CHAPTER FIVE

Summary & Conclusion

Table of Contents

5.1 Summary Findings & Conclusions 302
5.2 Objective Wise Findings 314
5.3 Further Research Scope 319
5.4 Recommendations 320
5.5 Conclusion 322

Chapter Five: Summary & Conclusions

5.1 Summary Findings & Conclusions

E-I-C framework for carrying out valuation of shares used in fundamental is result of the fact that the performance and market price of shares of a public Limited company is affected not only by its own-company specific variables but also by the macroeconomic variables in which it is operating and industry specific variables to which it belongs. E-I-C framework for fundamental analysis suggests that an investor should track certain macroeconomic as well as certain industry specific variables also along with applying suitable valuation method for carrying out valuation of share.

Further, different methods are available for carrying out valuation of share when the investment is to be made for long term. Dividend Discount Method (DDM), Discounted Free Cashflow Method (DCF) & Residual Income Valuation (RIV) are the most popular valuation methods. It is observed that different valuation agencies and companies follow different valuation methods as per their choice & convenience and there is no unanimously accepted method available for valuation. In addition to this, there is no proper guidance regarding which macroeconomic and industry specific variables should be tracked for informed investment decisions. All these creates confusion in the mind of a common investor.

The present research endeavor attempted to guide a common investor for taking well informed and profitable investment decisions. The present research undertakes 4 case studies of 4 listed Indian companies. Here, two companies- TATA Consultancy Limited (TCS) & Infosys (INFY) are from Information Technology Industry, these two company are taken to represent service sector and other two companies- Bajaj Auto & Hero MotoCorp are from Automobile Sector, representing manufacturing sector. The results of Company analysis revealed that for service sector Residual Income Valuation method (RIV) is suggested and for manufacturing sector Discounted Free Cashflow (DCF) method is suggested. Further, Economic analysis & Industry analysis were carried out using trend and regression analysis for finalizing E-I-C variables.

This research is divided into 5 chapters. The major summary and conclusion derived from the present research work is discussed below.

Chapter one deals with the introductory part of the research work. This chapter reflects the rationale, objectives of the study, the methodology applied and covers plan of the study.

Chapter two deals with the literature review carried out on origin and the journey of the term value. The next part covers the literature review on the term valuation as well as on two popular valuation approaches i.e. fundamental analysis & technical analysis. Thereafter, the next coverage is on economic analysis & industry analysis along with the discussion of the empirical studies on the economic and industry analysis. Further, Next part covers the literature review on various valuation methods Dividend Discount Model, Discounted Free Cashflow Method & Residual Income, this comes under company analysis & it is followed by discussion of survey study comparing various valuation methods & valuation multiples. Empirical studies on valuation of shares using E-I-C approaches have also been reviewed. The last section covered the research gap unfolded during the literature review and recommends the areas related where research can be carried out to guide common investor in taking useful investment decisions.

Findings of the chapter are as follows:

i. The term value has its origin in the 4th century BC. The term value was understood as 'fair price' or 'fair exchange price', the same understanding for value was reflected by 'just price' where no party gains or losses from the given transaction-prevailed in medieval era. some Mercantilists continue to peruse value with 'just price' while the concept of value for majority Mercantilists as well as Psychological Thought was derived from utility or subjective utility. 'The Physiocrats' known as 'Economists' completely dumped the subjective theory of value and believed in the concept of 'natural value' which is depended upon factors of cost of production-land & labor. Ultimately, classical thought emerged without a universally accepted formula for value following the eras of mercantilism and Physiocracy, here Adam Smith suggested that the price or exchange value is determined by the summation of wages, profits, and rents while David Ricardo, a critic of Smith's theory, believed that value is determined by labor and profit alone. However, the rise of marginalists in the neoclassical era replaced the cost-of-production theory of value with the theory of marginal utility. Alfred Marshall considered the father of neoclassical thought, the intersection of the demand curve (marginal utility) and supply curve (cost of production) at equilibrium represents the value of a good, at the same time some other neoclassical economists believed that value depends on the individual's eagerness or willingness to pay, which is reflected in the monetary price they are willing to offer. Thus, within neoclassical thought, three perspectives prevailed for determining value: marginal utility, equilibrium, and monetary price.

ii. 'Value' of an asset or a security can be determined by carrying out valuation process. There are two popular approaches available for carrying out valuation process for determining the intrinsic value of the firm -technical analysis and fundamental analysis. The Technical analyst concentrates on the study of market actions and trends, while the fundamental analysis studies all the possible factors affecting market prices. Though both the approaches work on the same objective of predicting the future price, the fundamental analysis studies the causes of market movement, while the technical analysis studies the effects of the same.

iii. As per Fundamental analysis approach, an intrinsic value is, 'that value, which is justified by the facts, e.g. assets, earnings, dividends, definite prospects, including the factor of management' of the company. valuation shares presume that the market price of a share can be different from its intrinsic value. Market prices for securities fluctuate at great amplitudes around intrinsic value but, over the long term, intrinsic value is virtually always reflected at some point in market price. Profits are made by purchasing the mispriced /undervalued security and then waiting for the market to rectify 'the incorrect valuation'. Thus, the aim of fundamental analysis is to identify mispriced securities through valuation.

iv. Movements of macroeconomic variables can affect the share price movement. Gross Domestic products, Index of Industrial Production, Wholesale price index, Exchange rate & Crude oil prices are mostly tracked macroeconomic variables for tracking movement in market prices of listed companies.

v. Industrial performance also affects the valuation of shares. So, current trends and prospects of related industry must be assessed for carrying out appropriate valuation. Size of industry in terms of revenue or production, Domestic sales, exports are the commonly studied variables. Trend analysis is widely used for tracking the present and prospects of the Information technology industry and Automobile industry.

vi. Company analysis is used through two ways for selecting the underpriced security. First way is (a) to use some established ratio (profitability, liquidity, solvency & turnover) or (b)use some fundamental factors or (c)use some widely used strategy like G-scores and F-Scores for calculate the security return or security price and identify the underprice security for investment. The most used ratios are book to market value, current, total asset turnover & debt to equity while dividend, Inventory, Capital expenditure, Gross Margin, Selling& Administrative expenses, Audit qualification, cost management, Accounts Receivables, effective tax rates are frequently studied company related fundamental variables.

vii. On the other hand, the more systematic way is to use well established methods (absolute measures) like Dividend Discount Model (DDM), Discounted Free Cashflow (DCF) & Residual Income Valuation Method (RIV) or use valuation ratios (relative measure) for carrying out valuation of shares. The empirical studies show RIV and DCF prominently effective absolute measure of valuation and PE ration and Enterprise value ratios are popular relative measure of valuation.

viii. Many studies have tried to establish relationship between macroeconomic variables & security price or industry variables & security price or company variables and security price but a few studies have applied E-I-C framework were all the three sectors are tracked together for valuation of shares.

ix. A few studies tried to use E-I-C framework for carrying out valuation. They identified key variables from economy, industry & company. but they failed to establish any statistical relationship or quantify the impact of these variables on valuation. At the time of finding out the final value of the security, the value was derived considering P/E ratio only, no attempts were made to figure out what is impact of other variables from economy, industry or even from company itself.

Chapter three deals with case study with purpose of filling up the gap between application of E-I-C Framework while calculating value of shares using fundamental analysis over considering company related variables or valuation methods only. Tracking company variables facilitates tracking security market price but, consideration of crucial macroeconomic and industrial variables along with company variables gives wholistic view about the company’s future and can generate better results and ultimately it enhances the chance of more profitable investment decisions. The main objective of the case study was to finalize the variables from economy and industry to be considered along with suggesting appropriate valuation methods while carrying out valuation and investing in the shares of company. Presently, very few investors are aware about the usefulness of E-I-C framework for carrying out valuation using fundamental approach. Many investors' investments are guided by P/E ratio only. It may be earning money to intraday trader or to a small duration investor, but it keeps on changing everyday so reliability of P/E ratio for long term investments is questionable. Further, the market price of a company is not affected solely by company performance but the macroeconomic variables and industry variables also. So, the present study aimed at suggesting reliable valuation method to the long-term investors who intend to invest in shares of listed Indian companies and suggest the list of variables from economy and industry that should be tracked for taking well informed and profitable investment decisions.

The objective is also to check applicability and usefulness of E-I-C framework while carrying out valuating of equity shares of listed public Limited companies. In order to achieve aforesaid objective case study of four listed Indian companies, two companies from information technology industry i.e. TATA Consultancy Limited & Infosys, and other two companies from Automobile industry i.e. Bajaj Auto Limited & Hero Moto Corp is conducted, and subsequent results were presented.

Company analysis, industry analysis and economy analysis were undertaken to finalize variables for E-I-C framework for manufacturing industry and service industry. Based on the variables a questionnaire was formed and circulated among sixty-two respondents selected on the basis of convenient sampling. Major findings and conclusions from these 4 case studies are summarized as follows:

CASE 1: Framing E-I-C variables for TATA Consultancy Limited (TCS):

The following are the findings that came up while conducting a study of TCS:

- Company analysis of TCS revealed that out of Dividend Discount Method (DDM), Discounted Cashflow Method (DCF) & Residual Income model (RIV) considered for the valuation of shares RIV emerged as the most accurate. The results of MAE indicated minimum prediction error for RIV (307.77) as compared to DDM(531.64) and DCF(388.02) which was minimum of all. The results of MAPE indicated minimum prediction error for RIV(12.02%) as compared to DDM(21.68%) and DCF(15.39%) which again was minimum. The results of MSE indicated minimum prediction error for

RIV(148,216) as compared to DDM(326,829) and DCF(231,790). The results of RMSE indicated minimum prediction error for RIV(384.99) as compared to DDM(571.69) and DCF(481.45).

- Industry analysis of TCS was carried out using regression as a statistical tool. Regression results indicated the P value is 0.000266 which is less than 0.05 unveiling that the selected industrial variables- Size, Domestic Sales and Exports of the Information Technology sector has significant influence on movement of share price of TCS.
- Economic analysis of TCS was carried out using regression as a statistical tool. Regression results indicated that the P Value is 0.00526 which is less than 0.05 presenting that the selected macroeconomic variables- Gross Domestic Production (GDP), Index of Industrial Production (IIP), Wholesale Price Index (WPI), Exchange Rate (Constant price), Crude Oil Prices per barrel for Indian Basket (at Constant Price) has significant influence on movement of share price of TCS.
- The existing practice generally adopted for tracking the movement of the share price of companies calls for analysis for plentitude of variables from the trajectory of economy, industry and company. This practice is extremely time consuming demanding humongous efforts. The contribution of this case study is that it reduces the task by limiting the number of variables for service sector by removing the variables having overlapping impact by doing multiple regressions. The P value of suggested E-I-C variables was 0.000822, which is less than 0.05.

The outcome of this case study is in the form of variables- Gross Domestic Product (GDP), Wholesale Price Index (WPI), Size of the industry in terms of revenue, and Residual income presented in E-I-C framework for common investor of TCS

CASE 2: Framing E-I-C variables for Infosys Limited:

The following are the findings that came up while conducting a study of Infosys Limited:

- Company analysis of Infosys Limited revealed that out of Dividend Discount Method (DDM), Discounted Cashflow Method (DCF) & Residual Income model (RIV) considered for the valuation of shares RIV emerged as the most accurate. The results of MAE indicated minimum prediction error for RIV (236.46) as compared to DDM (271.58) and

DCF(645.46) which was minimum of all. The results of MAPE indicated minimum prediction error for RIV (19.50%) as compared to DDM (22.23%) and DCF (51.31%) which again was minimum. The results of MSE indicated minimum prediction error for RIV (85,675) as compared to DDM (1,01,133) and DCF (4,77,455). The results of RMSE indicated minimum prediction error for RIV (292.70) as compared to DDM (318.01) and DCF(690.98).

- Industry analysis of Infosys Limited was carried out using regression as a statistical tool. Regression results indicated the P value is 0.0071 which is less than 0.05 unveiling that the selected industrial variables- Size in terms of revenue, Domestic Sales and Exports of the Information Technology sector has significant influence on movement of share price of Infosys Limited.
- Economic analysis of Infosys Limited was carried out using regression as a statistical tool. Regression results indicated that the P Value is 0.0257 which is less than 0.05 presenting that the selected macroeconomic variables- Gross Domestic Production (GDP), Index of Industrial Production (IIP), Wholesale Price Index (WPI), Exchange Rate (Constant price), Crude Oil Prices per barrel for Indian Basket (at Constant Price) has significant influence on movement of share price of Infosys Limited.
- The existing practice generally adopted for tracking the movement of the share price of companies calls for analysis for plentitude of variables from the trajectory of economy, industry and company. This practice is extremely time consuming demanding humongous efforts. The contribution of this case study is that it reduces the task by limiting the number of variables for service sector by removing the variables having overlapping impact by doing multiple regressions. The P value of suggested E-I-C variables was 0.000479 which is less than 0.05.The final outcome of this case study is in the form of variables- Gross Domestic Product (GDP), Wholesale Price Index (WPI), Size of the industry in terms of revenue, and Residual income presented in E-I-C framework for common investor of TCS Infosys Limited.

CASE 3: Framing E-I-C variables for Bajaj Auto:

The following are the findings that came up while conducting a study of Bajaj Auto Limited:

- Company analysis of Bajaj Auto Limited revealed that out of Dividend Discount Method (DDM), Discounted Cashflow Method (DCF) & Residual Income model (RIV) considered for the valuation of shares DCF emerged as the most accurate. The results of MAE indicated minimum prediction error for DCF (840.04) as compared to DDM (1195.64) and RIV (1157.78) which was minimum of all. The results of MAPE indicated minimum prediction error for DCF (33.47%) as compared to DDM (44.53%) and RIV (42.84%) which again was minimum. The results of MSE indicated minimum prediction error for DCF (743856.77) as compared to DDM (1714082.73) and RIV (1661179.89). The results of RMSE indicated minimum prediction error for DCF (862.47) as compared to DDM (1309.23) and RIV(1288.87).
- Industry analysis of Bajaj Auto Limited was carried out using regression as a statistical tool. Regression results indicated the P value is 0.0252 which is less than 0.05 unveiling that the selected industrial variables- Production(units), Domestic Sales(units) & Exports(units) of the Automobile sector has significant influence on movement of share price of Bajaj Auto Limited.
- Economic analysis of Bajaj Auto Limited was carried out using regression as a statistical tool. Regression results indicated that the P Value is 0.0365 which is less than 0.05 presenting that the selected macroeconomic variables- Gross Domestic Production (GDP), Index of Industrial Production (IIP), Wholesale Price Index (WPI), Exchange Rate (Constant price), Crude Oil Prices per barrel for Indian Basket (at Constant Price) has significant influence on movement of share price of Bajaj Auto Limited.
- The existing practice generally adopted for tracking the movement of the share price of companies calls for analysis for plentitude of variables from the trajectory of economy, industry and company. This practice is extremely time consuming demanding humongous efforts. The contribution of this case study is that it reduces the task by limiting the number of variables for manufacturing sector by removing the variables having overlapping impact. by doing multiple regressions. The P value of suggested E-I-C variables was 0.03596 which is less than 0.05. The outcome of this case study is in the form of variables- Gross Domestic Product (GDP), Wholesale Price Index (WPI), Size of the industry in terms of units Produced, and Free cashflow presented in E-I-C framework for common investor of Bajaj Auto.

CASE 4: Framing E-I-C variables for Hero MotoCorp Limited

The following are the findings that came up while conducting a study of Hero MotoCorp Limited:

- Company analysis of Hero MotoCorp Limited revealed that out of Dividend Discount Method (DDM), Discounted Cashflow Method (DCF) & Residual Income model (RIV) considered for the valuation of shares DCF emerged as the most accurate. The results of MAE indicated minimum prediction error for DCF (1603.96) as compared to DDM (1800.65) and RIV (2308.86) which was minimum of all. The results of MAPE indicated minimum prediction error for DCF (53.09%) as compared to DDM (59.73%) and RIV (76.70%) which again was minimum. The results of MSE indicated minimum prediction error for DCF (27,22,042) as compared to DDM (33,97,607) and RIV (55,62,848). The results of RMSE indicated minimum prediction error for DCF (1,649.86) as compared to DDM (1,843.26) and RIV (2,358.57).
- Industry analysis of Hero MotoCorp Limited was carried out using regression as a statistical tool. Regression results indicated the P value is 0.2778 which is more than 0.05 unveiling that the selected industrial variables- Production(units), Domestic Sales(units) & Exports(units) of the Automobile sector do not have significant influence on movement of share price of Hero MotoCorp Limited so the stated variables are not sufficient to track the market price of Hero MotoCorp.
- Economic analysis of Hero MotoCorp Limited was carried out using regression as a statistical tool. Regression results indicated that the P Value is 0.359714 which more than 0.05 presenting that the selected macroeconomic variables- Gross Domestic Production (GDP), Index of Industrial Production (IIP), Wholesale Price Index (WPI), Exchange Rate (Constant price), Crude Oil Prices per barrel for Indian Basket (at Constant Price) do not have significant influence on movement of share price of Hero MotoCorp Limited.
- Hero MotoCorp and Bajaj Auto Limited belongs to same industry and same economy. i.e.. Automobile industry & Indian Economy. So, under the E-I-C analysis for hero MotoCorp, the study examined the applicability of E-I-C framework suggested for Baja Auto Limited. However, the P value was 0.5565 which is more than 0.05. Thus, The E-I-C analysis revealed that Gross Domestic Production (GDP), Wholesale Price Index (WPI), Size of

Automobile industry (production in Units) is not sufficient for tracking movement of share price of Hero MotoCorp and the E-I-C framework for Bajaj Auto is not applicable for Hero MotoCorp.

- External factors such as global economic conditions, national and international policy changes, strategic collaborations/partnerships/joint ventures of company & extra ordinary factors like Covid 19 Pandemic were analyzed with the purpose of searching the variables having influence on movement of the share price of Hero MotoCorp. The study observed that the share price of Hero MotoCorp has reacted whenever the listed external factors have occurred. This case study brings forth the conclusion that the share price of Hero MotoCorp is influenced by many external factors so, the suggested E-I-C framework for manufacturing is not sufficient to track the market price of Hero MotoCorp.

From the case study analysis major findings are: valuation carried out using Residual Income valuation (RIV) is the most accurate for service provider companies while, valuation carried out using Discounted Free Cashflow method is the most accurate for manufacturing companies. The above two distinct methods help in calculating the intrinsic value of the security of the company. The intrinsic value is compared with the market price of the security and underpriced securities are selected for investment purposes. Once the security is chosen then the next concern is to decide the timing for entering or exiting the security, the timing can be determined by tracking the share price movement. These movements can be accurately tracked using the E-I-C framework suggested for the service sector and manufacturing sector. This practice results in informed and profitable investment decisions regarding equity shares of listed companies.

Chapter Four gathered and analyzed the views of financial analysts, valuation agencies, directors, professionals, executives and academicians working with the related discipline, on conceptual clarity on various terms related to valuation of shares, best valuation methods and variables to be considered while tracking shares prices of listed companies. The questionnaire was administered among 70 respondents. The respondents were selected using a non-probability sampling strategy, specifically the purposive sampling method. The result of empirical analysis also suggests the best valuation method and variables to be traced as having significant influence on the movement of share price of company.

Major findings of the survey study are:

The first part dealt with the demographic profile of the respondents.

1. 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.
2. However, if we consider respondents' total qualification then, out of 62 respondents in all 54 respondents (87.09%), were professionally qualified. It included 20 Chartered Accountant, 22 Chartered Financial Analyst, 6 Company Secretary other 6 are CMA & CWA.

The second part of the findings showed the results of inferential statistics. Inferential statistics including reliability test using Cronbach alpha, validity test, descriptive statistics, factor analysis were conducted.

- 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 revealed that the difference is extremely negligible, confirming the validity of the questionnaire.
- Descriptive analysis was carried out, with the purpose of understanding Data Distribution, Identify Patterns and Trends, and compare & conclude the results. 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 hand, views on individual variables related to economy, related industry & other variables were collected through 5 Scale Likert Scale question. The average mean for all 16 variables is 3.7675 which indicates there is general tendency of recommending the listed variables while carrying out valuation.

Over and above, aforementioned tests- the factor analysis was also conducted. Factor analysis is 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. To reassemble the data, this research made use of Principal Component Analysis. 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. Only factors with values higher than 0.6 were evaluated for interpretation after factor extraction using the Principal Component Analysis (PCA) approach.

- 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.
- 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.
- 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 & Rumours are factors having significant influence on valuation of shares because their value exceeds 0.80.

From the above result of inferential statistics, it is unfolded that the suggested variables are worth tracking while taking investment decisions in the shares of listed company.

5.2 Objective Wise Findings

The main objective of this research endeavor is to carry out systematic study of the role of E-I-C Framework while carrying out valuation of shares and taking investment decisions in shares of listed companies. Further, suggest, by integrating both qualitative and quantitative measures and considering the nature of the company, the best valuation method for carrying out valuation of shares along with suggesting variables to be tracked for efficient tracking of the share price of the listed company.

The major findings in continuation with objective are explained below.

Objective 1 & Objective 2: Expound the theoretical understanding of different approaches to the measurement of value of Financial Assets. And Document the valuation practices of select Indian corporate.

The present study aimed at studying the different valuation methods of fundamental analysis in addition to examining the variables from economy, industry and company that have significant influence on the share price of listed company. By law, it is not mandatory to report the valuation method or intrinsic value of equity share for listed or not listed company. The company's Act, 2013 mandates to disclose the face value and market price of the shares of the company. Literature review reveals that the company's valuation is carried out by valuation agencies or by investors themselves for taking guided investment decisions.

Further, the literature review also revealed that different valuation methods applied by different valuation companies/agencies for guiding the investors in taking profitable investment decisions. There is no unanimously suggested valuation method available for carrying out valuation through fundamental analysis.

Literature review on economy analysis and industry analysis indicated that many studies have carried out economy analysis, industry analysis individually while a few studies who applied E-I-C framework. Further, these studies selected some random variables from economy and industry without any justification for their selection and checked the trends of these variable using unequal periods and did not make any efforts to identify the relationship between these variables and market price of the company. Thus, there is no solid E-I-C framework available for investors who are interested in investing in the shares of listed Indian companies.

Literature review covering valuation methods applied by valuation agencies as well as literature review covering survey studies conducted for suggesting the best valuation method, revealed that RIV and DCF prominently effective absolute measure of valuation and PE ratio and Enterprise value ratios are popular relative measure of valuation. To be noted, none of the listed companies disclosed the intrinsic value of shares. So, no documentation was found from reports of listed companies regarding applicability of fundamental analysis or regarding use of E-I-C Framework while carrying out valuation of shares of the company.

Objective 3: Ensure the objectivities of financial assets valuation practices followed by Indian Investors.

Valuation of share is necessary to find out underpriced financial assets(shares). Once the intrinsic value is calculated applying appropriate valuation method, the intrinsic value is compared with the prevailing market price of the share. The security whose market value is lower as compared to its calculated intrinsic value is selected for investment purpose because such security is presently being undervalued by the market, but sooner or later the market will realize its real worth and its market value will reach to its intrinsic value and investor who were holding the undervalued security can sell such security and earn the profit out of such investment decision.

This research is a critique of investment decisions based on just one valuation multiple, majority times its P/E ratio. The reason being, the P/E ratio keeps on changing every day, it is based on a single variable i.e. profits per share only and it does not consider the time value of money. Under the P/E ratio guided investment decisions, select the company with a lower P/E ratio as compared to industrial P/E ratio try to earn profit by selling the security latter at high price when prices rise. but this practice can be useful to an extremely short-term investor like an intraday trader who invests their money for few hours or few days only. The long-term investor should use an appropriate valuation Framework which contemplates a comprehensive view of financial asset under consideration, while investing money for months or years or decades.

So, the study emphasizes applying a comprehensive framework which includes majorly influential variables from company, industry and economy, along with using appropriate valuation methods while investing in the shares of the company. So, the use of E-I-C Framework which integrates variables from the macroeconomic, industry, and company levels and lists variables to be considered while investing in the shares of manufacturing concern as well as service organization appears more appropriate. But many investors do not have time, energy or knowledge to carry out valuations or to frame E-I-C framework. This indicates that there is a need to investigate the best valuation method and identify variables to frame the E-I-C framework that can be used by a common investor while taking investment decisions.

Objective 4: Identify & study various Micro as well as Macro Factors affecting firm’s performance and thereby firm’s value.

The share price of the company is affected by company variables, the related industry’s variable, macroeconomic variables and sometimes by external variables also. So, attempts were made to list the variables that need to be considered while investing in the shares of the service industry and manufacturing companies. Two separate lists need to be suggested for manufacturing organizations and service organizations because they belong to two different sectors.

Micro and Macro variables that need to be tracked while carrying out valuation of service sector company are finalized based on case study of TCS & Infosys as well as based on responses of the survey study. In the present study, attempts were made to identify variables related to Information technology industry as well as from the Indian economy that needs to be considered while carrying out valuation. The micro & macro variables to be considered for valuation of service organization are Gross Domestic Production (GDP), Wholesale Price Index (WPI) and Size of industry in terms of Revenue amount.

Micro and Macro variables that need to be tracked while carrying out valuation of manufacturing company are finalized based on case study of Bajaj Auto Limited as well as based on responses of the survey study. In the present study, attempts were made to identify variables related to Automobile industry as well as from the Indian economy that needs to be considered while carrying out valuation. The micro & macro variables to be considered for valuation of manufacturing organization are Gross Domestic Production (GDP), Wholesale Price Index (WPI) and Size of industry in terms of Units produced.

It is observed that the share price of manufacturing companies like hero MotoCorp are highly affected by others also. So, the suggested micro & macro variables are not sufficient for taking an investment decision in the shares of such a company. The case study on Hero MotoCorp revealed that Global economic conditions, National and international policy changes, Strategic collaborations/Partnerships/Joint ventures of Company & Extra ordinary factors like Covid 19 Pandemic have significant influence on the share price movement of Hero Moto Corp. So, while investing in such an exceptional company, one should keep an eye on certain other factors along with variables finalized for E-I-C framework.

Objective 5: Ascertain the views of practicing accountants, company directors, security brokers, investors, auditors, members of the professional bodies and managers with regard to the utility of valuation models and their uses.

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. The answers given by respondents to all the questions were quantified in categories and converted into tabular form for further analysis. The findings are discussed in chapter four.

Objective 6: Contribute to evolving a commonly accepted useful valuation model.

The objective of the present study is to contribute to evolving a commonly accepted useful valuation model and to enable investors in taking guided investment decisions while investing in the shares of listed companies.

Literature review and survey study suggested the Discounted Cash flow (DCF) as the best valuation method, followed by Residual income Valuation model (RIV). However, the detailed case study on valuation of TCS, Infosys, Bajaj Auto and hero MotoCorp revealed that Residual income Valuation model (RIV) is the best suited valuation method for service provider companies while Discounted cashflow is identified as the best valuation method for Manufacturing company.

E-I-C Framework for Service Industry indicated that Shares price movement of service sector companies can be tracked accurately by tracking 4 variables i.e. Gross Domestic Production (GDP), Wholesale Price Index (WPI), Size (Revenue) of Industry and Residual Income of Company.

E-I-C Framework for Manufacturing Industry indicated that shares' price movement of manufacturing sector companies can be tracked accurately by tracking 4 variables i.e. Gross Domestic Production (GDP), Wholesale Price Index (WPI), Size (Revenue) of the Industry and Free cashflow of Company.

5.3 Further Research Scope

The research has provided greater understanding regarding the applicability and usefulness of the E-I-C framework while investing in the shares of listed Indian companies. It is to be noted that while selecting samples for the study, only those companies were considered for which company's Act is applicable. Further, the industries which are majorly import based, were not included because the purpose of the study was to study Indian economy in economy analysis. Lastly, FMCG (Fast Moving Capital Goods) companies were not included because the purpose of the present study is to restrict number of variables to be tracked while investing in the shares of the company for the ease of investing, but FMCG companies simultaneously deal with large number of goods due to which changes in sales and production of FMCG goods show offsetting effects, which creates difficulties in identifying the overall impact on the valuation of such FMCG companies with a limited number of variables. Future research can be carried out in these excluded industries as this would expand the horizons.

The following is the list of the areas for future research:

- Identify the best valuation method for Banks & Financial Institutions which attracts the bank law & not companies Act.
- Design E-I-C framework for Banks & Financial Institutions which attracts the bank law & not companies Act.
- Identify the best valuation method for the Oil and Gas Industry which is import based and is highly affected by the global economy.
- Design E-I-C framework for the Oil and Gas Industry which is import based and is highly affected by the global economy.

- Identify the best valuation method for FMCG (Fast Moving Capital Goods) companies which simultaneously deal with large number of goods which may be having offsetting effects on valuation of shares of the company.
- Design E-I-C framework for FMCG (Fast Moving Capital Goods) companies which simultaneously deal with large number of goods which may be having offsetting effects on valuation of shares of the company

5.4 Recommendations

Common investors generally take investment decisions regarding equity shares, by using P/E multiple or by following tips of experts. Sometimes they listen to the advice of friends & family members. However, such approaches can be used only for extremely short duration investment decisions like intraday trading. Hence, long-term investors are advised to apply some appropriate and comprehensive valuation tools while undertaking long term investment decisions involving big corpus.

Mass awareness needs to be created among investors regarding various valuation methods and effectiveness of E-I-C Framework while investing money in the shares of listed companies. For this purpose, the investors are suggested to join various investor education courses offered by SEBI (security Exchange board of India), BSE (Bombay security Exchange) and NSE (National Security Exchange) for getting basic idea about valuation if their educational qualification do not facilitate them to understand the concept of valuation of shares.

The case study of TCS (TATA Consultancy Limited) & Infosys facilitated in framing E-I-C variables to be considered while tracking the market price of service provider company, specifically information technology industry. The following are suggestions to investors of service provider companies.

- Employ Residual income Valuation model (RIV) for carrying out valuation of the service provider company. valuation helps to know the intrinsic value of the share; intrinsic value indicates the true value of shares of the company.

- Compare the intrinsic value of the security with its market price and select the securities whose market price is lower as compared to its market price because the security is presently underpriced, but the market will realize its real worth sooner or later. The investor can make profit by selling the shares when the market price reaches to its intrinsic value.
- Track E-I-C variables i.e. Gross Domestic Production (GDP), Wholesale Price Index (WPI), Size (Revenue) of the Industry and Residual Income of Company for getting an idea about the possible movements of shares prices of company because these variables have significant influence on the movement of share price.

The case study of Bajaj Auto & Hero MotoCorp facilitated framing E-I-C variables to be considered while tracking the market price of manufacturing company, specifically Automobile Industry. The following are suggestions to investors of manufacturing companies.

- Employ Discounted Cash flow (DCF) to carry out valuation of the manufacturing company. valuation helps to know the intrinsic value of the share; intrinsic value indicates the true value of shares of the company.
- Compare the intrinsic value of the security with its market price and select the securities whose market price is lower as compared to its market price because the security is presently underpriced, but the market will realize its real worth sooner or later. The investor can earn profit by selling the shares when the market price reaches to its intrinsic value.
- Track E-I-C variables i.e. Gross Domestic Production (GDP), Wholesale Price Index (WPI), Size (produced units) of the Industry and Free cashflow of the Company, for getting idea about the possible movements of shares prices of company because these variables have significant influence on the movement of share price.

Additional recommendation based on the case study of Hero MotoCorp the security price movement of which is highly influenced by other variables. The following are additional variables which can be tracked by the investors of such manufacturing companies.

- E-I-C Framework is not sufficient for tracking the movement of share price of Hero MotoCorp because the of share price of Hero MotoCorp is highly affected by such as Global economic conditions, National and international policy changes, Strategic collaborations/Partnerships/Joint ventures of Company & Extra ordinary factors like Covid 19 Pandemic. Thus, it is suggested that for manufacturing companies like Hero MotoCorp who are extremely influenced by external variables, identify and track the movement of external factor also, for efficient tracking of movement of security price.

5.5 Conclusion

Medium term & Long-term investment decisions, involving considerable amount of investment needs to be taken after proper analysis of the investment alternative. Undertaking equity investment decision just by consideration of single valuation multiple is not reliable. So, the common investor is advised to carryout valuation of share using appropriate valuation method and is also advised to track E-I-C variables for taking profitable investment decisions, that too at appropriate time.

This study concludes that for investing in shares of a service provider company, investors are advised to calculate intrinsic value using the Residual Income Valuation (RIV) model, which offers the most accurate intrinsic value estimates with minimal prediction error for service sector. This calculation aids in assessing whether the security is undervalued or overvalued. Once a suitable security is chosen, the next critical step is to determine the optimal timing for investment. This study also recommends that to gain insights into potential share price movements, investors should monitor four key variables as recommended by the E-I-C (Economic-Industry-Company) framework for service sector: 1) Gross Domestic Product (GDP), 2) Wholesale Price Index (WPI), 3) Size of industry (revenue), and 4) the company's residual income. By tracking these variables, investors of service provider companies can gain valuable indications of share price trends.

On the other hand, for investing in shares of a manufacturing company, investors are advised to calculate intrinsic value using the Discounted Cash flow (DCF) model, which offers the most accurate intrinsic value estimates with minimal prediction error for this sector. This calculation aids in assessing whether the security is undervalued or overvalued. Once a suitable security is chosen, the next critical step is to determine the optimal timing for investment. This study also recommended that to gain insights into potential share price movements, investors should monitor four key variables as recommended by the E-I-C (Economic-Industry-Company) framework for manufacturing companies: 1) Gross Domestic Product (GDP), 2) Wholesale Price Index (WPI), 3) industry production, and 4) the company's Free Cashflow. By tracking these variables, investors in manufacturing provider companies can gain valuable indications of share price trends.

However, The E-I-C analysis revealed E-I-C framework for Bajaj Auto is not applicable for Hero MotoCorp. Therefore, it can be concluded that Gross Domestic Production (GDP), Wholesale Price Index (WPI), Size of Automobile industry (production in Units) and Free Cashflow of the company are inadequate for tracking movement of share price of Hero MotoCorp. The share price of Hero MotoCorp has greatly reacted to the occurrence of other factors-global economic conditions, national and international policy changes, strategic collaborations/partnerships/joint ventures of company & extra ordinary factors like Covid 19 Pandemic. Thus, the study concludes that other factors must be tracked while investing in the shares 1of Hero MotoCorp.

Valuation methods for companies are numerous, but there is no universally agreed-upon method. The present study proposes sector specific accurate valuation method to improve precision and dependability. The intrinsic value, calculated using these sector-specific methods, represents the true worth of a company's shares, in contrast to the prevailing market price, which may not always reflect this reality. Making investment decisions without knowing the intrinsic value can result in significant losses. Based on the results from both case studies and survey, it is found that the Residual Income Valuation (RIV) method is the most accurate for valuing the stock of service provider companies, while the Discounted Cash Flow (DCF) method is more suitable for manufacturing companies. Once the security is chosen for investment, the next concern is to decide the appropriate time for buying or selling the chosen security based on intrinsic value. The appropriate timing for investment decisions can be determined by tracking the key variables that influence the movement of the company's share price. The results of the case study concluded that the price of 'Cyclical' or 'Industry-tied' company is significantly influenced by E-I-C framework variables i.e. Gross Domestic Product, Wholesale Price Index, Industry's Size in terms of Revenue or Production, residual income/free cash flow. So, for deciding appropriate timing for investing in the shares of such company, Gross Domestic product, Wholesale Price Index, Industry's Size in terms of Revenue or Production, residual income for service sector and free cashflow for manufacturing sector should be tracked. However, for companies which are 'Acyclical' and/or 'Sector-Agnostic' that neither rise nor fall in tandem with the general economic cycles or sector specific variables, the variables derived from the study are inadequate. The study suggests that for deciding investment timing for such 'Acyclical' and/or 'Sector-Agnostic' company, other factors such as global economic conditions, national and international policy changes, strategic collaborations/partnerships/joint ventures of company & extra ordinary factors like Covid 19 Pandemic should also be considered.

The present research supports multidisciplinary research and better integration of pragmatic ideas into financial education, therefore complementing the principles of NEP 2020. This study also provides a sector-specific list of indicators to track share price changes and recommends optimal valuation techniques for publicly traded companies, complementing the NEP's aim of fostering skill-orientation, industry-relevant skills, bridging the gap between industry and academia. Lastly, the combination of macroeconomic, industry, and firm-level studies, the E-I-C framework also opens new avenues of debates and research in this domain.

The present research offers a complete framework combining economic, industry, and company-level assessments, thereby improves valuation and financial analysis. It combines theoretical knowledge with market practices providing the analysts and investors with consistent tools for evaluation of intrinsic value that helps decision-makers to effectively evaluate the stock under consideration and take well-informed and profitable investment decisions enhancing market efficiency. In addition to these, it also provides useful sector-specific measures for tracking changes in share prices and helps to identify appropriate timing for execute the investment decisions.

In the present times numerous methods for carrying out the valuation are available but there is no unanimously accepted method suggested for valuation. The present study proposes sector specific accurate valuation method to improve precision and dependability, connecting theoretical frameworks with actual implementation in investment choices. The results based on case study and survey study suggested that for the most appropriate valuation RIV method is the most accurate for valuing the stock of service provider company whereas, DCF method is the most accurate for valuing the shares of manufacturing company. the intrinsic calculated based on the suggested methods indicates the real worth of the share of the company while the prevailing market value does not reflect the true value. The accurate valuation method helps the common investors to know the real value of their current or prospective investment. Any investment decisions without knowledge of true or intrinsic value may result into heavy losses to the investor.

While foregrounding this research through literature review it was observed that there is paucity of study in on the topic of valuation using E-I-C framework. Moreover, the available studies solely concentrated on P/E ratio imparting negligible emphasis on bringing together the variables related to economy and industry to evaluate their influence on the share price movement of the company. Further, it also provides a sector-specific list of factors for tracking changes in share prices, providing a tailored approach to valuation for different companies. The present study demonstrates how the Economic-Industry-Company (E-I-C) framework is integrated to link macroeconomic, industry-specific, and company-level aspects in valuation to create a totalitarian approach. Thus, the study emphasizes the realistic significance of valuation methodologies by correlating them with investor decision-making ensuring educational and practical relevance.