

*Chapter- VII*

***FUNDAMENTAL AND  
TECHNICAL ANALYSES:  
INVESTORS'  
PERSPECTIVES***

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## **CHAPTER- VII**

### ***FUNDAMENTAL AND TECHNICAL ANALYSES: INVESTORS' PERSPECTIVES***

#### **7.1 INTRODUCTION**

Before an investor commits funds in the stock market, it is always advisable to analyse whether the environment for investment is conducive or not. If investors find it favourable, they need to decide the type of security to invest. On the same time they need to critically examine different industries and companies for rationale decision of investment. In this process, security analyst emphasise on the most suitable technique to forecast the market conditions. Analysts/investors can better evaluate a particular stock if they have the knowledge of appraisal techniques to forecast the market conditions (Fischer and Jordan, 2008). There are basically two widely accepted appraisal techniques which are named as fundamental analysis and technical analysis. Fundamental analysts investigate the stock based on the financial strength of the corporation, earnings and growth of the sales. Economists also emphasise to consider industrial and economic condition as well in fundamental analysis, while technical analysis is an appraisal practice to alert the investors towards the history of the prices and this works on two basic market data that is price and volume. Technical analysts predict only short time moments while fundamental analysts find out the long term price moments of the shares. According to fundamentalists, forecasts of supply and demand of stocks depend on various economic, industry and company factors and in case of technical analysts, they forecasts supply and demand by analysing the price and volume of trading. Supply and demand factors are critical to examine in both the appraisal techniques and underlying factors in the form of supply and demand come together in the securities' market to predict prices of the security (Pandian, 2013).

In order to investigate investment opportunities, investors need to determine the state of economic environment prior to invest in that particular environment and for that purpose they need to determine the current economic conditions. This analysis will lead the investors to select the industry of the economy that appears to provide the scope of profitable opportunities. If investors want to succeed they should analyse the economic importance of the industries and invest in the industry that provide continuous success. Now, the next step for investors is to analyse the company and for this purpose they may use a series of analysis which are most frequently used. On the other side, technically oriented investors check the market actions of the stock prior making an investment which works on price and volume moments of the stocks (Bhalla, 2011).

This chapter has been divided into two sections to determine the investors' perceptions towards fundamental and technical techniques when they assess the stocks. In the first part, demographic profile of the respondents is analysed. Cross tabulation is also taken under consideration to better understand the demographic profile of the investors. Second portion of the chapter displays the disposable income of the investors in the stock market, trading in the stock market, experience of the investors in the stock market, investors' preference towards a particular industry and company. This section also evaluated the opinion of the investors for different approaches in relation to fundamental and technical analyses. It was asked the investors to rank different approaches in relation to fundamental and technical analyses to analyse the opinion of investors towards the use of these appraisal techniques. Exploratory factor analysis is carried out to determine the most important factors for investment decision in the later part of this chapter. Cluster analysis is also applied to differentiate the investors according to their characteristics towards market. Suggestions and problems are also analysed to recommend an effective policy to the

policy makers. This study will support the market /different companies to formulate the strategies for attracting investors for their stocks and to increase the confidence of an investor in the market.

## **PART- A**

### **7.2 DEMOGRAPHIC PROFILE OF THE INVESTORS**

Table-7.1 depicts the demographic profile of the respondents of the current study. Gender, age-group, marital status, monthly income, educational qualification and occupation are considered for determining the demographic profile of the respondents. 72.89% male and 27.1% female are the part of survey and 82% of the total respondents are married. Majority of the respondents are (38%) in the age group of 25-35. The other major age-group of the respondents is 36-45 and 30% respondents are from this age group. Few respondents i.e. 20% are from the age-group of 46-55 and only 12% respondents are from the age-group of more than 55. The major group (50%) belongs to the monthly income of Rs. 20,000- 40,000. It means majority of the investors who are interviewed, belong to the middle-class society. On the contrary, around 25% of respondents are having the monthly income of Rs. 40,001-60,000. Although, majority of the respondents are from middle-class but there are few (10%) who are having the income below Rs. 20,000. Around 15% of investors showed their income more than Rs. 60,000 per month. On the basis of educational qualification of the respondents, it is found that majority of the respondents are having the degree of post graduation (48%) and graduation (42%). Only, 4% respondents are having the qualification of high school. Educational qualification of the respondents reveals that the respondents are literate enough to understand and respond. Hence, the sample of the current study has created a benchmark for policy makers regarding the consideration of the investors while investing in the stock of particular firm. It is observed from occupation of respondents that majority of the respondents are from

service-class (38%) and business (36%). Only, a small percentage of respondents are found in the category of professional (20%) and others (6%).

**Table: 7.1**  
**Demographic Profile of the Respondents**

<b>Gender</b>	<b>Frequency</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
Male	328	72.89	73
Female	122	27.11	100
Total	450	100	
<b>Age</b>	<b>Frequency</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
25-35	171	38	38
36-45	135	30	68
46-55	90	20	88
More than 55	54	12	100
Total	450	100	
<b>Marital Status</b>	<b>Frequency</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
Married	369	82	82
Unmarried	81	18	100
Total	450	100	
<b>Monthly Income</b>	<b>Frequency</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
Below Rs. 20,000	45	10	10
Rs. 20,000 - Rs. 40,000	225	50	60
Rs. 40,001 - Rs. 60,000	112	24.9	84.9
More than Rs. 60,000	68	15.1	100
Total	450	100	
<b>Education Qualification</b>	<b>Frequency</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
High School	18	4	4
Graduation	189	42	46
Post Graduation	216	48	94
Others	27	6	100
Total	450	100	
<b>Occupation</b>	<b>Frequency</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
Business	162	36	36
Service Class	171	38	74
Professionals	90	20	94
Others	27	6	100
Total	450	100	

### 7.3 CROSS TABULATION OF THE PROFILE OF INVESTORS

Cross tabulation is applied between demographic variables such as gender-occupation, gender-education, education-occupation, income-education, income-occupation, age-education, and age-occupation to understand the indepth relationship in demographic profile of the respondents. Table-7.2 (a) to 7.2 (g) display cross tabulation among various groups and figures within parenthesis represent percentages.

### 7.3.1 Gender & Occupation wise Distribution

Table-7.2 (a) displays distribution of respondents on the basis of gender and occupation. Respondents are divided into four categories of occupation i.e. business-class, service-class, professional and others.

**Table: 7.2 (a)**  
**Gender & Occupation wise Distribution**

Gender	Occupational Categories				
	Business	Service Class	Professionals	Others	Total
Male	131 (80.86)	118 (69.01)	68 (75.56)	11 (40.74)	328 (72.89)
Female	31 (19.14)	53 (30.99)	22 (24.44)	16 (59.26)	122 (27.11)
N	162 (36)	171 (38)	90 (20)	27 (6)	450

It is evident from table-7.2(a) that highest (38%) numbers of respondents fall in the occupation category of service-class followed by 36% of total respondents under the business-class. Gender-wise, table-7.2(a) shows that majority of the respondents are male as 69.01 % and 80.86 % respondents of service and business-class belong to male category. In other words, Majority of respondents are male and belong to service- class.

### 7.3.2 Gender & Education wise Distribution

Table-7.2 (b) reveals the distribution by considering gender and education and it is found that 72.89 % respondents are male and 27.11% are female. In the group of male, majority of respondents are either post-graduate or graduate and out of total male respondents, 74.54% are post graduate and 68.78% are graduate, while in group of female, maximum number of respondents are having the same educational level. Hence, it is clear that majority of respondents are male and they are post graduate.

**Table: 7.2 (b)**  
**Gender & Education wise Distribution**

Gender	Educational Categories				
	High School	Graduation	Post Graduation	Others	Total
Male	15 (83.33)	130 (68.78)	161 (74.54)	22 (81.48)	328 (72.89)
Female	3 (16.67)	59 (31.22)	55 (25.46)	5 (18.52)	122 (27.11)
N	18 (4)	189 (42)	216 (48)	27 (6)	450

### 7.3.3 Education & Occupation wise Distribution

Table-7.2 (c) reveals the crosstabs of education & occupation and shows that out of total service class respondents, majority of respondents are either post graduate (50.88%) or graduate (39.77%). Majority of respondents from business-class are post graduate (46.30%) followed by graduates (44.44%) and both these occupational categories cover 74% of total respondents.

**Table: 7.2 (c)**  
**Education & Occupation wise Distribution**

Educational Qualification	Occupational Categories				Total
	Business	Service Class	Professionals	Others	
High School	6 (3.70)	6 (3.51)	5 (5.56)	1 (3.70)	18 (4)
Graduation	72 (44.44)	68 (39.77)	41 (45.56)	8 (29.63)	189 (42)
Post Graduation	75 (46.30)	87 (50.88)	39 (43.33)	15 (55.56)	216 (48)
Others	9 (5.56)	10 (5.85)	5 (5.56)	3 (11.11)	27 (6)
N	162 (36)	171 (38)	90 (20)	27 (6)	450

Only, 20% of total respondents are professionals and majority of them are either post-graduate or graduate. Therefore, it is inferred from the analysis that majority of respondents of the study are graduate/post-graduate and belong to service-class /business-class.

### 7.3.4 Income & Education wise Distribution

Table- 7.2 (d) depicts that majority of respondents are post graduate and they cover 48 % of total respondents. 42% of the total respondents are graduate.

**Table: 7.2 (d)**  
**Income & Education wise Distribution**

Monthly Income	Educational Categories				Total
	High School	Graduation	Post Graduation	Others	
Below Rs. 20,000	3 (16.67)	17 (8.99)	21 (9.72)	4 (14.81)	45 (10)
Rs. 20,000 - Rs. 40,000	11 (61.11)	91 (48.15)	113 (52.31)	10 (37.04)	225 (50)
Rs. 40,001 - Rs. 60,000	3 (16.67)	52 (27.51)	51 (23.61)	6 (22.22)	112 (25)
More than Rs. 60,000	1 (5.56)	29 (15.34)	31 (14.35)	7 (25.93)	68 (15)
N	18 (4)	189 (42)	216 (48)	27 (6)	450

Out of total post-graduate respondents, majority of respondents (52.31%) belong to income group of Rs. 20,000 - Rs. 40,000. It is also obvious from table-7.2 (d) that out of total graduate respondents, 48.15% respondents are under the same income group. Graduate and post-graduate respondents of the study cover 90% of the total respondents. Hence, it can be concluded that majority of respondents of the current study are post-graduate and belong to income group of Rs. 20,000 - Rs. 40,000.

### 7.3.5 Income & Occupation wise Distribution

Results of table-7.2 (e) display the distribution of respondents as per their income and occupation. Table-7.2 (e) shows that 38 % of total respondents belong to service-class and out of total service-class respondents, majority of respondents (48.58%) are from income group of Rs. 20,000-Rs.40,000 followed by service-class respondents (23.98 %) from the income-group of Rs. 40,001 - Rs. 60,000.

**Table: 7.2 (e)**  
**Income & Occupation wise Distribution**

Monthly Income	Occupational Categories				Total
	Business	Service Class	Professionals	Others	
<b>Below Rs. 20,000</b>	18 (11.11)	16 (9.36)	6 (6.67)	5 (18.52)	45 (10)
<b>Rs. 20,000 - Rs. 40,000</b>	78 (48.15)	83 (48.54)	56 (62.22)	8 (29.63)	225 (50)
<b>Rs. 40,001 - Rs. 60,000</b>	46 (28.40)	41 (23.98)	16 (17.78)	9 (33.33)	112 (25)
<b>More than Rs. 60,000</b>	20 (12.35)	31 (18.13)	12 (13.33)	5 (18.52)	68 (15)
<b>N</b>	162 (36)	171 (38)	90 (20)	27 (6)	450

Further, table-7.2 (e) displays that 36% of total respondents belong to business-class and out of total business-class respondents, majority of respondents (48.15%) are from income-group of Rs. 20,000 - Rs.40,000. Therefore, analysis concludes that majority of respondents are from service & business-class and belong to the income group of Rs. 20,000 - Rs.40,000.



### 7.3.6 Age & Education wise Distribution

Table-7.2 (f) presents the distribution of respondents according to age and education. Education-wise, post graduate and graduate respondents are in majority i.e. 48% and 42% respectively. Age-wise majority of respondents are under the age of 25 - 35 and 36 - 45 i.e. 38 % and 30% respectively.

**Table: 7.2 (f)**  
**Age & Education wise Distribution**

Age	Educational Categories				Total
	High School	Graduation	Post Graduation	Others	
<b>25-35</b>	5 (27.78)	76 (40.21)	76 (35.19)	14 (51.85)	171 (38)
<b>36-45</b>	3 (16.67)	61 (32.28)	64 (29.63)	7 (25.93)	135 (30)
<b>46-55</b>	5 (27.78)	32 (16.93)	48 (22.22)	5 (18.52)	90 (20)
<b>More than 55</b>	5 (27.78)	20 (10.58)	28 (12.96)	1 (3.70)	54 (12)
<b>N</b>	18 (4)	189 (42)	216 (48)	27 (6)	450

Further, it is evident from table-7.2 (f) that majority (35%) of total post-graduate respondents are under the age of 25-35 followed by 29.63 % of total post-graduate respondents under the age-group of 36-45. On the other hand, majority of graduate respondents (40.21%) are under the age of 25-35. Hence, analysis presents that majority of respondents are under the age-group of 25-35 and post-graduate.

### 7.3.7 Age & Occupation wise Distribution

Table-7.2 (g) displays the cross-tabulation of respondents according to age and occupation. Occupation-wise, 38% and 36% of total respondents are from service-class and business-class respectively. It is clear from table-7.2 (g) that majority (37.43 %) of respondents of service-class belong to age group of 25-35. Majority of business-class respondents belong to the same age-group. Overall, 38% of total respondents are under the age-group of 25-35. Respondents of age- group of 36-45 are the second major group (30%) and 27.49% of service-class respondents & 31.48 % of

**Table: 7.2 (g)**  
**Age & Occupation wise Distribution**

Age	Occupational Categories				Total
	Business	Service Class	Professionals	Others	
<b>25-35</b>	62 (38.27)	64 (37.43)	32 (35.56)	13 (48.15)	171 (38)
<b>36-45</b>	51 (31.48)	47 (27.49)	31 (34.44)	6 (22.22)	135 (30)
<b>46-55</b>	32 (19.75)	36 (21.05)	18 (20.00)	4 (14.81)	90 (20)
<b>More than 55</b>	17 (10.49)	24 (14.04)	9 (10.00)	4 (14.81)	54 (12)
<b>N</b>	162 (36)	171 (38)	90 (20)	27 (6)	450

business-class respondents belong to this age group. Therefore, it is inferred that majority of respondents are under the age-group of 25-35 and belongs to service-class. Results of cross-tabulation clearly show that the majority of respondents under the study are male under the age-group of 25-35 and they fall in the category of service- class with post graduate degree and belong to the income-group of Rs. 20,000 to Rs. 40,000.

## PART- B

### 7.4 INVESTORS' OPINION TOWARDS INVESTMENT IN STOCK MARKET

This section evaluates the opinion of the investors towards investment in stock market. Various questions were asked to investors in relation to their investment pattern.

#### 7.4.1 Disposable Income in Stock Market

Before determining the investors' perspective towards fundamental and technical appraisal techniques and to uncover the factors which influence investors' decision to invest in the stock market, it is an essential part to know the disposable income of the respondents in the stock market. This question is considered to understand the investors' attitude towards stock market and those respondents were not considered for the analysis purpose who disclosed nil disposable income for investment in the stock market. Table-7.3 depicts that majority of the respondents

(37.8%) are having the disposable income of 0-10% and other major group (35.1%) is having the disposable income of 21-30%.

**Table: 7.3**  
**Disposable Income in Stock Market**

Disposable Income	Frequency	Valid Percent	Cumulative Percent
<b>0-10</b>	170	37.8	37.8
<b>11-20</b>	81	18	55.8
<b>21-30</b>	158	35.1	90.9
<b>31-40</b>	41	9.1	100
<b>Total</b>	450	100	

18% of respondents are having the disposable income of 11-20%. Only, 9.1% respondents are having the higher disposable income in comparison with other respondents of the study; hence, 9.1% respondents are found to have extraordinary interest to invest in the stock market.

#### **7.4.2 Frequency of Trading**

Frequency of trading of the respondents in stock market has been analysed under the current study and results are presented in table-7.4. It is revealed that 42% respondents trade on daily basis, while 30% trade weekly. 20% respondents expressed that they trade monthly. On the other side, only 8% respondents express that they trade quarterly.

**Table: 7.4**  
**Frequency of Trading in the Stock Market**

Frequency of Trading	Frequency	Valid Percent	Cumulative Percent
<b>Daily</b>	189	42	42
<b>Weekly</b>	90	30	72
<b>Monthly</b>	135	20	92
<b>Quarterly</b>	36	8	100
<b>Total</b>	450	100	

It is clear that the sample of the current study is good enough to analyse because most of the respondents believe in frequent trading and hence, they may have knowledge of fundamental and technical appraisal techniques and think prudently.

### 7.4.3 Experience in the Stock Market

Results of table-7.5 convey the experience of respondents in the stock market. On the basis of results, it is observed that 42.9% respondents have the experience for 6-10 years and 41.1% respondents have more than 10 years of experience of the stock market which reveals that 84% respondents have more than 5 years of experience.

**Table: 7.5**  
**Experience in the Stock Market**

Experience in the stock market	Frequency	Valid Percent	Cumulative Percent
Less than 1 year	4	0.9	0.9
1-5 years	68	15.1	16
6-10 years	193	42.9	58.9
More than 10 years	185	41.1	100
<b>Total</b>	450	100	

Hence, sample is found to be pertinent enough to study the perception of investors regarding various issues of the stock market. Only, 15.1% respondents express that they have 1-5 years of experience. Negligible proportion of the sample respondents are having less than one year of experience in the stock market.

### 7.4.4 Preference of Industry

The success of investment depends in selecting the growing and strongly competitive industry. Growth of an industry generally depends on the latest technology and as industry increases, pattern of growth emerges. There are numerous reasons due to which an industry grows. While analysing an industry, an investor decide the growth pattern and the stage of that growth pattern. According to economists, a prudent investor should select an industry in expansion stage of the growth cycle. Investors should prefer to invest in those industries that have created a strong competitiveness in the market. There is requirement to analyse industries carefully. It has asked to investors to rank the industries as per their opinions. This question is considered to know the preference of investors towards different sample industries.

**Table: 7.6**  
**Preference of Industry**

Industry	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5	WAS	Overall Rank
<b>Automobile</b>	33 (7)	99 (22)	121 (27)	172 (38)	25 (6)	2.87	4
<b>Information Technology</b>	188 (42)	123 (27)	95 (21)	30 (7)	14 (3)	3.98	1
<b>Oil and Gas</b>	113 (25)	208 (46)	60 (13)	25 (6)	44 (10)	3.71	2
<b>Healthcare</b>	86 (19)	112 (25)	166 (37)	66 (15)	20 (4)	3.39	3
<b>Metal, Metal Product &amp; Mining</b>	46 (10)	74 (16)	111 (25)	96 (21)	123 (27)	2.6	5

Table- 7.6 reveals that most of the respondents prefer to invest in the information technology (IT) industry and hence, first rank is given to this industry with the weighted average score of 3.98. Respondents prefer this industry due to the growing business of e-commerce and government initiative taken towards 'Digital India' approach. The success of IT industry can be understood with this fact that Bangaluru received US\$ 2.6 billion in venture capital in 2014 and after this India became the third highest venture capital funding country. Respondents showed very optimistic approach and speculation prior to select IT industry as an investment decision. The second preference of respondents is Oil and Gas industry with a weighted average score of 3.71. 113 respondents ranked this industry as number one industry. The major reason for investors' preference to this industry is due to the agreement of GAIL Global USA LNG LLC and US-based WQGL Midstream incorporation. Next preferred industry is healthcare and third rank is given by respondents to this industry with weighted average score of 3.39. 86 respondents ranked this industry as number one industry. According to respondents, they prefer this industry due to its huge revenue and universal health plan for India which will provide guaranteed medical benefits to citizens of India soon. This industry is one of the growing industries of India as it has significant scope for enhancing services related to healthcare and hence became the third choice of sample investors. The fourth rank is given to automobile

industry with weighted average score of 2.87. This industry has proved as an integral part of the GDP of India. Hence, became the fourth choice of investors of this study. The last rank is given to metal, metal product and mining industry with weighted average score of 2.60.

#### 7.4.5 Preference of Company for Investment

There are different reasons that may enhance the production of a company and it is the responsibility of the company to sustain its performance for longer period of time. Different firms in the same industry are subject to compare to determine the best performer. In relation to this, it was asked to respondents to rank the ten selected companies under five selected industries in the current study.

**Table: 7.7**  
**Preference of Company for Investment**

Company	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5	Rank 6	Rank 7	Rank 8	Rank 9	Rank 10	WAS	Overall Rank
<b>Mahindra &amp; Mahindra</b>	76 (17)	108 (24)	52 (12)	50 (11)	51 (11)	22 (5)	24 (5)	16 (4)	38 (8)	13 (3)	6.99	2
<b>Tata Motors</b>	21 (5)	9 (2)	34 (8)	38 (8)	48 (11)	5 (1)	41 (9)	69 (15)	119 (26)	66 (15)	4.03	9
<b>Infosys</b>	77 (17)	65 (14)	64 (14)	114 (25)	52 (12)	28 (6)	23 (5)	12 (3)	9 (2)	6 (1)	7.26	1
<b>Wipro</b>	97 (22)	67 (15)	38 (8)	12 (3)	41 (9)	40 (9)	55 (12)	30 (7)	45 (10)	25 (6)	6.29	4
<b>GAIL</b>	6 (1)	6 (1)	59 (13)	97 (22)	60 (13)	104 (23)	72 (16)	26 (6)	13 (3)	7 (2)	5.65	7
<b>ONGC</b>	33 (7)	38 (8)	43 (10)	57 (13)	99 (22)	33 (7)	36 (8)	52 (12)	29 (6)	30 (7)	5.69	6
<b>Dr. Reddy</b>	52 (12)	45 (10)	110 (24)	32 (7)	40 (9)	44 (10)	55 (12)	22 (5)	28 (6)	22 (5)	6.34	3
<b>Sun Pharma</b>	32 (7)	16 (4)	57 (13)	28 (6)	82 (18)	48 (11)	52 (12)	104 (23)	25 (6)	6 (1)	5.38	8
<b>Hindalco</b>	28 (6)	12 (3)	5 (1)	9 (2)	42 (9)	40 (9)	72 (16)	22 (5)	99 (22)	121 (27)	3.59	10
<b>Tata Steel</b>	25 (6)	93 (21)	24 (5)	78 (17)	28 (6)	98 (22)	43 (10)	28 (6)	20 (4)	13 (3)	6.2	5

Table-7.7 displays the results and it is obvious from the results that Infosys is on the top among all companies of this study with weighted average score of 7.26 as per the

preference of investors. Mahindra & Mahindra has achieved the second rank with weighted average score of 6.99, while Dr. Reddy's is the third preference of the respondents with weighted average score of 6.34. The last rank is given to Hindalco and only 28 respondents given it as number one company to select.

#### 7.4.6 Understanding on Fundamental and Technical Analyses

Table- 7.8 depicts that the respondents of study are valuable enough for the study of investors' perspectives towards fundamental and technical analyses because they have a better understanding of both the appraisal techniques. It is clear from the table-7.8 that 94% respondents agree that they have better understanding of fundamental analysis, while 89% agree with the understanding of technical analysis.

**Table: 7.8**  
**Investors' understanding on Fundamental and Technical Analyses**

		Frequency	Valid Percent	Cumulative Percent
<b>Fundamental Analysis</b>	<b>Yes</b>	423	94	94
	<b>No</b>	27	6	100
	Total	450	100	
<b>Technical Analysis</b>	<b>Yes</b>	401	89.1	94
	<b>No</b>	49	10.89	100
	Total	450	100	

#### 7.4.7 Significance of the use of Fundamental & Technical analyses

Fundamental and technical analyses always intend to determine a good return on investment and investors use these appraisal techniques for the better prediction of stock price movements in short and long run investment. Hence, this study also determines the value of these appraisal techniques according to the choice of sample investors and table-7.9 clearly elaborates the importance of fundamental analysis in comparison with technical analysis and majority of the respondents express that fundamental analysis is a valuable technique while assessing the stocks for investment as 83 % respondents consider it as an important/very important technique. Therefore, first rank is given to fundamental analysis with weighted average score of 4.2. Results

clearly depict that 64 % respondents agree with the importance of technical analysis for assessing the stock of a company for investment.

**Table: 7.9**  
**Significance of Fundamental & Technical analyses**

	NAI	NI	N	I	VI	WAS	Overall Ranking	S. D.	t-value	p-value
<b>Fundamental Analysis</b>	20 (4)	34 (8)	23 (5)	132 (29)	241 (54)	4.2	1	1.118	5.850	.000
<b>Technical Analysis</b>	37 (8)	72 (16)	56 (12)	102 (23)	183 (41)	3.71	2	1.354		

Note: NAI: Not at all important, NI: Not Important, N: Neutral, I: Important, VI: Very Important

It is clear that p-value of t-test rejects the null hypothesis; thus, on the basis of t-test, it is found that there is significant difference in the perception of investors for two appraisal techniques. Indeed, both the techniques are proved to be valuable appraisal techniques while assessing the stocks of the company which is shown by weighted average scores.

#### **7.4.8 Usefulness of the Approaches of Fundamental analysis**

While asking the opinions of investors about the usefulness of various approaches of fundamental analysis (table-7.10), it is found that respondents feel more comfortable with ratio analysis and therefore, ranked first with the highest weighted average score (3.87). They have given first rank to this approach of fundamental analysis which evaluates the positive relationship of related information of financial statement to arrive at company's operating and financial performance. They also prefer analysis of financial statements for determining the long-term securities of a firm which review company's financial statement and hence, ranked second with weighted average score of 3.77. Third rank is given to beta analysis with weighted average score of 3.75 for its usefulness to portray the dependency of individual stock movements on overall market. Further, fourth rank is given to analysis of discounted cash flow with weighted average score of 3.65 which is a process of valuing the company today by using time value of money in order to



estimate the potential for investment. Last rank is given to dividend discount model and hence, respondents comparatively do not prefer this approach.

**Table: 7.10**  
**Usefulness of the Approaches of Fundamental analysis**

	NAI	NI	N	I	VI	WAS	Overall Ranking	S.D.	F-value	Sig. (P-value)
<b>Analysis of Financial Statements</b>	44 (10)	71 (16)	24 (5)	115 (26)	196 (44)	3.77	2	1.397	11.383	0.000
<b>Ratio analysis</b>	30 (7)	70 (16)	32 (7)	111 (25)	207 (46)	3.87	1	1.319		
<b>Analysis of discounted cash flow</b>	82 (18)	20 (4)	22 (5)	172 (38)	154 (34)	3.65	4	1.447		
<b>Beta analysis</b>	33 (7)	67 (15)	38 (8)	144 (32)	168 (37)	3.75	3	1.29		
<b>Dividend Discount Model</b>	82 (18)	41 (9)	72 (16)	163 (36)	92 (20)	3.31	5	1.38		

Note: NAI: Not at all important, NI: Not Important, N: Neutral, I: Important, VI: Very Important

It is also clear from ANOVA test that p-value rejects the null hypothesis; thus it is found that there is significant difference in the perception of investors for the usefulness of different approaches of fundamental analysis. Indeed, all approaches are proved to be useful while assessing the stocks of the company which is shown by weighted average scores.

#### 7.4.9 Usefulness of the Approaches of Technical analysis

While seeking the opinion of respondents towards the usefulness of various approaches of technical analysis, it is observed that respondents like to analyse the stock's performance through MACD histogram and given first rank with weighted average score of 4.08 to this approach of technical analysis which measures the distance between MACD and its signal line. Respondents ranked second with weighted average score of 4.04 to relative strength index which is an oscillator to determine the current price strength with respect to previous prices. Trend line is also a relevant approach of technical analysis according to respondents and third rank is

given to this with weighted average score of 3.86. Elliot wave approach is less preferred by the sample investors of the study due to its complex procedure and hence, ranked fourth with weighted average score of 3.77. It is cleared from the table-7.11 that charting is the least preferred approach of technical analysis and it obtains weighted average score of 3.02.

**Table: 7.11**  
**Usefulness of the Approaches of Technical analysis**

	NAI	NI	N	I	VI	WAS	Overall Ranking	S.D	F value	Sig
<b>Charting</b>	106 (24)	81 (18)	67 (15)	87 (19)	109 (24)	3.02	5	1.512	51.388	0.000
<b>Trend Lines</b>	41 (9)	27 (6)	34 (8)	196 (44)	152 (34)	3.86	3	1.208		
<b>MACD - Histogram</b>	19 (4)	46 (10)	20 (4)	156 (35)	209 (46)	4.08	1	1.136		
<b>Relative Strength Index</b>	29 (6)	10 (2)	43 (10)	196 (44)	172 (38)	4.04	2	1.07		
<b>Elliot Wave</b>	45 (10)	67 (15)	25 (6)	122 (27)	191 (42)	3.77	4	1.388		

Note: NAI: Not at all important, NI: Not Important, N: Neutral, I: Important, VI: Very Important

It is also obvious from ANOVA test that p-value rejects the null hypothesis; thus it is found that there is significant difference in the perception of investors for the usefulness of different approaches of technical analysis and all approaches are proved useful.

## 7.5 FACTORS INFLUENCING INVESTMENT DECISION

### 7.5.1 Exploratory Factor Analysis

Investors are the centre point of stock market and various factors play a vital role in influencing investors' decision for investment in a particular stock. In order to identify the most influencing factors, exploratory factor analysis is carried out. Total twenty five statements which influence investment decision of investors were taken into consideration. Sample adequacy test is applied before determining the significant factors of the study. Sample adequacy test is applied to obtain an idea of whether the

sampling data are adequate enough for the study or not. Table- 7.12 presents the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy which shows that the sample is appropriate for further analysis and the overall significance of correlation matrix is tested with Bartlett test of sphericity (Chi square 12075.7 and significant at 0.00). Some shared variance among the twenty five variables is observed which verifies the validity of applying the factor analysis.

**Table: 7.12**  
**KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.907
Approx. Chi-Square		12075.7
Bartlett's Test of Sphericity	Df	300
	Sig.	0.000

Principle component analysis and varimax rotation with Kaiser Normalization are employed for extracting the variables. Only, those variables are considered for the analysis whose communalities are greater than 0.50. Table- 7.13 displays the communalities of all twenty five variables. It is observed from the analysis that all the twenty five variables have their communalities greater than 0.50 and hence, all twenty five variables are retained for the analysis.

**Table: 7.13**  
**Communalities**

Sr. No.	Statement	Initial	Extraction
1	Past movements of the share price inspires me to invest in a particular stock.	1	0.824
2	Regulations of the Government authority are big source of influence.	1	0.685
3	Price earning ratio motivates me to invest me in a particular stock.	1	0.754
4	I consider systematic and unsystematic risk while deciding to invest.	1	0.839
5	Market Capitalization is considered by me which helps in determining a company's size.	1	0.795
6	Overall, growth or value of a firm encourages me to go for a particular stock.	1	0.692
7	I prefer to invest in the stock of higher earnings per share.	1	0.851
8	I prefer the company which issue bonus share.	1	0.829
9	According to me, dividends are the source of income and make an easy return. So, I favor the firm which will issue more dividends to investors.	1	0.794
10	I invest in a stock on the basis of the impact of economic variables over a particular firm.	1	0.656

11	Net Present Value of expected cash flow attracts me to invest in a stock.	1	0.793
12	Company status in an industry attracts me to go for its stock.	1	0.527
13	Profile of the board member give the confidence to invest.	1	0.639
14	Volume/ turnover of the stock encourage me.	1	0.813
15	High net operating profit of the company is a positive symbol for me to invest.	1	0.821
16	I take decision on the basis of information collected from Newspaper/Magazines/ Media.	1	0.806
17	I invest in the shares as per the opinions of my friends/ family members.	1	0.88
18	I take expert's views before selecting a stock.	1	0.88
19	I select the stocks as per the advice of stock agents.	1	0.9
20	My assessment to buy /sell relies on personal decisions.	1	0.638
21	Liquidity condition of a firm is the main concern for me.	1	0.788
22	I also analyze product strength of a firm before taking the decision of investment.	1	0.784
23	I first see the level of credit rating of the firm for investment.	1	0.724
24	Market value added attracts me for taking an investment decision.	1	0.814
25	I compare the performance company with related companies to decide in which company I should invest.	1	0.659

**Extraction Method: Principal Component Analysis.**

The eigen-values of all extracted factors along with the cumulative percentage of the variance are shown in table- 7.14. Four factors having eigen-values greater than one are extracted.

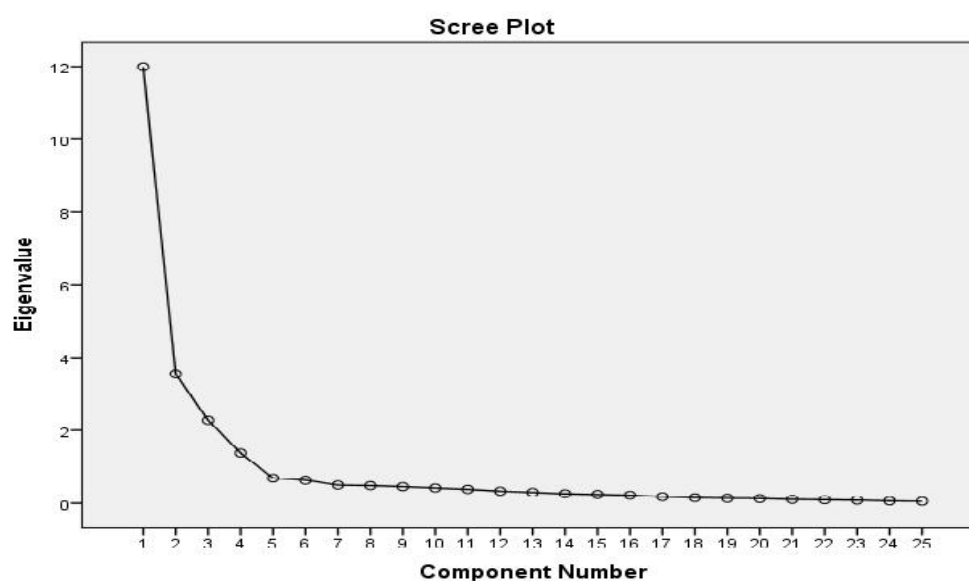
**Table: 7.14**  
**Total Variance Explained**

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	11.99	47.96	47.96	11.99	47.96	47.96	7.44	29.77	29.77
2	3.55	14.19	62.16	3.55	14.19	62.16	4.84	19.36	49.13
3	2.27	9.09	71.25	2.27	9.09	71.25	3.98	15.92	65.05
4	1.37	5.49	76.74	1.37	5.49	76.74	2.92	11.69	76.74
5	0.68	2.73	79.47						
6	0.63	2.51	81.98						
7	0.49	1.97	83.95						
8	0.48	1.91	85.86						
9	0.45	1.79	87.65						
10	0.41	1.65	89.30						
11	0.38	1.50	90.81						
12	0.33	1.30	92.11						
13	0.29	1.17	93.28						
14	0.26	1.02	94.30						

15	0.24	0.95	95.25						
16	0.22	0.86	96.11						
17	0.17	0.70	96.81						
18	0.15	0.60	97.40						
19	0.14	0.54	97.95						
20	0.13	0.50	98.45						
21	0.10	0.42	98.87						
22	0.09	0.37	99.24						
23	0.08	0.32	99.56						
24	0.06	0.24	99.80						
25	0.05	0.20	100.00						

**Extraction Method: Principal Component Analysis.**

Cattell's 'Scree Plot' is another way to get the number of factors to be extracted. Cattell's 'Scree Plot' shows the eigen value associated with each of the extracted factor. It is clearly observed from figure- 7.1 that four factors namely factor-I , II, III and IV are having eigen-value more than one which participated a significant role for deciding the investors' opinion to invest. Cattell's 'Scree Plot' exhibits the graphical representation of the variance contributed by the components (factors) on X- axis and eigen-values on Y-axis. It is obvious from figure- 7.1 that starting with the very first factor, Cattell's 'Scree Plot' goes down towards the horizontal line. These four extracted factors depict that these factors heavily affect the investors' opinion to make a decision for investment based on the different variables taken under the study.



**Figure- 7.1 Scree plot**

**Table: 7.15**  
**Rotated Component Matrix**

Sr. No.	Statements	Capital Gain	Advices & Government Regulations	Market Information	Stock Information
1	Past movements of the share price inspires me to invest in a particular stock.	0.352697	0.498689	0.055016	0.645767
2	Regulations of the Government authority are big source of influence.	0.394049	0.650451	0.293437	0.141729
3	Price earning ratio motivates me to invest me in a particular stock.	0.347959	0.183405	0.146161	0.76015
4	I consider systematic and unsystematic risk while deciding to invest.	0.865156	0.230154	0.116154	0.154575
5	Market Capitalization is considered by me which helps in determining a company's size.	0.363516	0.2409	0.271424	0.729114
6	Overall, growth or value of a firm encourages me to go for a particular stock.	0.134769	0.120989	0.738846	0.336351
7	I prefer to invest in the stock of higher earnings per share.	0.874078	0.188378	0.075237	0.214326
8	I prefer the company which issue bonus share.	0.826407	0.347878	0.027439	0.154234
9	According to me, dividends are the source of income and make an easy return. So, I favor the firm which will issue more dividends to investors.	0.857415	0.163522	0.126999	0.127777
10	I invest in a stock on the basis of the impact of economic variables over a particular firm.	0.087473	0.147319	0.749292	0.255506
11	Net Present Value of expected cash flow attracts me to invest in a stock.	0.847124	0.161076	0.092496	0.203039
12	Company status in an industry attracts me to go for its stock.	0.038547	0.009542	0.724186	-0.0265
13	Profile of the board member gives the confidence to invest.	0.077816	0.179132	0.774369	0.039253
14	Volume/ turnover of the stock encourage me.	0.312985	0.17017	0.217564	0.799211
15	High net operating profit of the company is a positive symbol for me to invest.	0.856666	0.250753	0.087065	0.128448
16	I take decision on the basis of information collected from Newspaper/Magazines/ Media.	0.388135	0.755571	0.146715	0.25172
17	I invest in the shares as per the opinions of my friends/ family members.	0.273192	0.859164	0.192941	0.174247
18	I take expert's views before selecting a stock.	0.125614	0.902299	0.156302	0.159477
19	I select the stocks as per the advice of stock agents.	0.203163	0.890182	0.100959	0.236555
20	My assessment to buy /sell relies on personal decisions.	0.129861	0.743903	0.260484	-0.00076
21	Liquidity condition of a firm is the main concern for me.	0.872996	0.093342	0.040894	0.123725

22	I also analyze product strength of a firm before taking the decision of investment.	0.823646	0.131731	0.06972	0.289485
23	I first see the level of credit rating of the firm for investment.	0.12762	0.197861	0.807969	0.124974
24	Market value added attracts me for taking an investment decision.	0.798404	0.180644	0.215743	0.31238
25	I compare the Performance company with related companies to decide in which company I should invest.	0.062384	0.235263	0.773585	0.037841

**Extraction Method: Principal Component Analysis.**

**Rotation Method: Varimax with Kaiser Normalization.**

The use of exploratory factor analysis is mainly to extract variables to decide the minimum number of common factors that would make significant correlation among the variables of the study. It is proved statistically to consider only the factors with eigen values more than one for any research work which is a suitable technique to extract the most relevant variable for the study (Malhotra & Das, 2013). Percentage of total variance that is used as an index to measure how well the factor solution accounts for what the variables together represent is found to be 76.743% which is good enough to investigate the investors' perception towards the factors which influence investors' decision. Table- 7.14 displays the total variance explained by the factors and table- 7.15 shows the rotated component matrix. Four factors having eigen values more than one are extracted to better explain the investor perception in the present era of competition. These factors are labelled 'capital gain' (factor-1), 'Advices and Government Regulations' (factor-2), 'market information' (factor-3) and 'stock information' (factor-4) and values of Cronbach's alpha are 0.969, 0.882, 0.940, 0.903 respectively which exceeds an obligatory requirement (0.70) which shows the reliability of the factors and internal consistency of the study.

First factor stands for '*Capital gain*' which highly influence the investors for investment decision. Capital gain includes the consideration of systematic and unsystematic risk while deciding to invest, stock of higher earnings per share, company which issue bonus share to its investors, more dividend for investors, net present value of expected cash flow, net operating profit & liquidity condition of the

firm, product strength and market value added. This is the most pertinent factor for investment decision and explains 47.96 % of variance before rotation and this factor has the eigen value 11.99. Second factor is '*Advices and Government Regulations*' and this factor explains 14.19 % of variance before rotation with the eigen value of 3.55. This factor focuses on the information related to the regulations of the government authority in the form of reports, any information covered by newspaper/magazines/media, opinion of family members/ friends, expert/agent advice and personal decisions.

Third factor i.e. '*Market information*' in special reference to firm has six measures and these measures are; overall growth of the firm, impact of economic variables over a particular firm, attraction due to the profile of the board members & status of a company, level of credit rating of the firm for the decision of investment and the comparison of a company with other related companies to decide the best company to invest. This factor explains 9.09 % of variance before rotation with the eigen value of 2.27. Fourth factor stands for '*Stock information*' with the eigen value of 1.37 and covers the role of past movements of share price, price earning ratio of stock, market capitalization which helps investors' in determining the size of the company and volume/turnover of a particular stock. This factor explains 5.49% of variance before rotation.

### **7.5.2 Managerial Implications for Policy-makers/Companies regarding factors influencing the investment decision**

The conclusion drawn from the results obtained through rotated component matrix depict that four factors are responsible for encouraging or discouraging the investors' decision for investment in the stock market. Findings signify an important result for the market and companies. **First factor** is capital gain and it is most important to affect the investors' decision and explains 47.964 % of variance before

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rotation. Hence, it is obvious that investors always consider fundamental information prior to invest as it has obtained highest percentage of variance before rotation. Investors consider risk first which elaborate the possibility of losses. They expressed that they study about systematic and unsystematic risk in every situation due to the effect of specific factors of companies/industries and external factors which influence market as a whole. The trend of the whole market can be captured with the help of risk and return prospect. Results of the study show that higher earning per share is an important aspect of capital gain which is usually analysed by investors. With the help of this information, they usually understand the portion of profit of a particular company. Further, Bonus share issued by company plays a pragmatic role to influence investors positively towards investment in the particular stock because bonus share is a kind of additional share to the shareholders without charging any extra cost on the basis of the number of shares an individual shareholder holds. Therefore, issue of bonus share is highly recommended to the companies to attract investors/shareholders positively towards their stocks. Dividend is another most important variable to express financial well-being of a company. This elaborates a powerful message about future expectations and performance. Willingness to pay dividends on time shows good clues about the fundamentals of a company and if a company pay regular dividend to shareholders from its earning, it is always considerable by investors.

It is also found that while analysing fundamental information of company, investors also consider net present value of expected cash flow with the help of the present value of cash inflows and the present value of cash outflows. Profitability can be easily checked with the analysis of net present value of expected cash flow because this method is very pertinent too for comparing the today's value of money in the future. Valuable information regarding investment can be found by considering the net operating profit of the company which signifies a positive symbol for investors as

it measures profit after excluding the costs and tax. Net operating profit shows the real figure of income. Hence, investors strongly agree for the importance of this information for their portfolio analysis. Liquidity condition of a company is a facility to transfer an asset into cash quickly and investors check it too. Liquidity has a different meaning in stock market. The market for a stock is supposed to be liquid if the shares can be quickly sold and this whole act of selling has an impact on the price of stocks. Different financial ratios such as current ratio, quick ratio and debt-equity ratio are usually used to check the liquidity of a company. Product strength of a firm is confirmed before taking the decision of investment. While analyzing the financial parameters investors also analyse market value added which is used to get the difference between company's market value and contribution of investors capital. Investors agree to invest in the higher market value added company which always shows the substantial wealth of the shareholders. Hence, it is strongly recommended to companies to strengthen their financial fundamentals to increase the confidence of investors in their stocks.

**Second factor** is associated with the advices and government regulations which consists various advices like expert's views, advice of stock agents, newspaper information, personal decision and family/friends opinions. This factor plays a crucial role for influencing investors' decision regarding the investment because it explains the variance of 14.192 % before rotation. As the market is affected by several external factors, amendments in the government regulation affect investors positively/negatively. For investors, only analyzing cash flows of a company or other financial statistics are not sufficient. Amendments in the government rules and regulations also play a significant role for the future movements of share price and they study it too. Newspaper/magazines/media are core of information for investors most of the times because they evaluate their portfolio on the basis of the information

provided by these secondary sources. These sources provide news on different backgrounds such as business news, stock/share market news, financial news and economy news. Information are importantly needed to be checked and hence, investors do check. Opinions of friends or family members also play a vital role to affect the investment decisions of investors. Overall, social influence is very important variable to affect the attitude of an investor. Hence, the role of the company increases because there is a huge role of mouth to mouth publicity and this finding reveals that behaviour of one investor may affect other investors positively/negatively. An investor also considers experts' advice before selecting a stock to know the investment opportunities for a particular company in a nutshell. Experts suggest for the maximum return on investment by measuring the risk & return aspects, whereas technical analysis is a widely used technique to suggest an investor for an investment in short run and experts use it to suggest an investment quickly. Advice of stock agent also plays a crucial role to decide a portfolio for investment. Agents use advance technology to measure the current buy/sell positions of the stock. Agents are closely associated with the stock market, they are keen observer; sometimes, speculators predict the trend efficiently. Some investors agree to buy/sell on the basis of personal decision too. They assess their own portfolio and invest in the market but there are exceptionally limited investors of this kind in the market due to anomaly nature of the stock market.

**Third factor** elaborates the market information related to firms. This factor explains 9.093% of variance before rotation. Overall, growth of a firm is point of concern that is positively related with the returns of shares. Therefore, investors investigate the growth of firms prior to go for investment decision. Growth and value are the most important approaches of stock market. Investors look for the portfolio of companies with high growth potential. Economic variables play most significant

impact on the returns of investment. Investors analyse different economic variables such as exchange rate, industrial production, inflation, interest rate, money supply, foreign institutional investors etc. It is proved by various studies that macro economic variables affect the stock returns. Hence, investors evaluate macroeconomic variables for investment decision in a particular time. Status of the particular firm in an industry attracts investors to go for a stock before making a decision. Positive information about the profile of the board members of firms is a pertinent variable which increases the confidence of investors in that firm because they delivers the vision of a firm which directly relates to the profitability. In the light of market information regarding firm, credit rating also plays an important part which need to be checked. It is an estimation of the capability of a firm to complete its financial commitments like dividend payment, bonus shares etc. Hence, investors check the capability of a firm with the help of credit rating. Investors also do comparative analysis of different firms by analysing the various aspects of firms for getting comparative information regarding firms and to make a decision of investment in right place.

**Fourth factor** is associated with the stock information and it is found comparatively less important factor which explains only 5.49% of variance before rotation. It is proved in the current study that investors analyze the past movements of the share price and this is an encouraging/discouraging factor for them to invest in a particular stock. Most of the times, they analyse past movements by using various approaches of technical analysis to extract information about anomaly movements of future price from historical data. On the contrary, Fama (1970) argues that there is no pattern, it occurs accidentally and there is no pattern involve in it. Whereas, few respondents agree to analyze the price movements with technical analysis which is supported by the past studies (Lim, 1992; Mitra, 2002 and Chitra, 2011) to take into account when invest in short run. This factor elaborates that price earning ratio

motivates investors to invest which measures a company's current share price in comparison to its per share earnings and reflects the corporate image & growth prospects of firms. Investors do invest in a company having higher price earning ratio because higher earning presents the growth of the company in future. Market capitalisation and volume/turnover are also considered under stock information which positively affect investors' decision. Investors use market capitalisation to determine the size of company which is an important determinant for allocation of assets and risk & return analysis for stocks, whereas high turnover of stocks encourages investors too because high turnover of stocks represents liquidity of stocks. This study concluded that these extracted factors are crucial for increasing the interest of investors for the investment in stock market. Therefore, it is strongly recommended to the policy-makers/companies to take care of these factors for attracting more and more investors.

## **7.6 IDENTIFICATION OF GROUP OF INVESTORS**

### **7.6.1 Cluster Analysis**

It is important to identify the characteristics of various groups of investor to differentiate these diverse groups and differentiation is done on the basis of factors which influence investors' decision for investment and various problems faced by the investors as per their nature of investment. Clusters have been framed on the basis of these criteria by applying cluster analysis. In order to distinguish homogeneous clusters, a three-cluster solution has been applied. After determining the three-cluster group, the analysis discloses that the clusters formed are traditional investor, impulsive investor and well-informed investor for making a decision of investment in stock market and these clusters are shown in table- 7.16. Hierarchical and non-hierarchical clustering methods are performed and then, results are compared. Initially, hierarchical clustering is applied to identify the number of clusters and non-

hierarchical clustering is applied in the later stage to validate the results (Malhotra & Das, 2013). Table- 7.17 displays the clusters with their membership in the group of final clusters. Table- 7.18 exhibits that all statements taken under the consideration are significantly different.

**Table: 7.16**  
**Number of Cases in each Cluster**

<b>Cluster</b>	1	132
	2	124
	3	194
<b>Valid</b>		450
<b>Missing</b>		0

**Table: 7.17**  
**Clusters of Investors based on their characteristics**

Sr. No	Statement	Cluster		
		Traditional	Impulsive	Well-Informed
1	Past movements of the share price inspires me to invest in a particular stock.	1	5	5
2	Regulations of the Government authority are big source of influence.	1	3	5
3	Price earning ratio motivates me to invest me in a particular stock.	2	5	5
4	I consider systematic and unsystematic risk while deciding to invest.	1	1	5
5	Market Capitalization is considered by me which helps in determining a company's size.	1	5	4
6	Overall, growth or value of a firm encourages me to go for a particular stock.	1	4	2
7	I prefer to invest in the stock of higher earnings per share.	1	2	5
8	I prefer the company which issue bonus share.	1	1	5
9	According to me, dividends are the source of income and make an easy return. So, I favor the firm which will issue more dividends to investors.	2	1	5
10	I invest in a stock on the basis of the impact of economic variables over a particular firm.	1	1	5
11	Net Present Value of expected cash flow attracts me to invest in a stock.	1	2	5
12	Company status in an industry attracts me to go for its stock.	3	5	1
13	Profile of the board member gives the confidence to invest.	1	5	1
14	Volume/ turnover of the stock encourage me.	1	5	5
15	High net operating profit of the company is a positive symbol for me to invest.	1	2	5
16	I take decision on the basis of information collected from Newspaper/Magazines/ Media.	1	5	5
17	I invest in the shares as per the opinions of my friends/ family members.	4	5	5

18	I take expert's views before selecting a stock.	4	5	5
19	I select the stocks as per the advice of stock agents.	4	5	5
20	My assessment to buy /sell relies on personal decisions.	3	4	5
21	Liquidity condition of a firm is the main concern for me.	1	1	4
22	I also analyze product strength of a firm before taking the decision of investment.	1	1	5
23	I first see the level of credit rating of the firm for investment.	1	4	2
24	Market value added attracts me for taking an investment decision.	1	2	4
25	I compare the Performance company with related companies to decide in which company I should invest.	1	5	1
26	Problem due to online trading.	4	2	3
27	Brokers do not provide suitable advice.	2	4	2
28	Highly fluctuating stock prices.	3	3	4
29	There is not enough accessibility of technology.	4	4	2
30	There is high transaction cost.	3	3	1
31	There are more probabilities of fraud.	2	2	5
32	Problem in Communication network	4	4	1
33	Lack of Transparency in the system.	1	1	5

**Table: 7.18**  
**ANOVA table of Investor Groups**

S. No.	Statement	Cluster		Error		F	Sig.
		Mean Square	df	Mean Square	df		
1	Past movements of the share price inspires me to invest in a particular stock.	122.68	2	0.81	447	151.12	0.00
2	Regulations of the Government authority are big source of influence.	104.59	2	0.75	447	139.16	0.00
3	Price earning ratio motivates me to invest me in a particular stock.	64.99	2	0.77	447	84.54	0.00
4	I consider systematic and unsystematic risk while deciding to invest.	255.58	2	0.51	447	504.71	0.00
5	Market Capitalization is considered by me which helps in determining a company's size.	115.94	2	1.02	447	113.45	0.00
6	Overall, growth or value of a firm encourages me to go for a particular stock.	21.64	2	0.74	447	29.20	0.00
7	I prefer to invest in the stock of higher earnings per share.	223.21	2	0.49	447	451.18	0.00
8	I prefer the company which issue bonus share.	212.75	2	0.57	447	375.26	0.00
9	According to me, dividends are the source of income and make an easy return. So, I favor the firm which will issue more dividends to investors.	192.99	2	0.62	447	309.71	0.00
10	I invest in a stock on the basis of the impact of economic variables over a particular firm.	15.29	2	0.89	447	17.11	0.00
11	Net Present Value of expected cash flow attracts me to invest in a stock.	211.96	2	0.59	447	358.31	0.00

12	Company status in an industry attracts me to go for its stock.	2.58	2	0.83	447	3.11	0.05
13	Profile of the board member gives the confidence to invest.	13.65	2	1.00	447	13.62	0.00
14	Volume/ turnover of the stock encourage me.	78.65	2	0.94	447	83.97	0.00
15	High net operating profit of the company is a positive symbol for me to invest.	225.77	2	0.52	447	434.24	0.00
16	I take decision on the basis of information collected from Newspaper/Magazines/ Media.	87.47	2	0.59	447	148.82	0.00
17	I invest in the shares as per the opinions of my friends/ family members.	67.81	2	0.71	447	95.80	0.00
18	I take expert's views before selecting a stock.	62.48	2	1.00	447	62.58	0.00
19	I select the stocks as per the advice of stock agents.	69.58	2	0.81	447	85.72	0.00
20	My assessment to buy /sell relies on personal decisions.	33.71	2	0.88	447	38.28	0.00
21	Liquidity condition of a firm is the main concern for me.	196.24	2	0.63	447	310.77	0.00
22	I also analyze product strength of a firm before taking the decision of investment.	184.98	2	0.58	447	316.41	0.00
23	I first see the level of credit rating of the firm for investment.	21.32	2	1.00	447	21.22	0.00
24	Market value added attracts me for taking an investment decision.	250.74	2	0.53	447	471.33	0.00
25	I compare the Performance company with related companies to decide in which company I should invest.	12.19	2	0.89	447	13.70	0.00
26	Problem due to online trading.	108.45	2	0.54	447	202.59	0.00
27	Brokers do not provide suitable advice.	119.18	2	0.22	447	544.62	0.00
28	Highly fluctuating stock prices.	9.75	2	0.81	447	12.10	0.00
29	There is not enough accessibility of technology.	144.72	2	0.33	447	440.36	0.00
30	There is high transaction cost.	14.25	2	0.89	447	15.96	0.00
31	There are more probabilities of fraud.	303.54	2	0.55	447	555.63	0.00
32	Problem in Communication network	148.11	2	0.35	447	427.85	0.00
33	Lack of Transparency in the system.	519.91	2	0.80	447	647.25	0.00

### 7.6.2 Differentiation of the Groups of Investors and its Managerial Implications

*Cluster 1-* The first cluster is a group of the investors who have no interest in the movements of shares. It means these are the investors who do not believe in different analysis of short-term prediction of the trend of stock prices and past movements of the share price do not encourage/discourage the investors of this group. They even do not think about amendments in the regulations taken by the authority and price earning ratio of the company. It is found that they do not analyse external and internal risk factors associated with stock in most of the cases. This is a group which does not study market capitalisation, value of firm, liquidity condition, net operating profit, earning per share, market value added, bonus shares issued by



company and credit rating of the company. Nonetheless, they invest in the stock without analysing the exact position of dividend, economic variables and volume/turnover of the company. Most of the investors of this group are confused to check the status of a company within a group. Profile of the board members, announcements in the newspapers/media and a comparative analysis of the performance of other related companies do not matter for this group.

It is noticeable that this is a group which believes in advices of others like advices of friends/family, experts & agents and they feel importance of advices; hence, they like to invest on the basis of obtained advices. However, this group is neutral while taking assessment to buy/sell on their personal decisions. This cluster consists 29.33 percent of total respondents and these respondents invest only 0-10 percent of their disposable income in the stock market. Hence, this cluster is named as **traditional investors**. It is observed that these investors are traditional because they feel problem to go for online trading and they believe in advices of brokers. Although, this group is neutral towards the fluctuating stock prices and high transaction cost. They firmly believe that there is not enough accessibility of technology and problem in communication network is also highlighted as the main problem, while they disagree over the statement of lack of transparency in the system. The results clearly emphasised on issues related to the neutral behaviour of traditional investors; hence, these problems need to be cured by companies/market to convert traditional investors into well-informed investors. It is also clear that this group of investors do not believe in fundamental as well as technical appraisal techniques and just do investment on the basis of different advices which makes them traditional investor of stock market.

*Cluster 2-* This cluster consists those investors who take their decisions of investment spontaneously and feel technical analysis important and always investigate the past movements by using various approaches of technical analysis for getting the

information of the future price expectations and do not follow the study of Fama (1970) which proves that there is no pattern involve in it. They are neutral for the regulations of government authority towards the various market issues. For investment decision, this group does not focus on bonus shares issued by company, dividend, net present value of expected cash flow, net operating profit of company, liquidity conditions and products strength of the firm that presents their ignorance towards financial fundamentals for investment. Thus this group of investors give impulsive responses towards stock market investment. It is observed that the price earning ratio motivates the investors of this group to determine a company's current share price in comparison with its per share earning; hence, investors belong to this group preferred to invest in a company having higher price earning ratio which depicts the growth of the company in future. Market capitalisation and value of the firm also matters a lot to this group. They do not investigate economic variables for estimating the return on investment of their investment portfolio. This group considers the status / turnover of the company and updated profile of the board members as these factors increase the confidence of investors to invest in a particular stock and they take investments decision quickly.

This group also considers the advices of friends/family members important. Investors belong to this group trade through various stock agents and follow the approaches given by these agents before going for a stock. They also study experts' view through various news channels, newspapers like economic times, business standard for taking a prudent decision within a limited time period. Sometimes, they assess stocks with their own understandings. Credit rating of companies also plays an important role for taking decisions and to compare firms of the same industry; hence, investors belong to this group go for the best credit rating companies for finding the soundness of firms with their expectation of earning. This cluster constitutes 27.56

percent investors out of total investors of the study and named as **impulsive investors**. Investors belong to this group do not feel any problem in online trading, while they agreed that the brokers do not suggest appropriate advices sometimes and they suffer losses. This group delivered that there is no possibility of fraud and lackness in transparency of the system. Therefore, this group is found satisfied with these kind of burning problems. They have given neutral responses for high fluctuating stock price and high transaction cost. This group do not have an adequate facility to access latest technology and problem is also observed in communication network by these investors to connect with the updated trading. Generally, these investors take their investment decisions on the basis of easily available information by employing technical analysis.

*Cluster 3-* The largest chunk of the respondents of this study is well informed regarding various stock market issues. The investors belong to this group always considers past movements of the share prices and they study anomaly of future price movements from historical data. Since, market is affected by various internal and external factors like any amendment in the regulations of government authority or changes in the internal policies of the firm; this cluster always investigates all these associated factors which affect stock price behaviour. For maximizing returns on investments, they go through the systematic and unsystematic risk to capture the trend of the whole market for the future prediction of the share price movements. They analyse price earning ratio & market capitalisation ratio because higher earning growth & high market capitalisation depict the growth prospect of the company in the forthcoming future. They do not consider company's status, profile of board members, value of a firm, credit rating and comparative analysis of an assortment of homogenous firms, while they assess the stocks on the basis of higher earning per share, bonus shares issued by company and dividends. This cluster investigates the

relationships of different macroeconomic variables such as exchange rate, index of industrial production, inflation, interest rate, foreign institutional investors with share prices for long term investment opportunities. They are long term investors with full of information; hence, they judge the investment on the basis of net present value of cash flows, liquidity condition, market value added, product strength of the firm, net operating profit and turnover of the company. They are found to be curious for getting information through secondary source of information like newspapers, magazines and media. They do not hesitate to take advices of experts, stock agents, friends/family members whereas; they also assess stocks on personal decisions. They have comparatively less problems related to stock market because they agree that brokers provide convenient advices whenever required but they agree for the high fluctuating stock prices problems. Transaction cost is not so high for this cluster and investors of this group do not feel problem in communication network. They agree for enough accessibility of technology but they are neutral towards online trading. This cluster represents well informed investors which consist 43.11 percent of the total respondents. This cluster is biggest in size which has almost every source of information related to stock market to take wise decisions; hence, this cluster is a cluster of prudent investors. On the basis of the inferences, it is clear that these investors believe in both fundamental and technical appraisal techniques for investment decision which makes them well-informed investors.

### **7.7 PROBLEMS FOR INVESTMENT IN STOCK MARKET**

To know the problems which negatively affect investors' decision to invest in the stock market, responses of respondents have also been considered into account. Various dimensions related to problems are analysed for increasing the participation of investors in the stock market. Weighted average score of all the statements are calculated. The highest weighted average score of 3.29 is found for the availability of

more probabilities of fraud in stock market and hence, ranked first problem to resolve with additional care followed by lack of enough accessibility of technology with weighted average score of 3.22 which is ranked second serious problem and problem in communication network with weighted average score of 3.21 has been observed on third rank.

**Table: 7.19**  
**Various Problems for the Investment in Stock Market**

Statements	SD	D	N	A	SA	WAS	Rank
Problem due to online trading.	17 (4)	187 (42)	114 (25)	106 (24)	26 (6)	2.86	8
Brokers do not provide suitable advice.	0 (0)	141 (31)	105 (23)	206 (46)	0 (0)	3.14	4
Highly fluctuating stock prices.	20 (4)	94 (21)	204 (45)	107 (24)	25 (6)	3.05	6
There is not enough accessibility of technology.	18 (4)	96 (21)	132 (29)	175 (39)	29 (6)	3.22	2
There is high transaction cost.	27 (6)	87 (19)	199 (44)	98 (22)	34 (8)	3.06	5
There are more probabilities of fraud.	18 (4)	186 (41)	31 (7)	76 (17)	139 (31)	3.29	1
Problem in Communication network.	23 (5)	91 (20)	132 (29)	176 (39)	28 (6)	3.21	3
Lack of Transparency in the system.	201 (45)	0 (0)	0 (0)	130 (29)	114 (25)	2.89	7

Note: SD: Strongly Disagree, D: Disagree, N: Neutral, A: Agree, SA: Strongly Agree.

It is obvious that investors also consider that brokers do not provide convenient suitable advice. The results show that problem due to online trading is on last rank. Therefore, it can be concluded that there are various problems which affect investors negatively and need to be resolved carefully.

## 7.8 SUGGESTIONS TO IMPROVE THE CONFIDENCE OF INVESTORS

It is essential for companies to consider the suggestions of investors to increase their confidence to invest in their stocks and suggestions were also asked from the investors to help the policy-makers through this study. Table- 7.20 displays that investors agree that companies should launch more plans to increase the awareness of investors regarding various issues of investments and hence, first rank is given to this suggestion with weighted average score of 4.09; therefore, companies may plan to

develop investors' awareness towards investment through online training programme or they may provide information related to investment opportunities in a DVD. Companies may also provide kit materials to brief the regular performance of companies. These strategies will definitely strengthen the confidence of the investors to invest in the stocks.

**Table: 7.20**  
**Suggestions to Improve the Confidence of Investors**

Statements	SD	D	N	A	SA	WAS	Overall Ranking
To develop a procedure regarding grievance handling of the investors.	38 (8)	34 (8)	45 (10)	132 (29)	201 (45)	3.94	2
There must be more transparency in promoter's action.	33 (7)	98 (22)	61 (14)	82 (18)	176 (39)	3.6	4
There should be more plans to develop investors' awareness towards investment.	31 (7)	60 (13)	10 (2)	82 (18)	267 (59)	4.09	1
Company should provide return related measures.	51 (11)	15 (3)	64 (14)	165 (37)	155 (34)	3.79	3
There should be a proper procedure related to insurance coverage against losses.	64 (14)	168 (37)	46 (10)	102 (23)	70 (16)	2.88	5

Note: SD: Strongly Disagree, D: Disagree, N: Neutral, A: Agree, SA: Strongly Agree.

Further, respondents suggest to develop a procedure regarding grievance handling of the investors that will certainly increase the confidence of the investors and hence, this suggestion is ranked second with weighted average score of 3.94. Third rank with weighted average score of 3.79 is given to the suggestion of providing return related measures on regular basis. Policy-makers/companies should consider these suggestions to enhance the investment in stock market.