

Synopsis for the thesis entitled-

Valuation Using E-I-C Framework: An Analytical Study of Select Listed Indian Companies

‘The value of all things lies in their utility- that which does not serve a purpose is insignificant.’

-Chanakya

The above lines underscore the fact that the true value of any object is contingent upon its utility. An object is deemed of minimal importance or value if it lacks a clear purpose or utility.

Introduction

A rational human being would always wish to accumulate enough wealth, so that s/he can meet all personal requirements and that of the family too. Generally, a person can create funds or wealth through earning and saving. Normal human being understands the importance of wealth but fails to understand the role of saving and investment in wealth generation. A common man earns and spends on his/her revenue needs & capital needs. Surplus, if any, left after meeting his/her and family’s needs is called ‘savings’. Rightly told by Warren Buffet, “If you want to become wealthy, you must allocate some of your current earnings towards the future (friedberg).”

However, saving alone can’t serve the purpose but, its productive investment makes the difference. For better returns, the savings need to be converted into investment. However, converting savings into investment is a thoughtful process; this fact is correctly reflected in the quote given by George Soros ‘If investing is entertaining, if you’re having fun, you’re probably not making any money. Good investing is Boring (Dodds).’

Investment process is carried out by investor. According to oxford living dictionaries investor is, ‘A person or organization that puts money into financial schemes, property, etc. with the expectation of achieving a profit (Oxford).’ While doing investment an investor faces risk. Risk refers to the chance of actual outcome being different from expected outcome. Based on risk facing capabilities there are three types of investors-Risk Averse, Risk Neutral and Risk Taker. Most of investors fall in the category of Risk Averse i.e. those who avoid risk or those who go for calculated risk. So, the risk averse investor needs to be careful while investing money because s/he may lose

some or all of his/her money in the process of investing. In past many financial scams have taken place all over the world, some of the well-known financial scam that took place in India are Harshad Mehta case, Ketan Parekh scam, Satyam Scam and so on. All such scams have shaken the confidence of investor. Therefore, first of all the investor needs to understand that, s/he should put in efforts to know the facts relating to chosen investment because the flawed assumptions while making investment can be disastrous. Secondly, there is a direct relationship between return & risk, which means for higher expected returns an investor, should be ready to bear higher risk. Finally, Flawed assumption & risk together result in uncertainty about the result of investment. According to M. Taylor, 'Uncertainty is not a result of ignorance or the partiality of human knowledge, but is a characteristic of the world itself (Jaap de Jonge).'

For making investment, an investor has so many investment opportunities available, ranging from least risky like bank deposits to most risky i.e. equity share. If an investor wants to invest in a company, s/he can do so by contributing to owner's funds or debt funds of the company. When funds are provided in terms of Shares, to the extent of fund provided by him, an investor becomes 'owner of the company'. Being owner of the company, they take maximum risk. On the other hand, if funds are invested through debentures, bonds, loans or public deposit etc, the fund provider is known as 'debt fund provider'. Being debt fund provider, investor take less risk as compared to equity owner, still risk prevails. Warren Buffet has quoted that 'Risk comes from not knowing what you are doing (Michael Johnston)' so, while investing, an investor would always like to know whether s/he is making proper choice.

For choosing a proper investment opportunity an investor may refer to tips or recommendations given by various parsons & professionals in the financial market. Predictions made in the Financial Market like, 'The particular business is not much popular among the investors right now, but it will soon spread its charisma' or 'A particular business is on its top right now but will not be able to sustain its position in near or far future', may create wonders in the mind of investors, the answer to their curiosity is 'value'. Warren Buffet explains value in simple words, 'Price is what you pay & value is what you get (Michael Johnston).' Value is futuristic and not historic, because valuations are done by determining the present value of future benefits. Once Warren Buffet said, 'If past

history was all that is needed to play the game of money, the richest people would be librarians (town, n.d.).’

So, for the purpose of picking up proper investment opportunity investor needs to know the real value or worth of a company. Real value can be calculated by carrying out valuation process. Damodaran suggests objective of valuation is to determine how much something is worth so that the investor does not pay more than the asset is worth (Damodaran, 2005). Valuation of a firm or security can be carried out using three approaches named as Cost Approach, Market Approach & Income Approach. Income approach is widely used among all the three Approaches because it is more realistic & it considers revenue of the company. Valuation under income Approach can be done through many methods such as Dividend Discount Model, Free Cash Flow Model, Residual Value Model, Relative Valuation Model etc (Jerald E. Pinto, 2010). Application of valuation method helps in knowing real value of security or company.

However, while calculating real value of any company, it’s not enough to consider all aspects of company only. This is because, the performance and value of any company is also affected by the industry-which it belongs to and economy & security market - which it is operating in to. All these information relating to economy, industry & company which is to be used by various valuation methods as input can be collected through fundamental Analysis (Chandra, 2005). Fundamental Analysis can be done using Economy-Industry-Company(E-I-C) frameworks (ICFAI, 2005), Real value calculated through fundamental analysis is known as intrinsic value.

The study is intended to review & understand various methods for calculating intrinsic value and suggest appropriate Valuation method for calculating intrinsic value and suggest a list of variables for E-I-C framework that are to be tracked for understanding the movements of market price of listed company. The study has used E-I-C framework of fundamental Analysis for calculating intrinsic value so that based on this real value, the stake holders can take decision on guided investment.

Rationale of The Study

Traditionally good numbers of people are already investing in capital market and this population of investors is increasing with recent developments like globalisation, higher growth rate of economies, introduction of screen-based trading system and a variety of efforts put in by various statutory as well as non-statutory voluntary organisations for promoting investment. Over and above company itself, all its financial investment decision makers such as investors, fund providers or other stake holders also seek information as well as analytical help from the accountants because accurate investment decision needs to be supported by comparison of intrinsic value/ real value with market price of financial asset as well as firm in which money is invested.

Till date numbers of different valuation models have been suggested by researchers, social scientist as well as professionals to determine the intrinsic value of the shares as well as firms based but still a generally accepted approach is yet to be seen, as all the models/approaches for valuation have their own limitations. All the models emphasise only few aspects and none of these models appears to be having the qualities to enable to fit into all situations and varied organizations. Therefore, there is a need to study the theoretical underpinnings of method of valuation of equity shares as well as value of firm. This study seeks to fill this gap and evaluate the different approaches proposed for the valuation financial assets as well as firm by considering influential factors related to Economy, specific industry & company itself affecting valuation and its reliable use with insinuation in investment decision.

Objectives of The Study

The main objective of this research endeavour is to carry out a systematic study of various valuation models for valuing securities and study important aspects related to valuation of Financial Assets (equity shares) as well as firm with a view to integrate both, qualitative as well as quantitative measures and understanding the valuation practises. Specifically, the study seeks to:

- i. Expound the theoretical understanding of different approaches to the measurement of value of Financial Assets.
- ii. Document the valuation practises of select Indian corporate.
- iii. Ensure the objectivities of financial assets valuation practises followed by Indian Investors.
- iv. Identify & study various Micro as well as Macro Factors affecting firm's performance and there by firm's value.
- v. Ascertain the views of practising accountants, company directors, stockbrokers, investors, auditors, members of the professional bodies and managers with regard to the utility of valuation models and its uses.
- vi. Contribute to evolving a commonly accepted useful valuation model.
- vii. To identify the areas wherein future development on the subject has taken place.

Research Methodology

To study the use of economy-industry-company approach for the fundamental Analysis, this research work is divided into three parts.

Part One

This part of the research has identified the companies to be considered for study and also examines the historical development in the field of individual security as well as firm's valuation & different approaches emerged. It examines the various valuation methods in general & fundamental Analysis in particular, used or practised as well as variables considered in valuation by Indian companies. This part deals with examining emergence & acceptance of economic, industry & company approach in valuation. Further, it studies acceptance & practice of this approach in financial market in India by different corporate.

In the first phase, no systematic record available of the companies practising valuation of shares. There is no compulsion on the part of companies to record and communicate valuation data because it is purely on the discretion of a company to carry out and communicate the information related to valuation of its shares. So, it is very difficult to collect the information about the Indian companies carrying out valuation of their own shares. However, valuation of the shares of the

companies are being carried out by valuation agencies/ companies who are engaged in the business of carrying out valuation and submit it to the clients, the client may be the company itself whose valuation is being carried out and sometimes investors also get such valuation done from the valuation agencies. To help such investor in taking guided equity investment decision by enabling them in carrying out valuation of the shares of the company on their own, in-depth case study of 4 Indian listed companies were carried out.

The purpose of case study is to suggest best valuation methods for Indian listed company and develop E-I-C framework that indicate the variables from economy, industry & company that should be tracked for tracking the share price movement of listed Indian companies. The companies, industries and economy were finalised as per screening procedure.

- Economy Analysis: The purpose is to suggest the variables to be tracked for tracking the movement of listed Indian companies. So, the Indian Economy is selected for carrying out economy analysis.
- Industry analysis: The purpose is to suggest the industry variables to be tracked for tracking the movement of listed Indian companies. So, one Service Industry and one Manufacturing Industry is selected for industry analysis.
- Company analysis: The purpose of company analysis is to suggest the best valuation method for carrying out valuation of Indian listed company. The industry analysis is done for one service industry and one manufacturing industry. So, two companies presenting same product line are selected from the above finalised service industry and manufacturing industry each.

After identifying the companies for case study, the method for carrying out valuation of company and the variables to be tracked for economy & industry analysis were finalised based on extensive literature survey.

Part Two

This part of the research endeavour deals with in-depth case study analysis in order to understand the cause & effect relationship of variables used in valuation practices with the financial

performance of company, the case study approach has been selected. For the reason, the paucity of data does not permit the empirical analysis Merriem suggested that case study design is pertinently employed to gain understanding and meaning in a given situation, rather than to test certain variables. The main focus is not on confirmation but, on innovating a new process and the utility of the process itself.

For the case study analysis, Indian companies representing different industries have been elected.

Present study short listed following 4 companies.

1. Tata Consultancy Services Ltd (Information Technology Industry)
2. Infosys Ltd (Information Technology Industry)
3. Bajaj Auto Ltd (Automobile Industry)
4. Hero MotoCorp Ltd (Automobile Industry)

Here, TCS & Infosys belongs to Information Technology Industry, which is taken as representative of service sector, while Bajaj Auto & Hero MotoCorp belong to Automobile Industry which is taken as representative Manufacturing sector.

After carrying out valuation of company under consideration, company's Economic analysis & industry analysis was carried out to finalise the list of highly influential variables that are advised be tracked for tracking the movements of share price of company. Finally, E-I-C framework is design using results of all 4 case studies.

The case study analysis is carried out covering the period of 10 years. To investigate the validity, objectivity & efficiency of the valuation model adopted by professional agencies firm. The study is carried out by analysing the behaviour of all important variables and components used for the valuation of security as well as firm. The variables considered for company analysis are:

- I. Revenue of Company
- II. Equity Dividend
- III. Operating Profit
- IV. Dividend & Residual Earnings

- V. Cost of Capital
- VI. Cost of Equity
- VII. Share Capital
- VIII. Market Price Per Share

The variables considered for industry analysis are:

- I. Size of industry based on revenue
- II. Size of industry-based or unit produced
- III. Domestic sales of the industry
- IV. Exports of the Industry

The variables considered for industry analysis are:

- I. Gross Domestic Production (GDP) of India
- II. Index of Industrial Production (IIP) of India
- III. Wholesale Price Index (WPI) of India
- IV. Exchange Rate (US\$/₹) (at Constant price)
- V. Crude Oil Prices per barrel for Indian Basket (at Constant Price)

Techniques of Analysis

The case study analysis is carried out to establish the relationship of valuation of equity with variables listed as above. The case study analysis is carried out using the following basic Statistical techniques:

- i. Behavioural Analysis
- ii. Growth and Volatility Analysis
- iii. Bivariate Analysis
 - Simple Correlation
 - Regression Analysis
- iv. Mean Absolute Error (MAE)
- v. Mean Absolute Percentage Error (MAPE)
- vi. Mean Squared Error (MSE)
- vii. Root Mean Squared Error (RMSE)
- viii. ANOVA

ix. Multiple Regression Analysis

Data Source

Secondary data

In order to fulfil the objectives of the study, we need information regarding different models and variables to be used in these models to ascertain the valuation of security as well as firm. Therefore, in this study Secondary Data will be collected from the Annual Reports Published by company, Stock Exchanges, RBI (Reserve Bank of India), Ministry of Finance, SEBI (Security Exchange Board of India), & (NSE) National Stock Exchange, Yahoo fiancé.

Primary data:

The Primary data is collected through Questionnaire sent through E-mail and Post.

Part Three

This part of the study deals with the qualitative analysis. Efforts are made towards contributing to evolving a commonly accepted useful valuation model on the basis of the results of case study analysis and questionnaire survey.

During Literature review, it has been observed that, no unanimously suggested valuation method is available for the shares of the listed company. Further, literature review also revealed that different studies have suggested different variables for economic analysis and company analysis and collectively it results into a very long list of variables to be tracked by a common investor. The task of tracking such a large number of variables is very challenging and time-consuming. Chapter 3 includes the Case studies which are carried out using frequently studied variables rather than including all the variables in E-I-C framework. The Case study has suggested the best valuation method and also suggested a small list of variables to be tracked under E-I-C framework. Probably, this is the first study of this kind, so, it is very necessary to take views and opinions of experts on valuation model to be used and variables to tracked while investing in the shares of listed Indian company.

Hence, in order to collect the views of financial analysts, valuation agencies, directors, professionals, executives and academicians working with the related discipline, on the present practices, awareness and practicability of objective valuation and selection of right security a questionnaire is used.

The questionnaire was sent to 62 financial analysts, valuation agencies, directors, professionals, executives and academicians working with the related discipline. The sample was selected using a non-probability sampling strategy, specifically the purposive sampling method.

The questionnaire is divided into 4 parts, the first part dealt with collection of information about Demographic profile of respondents. The conceptual knowledge of the respondents on important share valuation determinants was evaluated in part Two. This part has 14 questions relating to various terms & variables used in valuation of shares. Respondents were requested to rate their understanding on the various terms of valuation with a series of questions. The answers for this question ranged from ‘Excellent’ to ‘Very Poor’ on a five-point scale representing conceptual clarity on the term. Here, 5 scales were as follows.

1	2	3	4	5
Very Poor	Poor	Average	Good	Excellent

For the further analyses, the five categories were rearranged into three categories by merging the two outside (extreme) categories: ‘Excellent’ and ‘Good’ into ‘adequate’ while ‘Poor’ and ‘Very Poor’ into ‘Poor’. The category of ‘Average’ is kept as it is.

The third part comprised of 22 questions, out of which 6 questions are dichotomous (Yes/No) questions that addressed characteristics pertaining to variables applied in company analysis were asked. While other 16 questions were Likert scale questions designed to assess the importance of individual variables within the framework of industrial and economic analysis as well as other variables. Similarly, Part 4 analyzed the composite impact of variables in the four categories: Economic, Industry, Company, and Other Relevant variables. Here, in part 4, four overall evaluation statements were asked. Answers to Part three and part four ranged from ‘Extremely

Recommended’ to ‘Strongly not Recommended’ on a five-point Likert scale. Five scales for part 3 & part 4 were as follows.

1	2	3	4	5
Strongly not Recommended	Not Recommended	Neutral	Recommended	Strongly Recommended

For the further analyses, the five categories were rearranged into three categories by merging the two outside (extreme) categories: ‘Strongly Recommended’ and ‘Recommended’ into ‘Recommended’ while ‘Not Recommended’ and ‘Strongly not Recommended’ into ‘Not Recommended’. The category of ‘Neutral’ is kept as it is.

The responses are analyzed in percentage of the total 62 responses. For Some questions study has used drop-down box questions that allow respondents to choose more than one options from a certain set of choices. In the case of drop box questions, the responses received are more than the number of respondents i.e 62 because each respondents were allowed to make choice of more than one option simultaneously.

Techniques of Analysis

The responses of survey study are analysed using the following basic Statistical techniques:

- I. Cronbach Alpha
- II. Test of validity
- III. Descriptive analysis
- IV. Factor analysis

Research Outline

Including the introductory chapter the study will span over six chapters.

Chapter One deals with the introductory part of the research work introducing the topic and key terms, rational, and objective of study, methodology used for research & also spells out plan of the study.

Chapter Two deals with theoretical foundation and historical developments in valuation of securities by discussion different models developed for the valuation of shares of the company in the present global competitive market. A review of literature for this study has been subdivided in four major parts; i) Journey of term ‘Value’, and Valuation Approaches for equity shares ii) Economy Analysis, Industry Analysis, & Company analysis. iii) Various ways and various Methods for valuation of company through fundamental analysis iv) E-I-C framework

Chapter Three deals with the case study analysis with a view to understanding the processes & issues underlying the valuation practises and applicability of E-I-C framework. For this purpose, case study of 4 Indian listed companies is conducted. Here, out of total 4 companies, 2 are from Information Technology Industry and 2 are from Automobile industry. In the present study, Information Technology Industry is taken as representative of service sector and Automobile industry is taken as representative of Manufacturing sector. The purpose of case studies is to suggest best valuation method and E-I-C framework for service sector and Manufacturing sectors.

Chapter Four seeks to gain insight from the Executives, Professionals & Academicians on the Valuation Practises, shortcomings as well as to have suggestions& recommendations in framing the Commonly Accepted Valuation Model. The basic purpose of this exercise is to have collective opinion from the senior & experienced professionals and executives dealing in the decision making related to different corporate issues demanding valuation of equity, this part of the study focuses on collecting& analysing opinions through a survey method, the empirical analysis is carried out with the help of categorical & qualitative opinion collected with the help of well-designed instrument.

This part of the study focuses collecting and analysing opinions received from the respondents through a survey method. The empirical analysis has been carried out with the help of the categorical and qualitative opinion collected by circulating the questionnaire. For framing the questionnaire, questions related to the respondent’s profile, conceptual clarity of respondents on valuation terms, significance of individual factors from economy, industry, company & other variables and statements assessing significance of overall sector of economy, industry, company & other variables were framed.

The objective is to get views and ideas of respondents about the valuation of shares and E-I-C variables. On the basis of responses and information collected through the survey, data have been analysed to suggest the best valuation model and frame E-I-C framework. This task is completed with the help of the results of case study of 4 listed Indian companies in Chapter 3 and the opinion collected and analysed based on survey method in the present chapter.

Chapter six summarises the findings of the proposed research study and suggests certain policy recommendations. At the end of the chapter, further areas of research on the valuation of shares and E-I-C framework have also been highlighted.

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