted “Exploratory Factor Analysis” (EFA)**

Component	Initial Eigen values			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.758	39.751	39.751	3.529	<b>20.758</b>	20.758
2	3.081	18.122	57.873	3.497	<b>20.571</b>	41.328
3	1.968	11.577	69.449	3.429	<b>20.172</b>	61.500
4	1.489	8.758	78.207	2.840	<b>16.707</b>	<b>78.207</b>
5	.875	5.147	83.354			
6	.564	3.321	86.675			
7	.394	2.318	88.993			
8	.321	1.891	90.884			
9	.279	1.644	92.528			
10	.235	1.383	93.911			
11	.221	1.302	95.213			
12	.181	1.062	96.275			

13	.161	.950	97.225			
14	.144	.847	98.071			
15	.130	.764	98.835			
16	.124	.729	99.564			
17	.074	.436	100.000			

The “principal component analysis” method was applied to extract the factors and it was found that 17 variables form 4 Factors, based on the Eigen values (>1).



**Figure1: Scree Plot**

Figure 1 is the graphical presentation of the Eigen. The figure shows an elbow at 4th component.

#### Constructs or Factors:

**Table 4: Factors, Factor Loading, and Reliability**

SL. No.	Statements	Factor Loadings	Factor Reliability
<b>1.</b>	<b>Following experts on social media</b>		<b>.947</b>
1.	I watch expert's opinion videos on their YouTube channel	.931	
2.	I follow the You Tube channel of business news	.916	
3.	I follow the expert's video on different social media platforms (Facebook, YouTube etc.)	.903	
4.	I am a regular viewer of blogs posted by investment experts	.892	



2.	<b>Interaction and communication fellow investors</b>		<b>.884</b>
1.	I access to blogs of my fellow investors on social media channels	.855	
2.	I have joined investors group on social media	.801	
3.	I am the member of investors community on different social media platforms like Instagram, Facebook, Twitter etc.	.797	
4.	I discuss with other investors through chats and messages on social media platforms	.784	
5.	Interaction and communication with fellow investors is very fast and instant through social media	.766	
3.	<b>Casual information from social media</b>		<b>.952</b>
1.	I found all the information on social is useful to me	.889	
2.	I direct myself to social media for investment information	.882	
3.	I can found a huge amount of information on social media platforms	.844	
4.	I aggregate the investment information through social media sources	.841	
4.	<b>Effectiveness of social media in information search</b>		<b>.856</b>
1.	I rely on social media for investment information	.844	
2.	Data available on social media are very helpful to me	.824	
3.	Investment information on social media are very quick and effective	.758	
4.	I can analyze the information from social media platforms more effectively	.757	

### Construct wise Reliability

The reliability of the factors was measured with the “Cronbach’s Alpha”. The values of reliability for 4 constructs were found 0.947, 0.884, 0.952, and 0.856 from construct 1 to 4 respectively.

### Development of the Factors

**Factor 1 – “Following experts on social media” (Variance =20.758):** Personal safety led to behavioral changes among people and use of E-Wallet, E-wallets are I watch expert’s opinion videos on their YouTube channel, I follow the You Tube channel of business news, I follow the expert’s video on different social media platforms (Facebook, YouTube etc.), and I am a regular viewer of blogs posted by investment experts.

**Factor 2 – “Interaction and communication fellow investors” (Variance =20.571):** I access to blogs of my fellow investors on social media channels, I have joined investors group on social media, I am the member of investors community on different social media platforms like Instagram, Facebook, Twitter etc, I discuss with other investors through chats and messages on social media platforms, Interaction and communication with fellow investors is very fast and instant through social media.

**Factor 3 – “Casual information from social media” (Variance =20.172):** I found all the information on social is useful to me, I direct myself to social media for investment information, I can found a huge amount of information on social media platforms, and I aggregate the investment information through social media sources.

**Factor 4 – “Effectiveness of social media in information search” (Variance = 16.707):** I rely on social media for investment information, Data available on social media are very helpful to me, Investment information on social media is very quick and effective, and I can analyze the information from social media platforms more effectively.

**Table 5: Reliability Statistics**

Cronbach’s Alpha	No. of Items
.897	17

Table 5 is showing the Reliability Statistics in which the total number of items is 17 and the value of Cronbach’s Alpha is 0.897.

## 6. CONCLUSION

Researches show the overall impact of the behavioural factors and information search behaviour of investors on investment decision as well as performance of the individuals at stock exchange. These researches are mainly based on approaches of the behavioural finance that’s different from the previous studies. Previously studies used to be based just on the traditional finance that explore the factors which impact the demand and supply of the securities in the stock market. These study the factors which impact the decisions of the stock investment through behavioural finance. They use complete set of behavioural components for assessing the impact on the individual investors while previous studies just consider impact of limited dimensions of the behavioural components. The investors inhabiting real world and the ones who populate the academic model are not related to each other.

The study concludes that different behaviours like following experts on social media, Interaction, and communication fellow investors, Casual information from social media, and Effectiveness of social media in information search are found in retail investors while their online stock market information search. It is also found that there is a significant impact of social media platforms on the behavior of retail investors while online stock market information searches.

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