

IMPACT OF BEHAVIORAL FACTORS ON STOCK MARKET INVESTMENT

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Abstract: Stock market helps in mobilization of funds from one sector to another sector. With the help of share trading corporate sector can raise additional funds for expansion which in turn helps to grow the economy better. But for encouraging individual investors to invest in stock market it is necessary to analyze their perception towards various factors that affect stock market operations. For the purpose of analyzing the factors this research has been conducted. In this study twenty six variables has been taken and out of that eight major factors are extracted with the use of factor analysis. These factors are Herding Effect, Market Information Tracking, Heuristic Behavior, Investment Expectancy, Corporate Image, Economic Status, Future Outlook and Social Impact. By keeping in view all of these factors, initiative should be taken to ensure the continuous supply of investment by creating a permanent set of investors in the share market and this would enable the economy to grow. Further these eight factors are analyzed on the basis of demographic profile of the individual investors. Sample of the study was 450 respondent covering major cities of North India (New Delhi, Chandigarh and Shimla) and the responses were based on five point likert scale.

Key Words: Indian Stock Market, Individual Investor.

1. INTRODUCTION:

Decision making can be defined as the process of selecting a particular alternative from a variety of alternatives. Hence, decision maker need to keep them up-to-date by collecting information from diversified fields. Investment decision making is a complex and time consuming process. It includes analysis of various numbers of factors such as trend in the market, other investor's decisions, market fundamentals, expected returns, firm's image and other elements. Decisions should never be made only by relying on the personal resources in which the situational factors are not considered. Situational factors are extended not only to the problem faced by the individual investor but also to the environment. So, in order to make appropriate decisions, individual investors need to analyze all the aspects of the problem. Investment decision making is not easy because sometimes individual investor behave in an irrational manner. The decisions of individual investors play an important role in determining the market trend which directly affects the economy. To understand and provide an appropriate explanation for the investors' decisions, it is important to explore the behavioral factors influencing the decisions of individual investors at Indian Stock Market. So in the present study individual investors' behavior towards investing in Indian Stock Market has been studied.

2. REVIEW OF LITERATURE:

Bennet et al. (2012) in their study the impact of Herd Behavior was tested by using the Bootstrapping method. It was found that the Market Specific Factors had a significant impact on the investors' sentiment in India. **Ghalandari and Ghahremanpour (2013)** their study draws an overall picture of impacts of behavioral factors on the investment decisions and performance of individuals at the Tehran Stock Exchange. The findings show that herding has positive impact on investment performance. **Jagongo and Mutswenje (2014)** their results revealed that the most important factors that influence the investment decision were reputation of the firm, firm's status in industry, expected corporate earnings, profit and condition of statement, past performance firm's stock, price per share, feeling on the economy and expected divided by investors. **Mistry (2015)** finds that majority of the small investors do not consider various financial elements before investing in to stock market. Small investors are not conservative in nature about company events as they are unbiased. **Babu and Merugu (2016)** in their research an attempt was made to analyze the behavior of individual investor in Visakhapatnam city. While covering the characteristics of the Indian investors the relationship between dependent variables and independent variables undertaken in Greater Visakhapatnam City.

3. OBJECTIVES OF THE STUDY:

After reviewing national and international literature the researcher intended to take the following objectives.

- To study the behavioral factors influencing individual investors' investment decisions in Indian Stock Market.
- To examine the impact of demographic variables on behavioral factors related to individual investors.

4. METHODOLOGY:

Research methodology provides an empirical and logical basis for data collection, data analysis and thereafter to make a logical conclusion and suggestions. Keeping in view the said assumptions, sampling element, sampling technique, sample size, methodology of data collection and analysis of data have been discussed.

5. SOURCE OF DATA:

The present study makes use of the data collected from both primary and secondary sources. The present study is descriptive as well as exploratory in nature. It is mainly a primary probe and is based on a survey of selected individual investors with the help of questionnaire. Further, secondary data has been also used to accomplish the present study.

6. SAMPLING PROCEDURE:

The universe of the present study covers the entire cities of North India and the population for the study consists of all the individual investors of these cities that invest in equity market. Due to concept and objectives of the study and large number of equity investors it is not desirable to carry the present study by using census method for data collection. Hence, it is considered necessary to choose a sample that is representative of the population. Survey oriented studies are generally conducted by using a selected sample of units which fairly represent the entire population. Since there are inherent human limitations in studying the characteristics of whole population, the results obtained through a carefully chosen sub-set of the concerned population can be generalized to the population as a whole. Though broadly the methods by which samples are selected can be divided into probability and non – probability sampling each having different techniques under it.

Multistage sampling has been used to frame a sample. At the first stage, three cities namely New Delhi, Chandigarh and Shimla have been selected out of all the cities keeping in view their representation to various demographic features by using Purposive Sampling. At the second stage, five brokerage firms from each city have been selected by using convenience and quota sampling method. Thus, the survey has been conducted in $5 \times 3 = 15$ brokerage firms. At the final stage, by using quota and random sampling method, 30 individual investors from each brokerage firm have been included in the sample. Thus, the total sample size is $15 \times 30 = 450$ respondents.

7. SCALE DEVELOPMENT:

Close ended questionnaire includes questions about the opinions of the respondents has been used and were rated on a 5 point Likert Scale ranging from 5=Strongly Agree to 1=Strongly Disagree. Both positive as well as negative statements have been used to minimize extreme response bias.

8. SIGNIFICANCE OF THE STUDY :

The present study contributes in the identification of major issues that affect the behavior of the individual equity investors about investment decisions. By utilizing the findings of the present study regulatory authorities such as SEBI can further enhance the level of commitment to their investors by making improvement in critical determinants of low level investment. Finally, the present study attempts to enrich the existing knowledge base in the area of economic climate and behavior pattern as there were few studies on investors' perceptions towards their investment decisions keeping in view the effect of changing economic climate on the behavior of individual equity investors especially in Indian Stock Market.

9. LIMITATIONS OF THE STUDY:

All feasible efforts have been made to make the study more reliable, valid and exhaustive, yet certain limitations could not be ruled out. Main limitations of the study are as follows:

- The present study is based on data collected through questionnaire from individual investors of three cities (New Delhi, Chandigarh and Shimla). Therefore, it suffers from all limitations inherited as it is the case of a study on the perception and view point of the respondents and the possibility of personal bias cannot be ruled out.
- Incomplete and non responses on certain items involved extra time and effort to sort out such questionnaire and getting them filled up from respondents.
- The sample size of the present study is small. It can be attributed to time and resource constraints and the reluctance on the part of individual equity investors to fill in the questionnaire perhaps because of sensitivity of the information and fear of repercussion.
- There was fear of reprisal among the investors as they were initially reluctant and unwilling to disclose some information about their investment and to reveal their personal feeling thus the results may not reflect the actual satisfaction level.

10. ANALYSIS:

After the review of literature, the researcher identified twenty six variables that affect the individual investors' behavior towards stock market investment. These twenty six variables are reduced into few important factors by applying Factor Analysis with Principle Component Method. The results are clearly presented below.

Table 1, KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.622
Bartlett's Test of Sphericity	Approx. Chi-Square	6636.309
	Df	325
	Sig.	.000
Source: Primary Probe		

It is analyzed in Table 1 that the KMO Measure is 0.622, which implies the adequacy of the samples and the factor analysis is appropriate for data. As the Bartlett's Test of Sphericity is significant if its value is less than 0.05. In the above table it is .000 which indicates that the significance level is small enough to reject the null hypothesis and it also concludes the strength of the relationship among variables is strong.

As we have to identify the minimum number of factors that would account for the maximum portion of variance of the original variables. Principal Component Analysis has been applied to reduce the number of factors with an Eigen Value greater than one and a cumulative percentage of variance explained being greater than 50% is also one of the criterions used in determining the number of factors.

Table 2, Total Variance Explained

Component	Initial Eigen Values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.212	23.893	23.893	6.212	23.893	23.893	4.217	16.217	16.217
2	2.839	10.920	34.813	2.839	10.920	34.813	2.933	11.280	27.498
3	2.152	8.278	43.090	2.152	8.278	43.090	2.622	10.084	37.581
4	2.096	8.061	51.151	2.096	8.061	51.151	2.138	8.222	45.803
5	1.609	6.187	57.338	1.609	6.187	57.338	1.930	7.422	53.225
6	1.497	5.760	63.098	1.497	5.760	63.098	1.729	6.648	59.873
7	1.226	4.716	67.814	1.226	4.716	67.814	1.619	6.229	66.102
8	1.034	3.978	71.792	1.034	3.978	71.792	1.480	5.690	71.792
9	.920	3.539	75.331						
10	.838	3.224	78.555						
11	.786	3.023	81.577						
12	.721	2.771	84.349						
13	.616	2.371	86.719						
14	.560	2.153	88.873						
15	.453	1.741	90.613						
16	.405	1.559	92.172						
17	.386	1.484	93.656						
18	.339	1.305	94.962						
19	.237	.910	95.872						
20	.219	.844	96.716						
21	.197	.760	97.476						
22	.184	.706	98.182						
23	.159	.611	98.793						
24	.130	.500	99.293						
25	.111	.426	99.719						
26	.073	.281	100.000						

Source: Extraction Method: Principal Component Method

From the above table it is found that the twenty six variables are reduced into eight important factors with cumulative variance of 71.792. These eight factors are loaded with different variables having factor loading greater than 0.50. The names of extracted factors are as follows:

1. Herding Effect
2. Market Information Tracking
3. Heuristic Behavior
4. Investment Expectancy
5. Corporate Image
6. Economic Status
7. Future Outlook
8. Social Impact

After deriving these factors the researcher intended to relate these eight factors with the demographic profile of the individual investors. Therefore a survey analysis of variance is applied by considering these eight behavioral factors as dependent variables and the demographic profile of equity investors as independent variables. The results are clearly revealed in the following ANOVA Table.

Table 3
VARIANCE ANALYSIS: ON THE BASIS OF DEMOGRAPHIC VARIABLES

Behavioral Factors	Gender		Age		Education		Occupation		Average Annual Income	
	T	Sig.	F	Sig.	F	Sig.	F	Sig.	F	Sig.
Herding Effect	-.624	.533	16.561	.000	4.246	.002	11.732	.000	6.792	.000
Market Information Tracking	.367	.713	9.008	.000	3.124	.015	2.652	.033	6.632	.000
Heuristic Behavior	1.510	.132	1.305	.267	5.329	.000	1.391	.236	2.481	.043
Investment Expectancy	4.639	.000	11.809	.000	3.559	.007	2.462	.045	3.616	.006
Corporate Image	1.826	.069	8.629	.000	6.796	.000	2.392	.050	5.116	.000
Economic Status	-1.983	.048	5.386	.000	6.358	.000	9.035	.000	5.873	.000
Future Outlook	2.289	.023	12.078	.000	.535	.710	5.542	.000	7.506	.000
Social Impact	1.412	.159	2.835	.024	.468	.759	2.908	.021	3.841	.004

11. FINDINGS:

The research revealed that the results of independent t-test are significant in case of only three factors that are Investment Expectancy, Economic Status and Future Outlook, indicating that the investment behavior of the individual investors is influenced by these factors on the basis of their gender. As the P value of independent t-test is less than 0.05 in case of these factors which means that the mean value of two groups differs significantly. This result points towards the rejection of null hypothesis means there is a significant difference between mean scores of responses given towards these three factors by male and female respondents. Table further reveals that the significance value of F test for the factor Herding Effect, Market Information Tracking, Investment Expectancy, Corporate Image, Economic Status, Future Outlook and Social Impact is less than 0.05. Hence, the null hypothesis has been rejected. Thus, it is clear from the above analysis that there is a significant difference between the mean score of individual investors' behavior on the basis of different age group. Only the factor of Heuristic Behavior shows the insignificant relation as its significance value is more than .05. In case of educational qualification of the individual investors, the significance value of F test for the factor Herding Effect, Market Information Tracking, Heuristic Behavior, Investment Expectancy, Corporate Image and Economic Status, is less than 0.05, which is highly significant at 5 percent level of significance. Hence, the null hypothesis has been rejected. Thus, it is clear from the above analysis that there is a significant difference between the mean score of individual investors' behavior on the basis of different educational groups. Table further reveals that the significance value of F test for the factor Herding Effect, Market Information Tracking, Investment Expectancy, Economic Status, Future Outlook and Social Impact is less than 0.05, which is highly significant at 5 percent level of significance. Hence, the null hypothesis has been rejected. Thus, it is clear from the above analysis that there is a significant difference between the mean score of individual investors' behavior on the basis of different occupational groups. In case of Heuristic Behavior and Corporate Image the significance value is more than .05 which points towards the acceptance of null hypothesis. On the basis of average annual income of the individual investor the significance value is less than .05 for all the factors, indicating towards the significance of these factors for investment decision making.

12. CONCLUSION:

By using Factor analysis, eight factors are identified that significantly influence the investment decision of individual investor in Indian Stock Market. The factors are Herding Effect, Market Information Tracking, Heuristic Behavior, Investment Expectancy, Corporate Image, Economic Status, Future outlook and Social impact. The results

of ANOVA indicate that there is a significant relation in case of almost all the factors on the basis of demographic profile of the individual investors.

RECOMONDATIONS:

- The government, along with Reserve Bank of India and Security and Exchange Board of India, should decide to embark upon a massive campaign to increase awareness among individual investors. At present, only a little percentage of total household savings is directed towards the stock market because individual investors hold most of their savings in the form of physical assets, gold or bank deposits. So financial literacy programmes should be held in all the rural and urban areas to encourage individual investors.
- It was found in the present research that small investors still have fear to invest their money in Indian Stock Market because of the various scams associated with it. So it is important to make the stock market a fraud free, transparent and investor friendly place. The very first step is to identify and punish the companies who are floating their vanished funds with the issued funds in the stock market. To avoid recurrence of this, the very critical need is to disclose relevant information with due emphasis on quantity and format of delivery and ensure that the individual investors get the information at the same time as other institutional investors get it.
- A balanced growth of listed companies and listed shares in all the stock exchanges is the immediate requirement. The big companies should also quote their shares in the regional stock exchanges other than BSE and NSE. This will attract savings of the individual investors from rural and semi-urban areas. Smaller companies should be encouraged to enlist their securities in the regional stock exchanges.
- There is a need to raise the minimum basic educational standard for the members, brokers and sub brokers and with a view to professionalize the members, the stock exchanges must conduct part time refresher courses to them from time to time. So that these members have sufficient knowledge to cater the investors queries.

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