CHAPTER FOUR

Survey Study (Quantitative Analysis)

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Chapter Four: Survey Study (Quantitative Analysis)

4.1. Introduction

The valuation of shares is an essential method used to determine a company's fair market value. The significance of fundamental analysis in stock valuation was initially highlighted by Graham and Dodd in their influential 1934 work, Security Analysis. Prior to this, the application of stock valuation and fundamental analysis was somewhat inconsistent. Recently, the Economy-Industry-Company (E-I-C) framework has emerged as an important approach for evaluating shares through fundamental analysis. Preliminary findings from this study reveal that, although the E-I-C framework and fundamental analysis are well-regarded and frequently used by professionals, many retail investors still struggle to fully understand these concepts. The inherently complicated and time-consuming nature of the E-I-C framework and fundamental analysis likely explains why they are not more widely used by ordinary investors.

Consequently, improving the usability and acceptance of fundamental analysis and the E-I-C framework among a wider range of investors is a primary goal of this research. To do this, it is vital to analyze the existing level of awareness and realize the problems faced by both experts and investors in implementing these approaches.

Hence, the purpose of this section of the research is to catalog the difficulties encountered by experts in applying the E-I-C model and basic analysis. By involving professionals and investors who are actively engaged in stock valuation and investment, the study seeks to close the gap identified in the literature. Ultimately, the research will provide valuable insights to help both professionals and retail investors better appreciate and utilize the E-I-C framework and fundamental analysis in valuing shares in both the manufacturing and service industries.

In this part, the study will gather and analyze the views financial analysts, valuation agencies, directors, professional, executives and academicians working with the related discipline. The current use of the E-I-C framework and the challenges that prevent its greater application will be better understood with the data acquired utilizing a quantitative study method. In order to investigate the connections between responses to study questions about qualities and concepts, the

quantitative approach is frequently used. When there is access to actual data, it really shines because it lets you put a theory to the test with proof (Creswell, 2019).

Financial analysts, valuation agencies, directors, professional, executives and academicians working with the related discipline were surveyed using a structured instrument to gain insights into the practices, awareness, and applicability of the E-I-C framework as a tool for share valuation.

Linking the theoretical knowledge of the E-I-C framework with its practical application in share valuation is the goal of this section of the research. This study's overarching goal is to dissect how basic analysis, and the E-I-C framework contribute to prudent equity share investments in public limited corporations. In keeping with the stated goals, a descriptive and exploratory research approach was used. This chapter is divided into two sections: the technique is covered in the first portion, and data analysis is covered in the second.

In order to assess the efficacy of fundamental analysis in valuing the equity shares of public limited businesses for investment purposes, a structured instrument was created to study the E-I-C framework's implementation. A total of 62 people responded to the study after it was sent out to 70 experts who were specifically chosen for their interest in taking part in the research. The goal of the study was to find out influential variables pertaining to fundamental analysis using the E-I-C framework for valuing shares of listed Indian companies

To guarantee that it obtained all of the necessary data for the study, the questionnaire was thoroughly designed. Using multi-item measurements allowed us to ensure a higher level of construct validity. This is due to the fact that complex structures may have multiple facets that single-item assessments cannot fully grasp. Moreover, combining different questions into one construct enables a more thorough review from different angles. Like opinion surveys found in the literature, this study employs a Likert Scale with evenly spaced intervals between response categories. The questions are closed-ended (likert, 1932).

The study questionnaire had 57 items organized in a logical way into 2 parts. Section I collected the personal information of the participants, specifically examining their demographic attributes and Section II collected information regarding conceptual clarity of respondence on valuation of

shares, their views on valuation variable related to Company, Industry, Economy & other variables, views on overall impact of various segments of E-I-C & other variables. The questionnaire was divided into 4 parts.

The primary data collection tool for the pilot study was a questionnaire regarding the E-I-C (Economy-Industry-Company) framework, which is used to value stocks. Financial analysts, valuation agencies, directors, professionals, executives and academicians working with the related discipline received questionnaires & they also were briefed on the study's aims before being asked to assess the questionnaire. Four professionals examined the updated questionnaire and offered further suggestions based on their feedback. By conducting this pilot study, we aimed to identify critical success indicators for using the E-I-C framework to value the equity shares of publicly traded companies (Pinto, Robinson, & Stowe, 2015).

After receiving feedback from the pilot study and advisers, the final questionnaire draft was revised and ready for distribution to participants in the investigation. (Appendix)

4.2. Methodology

4.2.1 Structure of the Questionnaire

Part I collected the personal information of the participants, specifically examining their educational background, present work profile, earning & investment patterns, risk appetites & investment motives were inquired, variables considered while investing. This part consisted of 17 questions having multiple choices to be chosen amongst.

The conceptual knowledge of the respondents on important share valuation determinants was evaluated in part II. This part had 14 questions relating to various terms & variables used in valuation of shares. The answers to this question ranged from ‘Excellent’ to ‘Very Poor’ on five-point scale representing conceptual clarity on the term. Here, 5 scales were; Excellent = 5, Good = 4, Average = 3, Poor = 2, and Very Poor = 1.

Section III comprised 22 questions, out of which question no. 3.1 to 3.6 were related to Company analysis. Out of these 6 questions the 1st question was multiple choice question where respondent

was asked to select best valuation method out of Dividend Discount Model, Free Cash flow Model & Residual Income model. The respondents were allowed to choose one or more tha one method at a time. From question 3.2 to 3.6 were dichotomous (Yes/No) questions that addressed characteristics pertaining to variables applied in company analysis. While question no 3.7 to 3.22 were Likert scale questions designed to assess importance of individual variables within the framework of industrial and economic analysis as well as other variables. (Pinto, Robinson, & Stowe, 2015) (Graham & Dodd, security Analysis) (Damodaran, 2006) (McKeen & Schmidt, 2023) (Kwon & Shin, 1999) (Hagstrom, 2004), (Rappaport, 1986) (Ohlson, 1995).The scale ranged from 'Extremely Recommended' to 'Strongly not Recommended'. Here 5 scales were; Extremely Recommended-5, Recommended-4, Neutral-3, Not Recommended-2, Strongly not Recommended-1.

Part 4 analyzed the composite impact of variables in the four categories: Economic, Industry, Company, and Other Relevant variabes. Here, four overall evaluation statements were asked to validate instruments. These statements are scaled from 1 to 5; Extremely Recommended-5, Recommended-4, Neutral-3, Not Recommended-2, Strongly not Recommended-1.

We used a non-probability sampling strategy based on the purposive sampling method to select our sampling units. This study incorporates the opinions of academics, owners, trustees, and professionals from a variety of fields, as well as professionals with credentials such as CA, CFA, CMA, CS, etc. It was decided to personally approach the respondents in order to provide them with surveys wherever they are available. When necessary, questionnaires were also given to respondents via regular post & email. In all 62 Responses have been received back by the respondents and are considered for further study. To better understand the responses, we first categorized the quantitative data from each question and then demonstrated it into a table layout.

4.2.2 Techniques for Data Analysis

For the analysis, only fully filled surveys were taken into consideration. Before entering it into a computer for analysis and storage, the raw data was transformed into numerical data and coded. Microsoft Excel was used to save the information as a data file. Statistical analysis was performed on the coded data. In order to analyze the data, experts were and (SPSS version 15) was utilized. The following tests were used to conduct the statistical analysis of the study's variables:

- Descriptive statistics
- Cronbach Alpha
- Factorial Analysis

Descriptive Statistics: To make quantitative descriptions more understandable, descriptive statistics are employed to outline the fundamental characteristics of study data, to explain what the data indicates, or just to explain what the data is. Basically, they just give you the gist of the sample and the metrics. These two things, along with basic graphic analysis, are the backbone of almost all quantitative data analysis.

Descriptive statistics is a viable approach to simplifying massive amounts of data is using descriptive statistics. Distribution, percentages, graphs, Mean, and Standard Deviation were utilized to better interpret and portray the raw data in this study.

Cronbach Alpha: As is customary in the research community, the Cronbach alpha coefficient was applied to investigate the reliability of the instruments (Cronbach, 1951). The level of internal consistency among questionnaire items is indicated by the coefficient alpha. On top of that, it gives an indication of the strength of the positive correlation between the items in a set (Streiner, 2003). Even while Cronbach's alpha can take on values between 0 and 1, it is often considered to have more internal consistency when values are closer to 1. A good value is one that is greater than 0.70, whereas a poor value is one that is lower than that (Nunnally, 1981).

The present study consulted experts, examined data using accessible software, and calculated dependability. The reliability factor for all the primary research variables was determined using Cronbach's alpha.

Factorial Analysis: Factor analysis is a method used to reduce large numbers of variables into manageable components, particularly for interval data. It helps in real-world problems where too many independent variables are used to predict response variables, making it difficult to draw conclusions, costing time and money, and sometimes resulting in redundant variables. The goal is to identify underlying factors that comprise the original input variables and group them

accordingly. Factor counts should be proportional to input variable counts, but after factor analysis, the study's overall factor count can be lowered by eliminating minor components according to specific criteria, making it a popular choice for data reduction or structure discovery tasks.

To reassemble the data, this research made use of Principal Component Analysis, which offers a novel approach. For the created solution to incorporate factors equal to the number of variables, it takes into account the 'total' variation from those variables, even though the retention requirement won't be satisfied.

The level of correlation between the criterion and the variables was measured using factor loadings. When the factor loading is close to 1, it means that the criteria and factor are strongly correlated; when it's closer to 0, it means that the correlation is weak. The Varimax with Kaiser Normalization rotation method is employed to rotate the factors (Wee & Quazi, 2004). Only factors with values higher than 0.6 were evaluated for interpretation after factor extraction using the Principal Component Analysis (PCA) approach.

4.3. Data Analysis

4.3.1 Structured Questionnaire's Reliability

A scale is considered reliable if it consistently yields the identical results when the same properties are measured multiple times (Carmines, 1979) (Moser & Kalton, 1971). If you want to know how reliable a summated scale is, where multiple things add up to a final score, one typical option is to utilize the Internal Consistency Reliability method. As is customary in the research community, the Cronbach alpha coefficient was applied to investigate the reliability of the instruments (Cronbach, 1951). The level of internal consistency among questionnaire items is indicated by the coefficient alpha. On top of that, it gives an indication of the strength of the positive correlation between the items in a set (Streiner, 2003). Even while Cronbach's alpha can take on values between 0 and 1, it is often considered to have more internal consistency when values are closer to 1. A good value is one that is greater than 0.70, whereas a poor value is one that is lower than that (Nunnally, 1981).

Table 4. 1: Summary of Indicators and Reliability Alpha Score

Sr. No.	Grouped Items of Indicators	No. of Item	Cronbach Reliability Alpha Coefficient
01	Conceptual Clarity of Respondence on Various Terms & Variables Related to Valuation	14	0.965
02	Importance of Company Variables in valuation of equity share of equity.	5	0.742
03	Importance of Macroeconomic Variable in Valuation of equity share of equity.	6	0.861
04	Importance of Related Industries' Variable in valuation of equity share of equity.	5	0.879
05	Other Factor in valuation of equity share of equity.	5	0.927
06	Section wise importance of Economy, Industry, Company and other variables in valuation of equity share of equity.	4	0.899
07	Overall	39	0.968

The tests for reliability to measure the inter- and intra-attribute reliability of the opinion and its impact on the final score, the Cronbach alpha coefficient was calculated. The Cronbach's alpha varied from 0.742 to 0.968, indicating that the scale had high internal reliability, and all components of the questionnaire that measured opinions were analyzed. The degree to which the items on a scale are cohesive is reflected in the dependability of the scale, as measured by coefficient alpha (Nunnally, 1981). All the aforementioned claims have a Cronbach alpha coefficient of 0.965, indicating that the scale is reliable. Thus, this scale is deemed trustworthy and sufficiently capable for further processing.

4.3.2 The Structured Questionnaire's Validity

In this empirical study, respondents received a structured questionnaire, and findings of measurement of the criterion wise validity and overall means score are presented in the tabular form. (criteria grouped under (Q No.-3.2 TO Q No. -3.22)); and also their overall opinion respectively ((Q No.- 4.1 to Q No. - 4.4)) (Naresh K. Malhotra, 2007 and Parasuraman et. al., 1991). (Parasuram, Berry, & Zeithml, 1990)

Table 4. 2: Table Showing Comparison of Mean Scores of Extents of Respondents' Opinion on Valuation Using E-I-C Framework: An Analytical study of Select Listed Indian Companies

Respondent's Opinion with respect to Criteria		**Respondent's Opinion with respect to Criteria**		**Difference in Mean Count (Column 2-Column4)**
Rating Scale 1 to 5				
(Q No.-3.2 TO Q No.-3.22)	**Mean Score (Rank)**	**(Q No.- 4.1 to Q No.-4.4)**	**Mean Score (Rank)**	
1	**2**	**3**	**4**	**5**
Company Variables' to be considered while carrying out valuation of shares	4.2 (Q-3.2 to Q-3.6)	Scaling for Overall Company Analysis while carrying out valuation of shares	4. 19 (Q-4.1)	0.01
Related industry's variables to be considered while carrying out valuation of shares	3.77 (Q-3. 13 to Q-3. 17)	Scaling for Overall Industry Analysis while carrying out valuation of shares	3.74 (Q-4.2)	0.03
Macroeconomic variables to be considered while carrying out valuation of shares	3.55 (Q-3.7 to Q-3. 12	Scaling for Overall Economic Analysis while carrying out valuation of shares	3.68 (Q-4.3)	-0.13
Extra ordinary global as well as international variables	3.55 (Q-3. 18 to Q-3.22)	Scaling for Other Factors while carrying out valuation of shares	3.48 (Q-4.4)	0.07
Overall Average	3.7675		3.7725	-0.0025

Mean scores of scales have been compared with other tests of the same construct to determine convergent validity. The table makes it abundantly evident that the means of same construct were measured and that average score determined to be rather similar in the offered question categories with less variation. Most of the respondents fell into the 'Strongly not recommended ' to 'Strongly recommended'.

4.3.3 Profile of Respondence

With this survey, we set out to gather feedback from professionals in the accounting, financial analysis, company director, auditing, and management fields on the usefulness of E-I-C framework analysis for making equity share investments. So, these surveys were sent out to people of different educational backgrounds, work experiences, etc. Here we offer the respondents' profile covering education, occupation, employment, years of experience, and investment characteristics.

Educational Qualification

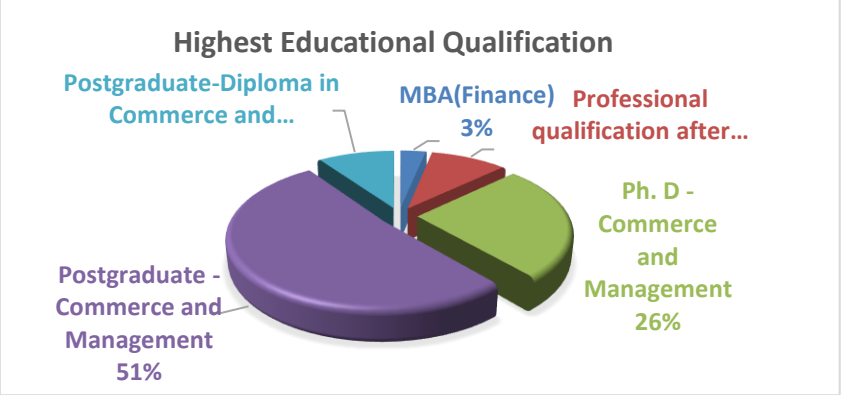
We have separated the respondents' educational backgrounds into two categories based on their degrees: Highest educational qualification (Table 4.3) and details of professional qualifications (Table 4.4). To be noted, a master's degree & Ph.D. is considered to be higher education than holding a professional degree. So, if the professionally qualified person is holding a master or Ph.D. degree then his/her highest qualification is master's degree or Ph.D. and not his/her professional degree.

Table 4. 3: Educational Qualifications of Respondence (Highest)

Highest Educational Qualification	Frequency	Percent
MBA(Finance)	2	3.23%
Professional qualification after graduation	6	9.68%
Ph. D - Commerce and Management	16	25.81%
Postgraduate - Commerce and Management	32	51.61%
Postgraduate-Diploma in Commerce and Management	6	9.68%
Total	62	100

The questionnaire was sent to only those respondence who has some qualifications in field of commerce, management & finance. The above table indicate that 32 respondents (51.61%), did post-graduation in commerce & management, 6 respondents (9.68%), did Post graduate diploma in commerce & management, 16 respondents (25.81%), holding Ph.D. in the same filed, 6 respondents (10%), were holding professional qualification in Commerce after graduation while 2 respondence (3.33%), have completed MBA with finance. This, table indicates that selected respondents are appropriate for collecting responses from. The same table is shown graphically below.

Graph 4. 1: Highest Educational Qualifications



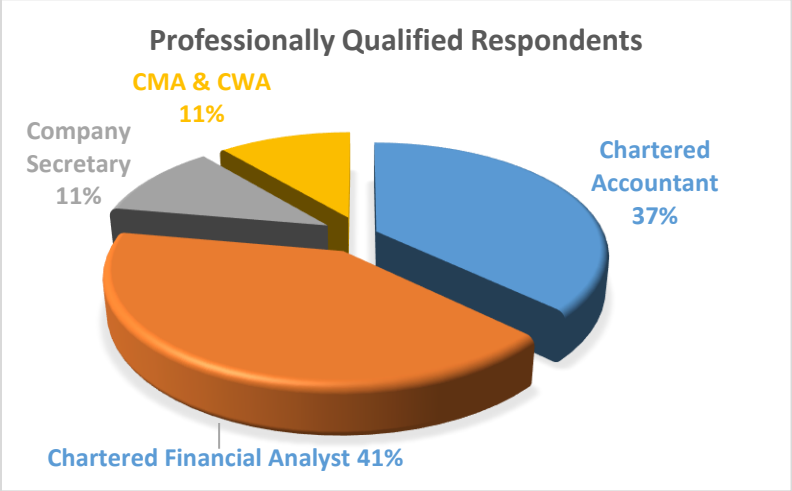
The table indicates that 51% of respondents are holding post-graduation degree in commerce & Management. Further, All the respondents' education qualification is appropriate for our study.

Table 4. 4: Professional Qualifications:

Professional Qualification	Frequency	Percentage
Chartered Accountant	20	37.04%
Chartered Financial Analyst	22	40.74%
Company Secretary	6	11.11%
CMA & CWA	6	11.11%
Total	54	100

The table above shows the number of respondence holding the professional Qualification education. Out of 62 respondence 54 respondents (87.09%) were professionally qualified. The above table indicates all the professionals are in the field on commerce & finance only. Thus, their professional qualification is most suited for the study. The above table is presented graphically below.

Graph 4. 2: Professional Qualifications of Respondents



The graph shows that, 41% of respondence are CFA who studied the valuation in detail similarly the curriculum of other professionals also covered topic of valuation of shares, making them most appropriate for responding on the topic of the study.

Table 4. 5 : Respondents Distributed by Occupation

Employment status	Frequency	Percent
Self Employed	13	20.97%
Service	43	69.35%
Retired	2	3.23%
Currently Not working (study break)	4	6.45%
Total	62	100

The above table shows that 43 respondence (69.35%) are in service, while 2 respondents(3.23%) are retired & 4 respondents (6.45%) are engaged in further studies so presently not working. Further, 13 respondents (20.97%) are self-employed. Thus, out of 62 respondents, 6 respondents (9.6%) are not working at present while 56 respondents (90.32%) are working. The table is presented graphically as follows:

Graph 4. 3: Employment Status

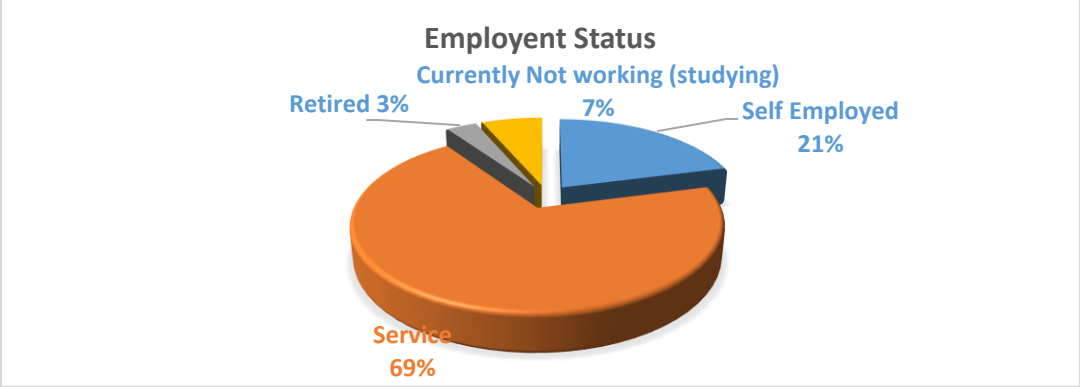


Table 4. 6: Current Work Profile of The Respondence.

Work Profile	Frequency	Percent
Practicing the profession	27	43.55%
Academicians	12	19.35%
CEO	4	6.45%
Chairman	2	3.23%
Fund Accountant	2	3.23%
Managers	6	9.68%
Mutual fund advisor	3	4.84%
Not working	6	9.68%
Total	62	100

The table indicates 27 respondents (43.55%), are practicing professionals, either as an individual or in a partnership firm. However, at the time of discussing educational qualifications, we seen that there were 54

professionals among respondents. It indicates that even though professionally qualified, 27 out of 54 professionals joined some other job instead of practicing in the profession in which they got qualified.

Now, the next discussion is on the experience of respondence in the current work profile.

Table 4. 7: Work Experience of Respondents

Years of Experience	Frequency	Percent
0 to 5 years	4	6.5%
6 to 10 years	6	9.7%
More than 10 years	52	83.9%
Total	62	100

As indicted by above table, 52 respondence (83.9%), most of the respondence are having the work experience of more than 10 years and 6 respondence (9.7%), have experience of more than 5 years in the current work field which very useful for the present study because by this time person gets well equipped with all the practical aspects of their work field and their replies are having more flavor of real experiences rather than endorsing theories only. Graphical presentation of Work is as follow:

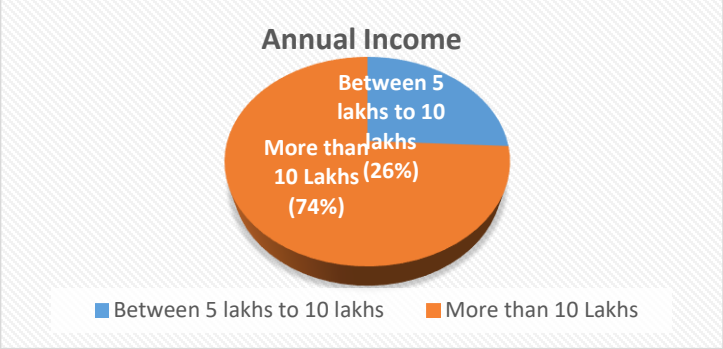
Graph 4. 4: Work Experience

As presented in graph 25 out of 30 respondence are having experience of more than 10 years which results in to more matured answers by respondence. Now. Next information analyzed is Annual income of respondence

Table 4. 8: Annual Income of Respondents

Annual Income	Frequency	Percent
Between 5 lakhs to 10 lakhs	16	25.8%
More than 10 Lakhs	46	74.2%
Total	62	100

Graph 4. 5: Annual Income of the Respondents



As indicated in the table & graph above, 46 respondents (74.2%) are earning annual income of more than 10 lakhs and the other 16 respondents(25.8%) earning annual income of more than 5 lakhs. To be noted, 2 respondents are retired & 4 are on study break so presently not working, still all these 6 respondents also having income of more than 5 lakhs p.a. this shows their capability to do excellent financial planning. Next information analyzed is number of respondents invest in equity.

Table 4. 9: Investment in Equity

Equity Investment	Frequency	Percent
No	4	6.5%
Yes	58	93.5%
Total	62	100

Graph 4. 6: Investment in Equity

As indicated in above table & graph 58(93.5%), respondents invest in Equity. On the other hand, remaining 4 respondents (6.5%) do not invest in equity directly but telephonic talk with them revealed that they invest in equity through mutual funds and are having excellent knowledge of

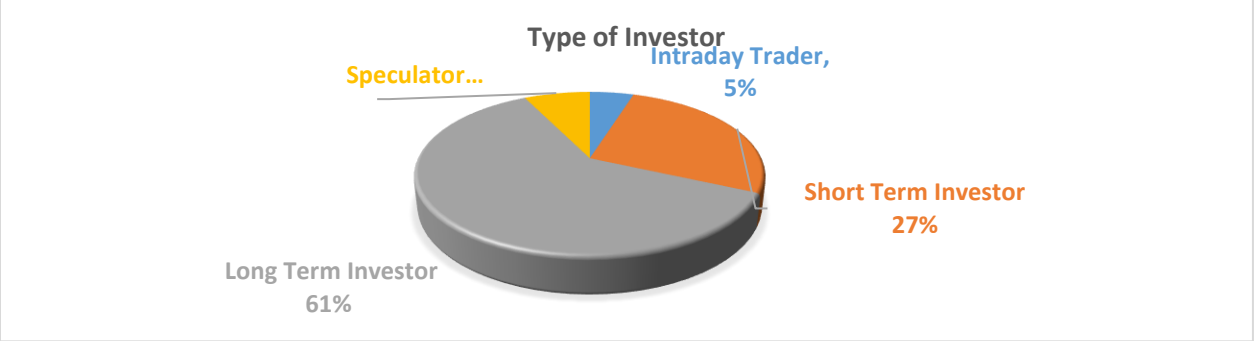
valuation of shares so, they were also requested to fill up the questionnaire and their opinions also form the part of this chapter.

Table 4. 10: Type of Investor based on Duration of Investment

Type of Investor	Frequency	Percent
Intraday Trader	4	4.88%
Short Term Investor	22	26.83%
Long Term Investor	50	60.98%
Speculator	6	7.32%
Total selection by all 62 investors	82	100

Based on durations of the investment, maybe in equity or in any investment options, the respondents were given 4 option to choose from. 1). Intraday Trader, 2). Short term investor, 3) Long Term Investor & 4) Speculator. To be noted here, they were allowed to select more than one option at a time because a person can invest for different time duration, in different securities & with different purpose simultaneously. In all, 82 selections for all 4 categories were done through various combinations from the 4 options given above. Out of total 82 selections 50 selections (60.98%), are for acting as long term investor followed by 22 selections (26.83%) for acting as short term investor, 6 selections(7.325%) for acting as speculator and lastly, 4 selections (4.88%) for acting as intraday trader.

Graph 4. 7: Type of Investor



Thus, respondents act majority times (61%) as a long term investor. This percentage is important for study because study want to suggest 'factors to be considered' while investing for long term.

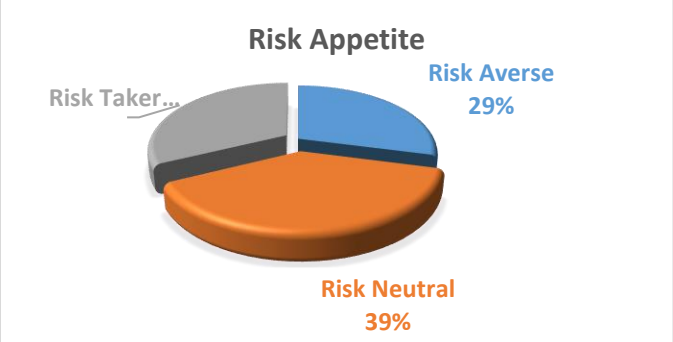
Next move is to do analysis of type of investor the respondents are, considering their risk appetite.

Table 4. 11: Risk Taking Capacity of Respondents

Risk Appetite	Frequency	Percent
Risk Averse	18	29%
Risk Neutral	24	38.70%
Risk Taker	20	32.30%
Total	62	100

As can be seen from the table, out of 62 respondents, 24respondents (38.70%) are Risk Neutral, 20(32.30%) are Risk taker & 18 respondents (29%) are Risk Averse. Risk takers are risk lover who are ready to take risk for more return. Risk neutrals are those whose investment decision are not based on risk involved but it is based on some other factors & Risk Averse are those who would like to avoid risk & not ready to take more risk for additional return. The risk appetite of respondents presented graphically as follows.

Graph 4. 8: Risk Appetite of Respondents



Here, 39% of respondents are Risk Neutral, 32% are Risk Taker & 29% are Risk Averse. Thus, each type of investors is involved in the study and all of them are nearly in the similar proportions.

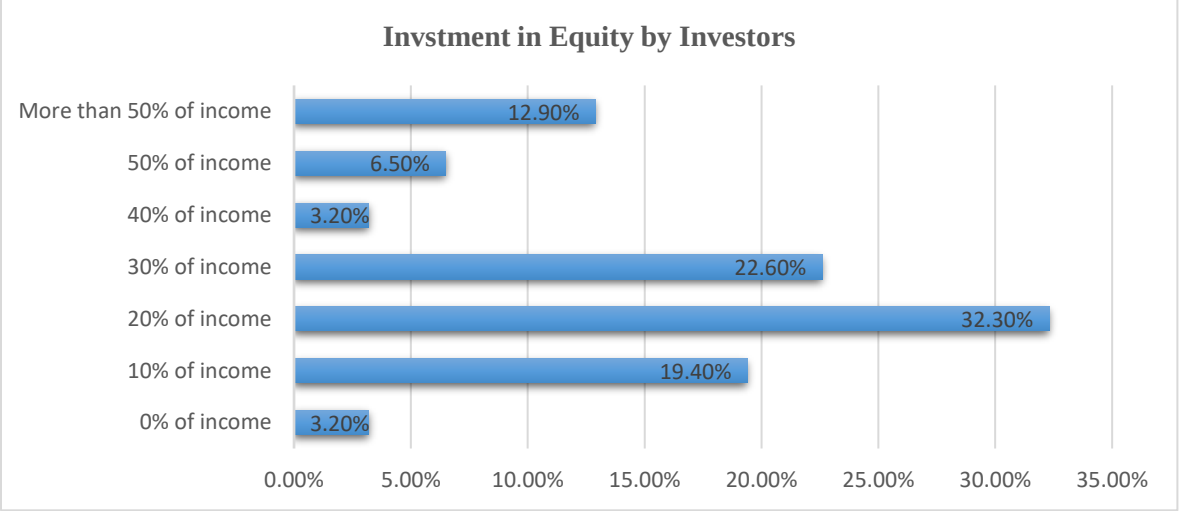
Now turn comes to check what proportion of yearly income is invested in equity.

Table 4. 12 : Proportion of Income Invested in Equity

Proportion of Income	Frequency	Percent
0% of income	2	03.2%
10% of income	12	19.4%
20% of income	20	32.3%
30% of income	14	22.6%
40% of income	2	03.2%
50% of income	4	06.5%
More than 50% of income	8	12.9%
Total	62	100

Here, 2 respondents(3.2%) are such who do not invest directly in equity, 12 respondents(19.4%) are such who invest 10% of their yearly income directly in equity, 20 respondents(32.30%) are such who invest 20% of their yearly income directly in equity, 14 respondents(22.60%) are such who invest 10% of their yearly income directly in equity, 2 respondents(3.2%) are such who invest 40% of their yearly income directly in equity, 4 respondents(6.5%) are such who invest 50% of their yearly income directly in equity, 8 respondents(12.9%) are such who invest more than 50% of their yearly income directly in equity. Thus, majority of respondents (74.30%), invest their 10% to 30% of yearly income in equity.

Graph 4. 9: Investment in Equity by Respondents



Here, it is observed that majorly 20% of their annual income is invested by respondents in equity.

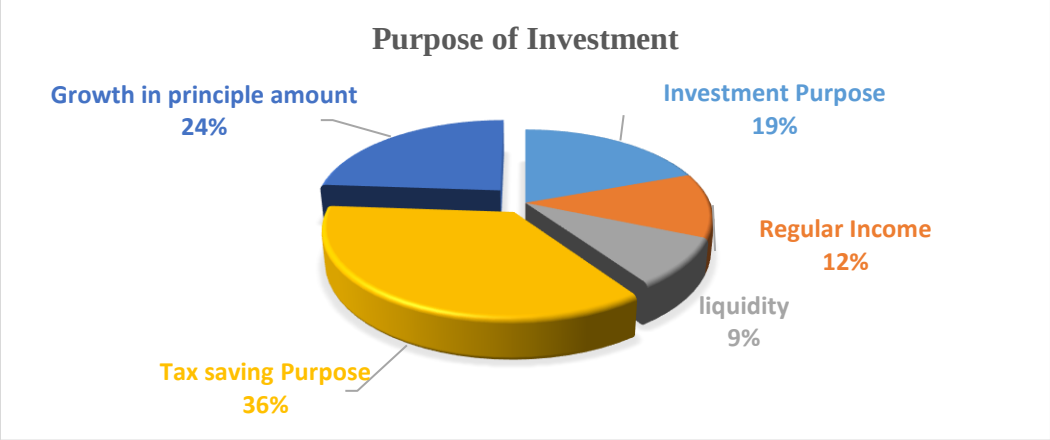
Now, next move is to see what the purpose of their investments is. For these the respondents were given 5 choices as indicated below with drop-down box questions that allow respondents to choose many options from a certain set of choices. The following table indicates the number of times each option being selected by a total of 62 respondents.

Table 4. 13 : Total Selections for Various Investment Objectives

Investment Objectives	Total Selection (Individual & With Other Objectives)	Percent
Regular Income	26	19.40%
liquidity	12	11.94%
Tax saving Purpose	05	8.96%
Growth in principle amount	48	35.82%
Future financial security	32	23.88%
Total selections by all 62 respondents	134	100

The above table that total 134 selections were made by all 62 respondents, just to remind that the respondents were allowed to select as many option as they want out of the given 5 options. Highest, 48 selections (35.82%), were made for Growth in principle amount, followed by 32 selections (23.88%) for Future financial security, 26 selections (19.40%) for regular income, 12(11.94%) selections for liquidity and 05selections (8.96%) for Tax saving. Thus, main motive for investing in equity shares(59.70%) are Growth in principle amount & Future financial security.

Graph 4. 10: Purpose of Investment



Now, next information analyzed is how do investor take their investment decisions.

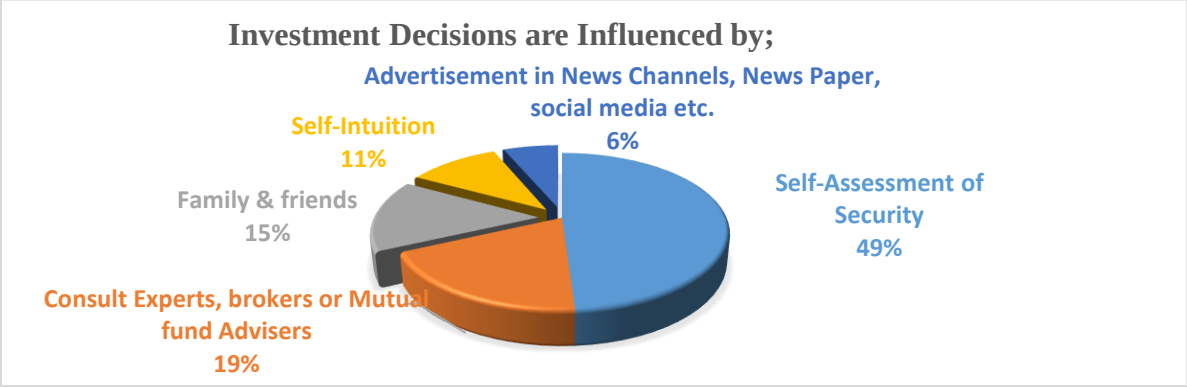
For getting idea above the way their investment decisions are affected, the respondents were asked to choose from among 5 options with drop down box where respondents were allowed to tick more than on option at a time. The table given below gives information about options given & number of times the option was chosen by respondents either individually or in combination with other options.

Table 4. 14: Investment Decision Influencers

Investment Decision Influencers	Total Selections (Including Combinations)	Percent
Self-Assessment of Security	46	48.94%
Consult Experts, brokers or Mutual fund Advisers	18	19.15%
Family & friends	14	14.89%
Self-Intuition	10	10.64%
Advertisement in News Channels, News Paper, social media etc.	6	6.38%
Total selections by all 62 respondents	94	100

The above table shows that a total of 94 selections were made by all 62 respondents, these sections were made from 5 options given to respondents with drop down box. We can see that highest 46 selections(48.94%) were made for Self-Assessment of Security, followed by 18 selections(19.15%) for Consult Experts, brokers or Mutual fund Advisers, 14 selections(14.89%) for Family & friends, 10 selections(10.64%) for Self-Intuition, 6 selections(6.38%) were for Advertisement in News Channels, News Paper, social media etc. thus, the targeted respondents are habituated for with very systematic approach for taking investment decision because their investment decisions are mainly influenced(68.09%) by self-assessment of security(48.94%), followed by consulting to experts, brokers or Mutual fund Advisers(19.15%). Thus, this figure confirms that opinions of the targeted respondents are the most appropriate for the present study. Investment Decision Influencers presented graphically as follows:

Graph 4. 11: Investment Decision Influencer



Next analysis is on the factors being considered by respondents while investing. Here also, the respondents were given a list of variable/factors from economy, industry & company with dropdown box &were asked to tick all those factors from the list which they consider while

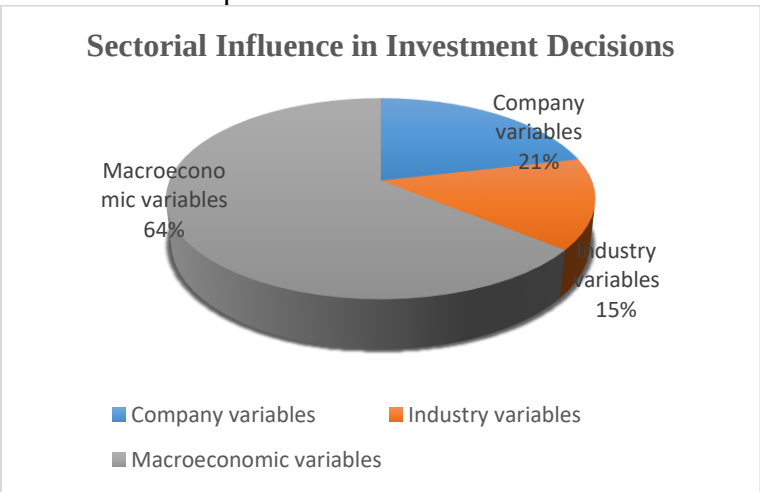
investing. The following table shows the list of variables and how many people considered each variable either individually or in combination with each other.

Table 4. 15: Factors Considered While Investing

Factors considered while investing	Frequency	Sector wise ticks	percent
Macroeconomic variable	44	44	21.36%
Related Industry's Variables	30	30	14.56%
Management of company	30	132	64.08%
Members of the board of directors	10		
Revenue of the company	32		
Dividend Paid	14		
Free Cashflow	24		
Residual income	22		
Total number of selections by all 62 respondents	206	206	100

Here, the researcher has gone through each response and counted how many times each of these variables was selected. Results indicated that Company variables are mostly considered variables followed by Macroeconomic variables & Related industry's variables. Out of total 206 ticks received for total 8 variables from 62 respondents, 132 ticks (64.08%), are for company related variables, 44 (21.36%), for macroeconomic variables & 30ticks (14.56%) for industry's variables. Indicting that E-I-C framework is worth considering for wise investment decisions. Next move is to see it graphically

Graph 4. 12: Sectorial Influence



The above table indicates that the company's variable has 64% influence followed by macroeconomic variables with 21% influence & related industry's variable with 15% impact on investment decision. Thus, company's own factor affects the valuation the most however, one cannot ignore macroeconomic & Industry's variable because remaining 36% of influence is from these factors. Thus, the results emphasises on need to follow E-I-C framework while investing.

Thus, with the help of 17 questions the 1st part of questionnaire has dealt with the profile of respondents now it's time to carry out the descriptive analysis of other parts of study. Now, next discussion is on 2nd, 3rd and 4th part of the questionnaire. 2nd part gets views about the conceptual knowledge of respondents on terms of valuation. The 3rd part collects the views of respondents on selected variables from all the three sectors of E-I-C framework. Finally, the 4th part gets views on the overall impact of each sector on valuation of equity shares of a company.

4.3.4 Descriptive Analysis

Data summarized in tables and graphs can be explored more thoroughly with descriptive statistics. Usually, this is the first step done to monitor and get a broad understanding of the data. Frequency distributions are another instance. The descriptive statistics for every variable in this study are presented in the next part.

Conceptual Clarity of Respondents on Various Variables

Respondents to this study were asked to respond to 14 statements on their clarity on different terms, methods & variables concerning the valuation of shares. On a 5-Likert scale, these remarks were scored as Excellent = 5 or very poor = 1.

Table 4. 16: Conceptual Clarity of Respondents

Conceptual Clarity on various terms related to Valuation of Shares								
	Number of Respondents Who Rated					Total	Mean	Std. Deviation
	Excellent (5)	Good (4)	Average (3)	Poor (2)	Very Poor (1)			
Rate your understanding about stock market	18 (29.03%)	22 (35.48%)	18 (29.03%)	2 (3.23%)	2 (3.23%)	62	3.84	0.995
Valuation of equity share	16 (25.81%)	20 (32.26%)	16 (25.81%)	8 (12.90%)	2 (3.23%)	62	3.65	1.103
Fundamental Analysis	14 (22.58%)	24 (38.71%)	14 (22.58%)	8 (12.90%)	2 (3.23%)	62	3.65	1.073
Technical Analysis	18 (29.03%)	22 (35.48%)	10 (16.13%)	10 (16.13%)	2 (3.23%)	62	3.71	1.151
Intrinsic Value	16 (25.81%)	28 (45.16%)	10 (16.13%)	4 (6.45%)	4 (6.45%)	62	3.77	1.108
Market price of share	16 (25.81%)	26 (41.94%)	6 (9.68%)	12 (19.35%)	2 (3.23%)	62	3.68	1.156
Undervalued Security	16 (25.81%)	24 (38.71%)	14 (22.58%)	4 (6.45%)	4 (6.45%)	62	3.71	1.122
Overvalued Security	16 (25.81%)	24 (38.71%)	12 (19.35%)	6 (9.68%)	4 (6.45%)	62	3.68	1.156
Correctly Valued Security	20 (32.26%)	20 (32.26%)	16 (25.81%)	4 (6.45%)	2 (3.23%)	62	3.84	1.059
E-I-C Framework for Fundamental Analysis	12 (19.35%)	28 (45.16%)	12 (19.35%)	6 (9.68%)	4 (6.45%)	62	3.61	1.107
Dividend Discount Model	18 (29.03%)	28 (45.16%)	6 (9.68%)	6 (9.68%)	4 (6.45%)	62	3.81	1.157
Discounted Free Cash flow Model	20 (32.26%)	20 (32.26%)	12 (19.35%)	6 (9.68%)	4 (6.45%)	62	3.74	1.2
Residual Income Valuation Model	20 (32.26%)	20 (32.26%)	12 (19.35%)	6 (9.68%)	4 (6.45%)	62	3.74	1.2
Capital Asset Pricing Model	12 (19.35%)	28 (45.16%)	14 (22.58%)	6 (9.68%)	2 (3.23%)	62	3.68	1.004
MEAN							3.72	1.113

The above table throughs light on conceptual clarity of respondents. Here each & every question is drafted to check the knowledge on respondents on various terms, method, approach involved on valuation of equity share of a company with the help of 14 questions.

Rate Your Understanding of The Stock Market

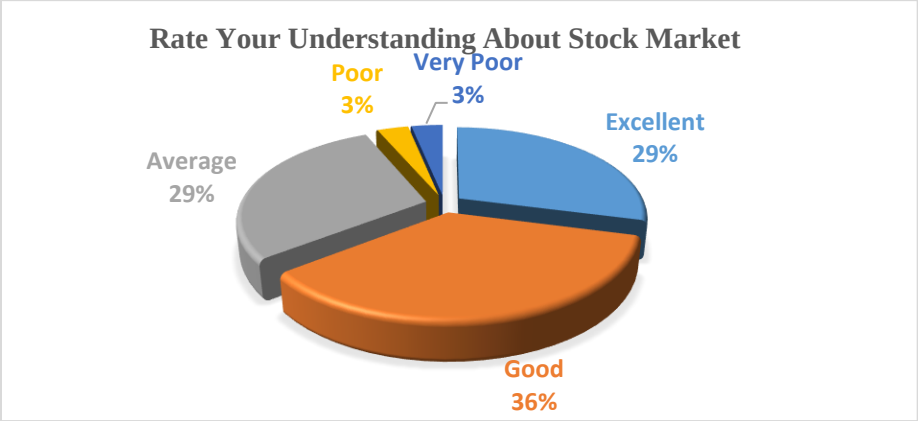
A significant majority, 22 respondents (35.48%), have a good understanding of the stock market. Furthermore, 18 respondents (29.03%) have an excellent understanding of the stock market. Taken together, this accounts for approximately 64.51% of respondents who have an adequate understanding of the market.

Whereas 18 respondents (29.03%) hold an average understanding of the stock market.

Conversely,2 respondents (3.23%) have a poor understanding of stock market, while another 2 respondents (3.23%) have very poor understanding of stock market.

Thus, a mean score of 3.84 shows typically enough knowledge of the stock market. Although most respondents had good knowledge of the stock market, the standard deviation of 0.995 indicates a modest variability in responses, therefore showing some variation in understanding about stock market among respondents.

Graph 4. 13: Rate your Understanding about Stock Market



Valuation of Equity Share

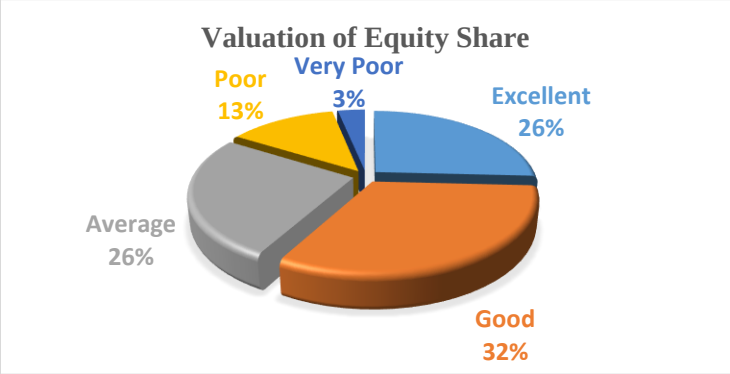
A significant majority, 20 respondents (32.26%), have good understanding about Valuation of equity share. Furthermore, 16 respondents (25.81%) have excellent understanding of Valuation of equity. Taken together, this accounts for approximately 58.07% of respondents have an adequate understanding about Valuation of equity

Whereas 16 respondents (25.81%) hold average understanding about Valuation of equity.

Conversely, 8 respondents (12.90%) have poor understanding about Valuation of equity, while another 2 respondents (3.23%) have very poor understanding of about Valuation of equity.

Thus, mean score of 3.65 shows typically enough knowledge about Valuation of equity. Although most respondents had above greater knowledge about Valuation of equity, the standard deviation of 0.995 indicates a modest variability in responses, therefore showing some variation in understanding of valuation of equity among respondents.

Graph 4. 14: Valuation of Equity



Fundamental Analysis

A significant majority, 24 respondents (38.71%), have good understanding of Fundamental Analysis Furthermore, 14 respondents (22.58%) have excellent understanding of Fundamental Analysis. Taken together, this accounts for approximately 61.29% of respondents have an adequate understanding of Fundamental Analysis

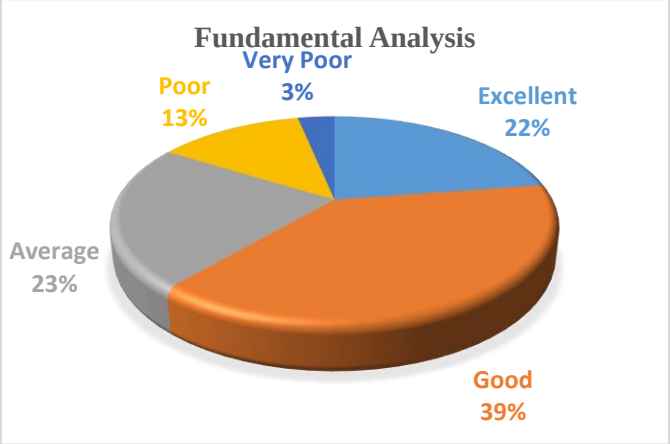
Whereas 14 respondents (22.58%) hold average understanding of Fundamental Analysis.

Conversely, 8 respondents (12.90%) have poor understanding of Fundamental Analysis, while another 2 respondents (3.23%) have very poor understanding of Fundamental Analysis.

Thus, mean score of 3.65 shows typically enough knowledge about of Fundamental Analysis. Although most respondents had above greater knowledge of Fundamental Analysis, the standard

deviation of 1.073 indicates a modest variability in responses, therefore showing some variation in understanding of Fundamental Analysis among respondents.

Graph 4. 15: Fundamental Analysis



Technical Analysis

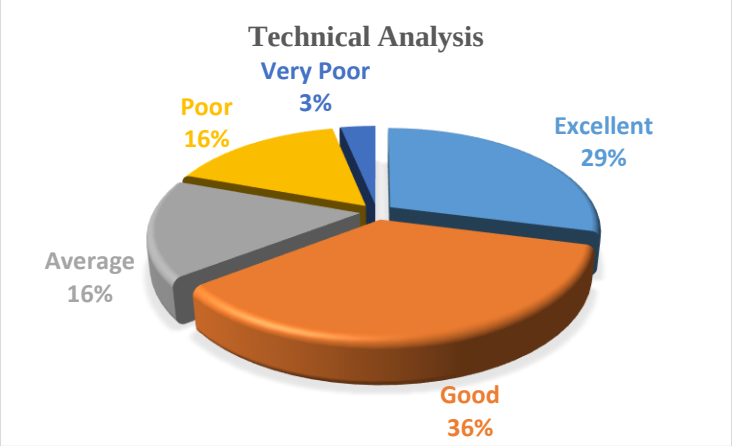
A significant majority, 22 respondents (35.48%), have good understanding of Technical Analysis Furthermore, 18 respondents (29.03%), have excellent understanding of Technical Analysis. Taken together, this accounts for approximately 64.51% of respondents have an adequate understanding of Technical Analysis.

Whereas 10 respondents (16.13%) hold average understanding of Technical Analysis.

Conversely, 10 respondents (16.13%) have poor understanding of Technical Analysis, while another 2 respondents (3.23%) have very poor understanding of Technical Analysis.

Thus, mean score of 3.71 shows typically enough knowledge about of Technical Analysis. Although most respondents had above greater knowledge of Technical Analysis, the standard deviation of 1.151 indicates a modest variability in responses, therefore showing some variation in understanding of Technical Analysis among respondents.

Graph 4. 16: Technical Analysis



Intrinsic Value

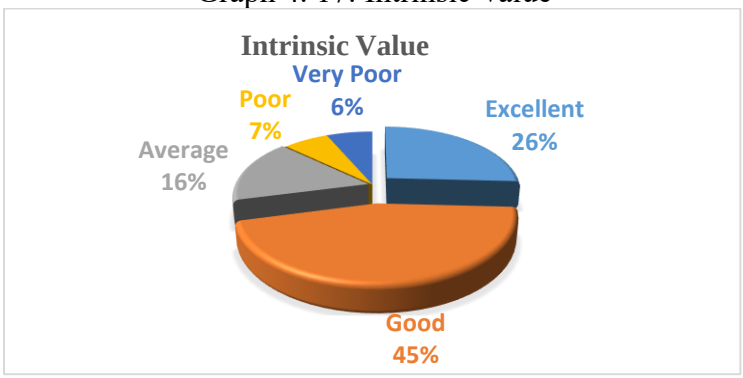
A significant majority, 28(45.16%), have good understanding of Intrinsic Value. Furthermore, 16 respondents (25.81%) have excellent understanding of Intrinsic Value. Taken together, this accounts for approximately 70.97% of respondents have an adequate understanding of Intrinsic Value.

Whereas 10 respondents (16.13%) hold an average understanding of Intrinsic Value.

Conversely, 4 respondents (6.45%) have a poor understanding of Intrinsic Value, while another 4 respondents (6.45%) have very poor understanding of Intrinsic Value.

Thus, a mean score of 3.77 shows typically enough knowledge of Intrinsic Value. Although most respondents had greater knowledge of Intrinsic Value, the standard deviation of 1.108 indicates a modest variability in responses, therefore showing some variation in understanding of Intrinsic Value among respondents.

Graph 4. 17: Intrinsic Value



Market Price of Share

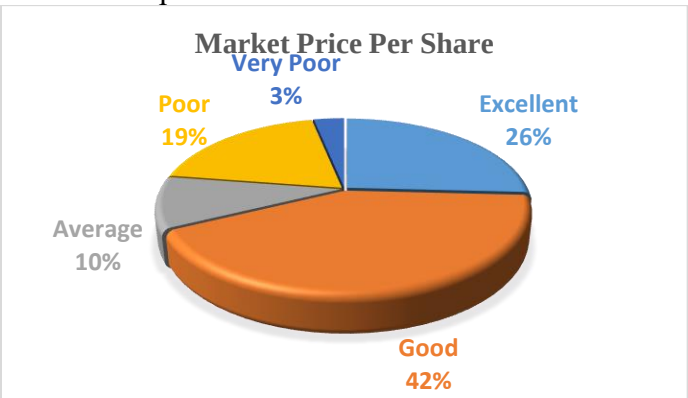
A significant majority, 26 respondents (41.94%), have good understanding about Market price of share. Furthermore, 16 respondents (25.81%) have excellent understanding about Market price of share. Taken together, this accounts for approximately 67.75% of respondents have an adequate understanding about Market price of share.

Whereas 6 respondents (9.68%) hold an average understanding about Market price of share.

Conversely, 12 respondents (19.35%) have a poor understanding about the Market price of share, while another 2 respondents (3.23%) have very poor understanding about Market price of share.

Thus, a mean score of 3.68 shows typically enough knowledge about Market price of share. Although most respondents had above greater knowledge about Market price of share, the standard deviation of 1.156 indicates a modest variability in responses, therefore showing some variation in understanding about Market price of share among respondents.

Graph 4. 18: Market Price Per Share



Undervalued Security

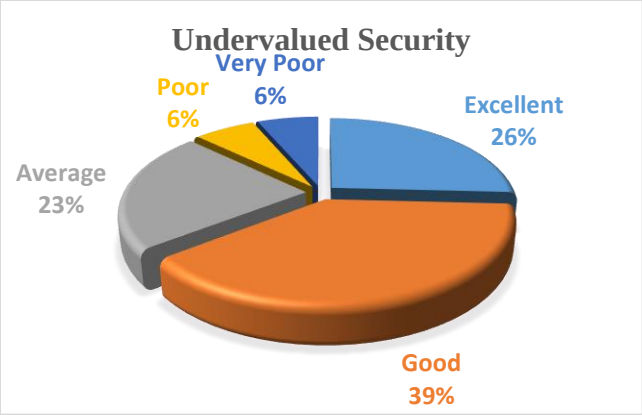
A significant majority, 24 respondents (38.71%), have good understanding about Undervalued Security. Furthermore, 16 respondents (25.81%) have excellent understanding Undervalued Security. Taken together, this accounts for approximately 64.52% of respondents have an adequate understanding about Undervalued Security.

Whereas 14 respondents (22.58%), hold average understanding about Undervalued Security.

Conversely, 4 respondents (6.45%) have poor understanding about Undervalued Security, while another 4 respondents (6.45%) have very poor understanding about Undervalued Security.

Thus, mean score of 3.71 shows typically enough knowledge about Undervalued Security. Although most respondents had above greater knowledge about Undervalued Security, the standard deviation of 1.122 indicates a modest variability in responses, therefore showing some variation in understanding about Undervalued Security among respondents.

Graph 4. 19: Undervalued Security



Overvalued Security

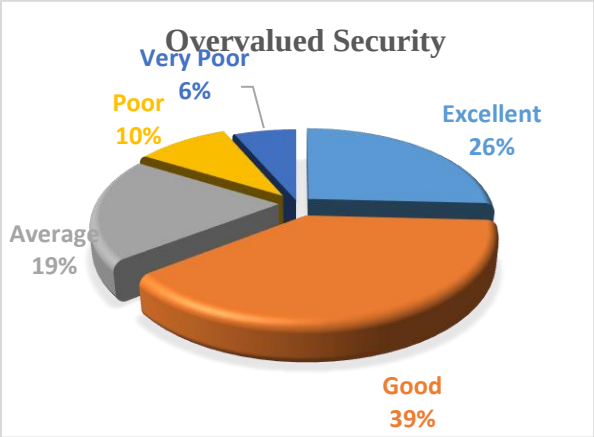
A significant majority, 24 respondents (38.71%), have good understanding about Overvalued Security. Furthermore, 16 respondents (25.81%) have excellent understanding Overvalued Security. Taken together, this accounts for approximately 64.52% of respondents have an adequate understanding about Overvalued Security.

Whereas 12 respondents (19.35%), hold average understanding about Overvalued Security.

Conversely, 6 respondents (9.68%) have poor understanding about Overvalued Security, while another 4 respondents (6.45%) have very poor understanding about Overvalued Security.

Thus, mean score of 3.68 shows typically enough knowledge about Overvalued Security. Although most respondents had above greater knowledge about Overvalued Security, the standard deviation of 1.156 indicates a modest variability in responses, therefore showing some variation in understanding about Overvalued Security among respondents.

Graph 4. 20: Overvalued Security



Correctly Valued Security

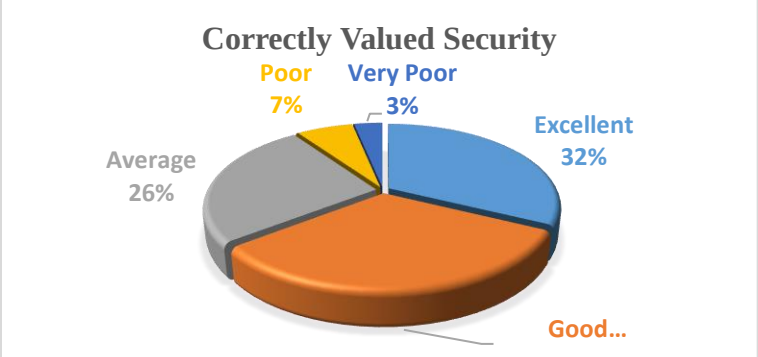
A significant majority, 20 respondents (32.26%), have good understanding about Correctly Valued Security. Furthermore, 20 respondents (32.26%), have excellent understanding Correctly Valued Security. Taken together, this accounts for approximately 64.52% of respondents have an adequate understanding about Correctly Valued Security.

Whereas 16 respondents (25.81%), hold average understanding about Correctly Valued Security.

Conversely, 4 respondents (6.45%), have poor understanding about Correctly Valued Security, while another 2 respondents (3.23%), have very poor understanding about Correctly Valued Security.

Thus, a mean score of 3.84 shows typically enough knowledge about Correctly Valued Security. Although most respondents had above greater knowledge about Correctly Valued Security, the standard deviation of 1.059 indicates a modest variability in responses, therefore showing some variation in understanding about Correctly Valued Security among respondents.

Graph 4. 21: Correctly Valued Security



E-I-C Framework for Fundamental Analysis

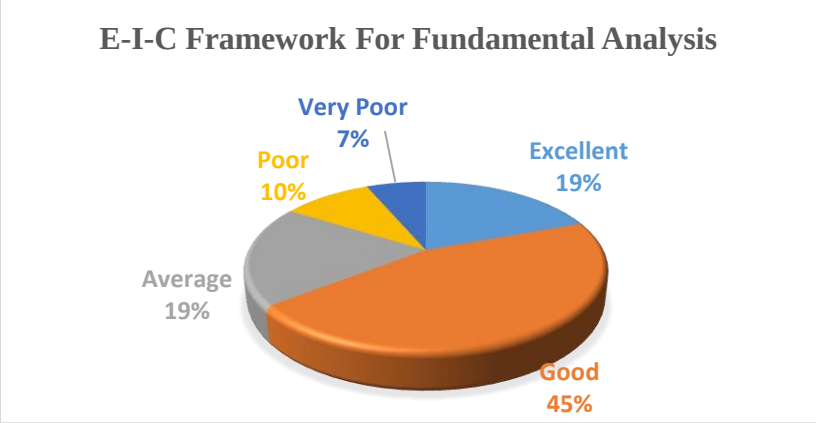
A significant majority, 28(45.16%), have good understanding of E-I-C Framework for Fundamental Analysis. Furthermore, 12 respondents (19.35%), have excellent understanding of E-I-C Framework for Fundamental Analysis. Taken together, this accounts for approximately 64.51% of respondents have an adequate understanding of E-I-C Framework for Fundamental Analysis

Whereas 12 respondents (19.35%), hold average understanding of E-I-C Framework for Fundamental Analysis.

Conversely, 6 respondents (9.68%) have poor understanding of E-I-C Framework for Fundamental Analysis, while another 4 respondents (6.45%) have very poor understanding of E-I-C Framework for Fundamental Analysis.

Thus, mean score of 3.61 shows typically enough knowledge of E-I-C Framework for Fundamental Analysis. Although most respondents had above greater knowledge of E-I-C Framework for Fundamental Analysis, the standard deviation of 1.107 indicates a modest variability in responses, therefore showing some variation in understanding of E-I-C Framework for Fundamental Analysis among respondents.

Graph 4. 22: E-I-C Framework for Fundamental Analysis



Dividend Discount Model

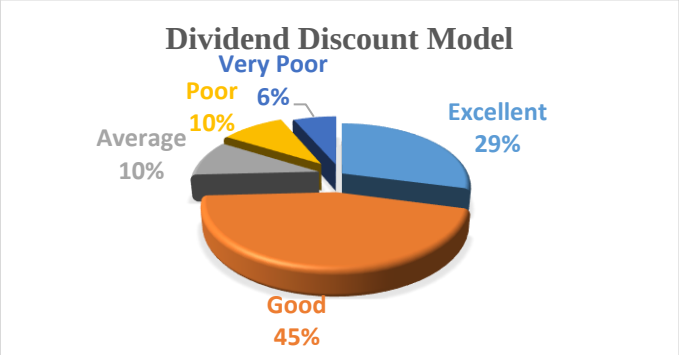
A significant majority, 28(45.16%), have good understanding of Dividend Discount Model. Furthermore, 18 respondents (29.03%), have excellent understanding of Dividend Discount

Model. Taken together, this accounts for approximately 74.19% of respondents have an adequate understanding of Dividend Discount Model.
Whereas 6 respondents (9.68%) hold average understanding of Dividend Discount Model.

Conversely, 6 respondents (9.68%) have poor understanding of Dividend Discount Model, while another 4 respondents (6.45%) have very poor understanding of Dividend Discount Model.

Thus, mean score of 3.81 shows typically enough knowledge of Dividend Discount Model. Although most respondents had above greater knowledge of Dividend Discount Model, the standard deviation of 1.157 indicates a modest variability in responses, therefore showing some variation in understanding of Dividend Discount Model among respondents.

Graph 4. 23: Dividend Discount Model



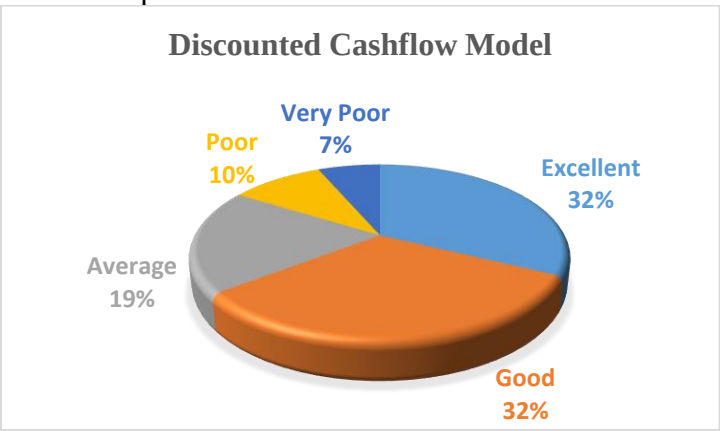
Discounted Free Cash flow Model

A significant majority, 20 respondents (32.26%), have good understanding of Discounted Free Cash flow Model. Furthermore, 20 respondents (32.26%), have excellent understanding of Discounted Free Cash flow Model. Taken together, this accounts for approximately 64.52% of respondents have an adequate understanding of Discounted Free Cash flow Model.
Whereas 12 respondents (19.35%), hold average understanding of Discounted Free Cash flow Model.

Conversely, 6 respondents (9.68%), have poor understanding of Discounted Free Cash flow Model, while another 4 respondents (6.45%), have very poor understanding of Discounted Free Cash flow Model.

Thus, mean score of 3.74 shows typically enough knowledge of Discounted Free Cash flow Model. Although most respondents had above greater knowledge of Discounted Free Cash flow Model, the standard deviation of 1.2 indicates a modest variability in responses, therefore showing some variation in understanding of Discounted Free Cash flow Model among respondents.

Graph 4. 24: Discounted Cashflow Model



Residual Income Valuation Model

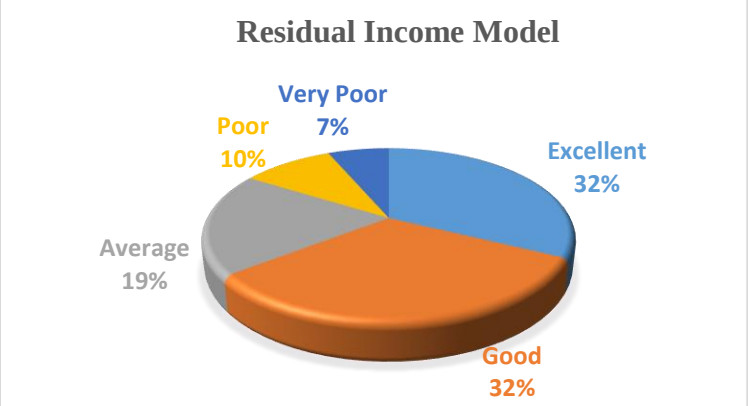
A significant majority, 20 respondents (32.26%), have good understanding of Residual Income Valuation Model. Furthermore, 20 respondents (32.26%), have excellent understanding of Residual Income Valuation Model. Taken together, this accounts for approximately 64.52% of respondents have an adequate understanding of Residual Income Valuation Model.

Whereas 12 respondents (19.35%), hold average understanding of Residual Income Valuation Model.

Conversely, 6 respondents (9.68%), have poor understanding of Residual Income Valuation Model, while another 4 respondents (6.45%), have very poor understanding of Residual Income Valuation Model.

Thus, mean score of 3.74 shows typically enough knowledge of Residual Income Valuation Model. Although most respondents had above greater knowledge of Residual Income Valuation Model, the standard deviation of 1.2 indicates a modest variability in responses, therefore showing some variation in understanding of Residual Income Valuation Model among respondents.

Graph 4. 25: Residual Income Model



Capital Asset Pricing Model

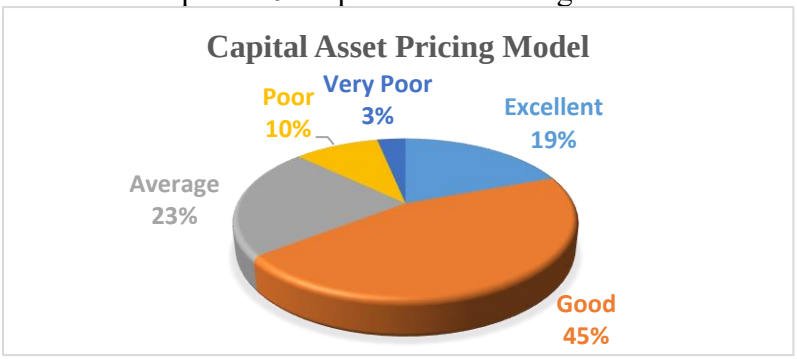
A significant majority, 28(45.16%), have good understanding of Capital Asset Pricing Model. Furthermore, 12 respondents (19.35%), have an excellent understanding of Capital Asset Pricing Model. Taken together, this accounts for approximately 64.51% of respondents having an adequate understanding of Capital Asset Pricing Model.

Whereas 14 respondents (22.58%), hold average understanding of E Capital Asset Pricing Model.

Conversely, 6 respondents (9.68%) have poor understanding of E Capital Asset Pricing Model, while another 2 respondents (3.23%), have very poor understanding of Capital Asset Pricing Model.

Thus, a mean score of 3.68 shows typically enough knowledge of Capital Asset Pricing Model. Although most respondents had above greater knowledge of Capital Asset Pricing Model, the standard deviation of 1.004 indicates a modest variability in responses, therefore showing some variation in understanding of Capital Asset Pricing Model among respondents.

Graph 4. 26: Capital Asset Pricing Model



Now, after discussing each term individually, if find average of all sixteen questions Mean then it is 3.72 which indicates that mean on an average the conceptual clarity for all sixteen terms is near to Good with standard deviation of 1.1136, this variation is due to different level of conceptual clarity for the terms related to valuation.

After getting ideas about respondents' demographic profile and investment habits in first part and the conceptual clarity of respondents in 2nd part of survey, the 3rd part collects opinion on various valuation method as well as importance of various E-I-C & other variables while carrying out valuation of share.

Views / opinion on valuation

In this part attempts were made to collect the opinion regarding various methods and listed variables while doing company analysis at the time of valuation of equity, followed by opinion regarding variables related to industry, economy and other variables while carrying out valuation of equity share.

Firstly, the opinion regarding methods & factors for company analysis were collected via total 6 question out of which the first question was regrading suitable valuation method with drop down box where the respondents were allowed to suggest more than one method also at a time. Other 5 questions were dichotomous questions (Yes/No type). The results of all these 6 questions is presented below:

Which Valuation Method/s do you recommend for valuation of shares?

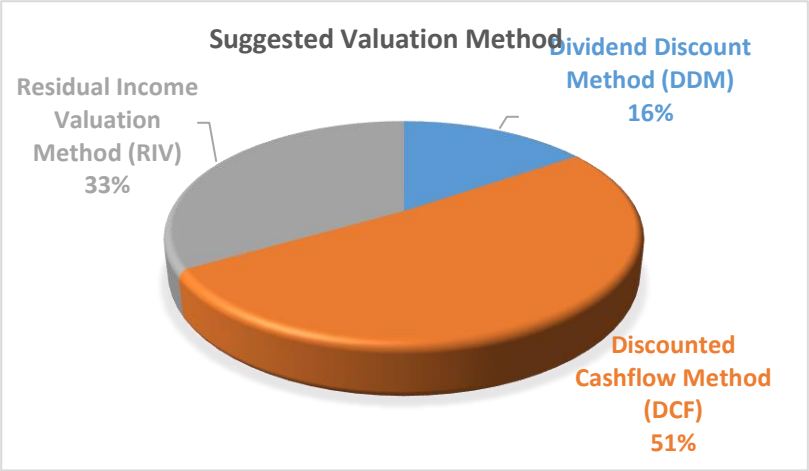
Here, respondents were asked to suggest one or more valuation methods, out of popular three methods offered to them i.e. Dividend Discount method, Discounted Cashflow Method and Residual Income valuation method.

Table 4. 17: Suitable Valuation Method/s

Valuation Method	Frequency (Individual & Combined)	Percent
Dividend Discount Method (DDM)	12	15.38%
Discounted Cashflow Method (DCF)	40	51.28%
Residual Income Valuation Method (RIV)	26	33.33%
Total 78 selections by all 62 Respondents	78	100

As indicated in the table total 78 selections were made by all 62 respondents because this question was having drop down box and many respondents suggested more than one method for valuation. Here, maximum 40 selection (51.28%) are received for Discounted Cashflow Method (DCF), followed by 26 selections(33.33%) and 12 selections (15.38%) are received for Dividend Discount Method (DDM). Thus, the most suggested method is DCF followed by RIV & DDM.

Graph 4. 27: Suggested Valuation Method



The study covers 5 more questions related to company analysis that are mentioned in the table below:

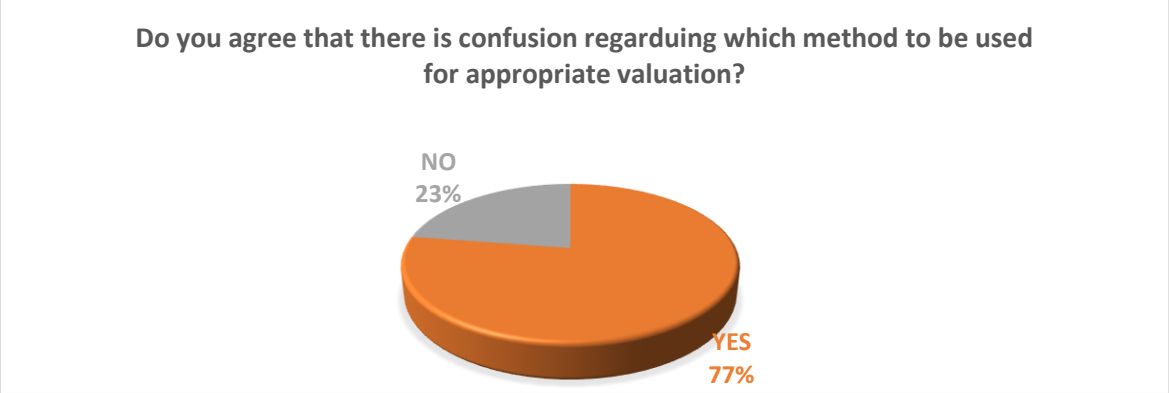
Table 4. 18: Views of Respondents on Variables to Be Considered for Company Analysis

Variables for Company Analysis	Frequency (Percent)		Total
	Yes	No	
Do you agree that there is confusion regarding which method is to be used for appropriate valuation?	48 (77.40%)	14 (22.60%)	62
Is intrinsic value derived from analyzing financial information over the next 5 to 10 years is reliable?	52 (83.90%)	10 (16.10%)	62
Do you suggest use of Capital Asset Pricing Model (CAPM) for calculating Cost of Equity?	56 (90.30%)	6 (9.70%)	62
Do you agree that Revenue's Cumulative Annual Growth Rate (REV. CAGR) represents company's growth rate?	50 (80.60%)	12 (19.40%)	62
The perpetual growth rate of any company cannot exceed country's growth rate of GDP while calculating terminal value?	44 (71%)	18 (29%)	62
Mean	50 (80.60%)	12 (19.40%)	62

Do you agree that there is confusion regarding which method is to be used for appropriate Valuation

The second question related to company analysis is, do you agree that there is confusion regarding which method is to be used for appropriate valuation? It is a dichotomous question. 52 respondents (77.40%) agreed to the sentence by selecting YES, while 14 respondents (22.60%) selected NO as they do not agree to this sentence.

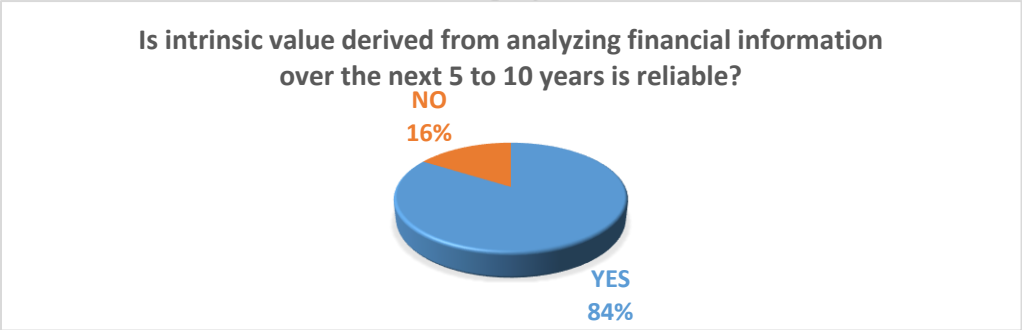
Graph 4. 28: Do you agree that there is confusion regarding which method to be used for appropriate Valuation.



Is intrinsic value derived from analyzing financial information over the next 5 to 10 years reliable?

Third question related to company analysis is, is intrinsic value derived from analyzing financial information over the next 5 to 10 years reliable? It is also a dichotomous question. 52 respondents (83.90%), agreed to the sentence by selecting YES, while 10 respondents (16.10%) selected NO as they do not agree to this sentence.

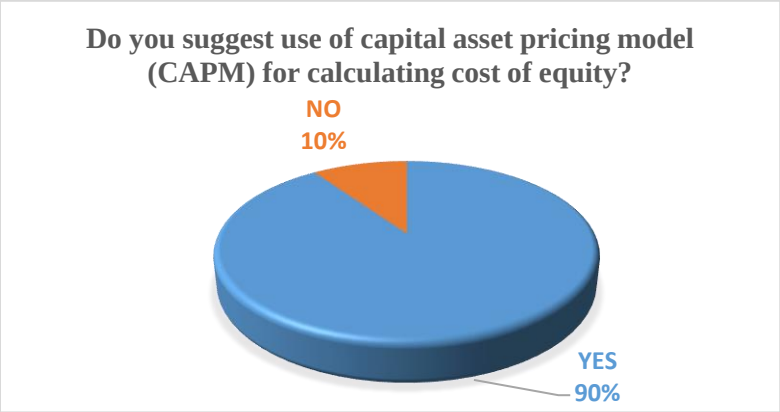
Graph 4. 29: Do you suggest use of Capital Asset Pricing Model (CAPM) for calculating Cost of Equity?



Do you suggest the use of Capital Asset Pricing Model (CAPM) for calculating Cost of Equity?

The fourth question related to company analysis is, do you suggest use of Capital Asset Pricing Model (CAPM) for calculating Cost of Equity? It is also dichotomous question. 50 respondents (83.90%), agreed to the sentence by selecting YES, while respondents (9.70%) selected NO as they do not agree to this sentence.

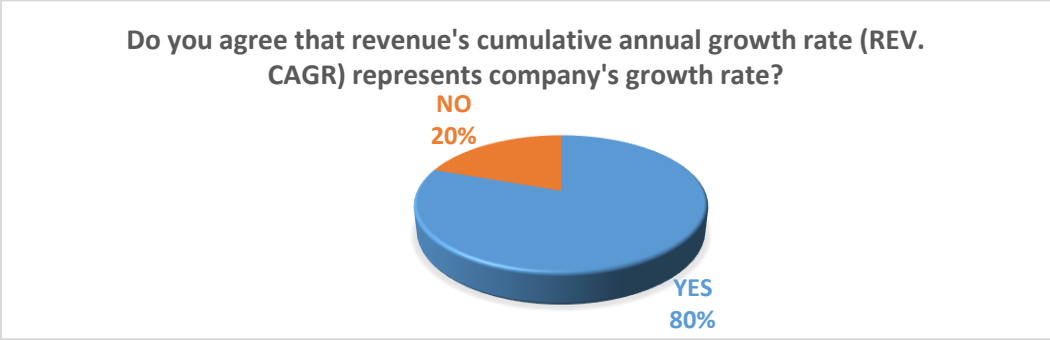
Graph 4. 30: Do you agree that Revenue's Cumulative Annual Growth Rate (REV. CAGR) represents company's growth rate?



Do you agree that Revenue's Cumulative Annual Growth Rate (REV. CAGR) represents a company's growth rate?

The Fifth question related to company analysis is, do you agree that Revenue's Cumulative Annual Growth Rate (REV. CAGR) repra company'smpany's growth rate? It is also dichotomous question. 50 respondents (80.60%), agreed to the sentence by selecting YES, while 12 respondents (19.40%), NO as they do not agree to this sentence.

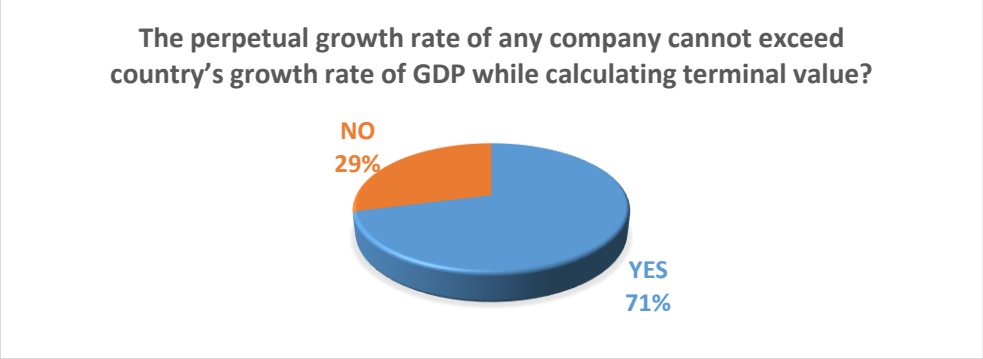
Graph 4. 31: Do you agree that Revenue's Cumulative Annual Growth Rate (REV. CAGR) represents a company's growth rate?



The perpetual growth rate of any company cannot exceed country's growth rate of GDP while calculating terminal value?

The Sixth question related to company analysis is, the perpetual growth rate of any company cannot exceed country's growth rate of GDP while calculating terminal value? It is also a dichotomous question. 44 respondents (71%), agreed to the sentence by selecting YES, while 18 respondents (29%), selected NO as they do not agree to this sentence.

Graph 4. 32: The perpetual growth rate of any company cannot exceed country's growth rate of GDP while calculating terminal value?



After taking care of responses to individual questions related to company analysis, if we find mean value then on an average there are 50 respondents (80.60%), who agree to all listed variable for company analysis and on average 12 respondents (19.40%), who do not agree to listed variable for company analysis.

Now in next part, respondents were asked to scale the importance of various variables related to economy & industry while valuating the shares. Further, some most popular other factors are also listed for seeking the scale of importance from respondence. Here, total 16 variables were listed out of which 6 variables are from Indian Economy, 5 from industry & 5 are other variables. Respondents were asked to respond on a 5-Likert scale, these remarks were scored as Extremely Recommended = 5 to Strongly not Recommended = 1. Here, {5-Extremely Recommended, 4-Recommended, 3-Neutral, 2-Not Recommended, 1- Strongly not Recommended}

Next discussion is on scaling of macroeconomic variables.

Table 4. 19 Scale the Importance of Listed Macroeconomic Variables in Valuation

Scale the Importance of the following macroeconomic variables in valuation.								
Macroeconomic Variables	**Frequency (Percent**					**n**	**Mean**	**Std. Dev.**
	Extremely Recommended (5)	**Recommended (4)**	**Neutral (3)**	**Not Recommended (2)**	**Strongly not Recommended. (1)**			
Gross Domestic Product (GDP)	26 (41.90%)	22 (35.50%)	6 (9.70%)	6 (9.70%)	2 (3.20%)	62	4.03	1.101
Index of Industrial Production (IIP)	18 (29%)	16 (25.80%)	16 (25.80%)	8 (12.90%)	4 (6.50%)	62	3.58	1.222
Wholesale price Index (inflation) (WPI)	22 (35.50%)	22 (35.50%)	8 (12.90%)	10 (16.10%)	0	62	3.9	1.067
Interest Rate (Cent. Govt. Securities)	10 (16.10%)	20 (32.30%)	12 (19.40%)	8 (12.90%)	12 (19.40%)	62	3.13	1.373
Exchange rate	14 (22.60%)	18 (29%)	10 (16.10%)	16 (25.80%)	4 (6.50%)	62	3.35	1.269
Crude oil prices	10 (16.10%)	16 (25.80%)	24 (38.70%)	6 (9.70%)	6 (9.70%)	62	3.29	1.151
Overall Mean for all Six macroeconomic variables							3.55	1.20

This portion of third part of study collects the opinion of respondents regarding importance of listed macroeconomic variables while carrying out valuation.

Gross Domestic Product (GDP)

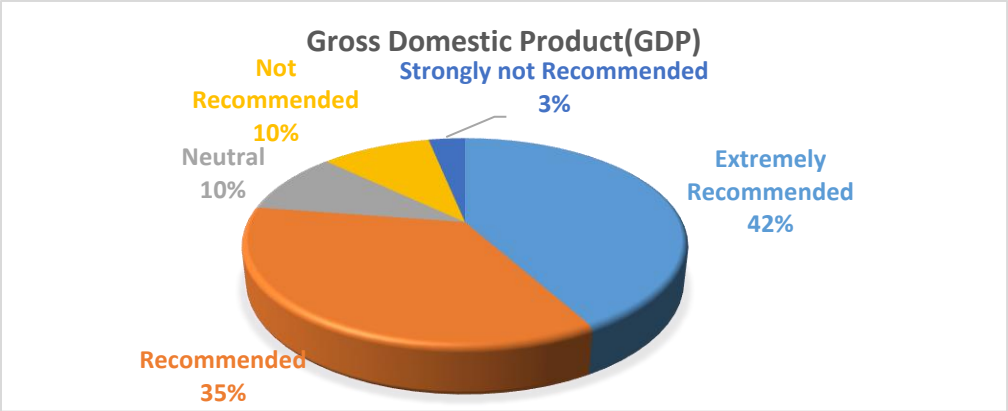
A significant majority, 26 respondents (41.90%), Extremely Recommended to consider Gross Domestic Product while carrying out valuation of share. Furthermore, 22 respondents (35.50%), Recommended to consider Gross Domestic Product while carrying out valuation of share. Taken together, this accounts for approximately 77.40% of respondents in favor of considering Gross Domestic Product while carrying out valuation of share.

Whereas 6 respondents (9.70%), are neutral about the consideration of Gross Domestic Product while carrying out valuation of share.

Conversely, 6 respondents (9.70%), do not Recommend considering Gross Domestic Product while carrying out valuation of share, while another 2 respondents (3.20%), Strongly do not Recommend considering Gross Domestic Product while carrying out valuation of share.

Thus, mean score of 4.03 indicates general tendency towards recommending the consideration of Gross Domestic Product while carrying out valuation of shares. Although most respondents recommended to consider Gross Domestic Product while carrying out valuation of shares, the standard deviation of 1.101 indicates a modest variability in responses, therefore showing some variation in recommending the consideration of Gross Domestic Product while carrying out valuation of shares.

Graph 4. 33: Gross Domestic Product



Index of Industrial Production (IIP)

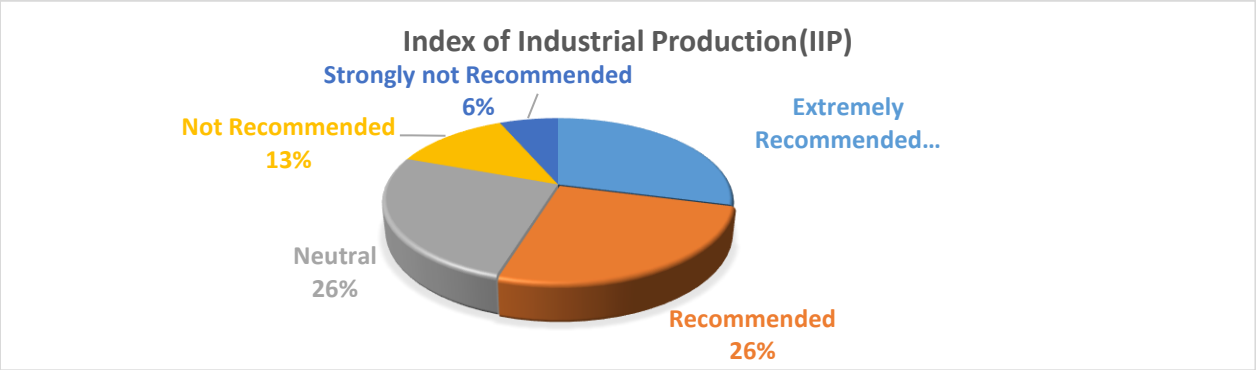
A significant majority, 18 respondents (29%), Extremely Recommended to consider Index of Industrial Production while carrying out valuation of share. Furthermore, 16 respondents (25.80%), Recommended to consider Index of Industrial Production while carrying out valuation of share. Taken together, this accounts for approximately 54.80% of respondents in favor of considering Index of Industrial Production while carrying out valuation of share.

Whereas 16 respondents (25.80%), are neutral about the consideration of Index of Industrial Production while carrying out valuation of share.

Conversely, 8 respondents (12.90%),do not Recommend considering Index of Industrial Production while carrying out valuation of share, while another 4 respondents (6.50%), Strongly do not Recommend considering Index of Industrial Production while carrying out valuation of share.

Thus, a mean score of 3.58 indicates general tendency towards recommending the consideration of Index of Industrial Production while carrying out valuation of shares. Although most respondents recommended to consider Index of Industrial Production while carrying out valuation of shares, the standard deviation of 1.222 indicates a modest variability in responses, therefore showing some variation in recommending the consideration of Index of Industrial Production while carrying out valuation of shares.

Graph 4. 34: Index of industrial Production



Wholesale Price Index (Inflation) (WPI)

A significant majority, 22 respondents (35.50%), Extremely Recommended to consider Wholesale price Index (inflation) while carrying out valuation of share. Furthermore, 22 respondents (35.50%), Recommended to consider Wholesale price Index (inflation) while carrying out valuation of share. Taken together, this accounts for approximately 71% of respondents in favor of considering Wholesale price Index (inflation) while carrying out valuation of share.

Whereas 8 respondents (12.90%), are neutral about the consideration of Wholesale price Index (inflation) while carrying out valuation of share.

Conversely, 10 respondents (16.10%), do not Recommend considering Wholesale price Index (inflation) while carrying out valuation of share, none of the respondents (3.20%), Strongly do not Recommend considering Wholesale price Index (inflation) while carrying out valuation of share.

Thus, mean score of 3.9 indicates general tendency towards recommending the consideration of Wholesale price Index (inflation) while carrying out valuation of shares. Although most respondents recommended to consider Wholesale price Index (inflation) while carrying out valuation of shares, the standard deviation of 1.067 indicates a modest variability in responses, therefore showing some variation in recommending the consideration of Wholesale price Index (inflation) while carrying out valuation of shares.

Graph 4. 35: Wholesale Price Index

Interest Rate applicable to Central Government Securities

A significant, 10 respondents (16.10%), Extremely Recommended to consider Interest Rate applicable to Central Government Securities while carrying out valuation of share. Furthermore, 20 respondents (32.30%), Recommended to consider Interest Rate applicable to Central Government Securities while carrying out valuation of share. Taken together, this accounts for approximately 48.40% of respondents in favor of considering Interest Rate applicable to Central Government Securities while carrying out valuation of share.

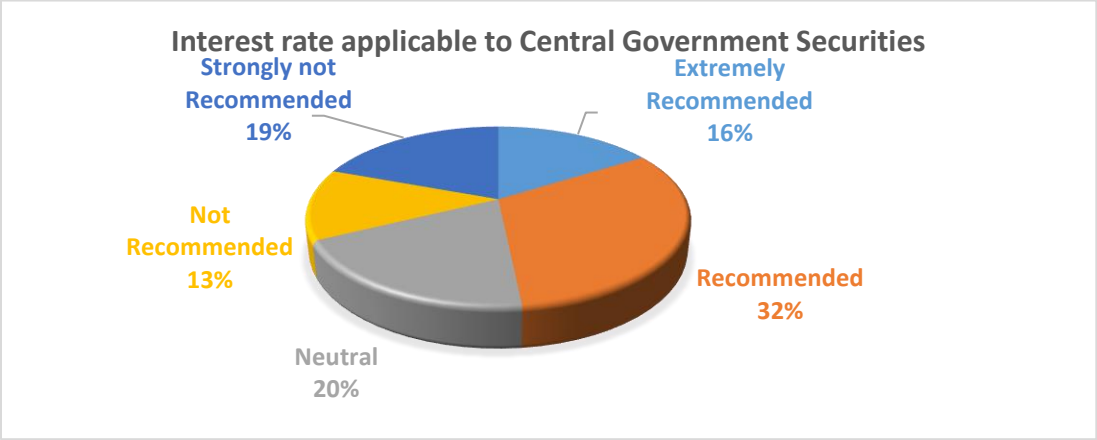
Whereas 12 respondents (19.40%), are neutral about the consideration of Interest Rate applicable to Central Government Securities while carrying out valuation of share.

Conversely, 8 respondents (12.90%), do not Recommend considering Interest Rate applicable to Central Government Securities while carrying out valuation of share, while another 12

respondents (19.40%), Strongly do not Recommend considering Interest Rate applicable to Central Government Securities while carrying out valuation of share.

Thus, a mean score of 3.13 indicates general tendency towards recommending the consideration of Interest Rate applicable to Central Government Securities while carrying out valuation of shares. Although most respondents recommended to consider Interest Rate applicable to Central Government Securities while carrying out valuation of shares, the standard deviation of 1.373 indicates a modest variability in responses, therefore showing some variation in recommending the consideration of Interest Rate applicable to Central Government Securities while carrying out valuation of shares.

Graph 4. 36: Interest Rate



Exchange Rate

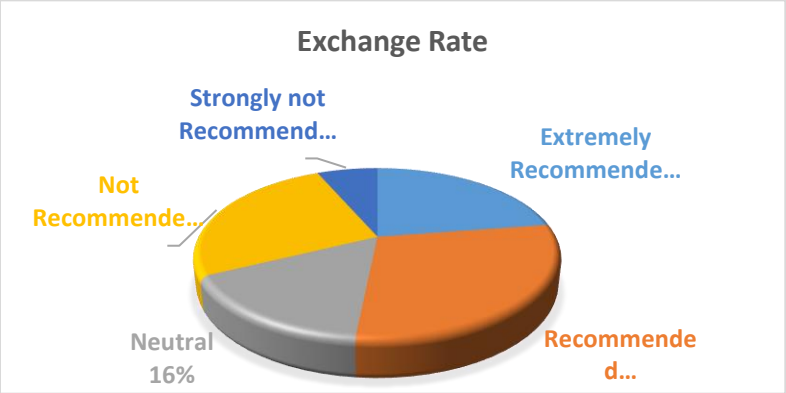
A significant, 14 respondents (22.60%), Extremely Recommended to consider Exchange rate while carrying out valuation of share. Furthermore, 18 respondents (29%), Recommended to consider Exchange rate while carrying out valuation of share. Taken together, this accounts for approximately 51.60% of respondents in favor of considering Exchange rate while carrying out valuation of share.

Whereas 10 respondents (16.10%), are neutral about the consideration of Exchange rate while carrying out valuation of share.

Conversely, 16 respondents (25.80%), do not Recommend considering Exchange rate while carrying out valuation of share, while another 4 respondents (6.50%), Strongly do not Recommend considering Exchange rate while carrying out valuation of share.

Thus, mean score of 3.35 indicates general tendency towards recommending the consideration of Exchange rate while carrying out valuation of shares. Although most respondents recommended to consider Exchange rate while carrying out valuation of shares, the standard deviation of 1.269 indicates a modest variability in responses, therefore showing some variation in recommending the consideration of Exchange rate while carrying out valuation of shares.

Graph 4. 37: Exchange Rate



Crude Oil Prices

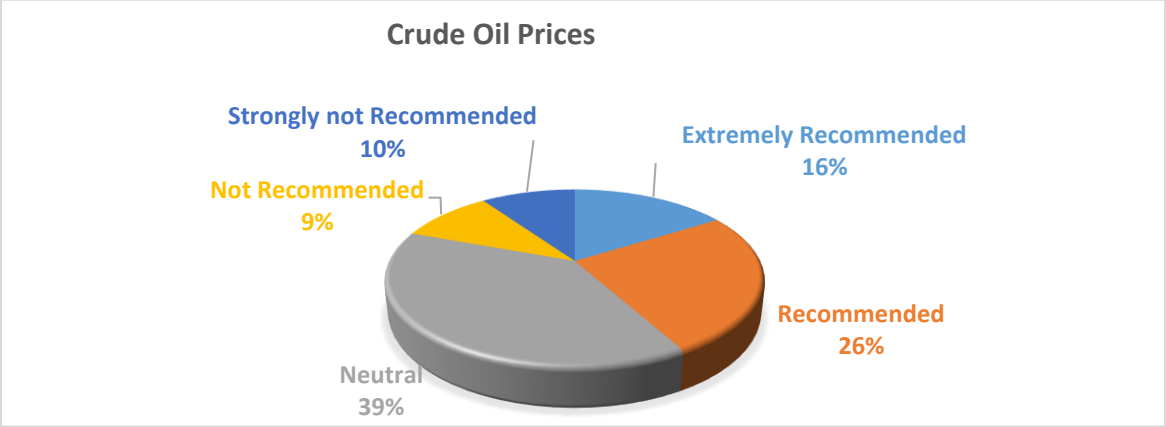
A significant majority, 10 respondents (16.10%), Extremely Recommended to consider Crude oil prices while carrying out valuation of share. Furthermore16 respondents (25.80%), Recommended to consider Crude oil prices while carrying out valuation of share. Taken together, this accounts for approximately 41.90% of respondents in favor of considering Crude oil prices while carrying out valuation of share.

Whereas 24 respondents (38.70%), are neutral about the consideration of Crude oil prices while carrying out valuation of share.

Conversely, 6 respondents (9.70%), do not Recommend considering Crude oil prices while carrying out valuation of share, while another 6 respondents (9.70%), Strongly do not Recommend considering Crude oil prices while carrying out valuation of share.

Thus, a mean score of 3.29 indicates general tendency towards recommending the consideration of Crude oil prices while carrying out valuation of shares. Although most respondents recommended to consider Crude oil prices while carrying out valuation of shares, the standard deviation of 1.151 indicates a modest variability in responses, therefore showing some variation in recommending the consideration of Crude oil prices while carrying out valuation of shares.

Graph 4. 38: Crude Oil Prices



The above analysis indicates that the overall Mean for all six macroeconomic variables is 3.55 thus, on average the respondents are recommending listed macroeconomic variables while carrying out valuation of shares. However, out of all these 6 factors the most suggested variables are Gross Domestic product & Wholesale price index with the mean value of 4.03 & 3.58 respectively, reason being, these are near to 4. Thus, both are most recommended while carrying out valuation of shares.

Next information analyzed is the opinions of respondents on other bunch of variables which belongs to related industry.

Table 4. 20: Scaling the Importance of the specified Industrial variables in valuation.

Scale the Importance of the following Industrial variables in valuation.								
Industrial Variables	**Frequency (Percent)**					**Total**	**Mean**	**Std. Deviation**
	Extremely Recommended (5)	**Recommended (4)**	**Neutral (3)**	**Not Recommended (2)**	**Strongly not Recommended. (1)**			
Industry's Share in Gross Domestic Product	18 (29%)	14 (22.60%)	10 (16.10%)	10 (16.10%)	10 (16.10%)	62	3.32	1.457
Related Industry's Revenue from Domestic Sales	22 (35.50%)	22 (35.50%)	10 (16.10%)	6 (9.70%)	2 (3.20%)	62	3.9	1.097
Related Industry's Revenue from Exports	16 (25.80%)	22 (35.50%)	14 (22.60%)	8 (12.90%)	2 (3.20%)	62	3.68	1.098
Size of Industry based on Total Revenue	30 (48.40%)	16 (25.80%)	4 (6.50%)	10 (16.10%)	2 (3.20%)	62	4	1.228
Related Industry's Total Production	24 (38.70%)	20 (32.30%)	10 (16.10%)	6 (9.70%)	2 (3.20%)	62	3.94	1.114
Average Mean & Standard Deviation of related industrial factors							3.768	1.1988

Industry's Share in Gross Domestic Product

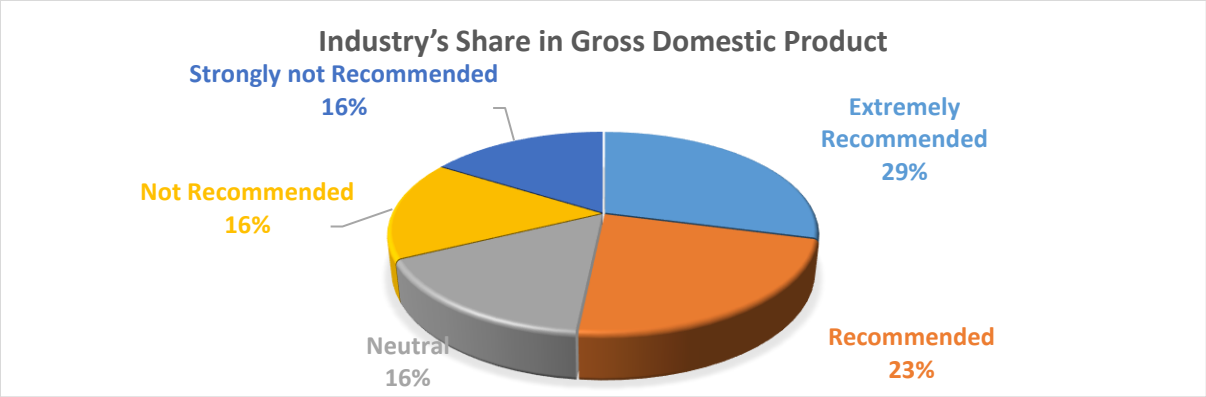
A significant, 18 respondents (29%), Extremely Recommended to consider Industry's Share in Gross Domestic Product while carrying out valuation of share. Furthermore, 14 respondents (22.60%), Recommended to consider Industry's Share in Gross Domestic Product while carrying out valuation of share. Taken together, this accounts for approximately 51.60% of respondents in favor of considering Industry's Share in Gross Domestic Product while carrying out valuation of share.

Whereas 10 respondents (16.10%), are neutral about the consideration of Industry's Share in Gross Domestic Product

Conversely, 10 respondents (16.10%), do not Recommend considering Industry's Share in Gross Domestic Product while carrying out valuation of share, while another 10 respondents (16.10%), Strongly do not Recommend considering Industry's Share in Gross Domestic Product while carrying out valuation of share.

Thus, mean score of 3.32 indicates general tendency towards recommending the consideration of Industry's Share in Industry's Share in Gross Domestic Product while carrying out valuation of shares. Although most respondents recommended to consider Industry's Share in Gross Domestic Product while carrying out valuation of shares, the standard deviation of 1.457 indicates a modest variability in responses, therefore showing some variation in recommending the consideration of Industry's Share in Gross Domestic Product while carrying out valuation of shares.

Graph 4. 39: Industry's Share in GDP



Related Industry's Revenue from Domestic Sales

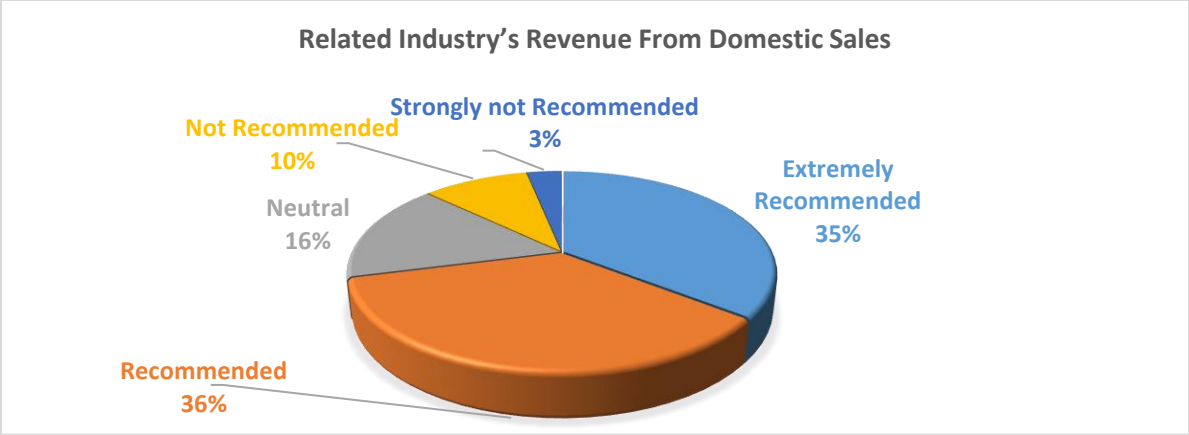
A significant, 22 respondents (35.50%), Extremely Recommended to consider Related Industry's Revenue from Domestic Sales while carrying out valuation of share. Furthermore, 22 respondents (35.50%), Recommended to consider Related Industry's Revenue from Domestic Sales while carrying out valuation of share. Taken together, this accounts for approximately 71% of respondents in favor of considering Related Industry's Revenue from Domestic Sales while carrying out valuation of share.

Whereas 10 respondents (16.10%), are neutral about the consideration of Related Industry's Revenue from Domestic Sales.

Conversely, 6 respondents (9.70%), do not Recommend considering Related Industry's Revenue from Domestic Sales while carrying out valuation of share, while another 2 respondents (3.20%), Strongly do not Recommend considering Related Industry's Revenue from Domestic Sales while carrying out valuation of share.

Thus, mean score of 3.9 indicates general tendency towards recommending the consideration of Related Industry's Revenue from Domestic Sales while carrying out valuation of shares. Although most respondents recommended to consider Related Industry's Revenue from Domestic Sales while carrying out valuation of shares, the standard deviation of 1.097 indicates a modest variability in responses, therefore showing some variation in recommending the consideration of Related Industry's Revenue from Domestic Sales while carrying out valuation of shares.

Graph 4. 40: Revenue from Domestic Sales



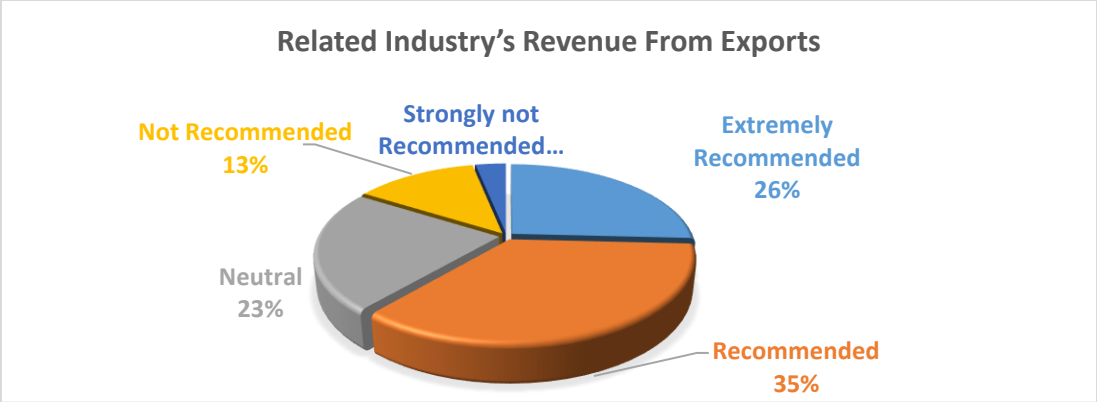
Related Industry's Revenue from Exports

A significant, 16 respondents (25.80%), Extremely Recommended to consider Related Industry's Revenue from Exports while carrying out valuation of share. Furthermore, 22 respondents (35.50%), Recommended to consider Related Industry's Revenue from Exports while carrying out valuation of share. Taken together, this accounts for approximately 61.30% of respondents in favor of considering Related Industry's Revenue from Exports while carrying out valuation of share. Whereas, 14 respondents (22.60%), are neutral about the consideration of Related Industry's Revenue from Exports.

Conversely, 8 respondents (12.90%), do not Recommend considering Related Industry's Revenue from Exports while carrying out valuation of share, while another 2 respondents (3.20%), Strongly do not Recommend considering Related Industry's Revenue from Exports while carrying out valuation of share.

Thus, mean score of 3.68 indicates general tendency towards recommending the consideration of Related Industry's Revenue from Exports while carrying out valuation of shares. Although most respondents recommended to consider Related Industry's Revenue from Exports while carrying out valuation of shares, the standard deviation of 1.098 indicates a modest variability in responses, therefore showing some variation in recommending the consideration of Related Industry's Revenue from Exports while carrying out valuation of shares.

Graph 4. 41: Revenue from Exports



Size of Industry based on Total Revenue

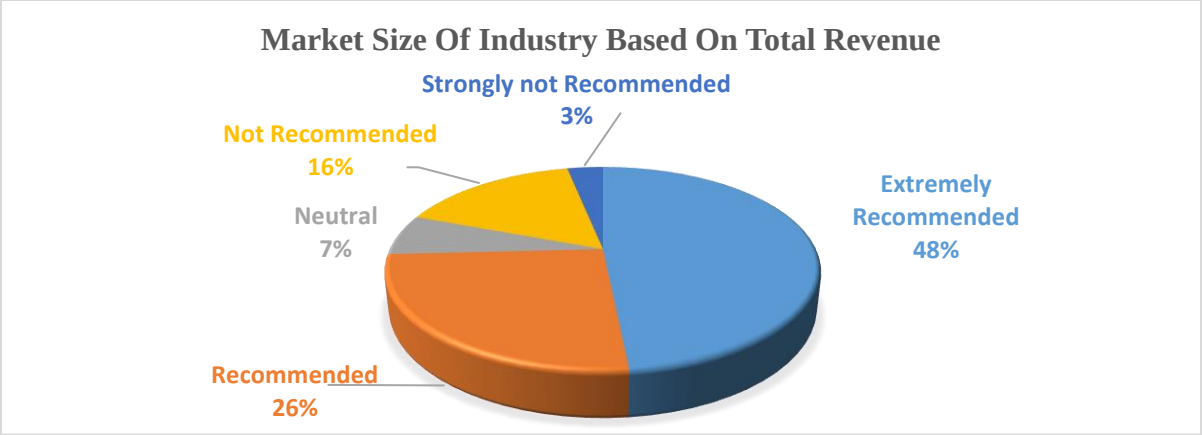
A significant majority, 30 respondents (48.40%), Extremely Recommended to consider Size of Industry based on Total Revenue while carrying out valuation of share. Furthermore, 16 respondents (25.80%), Recommended to consider Size of Industry based on Total Revenue while carrying out valuation of share. Taken together, this accounts for approximately 74.20% of respondents in favor of considering Size of Industry based on Total Revenue while carrying out valuation of share.

Whereas, 4 respondents (6.50%), are neutral about the consideration of Size of Industry based on Total Revenue.

Conversely, 10 respondents (16.10%), do not Recommend considering Size of Industry based on Total Revenue. while carrying out valuation of share, while another 2 respondents (3.20%), Strongly do not Recommend considering Size of Industry based on Total Revenue while carrying out valuation of share.

Thus, mean score of 4 indicates general tendency towards recommending the consideration of Size of Industry based on Total Revenue while carrying out valuation of shares. Although most respondents recommended to consider Size of Industry based on Total Revenue while carrying out valuation of shares, the standard deviation of 1.228 indicates a modest variability in responses, therefore showing some variation in recommending the consideration of Size of Industry based on Total Revenue while carrying out valuation of shares.

Graph 4. 42: Size of Industry



Related Industry's Total Production

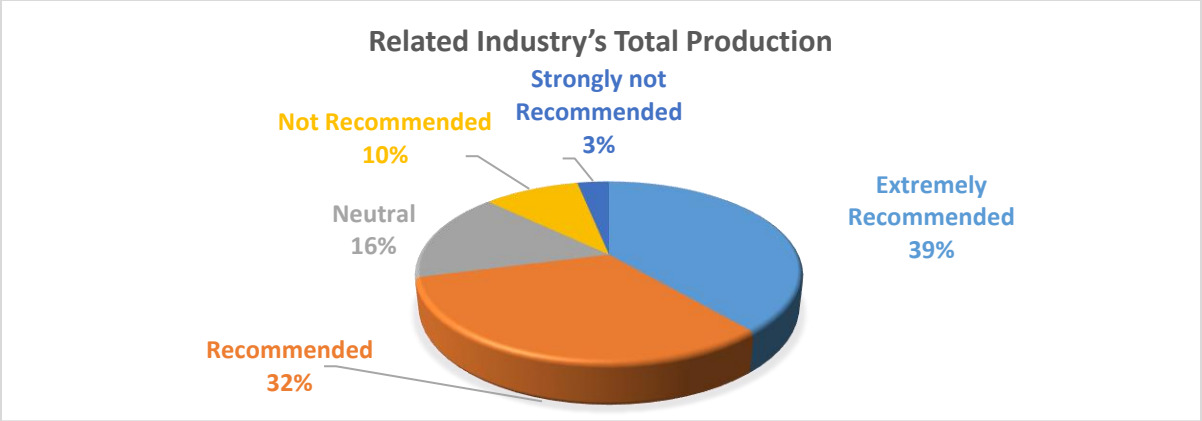
A significant majority, 24 respondents (38.70%), Extremely Recommended to consider Related Industry's Total Production while carrying out valuation of share. Furthermore, 20 respondents (32.30%), Recommended to consider Related Industry's Total Production while carrying out valuation of share. Taken together, this accounts for approximately 71% of respondents in favor of considering Related Industry's Total Production while carrying out valuation of share.

Whereas, 10 respondents (16.10%),are neutral about the consideration of Related Industry's Total Production.

Conversely, 6 respondents (9.70%), do not Recommend considering Related Industry's Total Production. while carrying out valuation of share, while another 2 respondents (3.20%), Strongly do not Recommend considering Related Industry's Total Production while carrying out valuation of share.

Thus, mean score of 3.94 indicates general tendency towards recommending the consideration of Related Industry's Total Production while carrying out valuation of shares. Although most respondents recommended to consider Related Industry's Total Production while carrying out valuation of shares, the standard deviation of 1.114 indicates a modest variability in responses, therefore showing some variation in recommending the consideration of Related Industry's Total Production while carrying out valuation of shares.

Graph 4. 43: Industry's production



The above analysis indicates that the overall Mean for all five macroeconomic variables is 3.768 thus, on an average the respondents are recommending considering listed Related Industry variables while carrying out valuation of shares. However, out of all these 5 factors the most suggested variables are Size of Industry based on Total Revenue & Related Industry's total Production with the mean value of 4 & 3.94 respectively, reason being, these are near to 4. Thus, both are most recommended while carrying out valuation of shares.

Now, next information analyzed is the views of respondents on 'other factors' to be considered while carrying out valuation.

Table 4. 21: Scaling the Importance of Specified Other Variables in Valuation

Scale the Importance of the following other variables in valuation.								
Other Variables	**Frequency (Percent)**					**n**	**Mean**	**Std. Dev.**
	Extremely Recommended (5)	**Recommended (4)**	**Neutral (3)**	**Not Recommended (2)**	**Strongly not Recommended. (1)**			
Political, Social, Economic changes within country	22 (35.50%)	8 (12.90%)	16 (25.80%)	14 (22.60%)	2 (3.20%)	62	3.55	1.27
Psychological factors & Rumors	10 (16.10%)	22 (35.50%)	12 (19.40%)	16 (25.80%)	2 (3.20%)	62	3.35	1.13
News and announcements by Company and Government	22 (35.50%)	20 (32.30%)	6 (9.70%)	10 (16.10%)	4 (6.50%)	62	3.74	1.28
Volatility of international Share Market	10 (16.10%)	18 (29%)	24 (38.70%)	8 (12.90%)	2 (3.20%)	62	3.42	1.02
Extra ordinary factors such as War, Natural Calamities, pandemic etc.	20 (32.30%)	18 (29%)	10 (16.10%)	12 (19.40%)	2 (3.20%)	62	3.68	1.21
Average Mean & Standard Deviation of other variables							3.55	1.18

Political, Social, Economic Changes Within Country

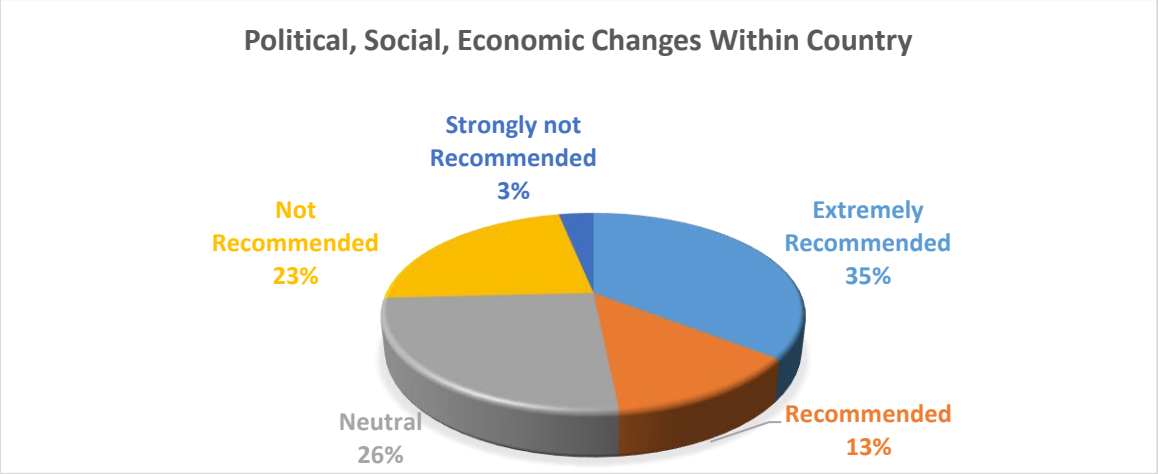
A significant, 22 respondents (35.50%), Extremely Recommended to consider Political, Social, Economic changes within country while carrying out valuation of share. Furthermore, 8 respondents (12.90%), Recommended to consider Political, Social, Economic changes within country while carrying out valuation of share. Taken together, this accounts for approximately 48.40% of respondents in favor of considering Political, Social, Economic changes within country while carrying out valuation of share.

Whereas, 16 respondents (25.80%), are neutral about the consideration of Political, Social, Economic changes within country.

Conversely14 respondents (22.60%), do not Recommend considering Political, Social, Economic changes within country. while carrying out valuation of share, while another 2 respondents (3.20%), Strongly do not Recommend considering Political, Social, Economic changes within country while carrying out valuation of share.

Thus, mean score of 3.55 indicates general tendency towards recommending the consideration of Political, Social, Economic changes within country while carrying out valuation of shares. Although most respondents recommended to consider Political, Social, Economic changes within country while carrying out valuation of shares, the standard deviation of 1.28 indicates variability in responses, therefore showing variation in recommending the consideration of Political, Social, Economic changes within country while carrying out valuation of shares.

Graph 4. 44: Political, Social, Economic changes within country



Psychological Factors & Rumors

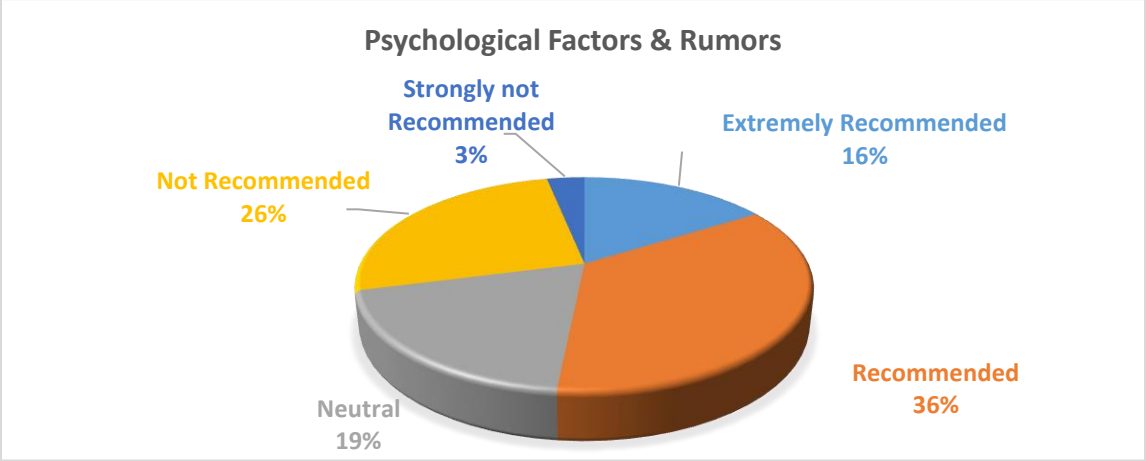
Here, 10 respondents (16.10%), Extremely Recommended to consider psychological factors & Rumors changes within country while carrying out valuation of share. Furthermore, 22 respondents (35.50%), Recommended to consider psychological factors & Rumors while carrying out valuation of share. Taken together, this accounts for approximately 51.60% of respondents in favor of considering psychological factors & Rumors while carrying out valuation of share.

Whereas, 12 respondents (19.40%), are neutral about the consideration of psychological factors & Rumors.

Conversely, 16 respondents (25.80%), do not Recommend considering psychological factors & Rumors. while carrying out valuation of share, while another 2 respondents (3.20%), Strongly do not Recommend considering psychological factors & Rumors while carrying out valuation of share.

Thus, mean score of 3.5 indicates general tendency towards recommending the consideration of psychological factors & Rumors while carrying out valuation of shares. Although most respondents recommended to consider psychological factors & Rumors while carrying out valuation of shares, the standard deviation of 1.132 indicates variability in responses, therefore showing variation in recommending the consideration of psychological factors & Rumors while carrying out valuation of shares.

Graph 4. 45: Psychological factors & Rumors



News and Announcements by Company and Government

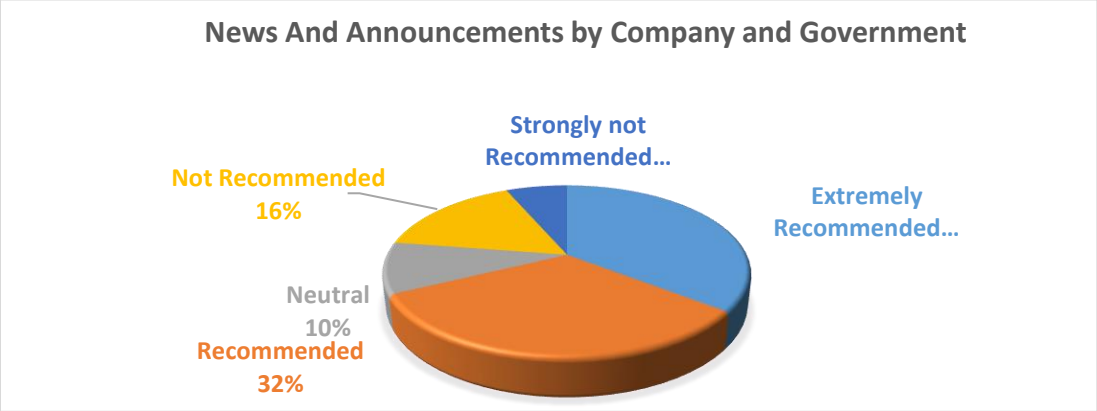
A significant, 22 respondents (35.50%), Extremely Recommended to consider News and announcements by Company and Government while carrying out valuation of share. Furthermore, 20 respondents (32.30%), Recommended to consider News and announcements by Company and Government while carrying out valuation of share. Taken together, this accounts for approximately

67.80% of respondents in favor of considering News and announcements by Company and Government while carrying out valuation of share.
Whereas, 6 respondents (9.70%), are neutral about the consideration News and announcements by Company and Government.

Conversely, 10 respondents (16.10%), do not Recommend considering News and announcements by Company and Government. while carrying out valuation of share, while another 4 respondents (6.50%), Strongly do not Recommend considering News and announcements by Company and Government while carrying out valuation of share.

Thus, mean score of 3.74 indicates general tendency towards recommending the consideration of News and announcements by Company and Government while carrying out valuation of shares. Although most respondents recommended to consider News and announcements by Company and Government while carrying out valuation of shares, the standard deviation of 1.28 indicates variability in responses, therefore showing variation in recommending the consideration of News and announcements by Company and Government while carrying out valuation of shares.

Graph 4. 46: News and announcements by Company and Government



Volatility of International Share Market:

Here, 10 respondents (16.10%), Extremely Recommended to consider Volatility of international Share Market within country while carrying out valuation of share. Furthermore, 18 respondents (29%) Recommended to consider Volatility of international Share Market while carrying out

valuation of share. Taken together, this accounts for approximately 45.10% of respondents in favor of considering Volatility of international Share Market while carrying out valuation of share. Whereas a significant, 24 respondents (38.70%), are neutral about the consideration of Volatility of international Share Market.

Conversely, 8 respondents (12.90%), do not Recommend considering Volatility of international Share Market. while carrying out valuation of share, while another 2 respondents (3.20%), Strongly do not Recommend considering Volatility of international Share Market while carrying out valuation of share.

Thus, mean score of 3.42 indicates general tendency towards recommending the consideration of Volatility of international Share Market while carrying out valuation of shares. Although most respondents recommended to consider Volatility of international Share Market while carrying out valuation of shares, the standard deviation of 1.017 indicates variability in responses, therefore showing variation in recommending the consideration of Volatility of international Share Market while carrying out valuation of shares.

Graph 4. 47: Volatility of international Share Market

Extra Ordinary Factors Such as War, Natural Calamities, Pandemic Etc.

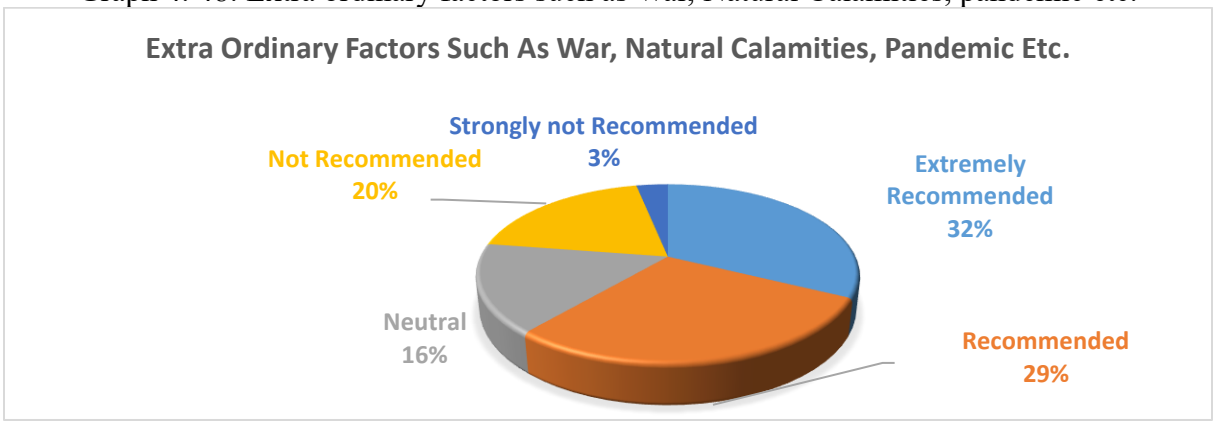
A significant, 20 respondents (32.30%), Extremely Recommended to consider Extra ordinary factors such as War, Natural Calamities, pandemic etc. while carrying out valuation of share. Furthermore, 8 respondents (29%), Recommended to consider Extra ordinary factors such as War, Natural Calamities, pandemic etc. while carrying out valuation of share. Taken together, this

accounts for approximately 61.30% of respondents in favor of considering Extra ordinary factors such as War, Natural Calamities, pandemic etc. while carrying out valuation of share.
Whereas, 10 respondents (16.10%), are neutral about the consideration Extra ordinary factors such as War, Natural Calamities, pandemic etc.

Conversely, 12 respondents (19.40%), do not Recommend considering Extra ordinary factors such as War, Natural Calamities, pandemic etc. while carrying out valuation of share, while another 2 respondents (3.20%), Strongly do not Recommend considering Extra ordinary factors such as War, Natural Calamities, pandemic etc. while carrying out valuation of share.

Thus, mean score of 3.68 indicates general tendency towards recommending the consideration of Extra ordinary factors such as War, Natural Calamities, pandemic etc. while carrying out valuation of shares. Although most respondents recommended to consider Extra ordinary factors such as War, Natural Calamities, pandemic etc. while carrying out valuation of shares, the standard deviation of 1.212 indicates variability in responses, therefore showing variation in recommending the consideration of Extra ordinary factors such as War, Natural Calamities, pandemic etc. while carrying out valuation of shares.

Graph 4. 48: Extra ordinary factors such as War, Natural Calamities, pandemic etc.



The above analysis indicates that the overall Mean for all five other variables is 3.548 thus, on an average the respondents are recommending considering listed other variables while carrying out valuation of shares. However, out of all these 5 factors, the most suggested variables are News and announcements by Company and Government & Extra ordinary factors such as War, Natural

Calamities, pandemic etc. with the mean value of 3.74 & 3.68 respectively, reason being, these are near to 4. Thus, both are most recommended while carrying out valuation of shares.

Now, next information analyzed is the views of respondents on overall influence of different sectors while carrying out valuation.

Table 4. 22: Scaling of the overall Importance of the different sectors variables in valuation

Scale the overall Importance of the different sectors variables in valuation.								
Overall Sectors' variables	**Frequency (Percent)**					**n**	**Mean**	**Std. Dev.**
	Extremely Recommended (5)	Recommended (4)	Neutral (3)	Not Recommended (2)	Strongly not Recommended. (1)			
Company related Variables	38 (61.30%)	12 (19.40%)	2 (3.20%)	6 (9.70%)	4 (6.50%)	62	4.19	1.265
Related industry's Variables	26 (41.90%)	10 (16.10%)	16 (25.80%)	4 (6.50%)	6 (9.70%)	62	3.74	1.33
Economy related variables	18 (29%)	22 (35.50%)	12 (19.40%)	4 (6.50%)	6 (9.70%)	62	3.68	1.238
Other Variable	10 (16.10%)	20 (32.30%)	22 (35.50%)	10 (16.10%)	0	62	3.48	0.954
Average Mean & Standard Deviation of Overall Sector							3.77	1.1968

Company Related Variables

A significant majority, 38 respondents (61.30%), Extremely Recommended to consider Company related Variables while carrying out valuation of share. Furthermore, 12 respondents (19.40%), Recommended to Company related Variables while carrying out valuation of share. Taken together, this accounts for approximately 80.70% of respondents in favor of considering Company related Variables while carrying out valuation of share.

Whereas, 2 respondents (3.20%), are neutral about the consideration Company related Variables

Conversely,6 respondents (9.70%), do not Recommend considering Company related Variables while carrying out valuation of share, while another 4 respondents (6.50%), Strongly do not Recommend considering Company related Variables while carrying out valuation of share.

Thus, mean score of 4.19 indicates general tendency towards recommending the consideration of Company related Variables while carrying out valuation of shares. Although most respondents recommended to consider Company related Variables while carrying out valuation of shares, the standard deviation of 1.265 indicates modest variability in responses, therefore showing some variation in recommending the consideration of Company related Variables while carrying out valuation of shares.

Graph 4. 49: Company Related Variables

Related Industry's Variables

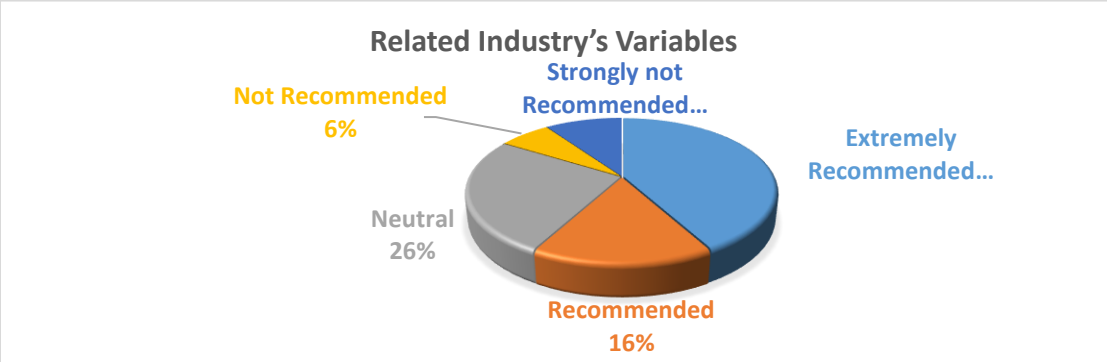
A significant majority, 26 respondents (41.90%), Extremely Recommended to consider Related industry's Variables while carrying out valuation of share. Furthermore, 10 respondents (16.10%), Recommended to Related industry's Variables while carrying out valuation of share. Taken together, this accounts for approximately 58% of respondents in favor of considering Related industry's Variables while carrying out valuation of share.

Whereas, 16 respondents (25.80%), are neutral about the consideration Related industry's Variables.

Conversely, 4 respondents (6.50%), do not Recommend considering Related industry's Variables while carrying out valuation of share, while another 6 respondents (9.70%), Strongly do not Recommend considering Related industry's Variables while carrying out valuation of share.

Thus, mean score of 3.74 indicates general tendency towards recommending the consideration of Related industry's Variables while carrying out valuation of shares. Although most respondents recommended to consider Related industry's Variables while carrying out valuation of shares, the standard deviation of 1.33 indicates modest variability in responses, therefore showing some variation in recommending the consideration of Related industry's Variables while carrying out valuation of shares.

Graph 4. 50: Related industry's Variables



Economy Related Variables

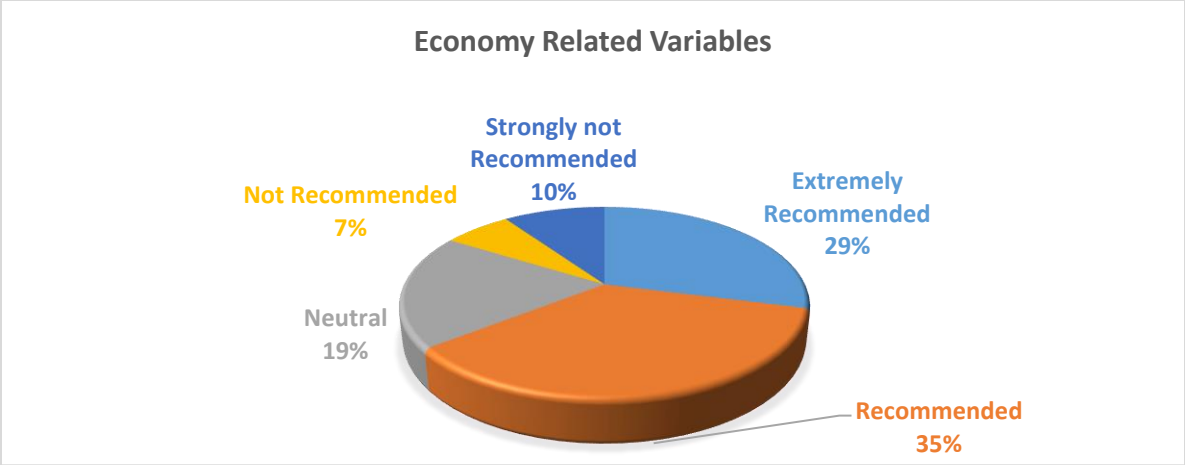
A significant, 18 respondents (29%) Extremely Recommended to consider Economy related Variables while carrying out valuation of share. Furthermore, 22 respondents (35.50%), Recommended to Economy related Variables while carrying out valuation of share. Taken together, this accounts for approximately 64.50% of respondents in favor of considering Economy related Variables while carrying out valuation of share.

Whereas, 12 respondents (19.40%), are neutral about the consideration Economy related Variables

Conversely, 4 respondents (6.50%), do not Recommend considering Economy related Variables while carrying out valuation of share, while another 6 respondents (9.70%), Strongly do not Recommend considering Economy related Variables while carrying out valuation of share.

Thus, mean score of 3.68 indicates general tendency towards recommending the consideration of Economy related Variables while carrying out valuation of shares. Although most respondents recommended to consider Economy related Variables while carrying out valuation of shares, the standard deviation of 1.238 indicates modest variability in responses, therefore showing some variation in recommending the consideration of Economy related Variables while carrying out valuation of shares.

Graph 4. 51: Economy Related Variables:



Other Variable

A significant, 10 respondents (16.10%), Extremely Recommended to consider Other Variable while carrying out valuation of share. Furthermore, 20 respondents (32.30%), Recommended to consider Other Variable while carrying out valuation of share. Taken together, this accounts for approximately 48.40% of respondents in favor of considering Other Variable while carrying out valuation of share.

Whereas, 22 respondents (35.50%), are neutral about the consideration Other Variable

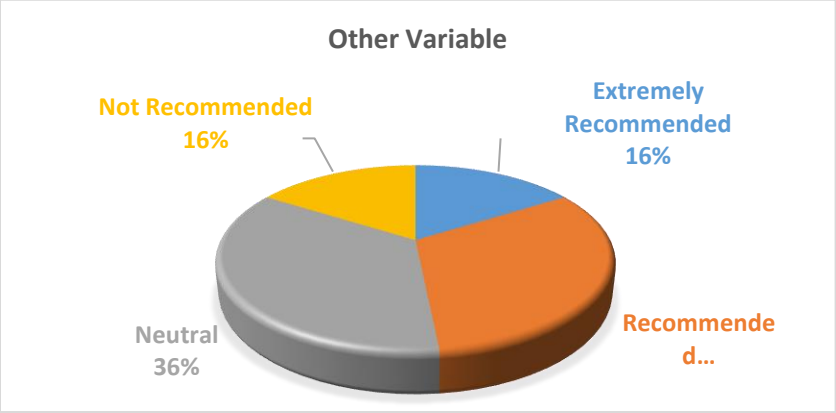
Conversely, 10 respondents (16.10%), do not Recommend considering Other Variable while carrying out valuation of share, while none of the respondents (0%), Strongly do not Recommend considering Other Variable while carrying out valuation of share.

Thus, mean score of 3.48 indicates general tendency towards recommending the consideration of Other Variable while carrying out valuation of shares. Although most respondents recommended

to consider Other Variable while carrying out valuation of shares, the standard deviation of 0.954 indicates modest variability in responses, therefore showing some variation in recommending the consideration of Other Variable while carrying out valuation of shares.

Thus, the overall results also confirm the results for individual bunch of variables related to various sectors.

Graph 4. 52: Other Variables:



4.3.5 Factor Analysis

Table 4. 23: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.780
Bartlett's Test of Sphericity	Approx. Chi-Square	1284.557
	df	120
	Sig.	0.000

As indicated above, with a KMO value of sample adequacy of 0.780, the provided data were fit for Factor Analysis according the results. Likewise, Bartlett's Test of sphericity (0.00) showed a significant ($p<.05$) enough correlation between the criteria to move on the Factor Analysis.

Table 4. 24: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.869	61.683	61.683	9.869	61.683	61.683	4.844	30.277	30.277
2	2.243	14.019	75.702	2.243	14.019	75.702	4.833	30.203	60.48
3	1.307	8.171	83.874	1.307	8.171	83.874	3.743	23.394	83.874
4	0.593	3.709	87.582						
5	0.4	2.5	90.083						
6	0.369	2.304	92.387						
7	0.294	1.836	94.223						
8	0.239	1.495	95.718						
9	0.188	1.172	96.89						
10	0.135	0.845	97.735						
11	0.109	0.684	98.419						
12	0.084	0.525	98.944						
13	0.072	0.452	99.396						
14	0.051	0.317	99.713						
15	0.032	0.202	99.915						
16	0.014	0.085	100						

Extraction Method: Principal Component Analysis.

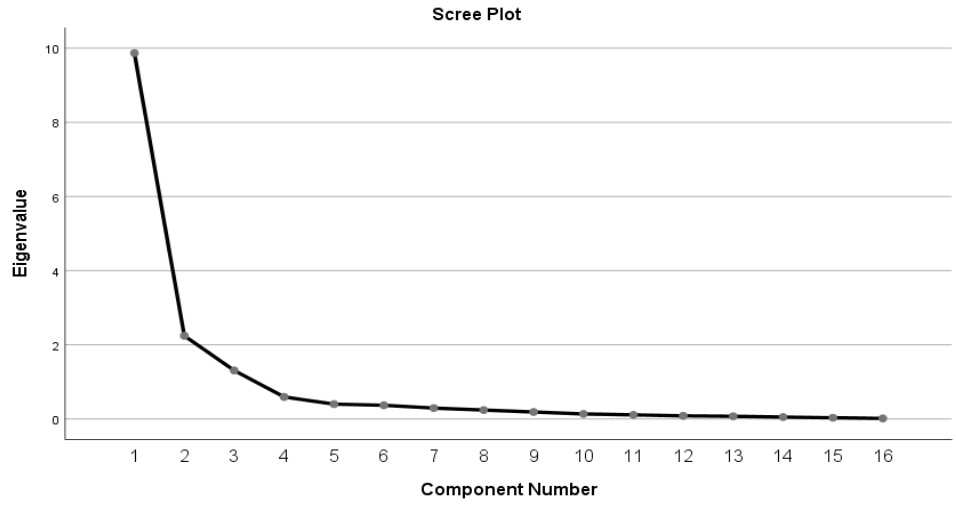


Table 4. 25: Total Variance on Factors to Be Considered While Carrying Out Valuation

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.869	61.683	61.683	9.869	61.683	61.683	4.844	30.277	30.277
2	2.243	14.019	75.702	2.243	14.019	75.702	4.833	30.203	60.48
3	1.307	8.171	83.874	1.307	8.171	83.874	3.743	23.394	83.874

Extraction Method: Principal Component Analysis.

About 84% of the observed fluctuations in Variables to be considered while carrying out valuation of shares are explained by the first three components(factors) of the original solution having Eigenvalues exceeding 1. Kaiser Criteria states that since later Eigenvalues are all less than 1, just the first three elements should be considered.

Table 4. 26: Communalities and Rotated Component Matrix of Company's Reason for Using in Valuation

Sr. No.	Selected Criteria	Communalities Extraction	Rotated Component Matrix		
			1	2	3
1	Gross Domestic Product	0.837	0.043	0.085	0.91
2	Index of Industrial Production	0.879	0.778	0.105	0.513
3	Wholesale price Index which is representative of inflation in India	0.751	0.277	0.432	0.698
4	Interest Rate applicable to Central Government Securities	0.826	0.905	0.076	-0.044
5	Exchange rate	0.793	0.804	0.383	0.024
6	Crude oil prices	0.754	0.669	0.392	0.39
7	Industry's Share in Gross Domestic Product	0.887	0.908	0.156	0.196
8	Size of Industry based on Total Revenue	0.921	0.171	0.568	0.754
9	Related Industry's Revenue from Domestic Sales	0.894	0.062	0.894	0.303
10	Related Industry's Revenue from Exports	0.826	0.222	0.84	0.266
11	Related Industry's Total Production	0.839	0.206	0.728	0.516
12	Political, Social, Economic changes within country	0.885	0.742	0.423	0.394
13	Psychological factors & Rumors	0.8	0.33	0.801	0.221
14	News and announcements by Company and Government	0.892	0.574	0.454	0.597
15	Volatility of international Share Market	0.854	0.502	0.775	0.04
16	Extra ordinary factors such as War, Natural Calamities, pandemic etc.	0.782	0.243	0.558	0.641

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a Rotation converged in 6 iterations.

All the extracted communalities are acceptable, and all criteria are fit for the factor solution as their extraction values are large enough.

Interpretation: Correlation between criteria and the factors was assessed using factor loadings. While a loading closer to 0 suggested weak connection, a factor loading almost 1 shows a strong association between a criteria and factor. Using Varimax with Kaiser Normalization rotation method, the factors rotate around. Factor extraction using the Principal Component Analysis (PCA) approach considers just those components for interpretation purposes whose values exceed 0.6.

From the above table it becomes clear that how much different criteria were correlated with three components. Index of Industrial Production (variable 2), Interest Rate applicable to Central Government Securities (variable 4), Exchange rate (variable 5), Crude oil prices(variable 6), Industry's Share in Gross Domestic Product(variable 7), Political, Social, Economic changes within country(variable 12) are more correlated with component 1.

Whereas, Related Industry's Revenue from Domestic Sales (variable 9), Related Industry's Revenue from Exports(variable 10), Related Industry's Total Production(variable 11), Psychological factors & Rumors(variable 13), Volatility of international Share Market(variable 15) are more correlated with component 2.

Finaly, Gross Domestic Product (variable 1), Wholesale price Index (variable 3), Size of Industry based on Total Revenue (variable 8), Extra ordinary factors such as War, Natural Calamities, pandemic etc. (variable 16) are more correlated with component 3.

Table 4. 27 : List of The Variables Together with Factor Loading Values and % Of Variation.

Factor	% of Variance	Factor Loading (Items)
Economic and Industrial Activity	61.683	Index of Industrial Production, Interest Rate applicable to Central Government Securities, Exchange rate, Crude oil prices, Industry's Share in Gross Domestic Product and Political, Social, Economic changes within country,
Market Perception and External Factors	14.019	Related Industry's Revenue from Domestic Sales, Related Industry's Revenue from Exports, Related Industry's Total Production, Psychological factors & Rumors and Volatility of international Share Market.
Global Economic Factors and Size	8.171	Gross Domestic Product, Wholesale price Index, Size of Industry based on Total Revenue and Extra ordinary factors such as War, Natural Calamities, pandemic etc.

Gross Domestic Product, Interest Rate applicable to Central Government Securities, Exchange rate, Industry's Share in Gross Domestic Product, Related Industry's Revenue from Domestic Sales, Related Industry's Revenue from Exports and Psychological factors & Rumors are factors having significant influence on valuation of shares.

4.4. Conclusion of Survey Study

The opinions of various experts were collected through a structured questionnaire. Before circulating its reliability and validity was checked. For checking reliability, Cronbach alpha coefficient was calculated. The Cronbach's alpha varied from 0.742 to 0.968, indicating that the scale had high internal reliability, and all components of the questionnaire that measured opinions were analyzed. To ensure the validity of the questionnaire, the study compared the overall mean of the (i) company, (ii) Economy (iii)industry & (iv) other variables with the average means of bunch of questions related to variables from company, industry, economy, and others. The comparison reveled the difference is very negligible, confirming the validity of the questionnaire.

1. Respondents profile indicated that all the respondents had relevant knowledge about the valuation of shares and are found the most appropriate for taking opinion on variables to be considered for valuation of shares.
    a. Respondent's educational background reveled that, Out of total 62 respondents, 32 respondents (51.61%), Post graduated in Commerce and Management, 16

respondents (25.81%), holding Ph. D in Commerce and Management, 6 did Postgraduate Diploma in Commerce and Management, 6 were holding Professional degree as their highest qualification whereas were. MBA with Finance. However, if we consider respondents total qualification then, out of 62 respondents in all 54 respondents (87.09%), were professionally qualified. It includes 20 Chartered Accountant, 22 Chartered Financial Analyst, 6 Company Secretary other 6 are CMA & CWA.

b. Respondents' work profile cover Practicing professionals, Academicians, CEO, Chairman, Fund Accountant, Managers and Mutual fund advisors. Here, maximum 43.55% are Practicing professionals, followed by academicians (19.35%). To be noted 83.9% of respondents are having experience of more than10 years in their present work field.
c. 74.2% of respondents are having their annual income of more than10 Lakhs while other 25.8% are earning between 5 lakhs to 10 lakhs in a year. Noteworthy, 93.5% of respondents directly invest in equity shares and majority of respondents (74.30%), invest their 10% to 30% of yearly income in equity.
d. While investing, majority 60.98% of times they invest as Long-Term Investor and 26.83% times they invest as short-Term Investor. While sometimes (7.32%) they invest as speculator and hardly they act as intraday trader (4.88%). Here, from risk appetite point of view 38.70% of respondents are Risk Neutral, 32.30% are Risk Taker & other 29% are Risk Averse.
e. Respondents are investing with various purposes. Here, 35.82% of time they invest for Growth in principle amount, 23.88% of times for Future financial security, 19.40% times for regular income, 11.94% of times for liquidity and 8.96% of times for Tax saving. Thus, main motive for investing in equity shares (59.70%) are Growth in principle amount & Future financial security.
f. While investing their investment decisions are influenced by 46 were made for Self-Assessment of Security (48.94%times) followed by Consulting Experts brokers or Mutual fund Advisers (19.15%), Family & friends (14.89%), Self-Intuition (10.64%), Advertisement in News Channels, News Paper, social media etc. (6.38%). thus, the targeted respondents are habituated for with very systematic

approach for taking investment decision because their investment decisions are mainly influenced (68.09%) by self-assessment of security (48.94%), followed by consulting to experts, brokers or Mutual fund Advisers(19.15%).

g. Respondents' opinion on variables affecting valuation revealed that 64.08% of valuation of shares is affected by company related variables, 21.36% of valuation is affected by macroeconomic variables remaining 14.56% of valuation is affected by industry's variables.

2. Descriptive analysis was carried out with the purpose of understanding Data Distribution, Identify Patterns and Trends, and compare & conclude the results.
    a. Here, the respondent's conceptual clarity on various valuation terms was assessed through 5 Scale Likert scale. Mean value for all sixteen question indicates that the respondents are having good knowledge about Valuation of shares.
    b. Thereafter, respondent's views on company related variables were collected through dichotomous questions. Here on an average 81% of respondents endorsed the listed 5 variables for company analysis. On the other side, views on individual variables related to Economy, Related Industry & other variables were collected through 5 Scale Likert Scale question. Average mean for all 16 variables is 3.7675 which indicates there is general tendency of recommending the listed variables while carrying out valuation.
    c. Likert scale type 4 questions for accessing the overall impact of economy, industry, Company & other variables were also included as last part of questionnaire. Average mean of all these overall sectors is 3.7725 which is approximately same as results for previous section of questionnaire.
3. Factor analysis has been carried out. Here, Principal component analysis was carried out using Kaiser-Meyer-Olkin Measure, Eigenvalues Varimax with Kaiser Normalization rotation method
    i. First, KMO value is calculated & Kaiser-Meyer-Olkin Measure (KMO value) of Sampling Adequacy for the factors is 0.780. So, provided data found fit for Factor Analysis.
    ii. Thereafter, Principal Component analysis' total variables explained table indicated that About 84% of the observed fluctuations in Variables to be considered while

carrying out valuation of shares are explained by the first three components(factors) of the original solution as having Eigenvalues exceeding 1.

iii. Lastly, Correlation between criteria and the factors was assessed using factor loadings. While a loading closer to 0 suggested weak connection, a factor loading almost 1 shows a strong association between a criteria and factor. Using Varimax with Kaiser Normalization rotation method, the factors rotate around. Factor extraction using the Principal Component Analysis (PCA) approach considers just those components for interpretation purposes whose values exceed 0.6. Gross Domestic Product, Interest Rate applicable to Central Government Securities, Exchange rate, Industry's Share in Gross Domestic Product, Related Industry's Revenue from Domestic Sales, Related Industry's Revenue from Exports and Psychological factors & Rumors are factors having significant influence on valuation of shares because their value exceeds 0.80.

Major findings of survey study:

1. Discounted Cashflow Method (DCF) is the most suggested method for carrying out valuation followed by Residual Income Valuation Method (RIV). Valuation carried out using financial information over the next 5 to 10 years is reliable, Revenue's Cumulative Annual Growth Rate (REV. CAGR) represents company's growth rate, use of Capital Asset Pricing Model (CAPM) for calculating Cost of Equity is advisable and perpetual growth rate of any company cannot exceed country's growth rate of GDP while calculating terminal value.
2. Various macroeconomic variables such as Gross Domestic Product, Index of Industrial Production, Wholesale price Index, which is representative of inflation in India, Exchange rate should be tracked at the time of carrying out valuation of shares.
3. Industrial variables such as Industry's Share in Gross Domestic Product, Size of Industry based on Total Revenue, Related Industry's Revenue from Domestic Sales, Related Industry's Revenue from Exports, Related Industry's Total Production should also be tracked while carrying out valuation of share.

4. Other variables such as psychological factors & Rumors, News and announcements by Company and Government, Extra ordinary factors such as War, Natural Calamities, pandemic etc. shall also be considered at the time of carrying out valuation of shares.
5. While carrying out valuation of public limited company an investor should keep in the performance of company is affected not only by company variable, but it also gets affected by the economy in which the company performs as well as the industry to which the company belongs. Overall & above this, certain unseen & unpredictable external factors also affect the valuation of the share. However, the impact of such external factors (other variables) is for limited time only. So, a common investor can always make profitable investment if he/she follows E-I-C Framework for taking well informed investment decisions.

   The survey study concludes that the respondents confirm the application and usefulness of E-I-C framework for carrying out the valuation of the shares of listed company.

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