Saurashtra University
Re – Accredited Grade ‘B’ by NAAC
(CGPA 2.93)

Vyas, Vijay H., 2008 , *An Effect of Merger on Financial Performance of Corporate Sector in India,* thesis PhD, Saurashtra University

http://etheses.saurashtrauniversity.edu/id/eprint/109

Copyright and moral rights for this thesis are retained by the author

A copy can be downloaded for personal non-commercial research or study, without prior permission or charge.

This thesis cannot be reproduced or quoted extensively from without first obtaining permission in writing from the Author.

The content must not be changed in any way or sold commercially in any format or medium without the formal permission of the Author

When referring to this work, full bibliographic details including the author, title, awarding institution and date of the thesis must be given.

Saurashtra University Theses Service
http://etheses.saurashtrauniversity.edu
repository@sauuni.ernet.in

© The Author

“AN EFFECT OF MERGER ON FINANCIAL PERFORMANCE OF CORPORATE SECTOR IN INDIA”

SUBMITTED BY:

VYAS VIJAY H.

ASSISTANT PROFESSOR

R.K. COLLEGE OF ENGINEERING & TECHNOLOGY

(M.B.A. PROGRAMME), RAJKOT

FOR:

THE AWARD OF

DOCTOR OF PHILOSOPHY IN MANAGEMENT

UNDER THE FACULTY OF MANAGEMENT

A THESIS SUBMITTED TO:

SAURASHTRA UNIVERSITY, RAJKOT

UNDER THE GUIDENCE OF:

DR. PRATAPSINH L. CHAUHAN

PROFESSOR, HEAD &DEAN

DEPARTMENT OF BUSINESS MANAGEMENT

SAURASHTRA UNIVERSITY, RAJKOT-360005

DECEMBER 2008

STATEMENT – I

I here by certify that the thesis entitled **"AN EFFECT OF MERGER ON FINANCIAL PERFORMANCE OF CORPORATE SECTOR IN INDIA"** Submitted by **Mr. VIJAY H. VYAS** for the award of the Degree of Doctor of Philosophy in Management in the faculty of Management, is based on the research work carried out by him is original and is carried out under my guidance and supervision. To the best of my knowledge, it has not been submitted for any other degree, diploma or distinction by either Saurashtra University or any other University.

Place: Rajkot

Date:

DR.PRATAPSINH L.CHAUHAN

Professor, Head & Dean

Department of Business Management

Saurashtra University

Rajkot-360005

STATEMENT – II

I hereby declare that the thesis entitled **“AN EFFECT OF MERGER ON FINANCIAL PERFORMANCE OF CORPORATE SECTOR IN INDIA”** Submitted by me for the Degree of Doctor of Philosophy in Management under the faculty of Management, is my original work and that it has not been submitted for any other degree, diploma or distinction by either Saurashtra University or any other University.

(Vyas Vijay H.)

STATEMENT – III

The title of my thesis is: **"AN EFFECT OF MERGER ON FINANCIAL PERFORMANCE OF CORPORATE SECTOR IN INDIA"** The study is based on secondary data about merger in India .The main source of data is the CMIE i.e. "Center for Monitoring India Economy" (PROWESS) and Capitaline Database. Supplementary data and other information have been collected from Economic Times, Financial Express, other periodicals, journals and from articles by various authors.

(Vyas Vijay H.)

ACKNOWLEDGEMENTS

A successful completion of a research work, especially of the Ph.D calls for intellectual nourishment, valuable guidance and professional help, selfless cooperation, encouragement, support and blessings from god.

I am greatly indebted to my guide, Dr. Pratapsinh L. Chauhan, Professor, Head & Dean, Department of Business Management, Saurashtra University, Rajkot, who encouraged, supported and guided me throughout my research work. Inspite of heavy pre-occupations provided his valuable time during this study period and guided me with his constructive comments, constant advices and valuable suggestions at each stage of the study and helped me to complete this research work successfully.

I am grateful to Dr.D.C Gohil, Professor and head, Department of Commerce, Saurashtra University, Rajkot for providing me an assistance, support and guidance.

I am thankful to Dr. Sanjay Bhayani, Associate Professor, Department of Business Management, Saurashtra University, Rajkot for guiding me through various stages of my research including data collection and statistical Analysis.

I acknowledge wholehearted support from my elder brothers, Dr.Parimal H. Vyas for giving valuable inputs and suggestions and Dr. Uday H. Vyas for computational work, type setting and computerization of work.

For the blessing and best wishes from H’ble shri Khodidasbhai Patel, Chairman,shri Ranchodbhai Patel,H’ble vice chairman and trustees of R.K.Group of Colleges.

I also express thanks to Prof. (Dr) N.S. Rao, Prof. (Dr) S.K.Bhatt and Prof. (Dr) T .D. Tiwari for encouragement and support.

I express my gratitude to my colleagues for extending their support for my research work. As specially from Mr. Ashvin Solanki for his continuous support

I will be failing in my duty if I do not acknowledge my deep indebitness to my parents Hariombhai and mother Padmaben for their encouragement, support and blessings without which this study would not have been possible.

I acknowledge the patience and assistance of my loving wife Ami and son Tanmay during my study time when this research work occupied my attention and free time.

This list is almost incomplete and I am grateful to all those who have helped me directly and indirectly in my research work.

Place: Rajkot

Date **VYAS VIJAY H.**

PREFACE

As per current scenario corporate restructuring is one of the most widely used strategic tools. In daily news we come a cross frequently with the headlines of merger, acquisitions, takeover, joint venture, demerger and so on. Since last two decades as especially after, the liberalization and consequent globalization and privatization have resulted into tough competition not only in Indian business but globally as well.

The main objective of any company is profitable growth of enterprise to maximize the wealth of its shareholders. Further, to achieve profitable growth of business it is necessary for any company to limit competition, to gain economies of large scale and increase in income with proportionally less investment, to access foreign market, to achieve diversification and utilize underutilized market opportunities. In order to achieve goals, business needs to remain competitive and work towards its long term sustainability. Corporate restructuring has facilitated thousand of companies to re-establish their competitive advantage and respond more quickly and effectively to new opportunities and unexpected challenges. Under different dynamic situations as laid above, a profitable growth of business can achieved successfully if as a strategic tool merger is adopted. The most remarkable examples of growth and often the largest increases in stock prices are a result of mergers and acquisitions. M&A’s provide tremendous opportunities for companies to grow and add value to stake holder’s wealth. M&A’s increase value and efficiency and thereby increase holders value. M&A’s is a generic term used to represent many different types of corporate restructuring exercises.

In order to avoid difficulties it is necessary to carry out initial investigation in various areas like growth potential, profitability, strength in terms of skills and capabilities, financial projections of the impact and value of merger, etc., need to be systematically thought out and planned.

The main objective of any merger activity is profitable growth of business to maximize wealth of its stakeholders. The trend towards globalization of all national and regional economies has increased the intensity of mergers, in a bid to create more focused, competitive, viable larger players, in each industry. If an industrial want to survive, it has to excel and compete successfully both with multinational competitors in internal as well as international markets. Merger of companies are implicit in free enterprise system because of their obvious advantages infusion of better management and healthy growth of capital market. Thus, the concept of merger has assumed greater significance as offering number of opportunities.

This research study is divided into six chapters. First chapter is on the introduction. The second chapter covers conceptual framework of corporate restructuring. There are considerable changes in accounting aspects relating to merger, accounting standards and legal acts like in Companies Act 1956; FERA1973 has been replaced by FEMA 1999, in MRTP Act etc. This chapter also covers laws relating to merger in UK and USA as well. Third chapter tells all about the review of literature based on study conducted on this subject and it’s related by numbers of researchers in India and abroad in different countries. Forth chapter is of research methodology. Basically three financial tools like RONW, MVA and EVA are covered along with certain ratios for study. Fifth chapter is about analysis of selected mergers in manufacturing industries at company and industry level. Finally, sixth chapter is all about findings, suggestions and conclusions. The Bibliography shall be followed by these chapters.

Place: Rajkot

Date: **VYAS VIJAY H.**

INDEX

CHAPTER NO.	PARTICULARS	PAGE NO.
1	Introduction	01
2	Conceptual Framework: Mergers & Acquisitions	18
3	Review of Literature	142
4	An analysis of Economic Value Added based on Mergers & Acquisitions	220
5	An analysis of financial performance	257
6	Summary, Findings and Suggestions	294
	Bibliography	304

LIST OF TABLES

SR. NO.	TITLE	PAGE NO.
1.1	No of M&A Announcements in India : 1988-1998	04
1.2	Industry wise classification	10
2.1	Different forms of corporate restructuring	23
3.1	Impact of merger on economy	163
3.2	Abnormal Returns for Target and Bidder Shareholders surrounding UK Takeover Announcements.	165
3.3	Post Merger Performance of Acquires	165
3.4	Financial Characteristics of Acquirrees	185
3.5	Financial Characteristics of Acquirers	187
3.6	Steven’s Ratios for 40 Acquired Firms and 40 Non Acquired Firms	189
3.7	Merger Motives, Variables and Hypotheses	190
4.1	Differences Between Accounting Profit and Economic Profit	226
4.2	Broad Adjustments to be made to NOPAT and Capital	235
4.3	Differences Between EVA and DCF/ NPV Models.	244
4.4	Valuation of Business : EVA and DCF Models	245
4.5	Performance Trend : With EPS	247
4.6	Performance Trend : With EVA	247
4.7	Some Measurement Issues in EVA	253
5.1	RONW & intra company comparison	258
5.2	MVA & intra company comparison	261
5.3	EVA & intra company comparison	263

5.4	Intra company Analysis with Value Added Metrics	265
5.5	Inter company Analysis with RONW,MVA, EVA	267
5.6	Inter company Analysis with Value Added Metrics	273
5.7	Inter-industry comparison using RONW,MVA, EVA,	274
5.8	Inter Industry Analysis with Value Added Metrics	276
5.9	Intra Industry comparisons using RONW,MVA, EVA,	278
5.10	Industry –wise additional Analysis :Correlation results	282
5.11	Independent & Dependent variables – Regression analysis	289

LIST OF CHARTS

SR. NO.	TITLE	PAGE NO.
1.1	No of M&A Announcements in India	04
3.1	Survey of studies on merger	145
4.1	The EVA Spectrum	234
4.2	EVA drives MVA	251
4.3	Relationship between EVA and MVA	252

LIST OF ABBRIVATIONS

M&A	- Merger & Acquisition
GAAP	- Generally Accepted Accounting Principles
NPV	-Net Present Value
DCF	-Discounting Cash Flow
PBIT	-Profit Before Interest and Tax
EBITDA	-Earning Before Interest, Tax, Depreciation and Amortization
PAT	-Profit After Tax
CE	-Capital Employed
PBT	-Profit Before Tax
CMIE	-Central for Monitoring Indian Economy
NW	- Net Worth
P/E ratio	- Price Earning Ratio
D/E ratio	-Debt/ Equity Ratio
CA/ CL	-Current Assets / Current Liabilities
MRTP Act	-Monopolies and Restrictive Trade Practices Act
SICA	-Sick Industrial Companies Act
FERA	-Foreign Exchange Regulation Act
IDRA	-Industrial Development and Regulation Act
FEMA	-Foreign Exchange Management Act
BIFR	-Board for Industrial and Financial Reconstruction
ICAI	-Institute of Chartered Accountants of India
EVA	-Economic Value Added

MVA	-Market Value Added
RONW	-Return on Net Worth
NOPAT	-Net Operating Profit after Taxes
COCE	-Cost of Capital Employed
EPS	-Earning Per Share
MNC	-Multi National Corporation
SEBI	-Security Exchange Board of India
Sec.	-Section
WACC	-Weighted Average Cost of Capital
ROI	- Return On Investment
NIBCL	- Non Interest Bearing Current Liabilities
R&D	-Research & Development
LIFO	-Last First Out
FIFO	- First In First Out

CHAPTER - 1

INTRODUCTION

CHAPTER – 1

INTRODUCTION

- Introduction
- Significance of the study
- Objectives of the study
- Hypothesis of the study
- The sample and data collection
- Tools and techniques for analysis
- Study plan
- Limitations of the study
- References

INTRODUCTION

The main objective of any company is sustainable growth of business to maximize the wealth of its stakeholders. Due to liberalization, privatization and globalization the competition in Indian business market becomes very tough. This leads the necessity for small and medium size companies to reduce competition, expansion of business, modern technologies with less investment. This is possible by way of corporate restructuring in the form of merger, acquisition, takeover, consolidation, reverse merger, demerger etc.

One of the significant objectives of any sovereign is to achieve high rate of economic growth. For achieving this, it keeps reviewing and improving its policies from time to time and introduces various measures, both at micro and macro levels. It also requires various regulatory measures to channelise all economic efforts to achieve its social and economic objectives and to prevent unhealthy practices entering in to its economic system which is detrimental to public welfare.

In pursuance of these objectives, restrictions in India were placed on the corporate sector as per the provisions of various laws and regulations like Monopolistic and Restrictive Trade Practices, Industrial licensing policy etc. The MRTP Act 1969, placed restrictions on the expansion of an enterprise, establishment of new enterprise, division of undertakings, consolidation of undertakings and acquisition and transfer of shares of undertakings in order to check concentration of economic power, control the growth of monopolies and prevent various restrictive trade practices likely to result from operation of economic system. The provision of FERA, 1973 placed restrictions on foreign investments in the country. These restrictions remained in vogue for over two decades and proved incompatible in keeping pace with the global economic developments to achieve the objective of faster economic growth. So, the government had to review its entire policy framework and initiate economic liberalization measures.

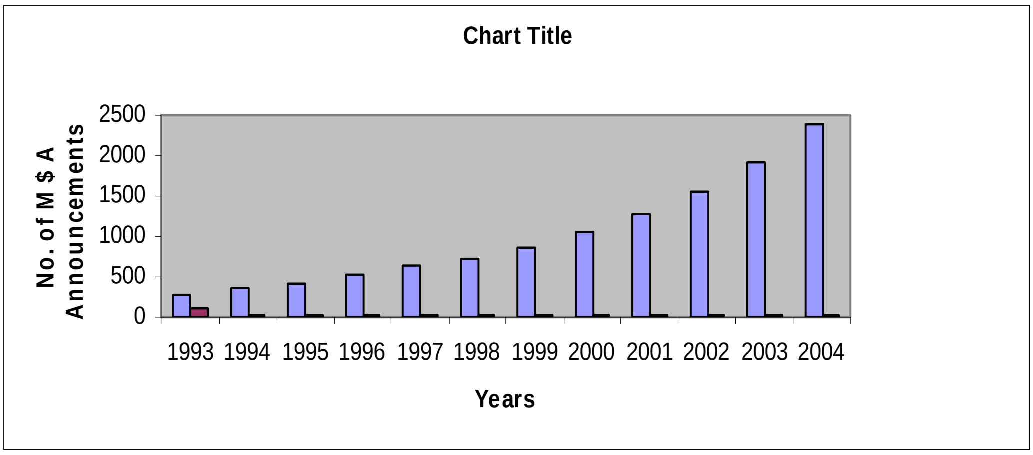
Though government began initiating steps towards liberalization in the post 1985 period, the real opining up of the economy started wit the statement on industrial policy made in June 1991. This statement indicated continuity with change, the main thrust being on relaxation in industrial licensing, foreign investments, transfer of foreign technology and monopolies and restrictive trade practices laws. Since1991, there have been many industrial and economic reforms which have striven to clear the obstacles to faster the industrial development. MRTP Act has been amended and most of the sections restricting the expansion of company's have been deleted. Changes have also been made in FERA to permit foreign direct investment. The new Act, Foreign Exchange Management Act, 1999 (FEMA) has been introduced. Industrial licensing has been abolished in almost all industries.

Table 1.1

Number of M & A Announcements in India: 1992-2002

YEAR	Number of M & As	Percentage
1992	135	-
1993	288	113.30
1994	363	26.00
1995	430	18.50
1996	541	25.80
1997	636	17.60
1998	730	14.80
1999	864	18.40
2000	1062	22.92
2001	1279	20.40
2002	1558	21.80
2003	1905	22.46
2004	2376	24.72

Chart:- 1.1 Number of M & A Announcement in India



SIGNIFICANCE OF THE STUDY

Indian economy is currently witnessing a sea change from the controlled to the market driven environment. Increasing shareholder values is the golden rule which Indian corporate are increasingly focusing on, as a means and end to survive and grow under the fast changing economic scenario. Merger and acquisition activity has become a part and parcel of the corporate and professional life. M&A is a sporadic event and there is very little scope for companies to learn from their past experience. Therefore, to determine the success of a merger, it has to be ascertained if there will be any economic gain from mergers. Post-merger economic gain will be generated only if the two companies are worth more together than apart. The basic motive of M&A can be understood as an attempt to create value. There are many reasons that appear to apply to each merger. Among the explanations offered at various times has been exploitation of economies, synergy, acquisition of market share, growth, diversification, tax advantage etc. Most mergers are controlled by multiple motives rather than single a one. However, many motives are characterized as having a hidden agenda (not expressed) or fake motive (intending to mask real ones). Many motives may not be consistent over time but shift, change character, emphasis and priority in the course of time.

An acquisition involves acquiring ownership in the tangible and intangible assets of the business. An acquisition is the purchase, by the company of the controlling interest in the share capital of an existing company. When a company is acquired by another company, the acquiring company has two options: The first is to merge both the companies into one and operate as single entity and the second is two operate the takeover company as an independent entity, may be with changed management and changed policies. The first option is known as merger and second option is known as takeover.

The merger has been defined as arrangement whereby the assets of two or more companies become vested in, or under the control of one company (which may or may not be one of the original two companies), which has its shareholders, all or substantially all the shareholders of the two companies. It may also include fusion of two or more companies in to another.

In a merger one of the two existing companies merges its identity in to another existing company, or one or more existing companies may form a new company and merge their identities in to the new companies by transferring their businesses and undertakings all other assets and liabilities to the new companies (i.e. merged company). The shareholders of companies (s) whose identities have been merged (referred here as merging company(s)) get substantial shareholding in the merged company based on the share exchange ratio incorporated in the scheme of merger as approved by majority of shareholders of both merged and merging companies.

The situation may be illustrated as under:
Assume there are two companies X and Y which decide to merge:

Option one: Where X company merges in to Y Company
Combined merged company emerged Y Ltd.

Option Two: Where Y company merges in to X Company
Combined merged company emerges as X Ltd.
Option Three: X Company and Y Company both merged to form a new
Company Z. combined merged company emerges as Z Ltd.

Amalgamations the legal process by which two or more companies join together to form a new entity, or one or more companies are blended with another and as a consequence, amalgamating company loses its existence and its shareholders become shareholders of new company or amalgamated company.

As per Companies Act, 1956 (legislation that facilitates amalgamation), the terms merger and amalgamation are synonymous and not defined anywhere in the Act. Sections 390-396 A of Companies Act define statutory provisions relating to these terms. As per the mandatory Accounting Standards AS-14 issued by the institute of Chartered Accountants of India (ICAI), amalgamation pursuant to the provisions of Companies Act or any other statute, which may be applicable to the companies. Two methods of amalgamation are contemplated in AS-14:

a) Amalgamation in the nature of merger
b) Amalgamation in the nature of purchase

Amalgamation in the nature of merger is an organic unification of two or more entities or undertakings or fusion of one with another. Amalgamation in the nature of purchase is where one company's assets and liabilities are taken over by another and lump-sum is paid to the former by the latter. Both these amalgamations are within the purview of Sections 390-396 A of Companies Act.

As per Income Tax Act, 1961, merger is defined as amalgamation under section 2 (1B) with the following 3 conditions to be satisfied:

1) All the properties of amalgamating company (s) should vest with the amalgamated company after amalgamation.
2) All the liabilities of Amalgamation Company (s) should vest with the amalgamated company after amalgamation.
3) Shareholders holding not less than 75% in value or voting power in amalgamating company(s) should become shareholders of amalgamated company after amalgamation.

Takeover is a general term used to defined acquisitions only and terms, acquisition and takeover, can be used interchangeably. A takeover may be defined as series of transactions, whereby, a person, individual, group of individuals or a company acquires control over the assets of a company, either directly by becoming the owner of those assets or indirectly by obtaining control of the management of the company.

Takeover may be of the different types depending upon the purpose of management for acquiring a company.

1) A takeover may be straight takeover which is accomplished by the management of the company by acquiring shares of another company with the intention of operating 'taken over company' as an independent legal entity.

2) The second type of takeover is where ownership of company is captured to merge both companies into one and operate as single legal entity.

3) A third type of takeover of a sick company for its revival. This is accomplished by an order of Board for Industrial and Financial Reconstruction (BIFR) under the provisions of Sick Industrial Companies (Special Provisions) Act, 1985.

4) The forth kind is the bail-out-takeover, which is substantial acquisition of shares in a financially weak company, not being a sick industrial company, in pursuance to a scheme of rehabilitation approved by public financial institution which is responsible for ensuring compliance with provisions of Substantial Acquisition of Shares and Takeovers Regulations, 1997 issued by SEBI which regulate the bail-out-takeovers.

The regulatory framework for controlling takeover activities of a company consists of Companies Act, 1956, Listing Agreement and SEBI Takeover Code. Section 372 A of Companies Act is applicable to acquisition of shares through a company. The takeover of listed companies is also regulated by Section 40 A and 40 B of Listing Agreement which seek to regulate takeover act ivies by imposing certain requirements of disclosures and transparency. The Securities and Exchange Board of India had earlier issued SEBI (Substantial Acquisition of Shares and Takeovers) Regulations, 1994 which was repealed by SEBI (Substantial Acquisition of Shares and Takeovers) Regulations, 1997 issued on 20th February, 1997 and further amended on 28th October, 1998.

Therefore, there is a need to study motives for mergers and acquisitions which can be helpful in assessing the scope and degree of their financial success. Many researches have been conducted in US and U.K. in this regard. However, a comprehensive empirical study is lacking in India. This study attempts to fill this void in the Indian context.

OBJECTIVES OF THE STUDY

In the context of the above stated need the following objectives have been formulated in the study:

(i) To evaluate the pre and post-merger performance of the merged companies using the value added metrics of corporate performance such as Economic Value Added, Market Value Added and Return on Net Worth.

(ii) To examine the motives of corporate mergers in India as avowed in their merger schemes and to assess if, motives as avowed in the schemes have been fulfilled or not.

(iii) To evaluate the pre-and post-merger financial performance of merged companies and examine the influence of motives variables on mergers on mergers such as

a) Profit maximization

b) Growth

c) Tax Consideration

d) Diversification

e) Leverage

(iv) To suggest appropriate strategy for merger and acquisition of Indian industry.

HYPOTHESIS OF THE STUDY

To accomplish the objectives of the study, the following null hypotheses have been developed for empirical testing:

H.1 Mergers and acquisitions do not result in value addition to existing shareholders.

H.2 Merger in India is not predominantly horizontal.

H.3 There is no difference between pre- and post-merger performance of merged companies under the study period.

H.4 Synergy in profits, acquisition of market share, tax consideration and diversification, all do not result in value addition to existing shareholders.

H.5 There is no significant difference in the value addition to the existing shareholders due to Growth and Leverage.

H.6 Motives as avowed in the merger schemes have not been effected after mergers.

THE SAMPLE & DATA COLLECTION

This study includes companies which have undergone merger during the period 1st April, 1999 – 31st March, 2000. The empirical analysis of all individual merger events has been carried out pre-merger and post- merger to give a somewhat clear picture of their success or failure. There are about 196 merged companies in India during about period. Out of which the sample has been consist of selected merged manufacturing companies for which data available for the entire period of the study.

Table: 1.2

Industry wise classification

Sr.No.	**Industry**	**No. of Companies M& A**	**No of Companies Selected**
1	Chemicals, Petrochemicals	13	8
2	Electric, Electronics, Hardware	17	9
3	Fertilizers, Pesticides	6	3
4	Miscellaneous	52	13
5	Packaging	8	4
6	Paper & Pulp	4	1
7	Pharmaceuticals	15	6
8	Steel, Engineering	6	4
9	Tea-Coffee	6	3
10	Textiles	7	3
11	Treading	4	2
12	Cement	2	-
13	Entertainment	1	-
14	Finance & Investments	39	-
15	Food Products	5	-
16	Transport	11	-
	Total	**196**	**56**

The financial and non-financial data used in the study has been mainly drawn from Centre for Monitoring Indian Economy (CMIE) ‘PROWESS” and Capitaline Database of Capital Market, which is also considered as the most reliable Indian corporate database. Prowess contains a highly normalized database for over 13000 companies in India. This database is supplemented with powerful analytical software tools to enable extensive research.

TOOLS AND TECHNIQUES FOR ANALYSIS

This study has made the following analysis in terms of the objectives:

Post-Merger EVA Analysis

The onset of liberalization in the last ten years has shifted the focus of corporate goals to enhancing shareholder value. So, post-merger analysis of merged companies has been carried out in terms of value addition to shareholders. For this purpose, two method of measuring shareholder value have been employed. Firstly, broad measures comprising the value added twins namely, Economic Value Added (EVA) and Market Value Added (MVA) and secondly, the traditional measures of Return on Net worth (RONW) have been applied.

EVA, a new performance metric popularized by Stern Stewart of U.S. has started gaining popularity as a superior tool for measuring corporate performance. EVA indicates the amount of economic value created in any single accounting period and is simply stated as the amount a company earns in excess of its capital.

EVA = Net operating profits after taxes- Cost of capital employed
= NOPAT – COCE

Where,

NOPAT- Profit after tax after subtracting tax adjusted interest

COCE- Weighted average cost of debt and equity capital X capital employed

While EVA measures shareholder value addition in terms of operating performance, its twin measure, MVA measures the markets' assessment of firm's value.

MVA = Market value – Capital employed of company

The relatively narrower measure of shareholder value creation is Return on Net worth (RONW) which is profit after tax divided by shareholders wealth in the company i.e. paid up capital + free reserves. This measure nets out the recommitted payment obligations to all classes of creditors and focuses only on wealth created for residual claimants

Broadly,

$$\text{RONW} = \frac{\text{Profit after tax}}{\text{Net Worth}} \times 100$$

$$= \frac{\text{PAT}}{\text{NW}} \times 100$$

Pre-and Post-Merger Analysis

Last but not the least, pre and post-merger analysis has been carried out (for the sample merged companies whose schemes have been procured) in terms of motives of mergers with the objective to financially assess if, motives, as avowed in the merger schemes have been achieved or not. Six variables have been selected as motives of mergers namely,

a) Profitability

b) Growth

c) Tax Advantage

d) Leverage

I Profitability Ratios

- ♦ Return on capital employed (profit before interest after tax/ total capital employed)
- ♦ Gross profit margin (Gross profit / Net sales)
- ♦ Return on Net Worth (Profit after tax / Net worth)
- ♦ Dividend payout ratio (Dividend per share / Earning per share)

- Expense ratio (Operating expense / Net sales)
- Earning per share (Profit after tax / No. of equity shares)

II Growth

$$\text{Growth in net assets} = \frac{\text{Net assets in the beginning -1}}{\text{Net assets at the end}}$$

III Tax Advantage

$$\text{Effective rate of tax} = \frac{\text{Tax paid}}{\text{Profit before tax}} \times 100$$

IV Leverage Ratio

Total Debt / Total Equity

$$\text{Interest Coverage} = \frac{\text{Profit before interest and tax}}{\text{Interest}}$$

Apart from the variables explained above, some more financial variables have been included for in-depth motives analysis. These are determined with the help of following ratio:

1 Price earning ratio (P/E ratio)
2 Liquidity ratio
3 Gearing ratio
4 Current ratio

Method of Analysis

Using value added metrics following analysis has been carried out for selected companies for four post merger years.

(1) Intra-company comparison is carried out over post merger period to see if shareholder value has improved over the post merger period.

(2) Inter company comparison is carried out for average post merger period to know who are the gainers in this detritus of shareholder value after merger.

(3) Intra-industry comparison is carried out over post merger period to see if shareholder value has improved over the post merger period.

(4) Inter industry comparison is carried out for average post merger period to know who are the gainers in this detritus of shareholder value after merger.

For this purpose, absolute EVA and MVA data have been converted in to relative figures using following formula:

$$\text{EVACE} = \frac{\text{EVA}}{\text{CE}} * 100$$

Where,

EVACE: Economic Value Added as a percentage of capital employed.

EVA: Economic Value Added

CE : Capital Employed

Regression Analysis

To study the impact of merger on firm’s performance, the regression analysis is also carried out for pre merger and post merger performance of sample companies.

CHAPTER PLAN

CHAPTER I
INTRODUCTION

This chapter includes the brief evolution of M&A's in India, significance of the study, the objectives of the study, the hypothesis, the samples and date collection, tools and techniques for analysis and limitation of the study.

CHAPTER II
CONCEPTUAL FRAMEWORK: MERGERS AND ACQUISITIONS

In this chapter, conceptual aspects of merger, acquisition, takeover, consolidation, reverse merger, demergers etc. are discussed. Various Indian and global laws and statues having a bearing on merger process have been outlined and trends traced. The procedure for merger, determination of share exchange ratio, the relevance of appointed date and effective date and other related issues have also been covered.

CHAPTER III
REVIEW OF LITERATURE

This chapter contains a comprehensive review of various research studies conducted in and out of India. Research literature, out of India, especially in US and UK covers almost every aspect of mergers and acquisitions such theories of firm conceptualized into motives of mergers, their empirical investigation, performance measures using share price and accounting data, empirical examination of financial characteristics of acquired and acquiring firms and determinants of aggregate merge activity.

CHAPTER IV
AN ANALYSIS OF ECONOMIC VALUE ADDED BASED ON MERGERS & ACQUISITIONS

This chapter includes the historical evolution of corporate performance metric popularized by Stern Stewart of US, namely Economic value added (EVA) and its twin, Market value added (MVA). After giving the rationale of its use and its superiority over other performance metrics like Earning Per Share (EPS) & Return On Net Worth (RONW), the detailed theoretical methodology regarding its computation has been discussed.

Chapter V

AN ANALYSIS OF FINANCAL PERFORMANCE

This chapter specifies the process of sample selection, data collection and the financial variables included along with the methodology adopted for their computation. The second section gives the empirical results and last section discusses their interpretation and conclusions.

Chapter VI

SUMMARY, FINDINGS AND SUGGESTIONS

This chapter highlights general criteria, summary, findings and suggestions of the study. Also, suggested path for the improvement and future areas for research.

LIMITATIONS OF THE STUDY

♦ Impact of mergers on financial performance of companies due to certain other factors such as change in industry, economy, and stock market have not been covered by this study.

♦ This study is based on secondary data and secondary data has its own limitations.

♦ This study is limited to the merger of the selected companies and the findings can not be generalized to whole industry.

♦ There are many approaches to measure the impact of merger on financial performance of the company. There is no unanimous opinion among the experts. So the researcher has taken the approaches, which might be appropriate for the study.

REFERENCES

- Aaronovitch, S. and M. S. Sawyer, Big Business (London: Mac millan, 1975)
- Bhalla V. K. 2000: International Financial Management; Text and Cases; First Edition, Anmol Publication Pvt. Ltd., New Delhi
- Bhalla V. K., 1997: Financial Management and Policy, Anmol Publication Pvt. Ltd., New Delhi
- Bhattacharya H. K. 1988: Amalgamation and Takeovers; Company news and notes.
- Cowling, Keith, Paul Stoneman and John Gubbin, Mergers and Economic Performance (UK : Cambridge University Press, 1980)
- Doctroff, Mark, Company Mergers and Takeovers (Melbourne : Cheshire Publishing House, 1972)
- Gupta, L.C., Corporate Financial Health : Building Reliable Corporate Indicators (New Delhi : Manas Publications, 1993)
- J. Fred Weston, Kwang S. Chuing, Susan E. Hong (2003) Mergers, Restructuring and Corporate control, PHI Ltd. Publication
- Kothari. C .R. Research Methodology: Methods and Techniques, 2nd edn. (UK: Wiley Eastern Ltd., 1992)
- Ramaiya A., Guide to Companies Act, (Nagpur Wadhwa & Co.)

CHAPTER - 2

CONCEPTUAL FRAMEWORK: MERGERS AND ACQUISITIONS

CHAPTER - 2

CONCEPTUAL FRAMEWORK: MERGERS AND ACQUISITIONS

- Introduction
- Corporate Restructuring activities in India
- Merger
- Legal Procedure for Merger
- The Rules for Successful Mergers
- Analysis of Mergers
- Estimating the Economic Gains and Costs from Mergers
- Sources of gains through mergers
- Dubious Reasons
- Limitations of Mergers
- Reasons for failure of merger
- Acquisition
- Amalgamation
- Takeover
- Laws and Statutes in India
- Laws outside India
- Valuation and merger – Methods of share exchange
- Significance of appointed date and effective date
- Interim period between appointed date and effective date
- Due diligence
- Conclusion
- References

INTRODUCTION

Business is subject to number of competitions forced by various factors like the bargaining power of suppliers and buyers, the threat of new entrants, the threat of substitute products and services and rivalry among the existing competitors. In all these situations the main objective of any company is profitable growth of enterprise to maximize the wealth of its shareholders. Further, to achieve profitable growth of business it is necessary for any company to limit competition, solve the problem of slow growth, to gain economies of large scale and increase in income with proportionally less investment, to establish a transnational bridgehead without excessive start-up cost to gain access to foreign market, to achieve diversification and utilize underutilized market opportunities. Due to numerous and fast economical developments, and rapid regulatory changes, it become indispensable for even small companies to grow up rapidly without using large resources like new technology, upgraded plant and machinery, least knowledge updating to achieve effective reduction in cost and saving in time. In order to achieve goals, business needs to remain competitive and work towards its long term sustainability. Fuehrer, the liberalization and consequent globalization has resulted into tough competition not only in Indian business market but globally as well.

In response to these pressures, an increasing number of companies around the world are dramatically restructuring their assets, operations and contractual relationships with shareholders, creditors, and other financial stakeholders. Corporate restructuring has facilitated thousand of companies to re-establish their competitive advantage and respond more quickly and effectively to new opportunities and unexpected challenges. Corporate restructuring has had an equally profound impact on the many more thousands of suppliers, customers and competitors that do business with restricted companies. In a rapidly changing world, companies are facing unprecedented turmoil in global markets. Several competition, rapid technological change, and rising stock market volatility have increased the burden on companies to deliver superior performance and value for their shareholders.

Generally most of the corporate growth occurs by internal expansion, when a company's existing divisions grow through normal capital budgeting activities. Nevertheless, if the goals are easily achieved within the company, it may mean that the goals are too small. Growth opportunities come in a variety of other forms and a great deal of energy and resources may be wasted if an entrepreneur does not wait long enough to identify the various dynamic which are already in place.

Under different dynamic situations as laid above, a profitable growth of business can achieved successfully if as a strategic tool merger is adopted. The most remarkable examples of growth and often the largest increases in stock prices are a result of mergers and acquisitions. M&A's provide tremendous opportunities for companies to grow and add value to stake holder's wealth. M&A's increase value and efficiency and thereby increase holders value. M&A's is a generic term used to represent many different types of corporate restructuring exercises.

However, as every coin has second side potential gainful merger activity do fail for varied reasons such as failing to anticipate and define problem, failing to attempt or success in solving problem. Merger activity is also subject to certain challenges like due diligence, cultural factors, implementation and integration.

In order to avoid difficulties it is necessary to carry out initial investigation in various areas like growth potential, profitability, strength in terms of skills and capabilities, financial projections of the impact and value of merger, etc., need to be systematically thought out and planned.

The profitable growth of the business can be achieved "internally" by developing and introducing new products or by expansion of capacity of existing product(s). However, under different dynamic situations like fast economical changes, technological developments, rapid regulatory changes and emergence of new competitive factors merger as external strategic tool for profitable growth of business is gaining popularity, resulted into merger activity rose to unprecedented levels since last few decades.

The main objective of any merger activity is profitable growth of business to maximize wealth of its stakeholders. The trend towards globalization of all national and regional economies has increased the intensity of mergers, in a bid to create more focused, competitive, viable larger players, in each industry. If an industrial want to survive, it has to excel and compete successfully both with multinational competitors in internal as well as international markets. Merger of companies are implicit in free enterprise system because of their obvious advantages infusion of better management and healthy growth of capital market. Thus, the concept of merger has assumed greater significance as offering number of opportunities, especially in the context of the ongoing program of liberalization and globalization.

The present chapter purports to discuss the conceptual framework of mergers and acquisitions (Mass) whining the board parameters of corporate restructuring taking place in India and Abroad with a view to enhance shareholder value. In common parlance, the terms mergers, acquisitions, amalgamations and takeovers are often used interchangeably. However, in different circumstances, some of these terms carry different meanings. So, for the sake of clarity, it is necessary to discuss the meaning of these terms in details.

CORPORATE RESTRUCTURING ACTIVITIES IN INDIA

Restructuring of business is an integral part of the new economic paradigm. As controls and restrictions give way to competition and free trade, restructuring and reorganization become essential. Restructuring usually involves major organizational change such as shift in corporate strategies to meet increased competition or changed market conditions. This activity can take place internally in the form of new investments in plant and machinery (green field investments), research and development at product and process levels, hiving off of non core activities, divestitures, sell offs, demergers act. It can also take place externally through mergers and acquisitions (Mass) by which a may acquire another firm or by forming joint ventures with other firms.

The process of economic liberalization and globalization that swept the Indian economy in 1990’s created a highly competitive business environment forcing Indian companies to restructure their operations. This restructuring process has result in rise in strategies like mergers, acquisitions, takeovers, collaborations, consolidation, diversification etc. Domestic firms have taken steps to consolidate their position to face increasing competitive pressures and Macs have taken this opportunity to enter Indian Corporate Sector. The different forms of corporate restructuring are summarized in Table: - 2.1 and explained in brief thereafter.

Table:-2.1

Different Forms of Corporate Restructuring

EXPANSION	**CONTRACTION**	**CORPORATE CONTROL**
Merger	Demerger	Going Private
Amalgamation	Spin Off	Equity Buyback
Absorption	Equity Curved Out	Anti takeover Defenses
Tender Offer	Split Off	Leveraged Buyouts
Asset Acquisition	Split Up	Exchange Offer
Joint Venture	Divestures	Proxy Contests
--	Asset Sale	Change in Ownership Structure
--	--	ESOP
--	--	MLPs

Expansion

Expansion is a form of restructuring, which results in an increase in the size of the company. It may be in the form of merger, amalgamation, absorption, joint venture offer, asset acquisition, tender offer.

Merger

When two or more companies decide to combine their business by forming a single company it is called merger. A merger can take place either as an amalgamation or absorption.

Amalgamation

This involves fusion of two or more companies where the companies lose their individual identity and a new company comes into existence to takeover the business of companies being liquidated.

The merger of Brooke Bond India Limited and Lipton India Limited resulted in formation of a new company Brooke Bond Lipton India Limited. This form of restructuring is mostly applied to combine companies of same size.

Absorption

In absorption, one company purchases the business of another company. This involves fusion of a small company with a large company where the smaller company cases to exist after the merger. In case of merger of HDFC Bank and Times Bank, after the merger Times Bank ceased to exist while HDFC Bank continued in expanded form.

Joint venture

This involves two or more companies enter into an agreement to provide certain resources for the achievement of particular common business goal. It involves intersection of only a small fraction of the activities of the companies involved and normally for a limited time period. The co-ventures distribute profit earned from joint venture according to pre-arranged ratio companies coming together and forming a new company whose ownership is changed. Generally this strategy is adopted by MNCS to enter into a foreign market. DCM group and DAEWOOMOTORS entered into a joint venture to form DCMDAWEOOLTD to manufacture automobiles in India.

Asset Acquisition

This involves purchasing of assets of another company. The assets may be tangible assets like factory building, plant machinery or intangible like patent & brands.

The acquisition of the cement division of Tata Steel by Lafarge of France. Lafarge acquired only the 1.7 million tone cement plant and its related assets from Tata steel. The assets being purchased may also be intangible in nature. For example, Coca-Cola purchased soft drinks brands like Thumps Up, Limca Gold Spot etc. from Parle by paying Rs. 170 crore to Parle. HLL bought the brands of Lakme.

Tender Offer

This involves making a public offer for acquire management control in that company. Takeover by Tata Tea of Consolidated Coffee Ltd (CCL) is an example of tender offer where more than 50% of shareholders of CCL sold their holding to Tata Tea at the offered price which was more than the investment price.

Contraction

This is a form of restructuring which results in a reduction in the size of the company. It can be in the form of demergers, spin-off, split-ups, equity carve-out, and divestiture or asset sale.

Demergers

Demergers mean split or division of a company. Such divisions may take place for various reasons internal or external. An internal factor generally consists of split in the family rather than lack of competence on the part of management. For example, DCM Ltd. was divided into four separate companies which are being managed by different family members of Late Shriram.

There are generally the following types of demergers;

Spin-offs

This type of demergers involves division of company in which a company distributes all of the shares it own in a subsidiary on a pro-rata basis to its own shareholders. Hence, the shareholders proportional ownership of shares is the same in the new legal subsidiary as well as the parent company. The new company run business independently from the parent company and has its own management. By this way, both the companies' i.e. holding as well as subsidiary company exist and carry on business. For example, Kotak

Mahindra Capital Finance Ltd formed a subsidiary called Kotak Mahindra Capital Corporation by spinning off its invest division.

Split-Ups

This type of demerger involves the division of the parent company into two or more separate companies where parent company ceases to exit after the demerger and only the new off springs survive. A split- up involves the creation of new class of stock for each partner operating subsidiaries, paying current shareholders a divided of each new class of stock and than dissolving the parent company. Stockholders in the new companies may be different as shareholders in the parent company may exchange their stock for stock in one or more of the spin-offs.

The Andrapradesh State Electricity Board (APSEB) was split- up in 1999 as part of the Power Sector reforms. The power generation business and the transmission and distribution were transferred to two separate companies called APGENCO and APTRANSCO respectively. APSEB ceased to exist as a result of the split-up.

Split- offs

Under this type of demerger a new subsidiary company is to be formed to takeover the operations of an existing division. A part of the shareholders of the parent company receives shares in new company in exchange of shares in parent company. A split- offs does not lead to any cash inflow to the parent company. This results into decrease in the equity size of parent company.

Equity Carve Outs

This is similar to Spin Offs, except that some part of shareholding of this subsidiary is offered to public through a public issue and the parent company continues to enjoy control over the subsidiary company by holding controlling interest in it.

Divestiture

This is a sale of undervalued segment of a company which is non-strategic or unrelated to the core business for cash. The company uses this sale proceeds for investment in potentially higher return opportunities.

Asset Sale

This involves sale of tangible or intangible assets of a company to generate cash. The company may than distribute the cash to its shareholders and go out of its existence or use it to purchase other assets.

Corporate Controls

A company can also go for restructuring without purchasing new company or selling existing company or part of it. It is by obtaining corporate control over the management of other company. Control is the process by which managers influence other members of company to implement the organizational strategies. Following are various techniques of obtaining corporate control.

Going private

It refers to transformation of public company in to privately held company. It involves purchase of entire equity interest in a previously public corporation by a small group of investors. Thus, it involves buying back the all outstanding shares from the markets and converting a listed company into a private company by buying back the entire outstanding share from the markets.

Equity buyback

This involves the company buying its own shares back from the market. This leads to reduction in the equity capital of the company. This, in turn, strengthens the promoter's controlling position by increasing his stake in the equity of the company. It is use as a takeover defense to reduce the number of shares that could be purchased by the potential acquirer. Sterlite industries had proposed a buyback of its shares through the open market to acquire a maximum of 25 percent of the equity.

Anti takeover defenses

With a high level of hostile takeover activity in recent years, takeover defenses, both premature and reactive, have been resorted to by the companies. Premature defenses, also called preventive defenses are employed to prevent a sudden, unexpected hostile bid for gaining control of the company. When preventive takeover defenses are not successful in fending off an unwanted bid, the targets implements post-bid or reactive defenses. These takeover defenses intend to charge the corporate control position of the promoters.

Leveraged buyouts (LBO)

This involves rising of capital from the management to acquire a company on the strength of its assets. This is a financing technique where debt is used in a acquisition of a company. The term is often applied to a firm borrowing fund to buy back its stock to convert from a publicly- owned to privately-owned company. A management buyout is a LBO in which managers of the firm to be taken private are also equity investors.

Exchange offers

It provides one or more classes of securities, the right or option to exchange part or all of their holdings for a different class of securities of the firm.

The terms of exchange offered necessarily involve new securities of greater market value than the pre-exchange offer announcement market value. Exchange offer involves exchanging debt for common stock, which increase leverage, or conversely, exchanging common stock for debt, which decrease leverage. This helps a company to change its capital structure while holding the invest policy unchanged.

Proxy contests

A proxy contents is an attempt by a single shareholder or a group of shareholders to take control or bring about other changes in a company through the use of the proxy mechanism of corporate voting. In a proxy fight, a bidder may attempt to use his or her voting rights and garner the support from the other shareholders to expel the incumbent board or management.

Changes in Ownership Structure

This represent the fourth group of restructuring activities which results in the restructuring the ownership of a company. A company’s ownership structure affects, and is affected by other variables and these variables also influence the market value. These variables include the levels of principal-agents conflicts and information asymmetry and their effects on other variables such as the firm’s operating strategy, dividend policy and capital structure. The various techniques of changing the ownership structure are explained below.

Employee Stock Option Plan (ESOP)

An employee stock option plan (ESOP) is a mechanism whereby a company can make tax deductible contribution of cash or stock in to a trust. The assets are allocated the employees and are not taxed until withdrawn by them. ESOPs are involved in mergers and LBOs in two ways as a financing vehicle for the acquisition of companies, including through LBOs, and as an Anti take over defense.

Master Limited Partnership (MLPs)

A master limited partnership is a type of limited partnership whose shares are publicly trade. The limited partnership interests are divided in to units which trade as shares of common stock. In addition to tradability, it has the advantage of limited liability for the limited partners.

This kind of structure is however not prevalent in our country through there was a move some time back to design necessary regulatory framework for floating such organizations, particularly in the context of divergent needs of IT sector.

MERGER

Background

Indian corporate world has witnessed major changes in the last decade. Thanks to the government's policy of liberalization and globalization of the Indian economy.

Starting with the opening of the economy the much-needed impetus was rightly described of restructuring. Throughout 1998, most of the firms went ahead- with mergers, acquisitions, sell-offs and spin-offs.

Corporate restructuring activity is so far in the post-liberalization period. Entry of the MNCs in to the country which are eyeing India as a sourcing base particularly in the labor-intensive industries fueled the domestic industry to focus on their core competencies. This clearly gives the MNCs an edge over the local players. In India, given the upsurge in the restructuring activities the opening up of the economy big business houses in India started formulating strategies so as meet competition from domestic as well as the international players.

As the current wave of mergers in India is the first of its kind, international experience are relied upon to understand the issues relating to mergers in a historical perspective. We don't really understand why merger activity is so volatile. If mergers are prompted by economic motives at least one of these one of these motives must be "here today and gone tomorrow."

Indian corporate sector are undergoing structural changes in the post liberalization period. Competitive pressures are high not only due to deregulation but also due to globalization. As a part of the restructuring programmed. Merger has been defined as an arrangement whereby the assets of two or more companies become vested in, or under the control of one company (which may or may not be one of the original two companies), which has as its shareholders, all or substantially all the shareholders of the two companies. It may also include fusion of two or more companies into another. In a merger, one of the two existing companies merge its identify into another existing company, or one or more of existing companies may form a new company and merge their identities into the new company by transferring their businesses and undertakings including all other assets and liabilities to the new company (i.e. merged company). The shareholders of companies whose identities have been merged (referred here as merging companies) get substantial shareholding in the merged company based on the share exchange ratio incorporated in the scheme of merger as approved by majority of shareholders of both merged and merging companies.

The situation may be illustrated as under:

There are two companies X and Y which decide to merge:

Option 1: Where X Company mergers into Y Company.

Combined merged company emerges as Y Ltd.

Option 2: Where Y Company merges into X Company.

Combined merged company emerges as X Ltd.

Option 3: X Company and Y Company both merge to form a new company Z.

Combined merged company emerges as Z Ltd. .

Thus, merger is a marriage between two companies of all most of same size. It is thus a combination of two or more companies in which one company remains in existence in its own name and the other ceases to exist as a legal entity. The survivor company acquires assets and liabilities of merged companies. Generally, the company which survives is the buyer which retains its identity and Seller Company is extinguished.

Indian Scenario

During the licensing era, several corporate sectors had indulged in unrelated diversification depending on the availability of the licenses. The corporate sector thrived in spite of their inefficiencies because the total capacity in the industry was restricted due to licensing. The corporate sectors, over a period to time, become unwieldy conglomerate with a sub optimal portfolio of assorted businesses. The policy of decontrol and liberalization coupled with globalization in the economy has exposed the corporate sector to severe domestic and global competition. This has been further accentuated by the recessionary trend which resulted in falling demand, which in turn resulted in over capacity in several sectors of the economy. The industry is currently engaged in efforts to consolidate themselves in areas of their core competence and divest those businesses where they do not have any competitive advantage.

The actual wave in the Indian context, however, started after code was felt by the regulatory authorities. Prior to 1994, the Murugappa group, the Chabbria group and the RPG group, had sought to build industrial empires through merger. They followed the prevailing industries practice of building a conglomerate of diverse businesses into one group. In recent times, mergers have attempted to restructure firms and achieve economies of scale to deal with an increasingly competitive environment.

The Underlying Logic of Merger

The efficiency theories under mergers suggest that mergers provide a mechanism by which capital can be used with more efficiency and the productivity of the company can be increased through "economies of scale". The theory of differential efficiency states that if the management of the company "A" is more efficient than that of company "B" and if "A" acquires "B" The efficiency of the company "B" is likely to be brought up to the level of company "A". According to this theory, the increased efficiency of company "B" is considered to be the outcome of merger.

Another important theory of mergers is the "synergy theory" which states that when two companies combine, they should be able to produce a greater effect together than what the two operating independently could. It refers to the phenomenon of two plus becoming five. This synergy could be "financial synergy" or "operating synergy".

$V (A+B) > V (A) + V (B)$

Where; V (A+B): Value of the combined companies

V (A): Value of the company "A"

V (B): Value of the company "B"

A merger of two companies should be invariably result in a " positive" i.e. it should result in increased volume of revenue from the combined sales or decreased operating cost or decreased investment requirements. If the effects are neutral i.e. no change is effected over the standalone position, the whole labor of merger excessive would go waste. On the other hand, if the combined effect is "negative" the merger may even prove fatal later.

The increased outflows from the merged entity over that of the total output of the units when they were operating individually is more due to operation of either "economies of scale" or "economies of scope". The nature of "economies of scale" may be different:

Some merger look for cost-based economies of scale: some may look for revenue-based economies of scale, defense-based economies of scale etc. Similarly, “economies of scale” is varied in nature: Cost-based economies of scope, revenue-based scope and diversification –based economies of scope.

TYPES OF MERGERS

From an economic stand point, different types of mergers can be grouped on the basis of their stage of economic activity and the degree of relatedness of the firm.

Horizontal Merger

It is a merger of two competing firms. Which are at the same stage of industrial process both the firms belong to the same industry i.e. merger is between business competitors, such as manufactures of the same type of products or distributors selling competition products in the same market area. The main purpose of such merger is to obtain economies of scale in production by eliminating duplication of facilities and operation, broadening the product line, reducing investment in working capital elimination of competition reduction in advertising costs, increase in market segments and exercise of better control in the market. A company manufacturing washing machines and taking over a company manufacturing audio system will be horizontal merger as both are companies in the consumer durable market. For example, merger of TOMCO by HLL is horizontal merger.

Horizontal mergers generally account for majority of merger cases. These are defended on the grounds that they permit efficiency gains by exploiting economics of scale, avoiding duplicate expenditures ect. Also, they raise seller concentration thus enhancing opportunities for exercise of market power. The number of films in an industry is decreased by horizontal mergers and this may make it easy for the industry members to collide for monopoly profits. Hence, the major concern in such mergers is from an anti-monopoly point of view. So these types of mergers are regulated by the government.

Weinberg and Blank define horizontal merger as follows:

A takeover or merger is horizontal if it involves the joining together of two companies which are producing essentially the same products or services or products or services which compete directly with each other (for example, sugar and artificial sweeteners). In recent years, the great majority of takeovers and merger have been horizontal. As horizontal takeovers and mergers involve a reduction in the number of competing firms in an industry, they tend to create the greatest concern from anti-monopoly point of view on the other hand horizontal mergers and takeovers are likely to give the greatest scope for economies of scale and elimination of duplicate facilities.

Vertical Merger

It involves the integration of companies having supplementary relationships either in production or distribution of products or services. In such cases, both the companies have different level of production processes either of same line of business. In vertical mergers, the acquiring and target companies are in the same industry with strong buyer-supplier relationship. The target company is either a supplier or buyer/customer of the acquiring company. Vertical merger is generally undertaken when market of intermediate product is imperfect. It called backward integration when company expands backward towards the source of raw material and forward integration when it moves forward in the direction of customer. For example, RPG groups' merger with Harrison Malayalam Ltd. Gave it control over rubber, a major tire input for the other group company- Ceat Ltd. This was vertical backward integration. The effect of such mergers is generally to improve efficiency through improving the flow of production and reduction of stockholding and handling costs.

Thus, vertical mergers help to ensure a smooth source of supply or an outlet for product or services. Merger of Reliance Petrochemicals Ltd, By Reliance Industries is also vertical merger with backward linkage. Also, global mergers between AT & T and TCL and Time Warner and Turner are good instances of vertical integration. Shunned by local distributors AT&T acquired cable operators TCL to link its long distance carrier lines to industrial homes and business establishments without the aid of local distributors.

Similarly, combing the production unit, Time Warner with the distribution network of Turner, broadcasting could create vertical integration.

Weinberg and Blank define vertical merger in the following manner:

"A takeover or merger is vertical where one of the two companies is an actual or potential supplier of goods or services to the other so that the two companies are both engaged in the manufacture or provision of the same goods or services but at different stages in the supply route (for example, where a motor car manufacture takes over a manufacturer of sheet metal, or a car distributing firm). Here, the object is usually to ensure a source of supply or an outlet for products or services, but the effect of the merger may be to improve efficiency through improving the flow of production and reducing stockholding and handling costs. Where, however there is a degree of concentration in the markets of either of the companies, anti-monopoly problems may arise"

Co generic Merger

In these mergers, the acquirer and target companies are related through basic technologies, production processes or markets. The acquired company represents an extension of product line, market participants or technologies of the acquiring companies. These mergers represent an outward movement by the acquiring company form its current set of business to adjoining business. The acquiring company derives benefits by exploitation of strategic resources and form these mergers is high because these transaction offer opportunities to diversify around a common core of strategic resources Western and Mansinghka classified congenerric mergers into product extension and market extension types. When a new product line allied to or complimentary to an existing product line is added to existing product line through merger, it is defined as product extension merger. Similarly market extension merger helps to add a new market either through same line of business or adding a field both these types bear some common elements of horizontal, vertical or conglomerate merger. For example, merger between Hindustan Sanitary ware Industries Ltd and Associated Glass Ltd is a product extension merger and merger between Cimmco Ltd and Xpro Ltd contains elements of both product extension and market extension merger.

Conglomerate Merger

These mergers involve firms engaged in unrelated type of business activities i.e. the business of two companies are not related to each other horizontally (in the sense of producing the same or competing products), nor vertically (in the sense of standing towards each other in the relationship of buyer and supplier) in a pure conglomerate, there are no important and technology. In practice, however there are no important common factors between the companies in production marketing, research and development and technology. In practice however, there is some degree of overlap in one or more of these common factors. Conglomerate merger are unification of different kinds of business under one flagship company. The purpose of merger remains utilization of financial resources, enlarged debt capacity and also synergy of managerial functions. However, these transactions are not explicitly aimed at sharing these resources, technologies, synergies or product market strategies. Rather, the focus of such conglomerate mergers is on how the acquiring firm can improve its overall stability and use resources in better way to generate addition revenue. It does not have direct impact on acquisition of monopoly power and is thus favored through out the world as a means of diversion.

Reverse Merger

In the conventional method, the sick company is absorbed by the profitable one (called normal merger). On the other hand, if reverse situation takes place i.e. if sick company extends its embracing arm to the profitable company and in turn absorbs it in its fold this action is called reverse merger. Reverse merger is thus a merger of healthy company to a loss making company as compared to a normal merger where weaker units merge to stronger ones. The deal is generally followed by a change of name and brings major tax benefits for the profit making unit along with retention of its goodwill. It gives the profit making company an automatic tax entitlement benefit of carry forward and set off of losses without complying with provision of Section 72A of Income Tax Act. It is also resorted to for other reasons such as to save tax on stamp duty, to save on public issues expenses. To obtain quotation on stock exchange ect. The financial institutions which act as operating agency for the sick company suggests this remedy between two companies in the promoter group thus attempting to control the growing sickness in a process of quick and enduring solution. The financial institutions have spearheaded this concept and their support ensures the smooth passage of the scheme before various authorities. In essence, it can be said that reverse mergers are rehabilitation oriented scheme adapted to achieve quick corporate turnaround.

Moreover, with amendment in Sick Industrial Company Act, 1985 effective from 1st February, 1994, reverse mergers are being allowed by BIFR. The first case of reverse merger formulated by BIFR envisaged the merger of healthy company Sagar Real Estate Developers Ltd. With sick textile company SLM Maneklal Industries Ltd as rehabilitation cum revival package for the sick company. This was followed by merger of healthy Kirlosker Oil Engines Ltd with ailing Prashant Khosla Pneumatics Ltd. Then, there were many other reverse mergers which include merger of Eicher Tractors Limited with loss making Royal Enfield Motors Ltd, merged entity being called Eicher Limited (1996) ect.

Many times, reverse mergers are also accompanied by reduction in the unwieldy capital of the sick company. This capital reduction helps in writing off of the accumulated losses and other asses which are not represented by the share capital of the company. Thus, a capital reduction cum rehabilitation scheme (byway of reverse merger) is an ideal antidote for the sick company. For example, Godrej Soaps Ltd. (GSL) (with pre-merger turnover of 436.77 crores) entered in to scheme of reverse merger with loss making Gujarat Godrej Innovative Chemicals Ltd (GGLCL) (with pre-merger turnover of 60 crores) in 1994. The scheme involved reduction of share capital of GGICL from Rs. 10 per share to Re.1 per share and later GSL would be merged with 1 share of GGICL to be allotted to every shareholder of GSL. The post-merger company, Godrej Soaps Ltd (with post-merger turnover of 611.12 crores) restructured its gross profits of 49.08 crores which led to an effective tax burden of Rs.105 crores and net profits of Rs. 48.03 crores, higher than GSL's pre-merger profits of 25.30 crores. The amalgamated company, GGICL reverted back to the old name of amalgamating company. Godrej Soaps Ltd.

Thus, this innovative merger which was by way of forward integration in the name of GGICL was competed with the help of financial institution like IDBI, IFCI, ICICI, UTI etc. All financial institution agreed to waive penal interest. Liquidate damages besides funding of interest, reschedule outside loans and also lower interest rate on term loans. However, there is a danger of violation of sprits of provision of Income Tax Act, 1961 which might invoke McDowell principle if such exercise if reverse merger is carried out solely for the purpose of tax saving of amalgamated/merged company. Reverse mergers in such eases are looked down upon as opportunist mergers.

Demerger

It has been defined as split or division. As the name suggests, it denotes a situation opposite to that of merger. Demerger or spin off, as called in US involves splitting up of conglomerate (multi-divisions) of company into separate companies. This occurs in cases where dissimilar businesses are carried on within the same company, thus becoming unwieldy and cyclical almost resulting in a loss situation. Corporate restructuring in such situations in the form of demerger becomes inevitable. Merger of SG Chemicals and dyes Ltd with Ambalal Sarabai Enterprises Ltd (ASE) had made ASE big conglomerate which had become unwieldy and cyclic, so demerger of ASE was done.

Apart from core competencies being main reason for demerging companies according to their nature of business, in some cases, restructuring in the form of demerger was undertaken for splitting up the family owned large business empires into smaller companies. The historical demerger of DCM group, where it split into four companies (DCM LTD, DCM Shriram Industries Ltd., Shriram Industrial Enterprise Ltd and DCM Shriram Consolidated Ltd) is one example of family units splitting through demergers. Such demergers are accordingly, more in the nature of family settlements and are affected through the courts order.

Thus, demergers also occur due to reason almost the same as mergers i.e. the desire to perform better and strengthen efficiency, business interest and longevity and to curb losses, wastage and competition. Undertakings demerge to delineate business and fix responsibility, liability and management so as to ensure improved results from each of the demergerd unit. Demergers are skin to the survival of the fittest ideology i.e. if one unit is making profit and other unit is making loss thus eroding its profits, alienate the loss making unit.

As per Section 2(19AA) of Income Tax Act, 1961, demerger, in relation to companies means transfer pursuant to Scheme of Arrangement as per section 391-394 of Companies Act by a demerged company of one or more undertakings to any resulting company in such a manner that:

(1) All property of undertaking being transferred by demerger company immediately before demerger become property of resulting company by virtue of demerger.

(2) All the liabilities of the undertaking being transferred by demerged company immediately before demerger become liabilities of resulting company by virtue of demerger.

(3) The property and liabilities of the undertaking (s) being transferred by the demerged company are transferred at values appearing in its books of accounts immediately before the demerger.

(4) Shareholders holding not less than three fourths in the value of shares of Demerger Company become shareholders of resulting company (s) by virtue of demerger.

(5) Transfer of undertaking is on going concern basis.

(6) The demerger is in accordance with the condition, if any, notified u/s Sec 72A by the Central Government.

Demerged company, according to Section 2 (19 AA) of Income Tax Act, 1961 means the company whose undertaking is transferred, pursuant to a demerger to a resulting company.

Resulting company, according to Section 2 (41A) of Income Tax Act,1961 means one or more company (including a wholly owned subsidiary there of) to which the undertaking of the demerged company is transferred in a demerger, and the resulting company in consideration of such transferred of undertaking, issues shares to the shareholder of the demerger company and includes any authority or body local authority or public sector company or a company established, constituted or formed as a result of demerger.

Merger through BIFR

The Companies (Amendment) Act, 2001 has repealed the Sick Industrial Companies (Special Provisions) Act (SICA), 1985 in the order to bring sick industrial companies within the preview of Companies Act, 1956 from the jurisdiction of SICA, 1985. The Act has introduced new provision for the constitution of a tribunal known as the National Company Law Tribunal with regional benches which are empowered with the powers earlier vested with the Board for Industrial and Financial Reconstruction (BIFR).

Before the evolution of SICA, the power to sanction the scheme of amalgamation was vested only with the High Court. However, Sec 18 of the SICA, 1985 empowers the BIFR to sanction a scheme of amalgamation between sick industrial company and another company over and above the powers of High Court as per section 391-394 of the companies Act 1956. The amalgamations that take place under SICA have a special place in law and are not bound by the rigors of Companies Act, 1956 and Income Tax Act, 1961.

There is no need to comply with the provision of Sec 391-394 of Companies Act, 1956 for amalgamations sanctioned by BIFR. The scheme of amalgamation however must be approved by shareholders of healthy company after getting approval from BIFR. Sec 72A of the Income Tax Act has been enacted with a view to providing incentives to healthy companies to take over and amalgamate with companies which would otherwise become burden on the economy. The accumulated losses and unabsorbed depreciation of the amalgamating company is deemed to be loss or allowance for depreciation of the amalgamated company. So, amalgamated company gets the advantage of unabsorbed depreciation and accumulated loss on the precondition of satisfactory revival of sick unit. A certificate from specified authority to the effect that adequate steps have been taken for rehabilitation or revival of sick industrial undertaking has to be obtained to get these benefits. Thus, the main attraction for the healthy company to takeover a sick company through a scheme of amalgamation is the tax benefits that may be available to it consequent to amalgamation. The approach usually followed is to quantify the possible tax benefits first and then get an order as part of rehabilitation package from BIFR. Once BIFR is convinced about the rehabilitation benefits, it passes an appropriate order see that benefits of tax concession properly ensue to the transferee company.

Section 18 of SICA provides for various measures to be recommended by the operating agency in the scheme to be prepared by it for submission to the BIFR concerning the sick industrial unit. Before the amendment in 1994, under SICA only normal amalgamation (of sick company with healthy one) was possible and the SICA Act did not provide for reverse merger of a profitable company with sick company. Now the amended Sec 18 of the Act contains provisions for effecting both normal and reverse merger. It provides for the amalgamation of sick industrial company with any other company any other company with the sick industrial company

LEGAL PROCEDURE FOR MERGER

A step by step procedure for merger (amalgamation) is detailed below.

Thorough study of the firm being merged

This not only includes financial analysis but also recent and likely future government policies, product profile, location of the factory, and economy of scale.

Examination of object clauses

The memorandum of association of both the firms should be examined to check if the power to amalgamate is available. Further, the object clause of the merged firm should permit it to carry on the business of the merging firm. If such clauses do not exit, necessary approvals of the shareholders, boards of directors and CLB are required.

Intimation to stock exchanges

The stock exchanges where the merged and merging firms are listed should be informed about the amalgamation proposal. These proposals should be mailed to the concerned stock exchanges.

Approval of the draft amalgamation proposal by the Respective Boards

The Respective Boards of directors should approve the draft amalgamation proposal. The board of each company should pass resolution authorizing its directors/ executives to pursue the matter further.

Application to the High Court

The Respective Boards of each company should make an application to the High Court so it can convene the meetings of shareholders and creditors for passing the amalgamation proposal approval once the draft of amalgamation proposal.

Dispatch of notice to shareholders and creditors

In order to convene the meeting of shareholders and creditors a notice and an explanatory statement of the meeting, as approved by the High Court, should be dispatched by each company to its shareholders and creditors so that they get 21 days advance intimation. The notice of the meeting should also be published in two newspapers (One English and One Vernacular). An affidavit confirming that the notice has been dispatched to the shareholders/creditors and that the same has been published in newspapers should be filed in the court.

Holding of meeting of shareholders and creditors

A meeting of shareholders should be held by each company for passing the scheme of amalgamation. At least 75 per cent (in value) of shareholders, in each class, who vote either in person or by proxy, must approve the scheme of amalgamation. Likewise in a separate meeting, the creditors of the company must approve of the amalgamation scheme. Here, too at least 75 percent (in values) of the creditors who vote, either in person or by proxy must approve of the amalgamation scheme.

Petition to the courts of confirmation and passing of court orders

Once the amalgamation scheme is passed by the shareholders and creditors, the companies involved in the amalgamation should present a petition to the court for confirm ting the scheme of amalgamation. The court will fix a date of hearing. A notice about the same has to be the published in two newspapers. It has also to be served to the Regional Director, CLB. After hearing the parties concerned and ascertaining that the amalgamation scheme is fair and reasonable, the court will pass an order sanctioning the same. However, the court is empowered to modify the scheme and pass orders accordingly.

Filing the order with the Registrar

Certified true copies of the court order must be filed with the Registrar of companies within the limit specified by the court.

Transfer of assets and liabilities

After the final orders have been passed by both the High Courts, all the assets and liabilities of the merging firm will, with effect from the appointed date, have to be transferred to the merged firm.

Issue of share and debentures

The merged firm, after fulfilling the provisions of the law, should issue share and debentures of the merging firm. (Cash payment may have to be arranged in same cases.) The new shares and debentures so issued will then be listed on the stock exchange.

Scheme of Merger / Amalgamation

Whenever two or more firms agree to merger with each other they have to prepare a scheme of amalgamation. The merged firm should prepare the scheme in consultation with its merchant banker(s) / financial consultants. The main contents of a model scheme are as listed below:

Determination of Transfer Date (Appointed Date)

This involves fixing of the out-off date from which all properties, movable as well as immovable and rights attached thereto are sought to be transferred from the merging firm to the merged firm. This date is known as transfer date or the appointed date and normally the first day of the financial year of the preceding, the financial year for which the audited accounts are available with the company.

Determination of Effective Date

The date is determined by the time all the required approvals under various statutes, viz., the Companies Act, 1956, the Companies (court) Rules 1959; Income Tax Act, 1961;

Sick Industrial Companies (special provisions) Act, 1985; are obtained and the transfer vesting of the undertaking of merging firm with the merged firm take's effect. This date is called effective date. A scheme of amalgamation normally should also contain conditions to be satisfied for the scheme to become effective.

The effective date is important for income tax purposes. The Companies Act does not provide for such a date but it is a practical necessity so that a court passing an order under Section 394 (2) dealing with vesting of properties in the merged firm has before it a meaningful date contained in the scheme serving the purpose and in the contemplation of the applicant companies who are free to choose any date which will be a binding one. While sanctioning the scheme the court also approves this date. The effective date may be either retrospective or prospective with reference to the application to the court. The effect of the requirement is that a mere order for the transfer of the properties/assets and liabilities to the merged firm would cause the vesting only from the date of order. For tax considerations, the date mentioned in the order of vesting is of material consequences.

(1) The scheme should state clearly the arrangement with secured and unsecured creditors including the debenture holders.
(2) It should also state the exchange ratio, at which the shareholders of the merging firm would be offered shares in the merged firm. The ratio has to be worked out based on the valuation of shares of the respective companies as per the accepted methods of valuation, guidelines and the audited accounts of company.

(3) In case where the merged firm or its subsidiaries hold the shares of the merging firm the scheme must provide for the reduction of share capital to that extent and the manner in which the compensation for share held in the merging firm should be given.

(4) The scheme should also provide for transfer of whole or part of the undertaking to the merged firm, continuation of level proceeding between the merging and the merged firm, absorption of employees of the merging firm, obtaining the consent of dissenting shareholders.

THE RULES FOR SUCCESSFUL MERGER

Peter Drucker identifies a financial stimulus for mergers activity and sets forth a set of rules for successful mergers:

(1) Acquirer must contribute something to the merging firm.
(2) A common core of unity is required.
(3) Acquirer must respect the business of the merging firm.
(4) Within a year or so, acquiring firm must be able to provide top management to the merging firms.
(5) Within a first year of merger, management of both firms should receive promotions across the entities.

ANALYSIS OF MERGERS

There are three important steps involved in the analysis of mergers:

(1) Planning.
(2) Search and Screening
(3) Financial Evaluation

Planning

The merged firms should review its objective of merger in the context of its strengths and weaknesses and corporate goals. This will help in indicating the product market strategies that are appropriate for the company. It will also force the firm to identify business units that should be dropped and those that should be added.

Planning merger will require the analysis of industry specific and the firm- specific information. The merged firm will need industry data on market growth, nature of competition, entry barriers, capital and labour intensity, degree of regulation.

Information needed about the merging firm will include the quality of management, market share, size, capital structure, profitability, production and marketing capabilities.

Search and Screening

Search focuses on how and where to look for suitable candidates for merger. Screening process short-lists a few candidates.

Merger objectives may include attaining faster growth, improving profitability, improving managerial effectiveness, gaining market power and leadership, achieving cost reduction. These objectives can be achieved in various ways apart from mergers alone. The alternatives to merger include joint ventures, strategic alliances elimination of inefficient operations, cost reduction and productivity improvement, hiring capable managers. If merger is considered as the best alternative, the merged firm must satisfy itself that it is the best available option in terms of its own screening criteria and economically most attractive.

Financial Evaluation

Financial evaluation of a merger is needed to determine the earnings and cash flows, areas of risk, the maximum price payable to the merging firm and the best way tp finance the merger. The merged firm must pay a fair consideration to the merging firm for merging its business. In a competitive market situation with capital market efficiency, the current market value is the correct and fair value of the share of the merging firm. The merging firm will not accept any offer below the current market value of its share. The merging firm may in fact, expect the offer price to be more than the current market value of its share since it may expect that merger benefits will accrue to the merged firm. A merger is said to be at a premium when the offer price is higher than the merging firm's pre-merger value. The merged firm may pay the premium if it thinks that it can increase the merging firm's after merger by improving its operations and due to synergy. It may have to pay premium as an incentive to the merging firm's shareholders to induce them to sell their shares so that the merged firm is enabled to obtain control of the merging firm.

ESTIMATING THE ECONOMIC GAINS AND COSTS FROM MERGERS

When firm A acquires firm B it is making a capital investment decision and firm B is making a capital divestment decision. What is the NPV of this decision to firm A? What is the NPV of this decision to firm B?

To calculate the NPV to company A, we have to identify the benefit and the cost of merger. The benefit of merger is the difference between the PV of the combined entity PV and the sum of present value of the two entities if they remain separate PV (A) + PV (B) Hence,

$$\text{Benefit} = PV\ (AB) – PV\ (A) + PV\ (B)$$

The cost of merger, from the point of view of firm A, assuming that compensation to firm B is paid in cash, is equal to the cash payment made for merged firm B less the present value of firm B as a separate entity, Thus,

$$\text{Cost} = \text{Cash} – PV\ (B)$$

The NPV of merger from the point of view of firm A is the difference between the benefit and the cost as defined above so,

$$\begin{aligned}\text{NPV to A} &= \text{Benefit} – \text{Cost}\\ &= [PV\ (AB) – (PV\ (A) + PV\ (B)] – [\text{Cash} + PV\ (B)]\end{aligned}$$

The NPV of the merger from point of view of firm B is simply, the cost of the merger from the point of view of firm A. Hence,

$$\text{NPV to B} = (\text{Cash} + PV\ (B))$$

Illustration

Market value of Sona Ltd. is Rs. 500 crores and market value of Rupa Ltd. Is Rs. 200 crores. If both these firms merge, then benefit will be Rs. 50 crores. Sona Ltd. Proposes to offer Rs. 230 crores cash as compensation to merged Rupa Ltd. Calculate the NPV of the merger to the both firms from the point of view of Sona Ltd. And Rupa Ltd.

We will refer Rupa Ltd. as R and Sona Ltd. as S for calculation.

PV(R) = Rs. 200 crores.

PV(S) = Rs. 500 crores.

PV of benefit from merger = Rs. 50 crores.

Therefore,

Cost = Cash – PV(R)

= Rs. 230 crores – Rs. 200 crores

= Rs. 3o crores

NPV to Sona Ltd. = Benefit – Cost.

= 50 – 30

= Rs. 20 crores

NPV to Rupa Ltd. = Cash – PV(R)

= Rs. 230 crores – Rs. 200 crores

= Rs.30 Crores

Answer

On account of merger NPV of Sona Ltd. Will be Rs. 20 crores and that of Rupa Ltd. will be 3o crores. Thus total benefit from merger is Rs. 50 crores. From the above Illustration it is clear that both the companies cab benefit from such merger.

Mode of Payment in Merger

This is most complex part of a merger deal and can be extremely difficult to decide whether payment of purchase consideration should be in all-stock deal the best; or is an all cash deal? If neither, then what is the optimum mix of the two?

The novelty is in the components of the mode of payment that has changed drastically. Cash deals are easy. There is a simple transfer of shares for cash and ownership is transferred.

In a stock deal however, the status is slightly hazy. We have seen; where the stakeholders of the firm initially meant to be brought out, later end up owning a majority of the merged firm’s shares. Paying by stock means an inherent acceptance of the risks that come with the value that might come along.

Unfortunately in India, corporate and the media tend to focus only the amount of the deal and not the break-up of the components in it.

Cash vs. Stock: The Trade-Offs

The basic difference is that in all cash deals, the merged firm's shareholders take on the risk that expected aggregate synergy value will be less than the total price (market + premium) paid. However, in the merged and merging firms, shareholders own the shares.

The general trend till recently was that the merger was literally juggernaut as compared to the merged. Even all stock deals in such cases meant that the merged would end up with a close to negligible pare of the combined firm's shares. However, a more recent trend is of financing such mergers with stock, especially in large deals. Risk for the target shareholders is high in such cases.

Pre-Decided Shares or Pre-Decided Value

It isn't as simple as cash or stock. In a deal that involves stock, the management also has to decide if it is a pre-decided value of shares that will be exchanged as consideration.

The merits and demerits of each are discussed below.

Pre-decided shares

The number of shares to be transferred is pre-decided here. The monetary value of the merger fluctuates with movement in the share price of the acquirer. In fact, both sets of shareholders are affected by these fluctuations. However, the affected on both goes n tandem with the proportion in which share are held while the VAS may not remain constant or as expected, the proportion in which it is shared. The biggest risk to the shareholders of the merging from the pre-announcement value.

Pre-decided value

Alternatively a monetary value could be pre-decided and the number of shares could be calculated based on the stock price prevailing on the closing date. This is a relatively ambiguous (or at least highly contingent) method; as the holding or ownership pattern of the new company is unknown till the closing date. Hence, the merged firm bears all the risk here and the merging firm appropriates all the VAS.

A recent trend has been sighted where underwriters pitch in and agree to takeover the inherent risk in case the share price fluctuates beyond a particular range. This could. In a way, be termed as a middle path where the advantages of both the above method trend tend to be realized.

What issues should be board consider?

We have seen that the mode of payment can have an almost sensational effect on the value to both the merging and merged. Both firms should therefore consider this factor in their strategic game plan before consider this factor in their strategic game plan before reaching a final conclusion settlement.

Issues for the merged firm

The Board should be able to justify the payment they are committing to make and specifically out line the synergy or other value it hopes to generate from the deal. There are essentially two areas that a merged needs to look into: Estimation of the value of the merger's shares and Risk perception.

The decision-process in all cash deal is fairly simple. Can the management of the firm generate profits, the NAV which is greater than the amount offered? This usually is not the case as it wouldn't be up for grab at a premium if its stand-alone value were higher. However, all cash deals are rare and the inclusion of stock in the payment usually complicates the decision-process. The merging firm also needs to value the merged firm's shares, as they would be shouldering the risk in the future. So, essentially the Board of the target goes through pretty much the same process as that of the merged and in a way endorses the view of the latter by agreeing on the stock as a part of the deal.

In the short it would only be wise to say that there is no one optional strategy to structure the payment of a merger deal. Individual firms need to decide what suits their strategic intent and situation the best considering their liquidity position, perception of risk, market feelers and risk taking capacity. The most important factor, however, is the relative bargaining power that each of the players in a merger deal hold; a force that could render all technical valuation and analysis utterly useless.

So, an all stock deal, a all cash deal or the optimum mix of the two deal---- what is the best---- the choice is at hand of firms.

SOURCES OF GAIN THROUGH MERGER ARE AS FOLLOWS

Strategy

In general strategy means plan of action or bunch of actions to achieve desire objectives and targets. The company should develop and adopt such long term and short term well planned strategies on various issues so that it becomes the main source of gain through merger. The main concerns for the formulation of strategies includes: while going for merger the company should develop a new strategy, vision and mission. The company should also plan to achieve long term strategic goals. The company should acquire capabilities in new industries and to obtain dynamic talent for fast moving industries and add capabilities to expand role in a technology advancing industry.

Economies of scale

The larger size is always thought to be better in industrial world. The lower operating cost advantage by spread out the total fixed cost over a larger quantum of output is one of the main sources of gain through merger.
This can be achieved by number of ways.

The company can achieve cut in production cost by implementing cost control and cost reduction techniques and also due to large volume of production. The companies can also take advantage of economies of large scale by combine R&D operations, increased sales force, and strengthens distribution system. The company can go for broaden product line and cut overhead cost up to great extent due sharing of central services like accounting and finance, administration and office expenses, executive and top level management, sales and promotional activities and so on. The company can provide one stop shopping for all services ad can offer complementary products. Thus, economies of scale may result in several critical activities, mainly production, marketing, finance.

Advantages of large scale

One of the main out come of any merger is resulting in to larger size company. Obviously, the larger size company can gain number of advantages over smaller company.

It is possible for large size company to afford huge investment in high tech equipments. This is because the large size company can spread use of expensive equipments over more units or divisions.

In order to take advantages of economies of large scale the company produces large quantity of output. This makes possible to get quantity discounts on bulk purchases. The company can also employ best practices and better utilization of various resources.

It is possible for large size company to have better operating efficiencies by controlling and improving the management of receivables, inventories, fixed assets, etc. and by faster tactical implementations. It is also possible for large company to offer good incentives and other benefits to workers and employees of the company.

Market expansion

It becomes possible for a merged company to gain a greater share of a market, or to gain entry in to new market or to prevent or to restrict the entry of the new company by acquiring new capabilities, managerial skills, applying broad range of capabilities and managerial skills, acquiring capabilities in new industry and to obtain new talent for fast moving industries.

The competitive pricing policy is perhaps the only tool in a market with limited product differentiation. The company having larger market share may be in dominating position to drive prices and its related forces. Due to the merger the company can increased market shares and obtain opportunities to access new markets.

Competition

It is rightly said that 21st century is full of competition. This is due to rapid development in the field of technology, transportation, infrastructure, communication and other facilities. In order to face and fight successfully it is necessary for a company to take measures like to achieve critical mass before rival, preempt acquisitions by competitor and compete on EBIT growth for high valuations which is possible by merger.

Customers

In any business customer is always king. The success and existence of any business is largely depends on customers and their attitude and approach towards the business. The merger activity provides opportunities to develop new customer relationships. The combine company can meet customers demand for wide range of services with good quality, as per given schedule and at competitive price. This helps to develop good cordial relationship with new and potential customers and to maintain smooth relation with existing customers.

Technology

Merger and acquisition makes possible for the merged company to enter in to techno base dynamic industries to seize the opportunities in industries with developing technologies. It also leads to go for new R&D capabilities and to acquire technology for lagging areas. A merged company can adjust to deregulations- relaxing of Government barriers to geographic and product market extension. It helps to eliminate industry excess capacity which helps to cut cost.

Shift in product strategy

Shift from over capacity area to area with more favorable sales capacity. Exit a product area that has become commodities to area of specialty.

Industry roll-ups

Taking fragmented industries, and because of improvement in communication and transportation, rolling up many individual companies in to larger firms, obtaining the benefits of strong and experienced management teams over a large number of small units.

Globalization

Merger can be use as tool to face international competition and to establish presence in foreign market and to strengthen position in domestic market. Especially large size, economies of scale, diversification product differentiation and reduction in systematic risk and dependence on export due to merger is helpful to face global competitions.

DUBIOUS REASONS

Diversification

Diversification is yet another major advantage especially in conglomerate merger. The argument is that a merger between to unrelated firms would tend to reduce business risk, which in turn, reduces the discount rate/ required rate of return of the firm's earning and, thus, increase the market value. In other words, such mergers help stabilize or smoothen overall corporate income which would otherwise fluctuate due to seasonal or economic cycles. In operational terms, the greater the combination of statistically independent, or negatively correlated income streams of the merged companies, the higher will be the reduction in the business risk factor and the greater will be the benefit of diversification.

However, individual shareholders on their own can also attain such diversification. Therefore, the financial managers should ensure that merger should not be at a cost higher than the one at which shareholders would have attained the same risk reduction by diversifying their individual investment portfolios, corporate diversification should be less expensive than personal diversification.

Lower Financing Costs

The consequence of larger size and greater earning stability, many argue, is to reduce the cost of borrowing for the merged firm. The reason for this is that the creditors of the merged firm enjoy better protection than the creditors of the merging firms independently.

If two firms, A&B, merge the creditors of the merged firm (call it firm AB) are protected by the equity of both the firms. While this additional protection reduces the cost of debt, it imposes an extra burden on the shareholders; shareholders of firm A must support the debt of firm B, and diversification. In an efficiently operating market, the benefit to shareholders from lower cost of debt would be offset by the additional burden borne by them- as a result there would be no net gain.

Earning Growth

A merger may create the appearance of growth in earnings. This may stimulate a price rise if the investors are fooled. Suppose, in case of firms A & B. Firm A has superior growth prospects and commands a price per share Rs. 50, and firm –B on the other hand, has inferior growth prospects and sell for a price per share Rs. 25. The merger is not expected to create any additional value. Based on the pre-merger market prices the exchange ratio is 1: 2, that is one of share of firm A is given in exchange for two shares of firm-B.

If the market is smart the financial position of firm A, after the merger, even through the earnings per share rises, the price-earnings ratio falls because the market recognizes that the growth prospects of the combined firm will not be as bright as those of firm-A alone. So the market price per share remains unchanged Rs. 50. Thus, the market value of the combined company is simply the sum of the market value of the merging firms.

If the market is foolish it may regard increase in earning per share as reflection of true growth. Hence, the price- earnings ratio, the market price per share of firm A will rise. This will lead to an increase in total market value.

Thus, if the market is foolish, it may be mesmerized by the magic of earning growth. Such an illusion may work for a while in an efficient market, as the market becomes efficient and the illusory gains are bound to disappear.

LIMITATIONS OF MERGERS

We have seen the benefits that companies can achieve through merger. However, merger suffers from certain weaknesses also in particular cases. The chief ones are discussed as under:

(1) A merger may not turn out to be a financially profitable proposition in view of non realization of potential economies in terms of cost reduction.
(2) The management of the two firms may not go along because of friction.
(3) Dissenting minority shareholders may cause problems.
(4) It may attract government anti- trust action in terms of the MRTP Act, 1969.

REASONS FOR THE FAILURE OF MERGERS

Most corporate mergers have failed….. very high rate of merger failure…… rampant merger failure in US and Europe. Indeed, 83 per cent of mergers failed to produce any benefits and over half actually ended up reducing the value of the firms involved. The following are the stymies that come in the way of successful merger process.

Culture Clash

The cultures of the firms may not be compatible and compete for dominance. If the battle is drawn out, the businesses of the both companies suffer while attention is diverted to the contest. If the culture of one of the firms is totally subsumed, it may destroy a key element of its prior success.

Premium too high

Particularly in hostile takeovers, the acquirer may pay too high a premium. While the shareholders of the merging firm, particularly if they receive cash, do well, the continuing shareholders are burdened with overpriced assets, which dilute future earnings.

Poor Business Fit

The conglomerate mergers of the 1960s are the most cogent examples, but the lessons seem to be forgotten periodically. Technology mergers where the architectures did not fit are a 1990s example, such as the rush by some firms to merge internet firms or other new era businesses they did not understand.

Management's Failure to Integrate

Often the merger's concern with respect to preserving the culture of the merging firm results in a failure to integrate, with the merging firm continuing to operate as before and many of the expected synergies not being achieved.

Over Leverage

Cash mergers frequently result in the acquirer assuming too much debt. Future interest costs consume too great a portion of the merging firm's earnings. An even more serious problem results when the merger resorts to cheaper short-term financing and then has difficulty refunding on a long-term basis. A well-throughout capital structure is critical for a successful merger.

Boardroom Schemes

When mergers are structured with 50-50 board representations or substantial representations from the acquiring company, care must be taken to determine the compatibility of the aspect of the merger can create or exacerbate a culture clash and retard or prevent integration. All too often, the continuing directors fail to meet and exchange views until after the merger is consummated.

In Merger Government Policies ---- A Major Facilitator

Government largely is the major role player in the destiny and direction of the business in any nation. The impact of the policy changes and reforms of the government are always resembled by the performance of business. The upsurge in the restructuring activity is clearly an indication of the reforms that the government has initiated in the early 1990s.

The opening up of Indian economy and the increasing number of global players entering into India are the major reasons for Indian corporate restructuring.

The opening of the economy has brought many things for the corporate India. With increased exposure to international markets many firms suddenly saw profitable opportunities for their business. The new opportunities brought cheer for some, for some it meant struggle for survival as many global players entered the country and competition increased. The impact of the reforms was widespread and forced a number of changes in the operating environments of firms and the way they approached business itself.

The greatest impact is felt on competition rather than on any other aspect of the field. Before the liberalization one could hardly see any innovative product or service be it the private sector or from the public sector. The entry has changed completely the Indian corporate. The reforms and relaxation of entry norms for passenger car ventures brought to the country a variety of models of international quality standards and the competition and lowering of import duties on commodities brought the prices of the cars in link with the global prices.

Corporate sector in India operate in a way in which they felt more comfortable. The corporate sector has dominated the markets and management's never bothered about the need to change. With the entry of investment funds and foreign players the corporate sector has suddenly felt the need for change in its style of functioning and their scale and standard of operations are closer to the global levels than ever before, thank to the reforms.

A classic example in this context would be that of Reliance Industries and Indian Petrochemicals Ltd. (IPCL) with the reforms came the reduction of import duties on major polymers and synthetic fibers signaling the death of smaller corporate sectors with uneconomic capacities. Smarter corporate sectors like Reliance and IPCL realized that the key was to restructure by upgrading their capacities to global levels along with the improvement in the production efficiencies. Today, these corporate sectors are comparable with the best in the world and now in such a position that they could weather any changes without much damage.

Series of reforms such as the formulation of the takeover code, simplification of he laws on mergers/ amalgamations and the toning down of the MRTP Act, all set off a series of restructuring efforts among corporate sector. The liberalization of foreign investment norms and the entry of the foreign players into Indian through a joint venture or investment added the spice in the restructuring.

MNCs who were in search of an excellent sourcing zone for the Asian countries suddenly found a heaven with the opening of the economy. Whatever the consequences might be the government went ahead with the reforms that the majority of business house were waiting for. In an attempt to adjust to the new global environment that the corporate are exposed to they speeded up the restructuring activity as they rightfully identified the need for such a move.

Mergers Norms May Be Softened In India

Merger is set to get a boost in last budget to facilitate India current spree of corporate restructuring and consolidation. The government seems to be favorably inclined to wards further simplification of the existing norms. Some of the areas set to change include permitting firms to consolidate through special resolutions. Further, in line with changes made for venture capital funds in fiscal 1999-2000, approval where the financial Institutions are supervising the amalgamation plan. Corporate sector has been demanding a reduction in the levels of clearances for mergers/ amalgamations, in line with the demands raised by the venture capital funds, in fiscal 1999-2000 for single clearance windows, following which SEBI was made the sole regulator for the SEBI registered venture capital funds. A similar change is bound to happen as part of the simplification of norms and reducing the duplicity of the regulatory authorities on mergers/ amalgamations. The governments also likely to align the management control threshold with the ownership threshold prescribed for availing tax benefits.

The Indian Evidence So Far Seems To Be Fairly Positive

In maturity stage achieving economies of scale in research, marketing and production some mergers of smaller firms by larger firms take place to provide management skill and a broader financial base.

Most mergers experiences positive consequences in India. Some reasons for successful mergers are listed below:

First & foremost reason for this could be that the real big mergers have been within cohesive business group, and not between corporate sectors from diverse cultures.

A classics example in this context would be that of Reliance Petroleum Ltd. (RPL) with Reliance Industries Ltd. (RIL) in 1992. Another example is Hindustan Lever Ltd. (HLL) with Brooke Bond Lipton India Ltd. (BBLIL) in 1996.

Second reason is that in India the most mergers usually of the larger firm is designated as the merged firms and the smaller firms as the merging firm.

Third is that earn substantial premiums trend of returns to targets has been upward. The reasons for the upward time trend may be summarized.

Fourth is that in India government norm and policies are very soft and optimum to the corporate sector are of international size as a result of their tendencies to merge and yet there is a need for mergers as part of the growing economic process before Indian corporate sectors can compete with global giants. All the mergers undertaken by such corporate sectors of international size become successful.

Fifth one for, in most Indian mergers in target shareholders evidence is “probably understates the total gains to these shareholders.” overall the shareholders of targets benefited by a substantial degree.

Sixth one for, In India most mergers between merged firms & merging firm has preliminary communications.

Seventh one for, in most Indian mergers is critical for quantifying in communications to board of directors, shareholders, analysts and financial markets.

Eighth for, most Indian merger is communications to internal stakeholders and external stakeholders. Newly combined firms must develop a strategy for performance measurement rollout and then communicate these measures throughout the organization.

ACQUISITION

An acquisition involves acquiring ownership in a tangible property and/or intangible property. In the context of business combinations, an acquisition is the purchase by one company, of controlling interest in the share capital of an existing company.

An acquisition may be effected by either of the following:

(1) An agreement with the person holding majority interest in the company management.

(2) Purchase of new shares by private agreement.

(3) Purchase of shares in the open market (open offer).

(4) Acquisition of shares in the capital of a company by means of cash, issuance of share capital etc.

(5) Making a buyout offer to general body of shareholders.

When a company is acquired by another company, the acquiring company has two options: The first is to merge both the companies into one and operate as single entity and the second is to operate the taken over company as an independent company, probably with changed management and changed policies. The first option is known as merger and the second option is known as takeover.

AMALGAMATION

Amalgamation is an arrangement or reconstruction. It is a legal process by which two or more companies join together to form a new entity or one more companies are to be absorbed o blended with another. As a result, the amalgamating company loses its existence and its shareholders become shareholders of new company or the amalgamated company. In case of amalgamation, a new company may come into existence.

According to Halsbury’s Law of England, amalgamation is the bending of two or more of existing companies into one undertaking, the shareholder of each blending company becoming substantially the shareholder of company, which will carry on blended undertaking. There may be amalgamation by the transfer of one or more undertaking to a new company or transfer of one or more undertaking to an existing company. Amalgamation signifies the transfer of all or some part of assets and liabilities, of on or more than one existing company to another existing company or two or more companies to a new company. Incorporation of a new company to effect amalgamation is permissible. So, a new company may be formed for takeover of old companies. Amalgamation, however, doesn’t involve formation of a new company to carry on the business of an old company. It is the description of transactions which, however carried out, result in substitution of one corporation for two or more uniting companies in effect of separate sets of members of uniting companies into a single set of members of one corporation. Amalgamation thus means mixing up more uniting together.

As per Companies Act, 1956, legislation that facilitates amalgamation in India, the terms merger and amalgamation are synonymous and defined anywhere in the Act. Sections 390- 396 A of Companies Act defines statutory provision relating to these terms. As per the mandatory Accounting Standards AS-14 issued by ICAI, amalgamation means an amalgamation pursuant to the provisions of Companies Act or other statute, which may be applicable to the companies. Two methods of amalgamation are contemplated.

Amalgamation in the nature of merger

Amalgamation in the nature of merger is an organic unification of two or more entities or undertakings or fusion of one with another. It is defined as an amalgamation which satisfies the following conditions.

(1) All the assets and liabilities of Transferor Company become, after amalgamation, the assets and liabilities of Transferee Company.

(2) Shareholders holding not less than 90% of the face value of equity shares of Transferor Company (other than equity shares already held by Transferee Company therein) become equity shareholders of the transferee company by virtue of amalgamation.

(3) The consideration is received for the amalgamation by those equity shareholders of Transferor Company who agree to become equity shareholders of Transferee Company by issue of equity shares in Transferee Company, except that cash may be paid for any fractional shares.

(4) The business of the transferor company is intended to be carried on, after the amalgamation, by the transferee company.

(5) No adjustment is intended to be made in the book value of the asset and liabilities of the transferor company when they are incorporated in the financial statements of the transferee company except to ensure uniformity of accounting policies.

Amalgamation in the nature of purchase

Amalgamation in the nature of purchase is where one company's assets and liabilities are taken over by another and lump sum is paid by the latter to the former. It is defined as the one which does not satisfy any one or more of the conditions satisfied above.

Both these amalgamation are within the purview of Section 390-396 A of the Companies Act, 1956.

It has been laid down by the Supreme Court in General Radio and Appliance Company Ltd. V. M. A. Khader that after the amalgamation of two companies, the transferor company ceases to have any identity and the amalgamation company acquires a new status and it is not possible to treat the two companies as partners or jointly liable in respect of their assets and liabilities. The rue effect and character of amalgamation largely depends upon the terms and conditions of the scheme of merger.

As per Income Tax Act, 1961, merger is defined as amalgamation under section 2 (1B) with the following three conditions to be satisfied:

All the properties of amalgamating company (s) should vest with the amalgamated company after amalgamation.

All the liabilities of amalgamating company (s) should vest with the amalgamated company after amalgamation.

Shareholders holding not less than 75% in value or voting power in Amalgamation Company (s) should become shareholders of amalgamated companies after amalgamation.

This does not however include shares already held by shareholders of amalgamating companies in the amalgamated company. Amalgamation does not mean acquisition of a company by purchasing its property and resulting in its winding up. According to income

Tax Act, exchange of shares with 90% of shareholders of amalgamating company is required. This demarcates clearly from acquisition.

TAKEOVER

Acquisition can be undertaken through merger or takeover route. Takeover is a general term used to define acquisitions only and both terms are used interchangeably. A takeover may be defined as series of transactions whereby a person, individual, group of individuals or a company acquires control over the assets of a company, either directly by becoming owner of those assets or indirectly by obtaining the control of management of the company. Takeover is acquisition, by one company of controlling interest of the other, usually by buying all or majority of shares. Takeover may be of different types depending upon the purpose of management for acquiring a company.

A takeover may be straight takeover which is accomplished by the management of the taking over company by acquiring shares of another company with the intention of operating taken over company as an independent legal entity.

The second type of takeover is where ownership of company is captured to merge both companies into one and operate as single legal entity.

A third type of takeover is takeover of a sick company for its revival. This is accomplished by an order of Board for Industrial and Financial Reconstruction (BIFR) under the provisions of Sick Industrial Companies (Special Provisions) Act, 1985.

The forth kind is the bail-out takeover, which involves substantial acquisition of shares in a financially weak company, not being a sick industrial company, in pursuance to a scheme of rehabilitation approved by public financial institution which is responsible for ensuring compliance with provisions Substantial Acquisition of Shares ad Takeovers Regulations, 1997 issued by SEBI, which regulates the bail-out-takeover.

The regulatory framework for controlling takeover activities of a company consist of Companies Act, 1956, Listing Agreement and SEBI Takeover Code. Section 372 A of Companies Act is applicable to acquisition of shares through a company. The takeover of listed companies is also regulated by Section 40A and 40B of listing Agreement which see to regulate takeover activities by imposing certain requirements of disclosures and transparency. The Securities and Exchange Board of India had earlier issued Substantial Acquisition of Shares and Takeovers Regulations, 1994 which was repealed by Substantial Acquisition of Shares and Takeovers Regulations, 1997 issued on 20th February, 1997 and further amended on 28th October, 1998.

Takeover bid

This is a technique for affecting either a takeover or an amalgamation. It may be defined as an offer to acquire shares of a company, whose shares are not closely held, addressed to the general body of shareholders with a view to obtaining at least sufficient shares to given the off error, voting control of the company. Takeover bid is thus adopted by acquiring its controlling interest.

While a takeover bid is used for affecting a takeover, it is frequently against the wishes of the management of Offeree Company. It may take the form of an offer to purchase shares for cash or for share exchange or a combination of these two forms. Where a takeover bid is used for effecting merger or amalgamation, it is generally by consent of management of both companies. It always takes place in the form of share for share exchange offer, so that accepting shareholders of Offeree Company become shareholders of Offeror Company.

Takeover and Merger

A transaction or series of transactions by which a person acquires control over assets of the company is called takeover. On the other hand, an arrangement whereby the assets of two companies vest in one is known as merger. The distinction between merger and takeover has been pointed out in the following manner:

“The distinction between a takeover and merger is that, in a takeover, the direct or indirect control over the assets of the acquired company passes to the acquire; in a merger, the shareholding in the combined enterprises will be spread between the shareholders of the two companies.”

In both cases of takeover and merger, the shareholders of the company are as follows:

(1) Company should takeover or merge with another company only if in doing so, it improves it’s profits earning potential measured by earning per share and

(2) The company should agree to be taken over if and only if shareholders are likely to be better off with the consideration offered, whether cash or securities of the company, than by retaining their shares in the original company.

Types of takeover bid

There are two types of takeover bid

1. Friendly takeover bid
2. Hostile takeover bid

Friendly takeover

Takeover takes place generally through negotiations i.e. with willingness and consent of acquirer company’s executives or board of directors. Such takeover is called friendly takeover. This takeover is through negotiating and parties do not reach an agreement during negotiations, the proposal of takeover stands terminated and dropped out. Friendly takeover bid is thus with the consent of majority or all of the shareholders of target company.

Hostile takeover

When a company does not propose to acquire another company but silently and unilaterally pursues efforts to gain controlling interest in it against the wishes of the management, it is called an attempt at hostile takeover. There are various ways in which the acquire company may pursue the matter to acquire controlling interest in another company. These acts are called takeover raids or hostile takeover bids. These raids, when organized in a systematic way, are called "takeover bids" and company to be taken over is called Target Company Both the raids and bid lead to takeover or merger. A takeover is hostile when it is in the form of a raid. In the other words, when there is no mutual understanding between acquired and taken over company, it is termed as hostile takeover.

Hostile takeovers are small but significant part of global M&A market. They are frequently used in developed markets of US and UK to unlock value for shareholders. They have beneficial impact on the economy. They keep the company management on guard and compel them to perform at higher levels of efficiency. They encourage optimum utilization of resources. For minority shareholders, hostile takeovers are again beneficial since they ensure that management works for improving shareholder value.

However, hostile takeovers are fought over long period of time on different battle grounds starting from court room to media with the help of army of professional lawyers, investment bankers, corporate financiers etc. Due to this time consuming nature of Indian rules and regulation, there have not been too many hostile takeovers in the Indian context. In the late eighties, for the first time, Swaraj Paul brought this form of corporate expansion with his takeover bid of DCM and Escorts but did not succeed. This was followed by various takeover bids made by NRI's such as Hinduja's raided and took over Ashok Leyland,Chhabaria group acquired stake in Shaw Wallace, Mather and Platt, Hindustan Dock Driver, Dunlop India etc. Various industrial groups also made an attempt at hostile takeovers. Goenkas of Calcutta took over Ceat Tyres in late eighties and Mahindra & Mahindra tookover Guest Keen Williams Ltd (GKW) and Allwyn Nissan Ltd. India's biggest corporate entities, Reliance Ltd., Tata Iron and Steel Company Ltd. (TISCO), ITC etc have been involved in takeover attempts. Tata Tea in 1988 made public offer to take over consolidated coffee Ltd. And were successful in acquiring 50% stake.

Until the new SEBI Takeover Code In 1997, Indian corporate managements could freely block transfer of share ownership to potential takeover tycoon. Swaraj Paul made an attempt with Escorts in 1988 and Dhirubhai Ambani was successful with Larsen and Toubro (L&T). There was no way anyone could try majority stake, outvote existing management at Annual General Meeting and replace it. Even if raider kept on buying in secondary market using intermediary to disguise intentions, the financial institution sided the existing management.

The new SEBI Takeover Code, 1997 has however changed things. Now the company's management can not block shares. Anyone can buy 10% of shares and then after making open public offer acquire another 20% with financial institution supporting them, they can ouster existing management but not without giving them notice in the form of open public offer to take remedial steps, may be in the form of counter offers. So mechanism of takeover in India is such that any management short of 30% could lose control if support of financial institutions is not available or there is less cash to make counter bids.

LAWS AND STATUTES IN INDIA

Mergers and takeovers are regulated by various enactments as amended from time to time through various prescribed provision made therein. Various statutes which govern mergers and takeovers are given as under:

Laws governing Mergers

Various laws governing mergers in India are as follows:

Companies Act, 1956

Although amalgamation or merger is not defined anywhere in the Act it is understood to mean an arrangement by which transfer of undertaking is effected. The relevant provisions dealing with schemes of arrangement, amalgamations and mergers are continued in seven sections of the act, namely, Sec. -390-396A, all of which are included in chapter V of Companies Act,1956.

Sec 390: This section incorporates in itself the definitions of expressions: company, arrangement etc.

Sec 390 (a): Defines the word company as any company liable to be wound up

Sec 390 (b): Here, the expression arrangement is defined to include reorganization of share capital of company either by consolidation of different kind of shares division of different class of shares or by both ways.

Sec 390 (c): According to this sub-section, unsecured creditors who may have filed suits or obtained decrees shall be deemed to be of the same class as other unsecured creditors. This is clarification amendment to clarify that decree holder unsecured creditors have no special rights over unsecured creditors.

Sec 391: This section incorporates the procedure to be followed by the company to obtain power to compromise or make arrangement with creditors and members.

Every person having a pecuniary claim against the company capable of estimate is a creditor.

Sec 41 of companies act defines member as:

The subscribers to the memorandum of company shall be deemed to have agreed to become member of the company and on its registration, shall be entered as members in its register of members.

Every other person who agrees in writing to become member of a company and whose name is entered in its register of members shall be member of company.

Sec 391 (1): As per this sub- section, procedural aspects for effecting a compromise or arrangement are

Compromise or arrangement must be proposed between company and its creditors or any class of them or its members or any class of them.

An application to the court should be made by one of the following persons: creditors, members or in case of company which is being wound up, by the liquidator.

The court will order a meeting to be called, held and conducted in such a manner as the court directs of the creditors or class of the creditors or the members or class of the members.

Sec 391(2): This sub-section spells the consensus that emerges from the meeting of members or creditors, as the case may be. If the compromise or arrangement is approved by majority representing three fourth in value of creditors or class of creditors or members or class of members as case be, present and voting either in person or proxy, then, subject to the sanction of court, the said scheme of compromise or arrangement will be binding on all the creditors or class of creditors or members or class of members and also by the company or in the case company is being wound up by liquidator and contributories of the company.

Sec 392: This section defines the power of the High Court to enforce compromise or arrangement. It provides the following:

Sec 392(1)

(a) After sanctioning the schemes of compromise or arrangement u/s 391, court shall have power to supervise the carrying out of compromise or arrangement.

(b) The court may, either at the time of making the order or any later time, give any directions or make modifications in compromise or arrangements may deemed required.

Sec 392(2): If compromise or arrangement sanctioned u/s 391can not be worked satisfactorily or without modifications, court may make an order for winding up of the company.

Sec 393: This section incorporates the extent of disclosure norms to be observed during the scheme of compromise or arrangement with creditors or members.

Sec 393 (1): This sub-section provides the extent of disclosure norms to be observed while proposing scheme of compromise or arrangement. It requires that every notice calling a meeting of creditors or members must be accompanied by the statement containing following information:

Following are terms of compromise or arrangement and their effects.

Any material interest of director, managing director or manager of the company in any capacity.

Effect of these interests on compromise or arrangement if any, and how it is different from interest of other persons.

In every notice of meeting given in advertisement, indicate notification of place and manner in which creditors or members can obtain copies of such statement.

Sec 393(2): This provides that where compromise or arrangement affects the rights of debenture holders, the statement must give similar information and explanation with respect to trustees of any deed for securing issue of debentures.

Sec 393(3): This provides that every creditor or member on making an application in the manner indicated in notice of advertisement to be furnished a copy of statement free of charge.

Sec 393(4): This indicates a penalty in the form of fine extendable up to Rs. 5000 for non compliance of this section by the company or an officer.

Sec393(5): This provides that any director, managing director or trustees for debenture holders shall be punishable with fine up to Rs. 500 if he fails to give notice to the company of such matters as relating to himself as may be required for the purpose of this section.

Sec 394: This section defines provisions for facilitating reconstruction and amalgamation of companies.

The words reconstruction or amalgamation has no definite legal meaning. Reconstruction is where company transfers its assets to a new company with substantially the same shareholders. Amalgamation is merger of two more companies whose shareholders are issued appropriate number of shares in the new company.

Sec 394(1)

(a): This sub- section elaborates the power of the court while considering a scheme of compromise or arrangement which is in the nature of reconstruction or amalgamation and involves transfer of property and liability of one company to another.

(b): Even reconstruction or amalgamation may involve arrangement or compromise with members or creditors as the case is.

(c): The pre-requisite for invoking the power of the court u/s 394 is an application to be made to court u/s 391 i.e. for all cases of reconstruction and amalgamation; first an application has to be made to the court u/s 391.

(d): A reading of section 391 with section 394 proves that starting point of any form of restructuring viz arrangement, compromise, reconstruction or amalgamation is drawing up of a scheme.

Sec 394(2): This sub-section provides that an order transferring property or liability passed by the court u/s 394 results in property transferred to and vest in transferee company and liability transferred to and become liability of transferee company and in case any property is ordered to be free from charge, then by virtue of compromise or arrangement, it cease to have effect.

Sec 394(3): This sub-section provides that within 30 days of making of an order under this section, every company, in relation to which order is made, shall have to file a certified copy with registrar for registration.

Sec 394(4): This sub-section defines the word transferee company which does not include any company other than a company within the meaning of this Act. However, Transferor Company includes any body corporate notified by the central government.

Sec394A: This sub-section was introduced by Companies (Amendment) Act, 1965 making it obligatory for the court to give notice to the Central Government of every application made to it u/s 391 or 394 and take into consideration the representation made by government before passing any order on proposed compromise or arrangement or scheme of amalgamation.

Sections 390-394(along with sec.394A) cover the complete gamut of legal and procedural aspects of laws governing corporate restructuring. The remaining sections 395, 396 396A are enacted to deal with specific situations.

Sec395: This section states the powers and duties of acquire shares of shareholders dissenting from the scheme or contract approved by majority.

Sec 395(1): As per this sub-section, under a scheme or construct, if an offer made by transferee company to shareholders of transferor company is approved within four months of making the offer by 90% in value of shares involved (other than shares already held), the acquiring company can give notice within further two months to dissenting shareholders unless otherwise specified by the court.

Sec.396: This section incorporates special provisions for amalgamation in national interest by the central government.

Sec 396(1): As per this sub-section, if central government is satisfied that amalgamation is in public interest, it may, by notification in its official gazette, order the same provide for amalgamation of two companies in to single company with such constitution, property, power, rights, interests, authorities, privileges, and with such liabilities, duties and obligations as may be specified in the order.

Sec396(2): As per this sub-section, the order of Central Government may provide for continuation by or against transferee company of any legal proceeding pending by or against transferor company and may also contain such consequential, incidental and supplementary provision as may, in opinion of central government, be necessary to give effect to amalgamation.

Sec396A: This section spells out the laws relating to preservation of books and papers of amalgamated company. The books and papers of company which has been amalgamated or whose shares have been acquired by another company shall not be disposed off without prior permission of central government and before granting such permission, Central Government may appoint a person to examine the books or papers or any of them for the purpose of ascertaining whether they contain any evidence of commission of an offence in connection with promotion or formation or the management of affairs of the first mentioned company or its amalgamation or acquisition of shares.

Subsequent to amendments in Companies (Second Amendment) Act, 2002, a National Company Law Tribunal has to be established which shall be vested with the powers currently vested with the High Courts pursuant to the provisions of section 390-396A under chapter V of Companies Act, 1956.

Industries (Regulation and Development) Act, 1951(IRDA1951)

This is "An Act to provide for the development and regulation of certain industries" Chapter iii-C of this Act contains provisions for reconstruction of such companies where management or control of industrial undertaking is taken over as per direction of central government. The provisions of this act have a very restricted applicability in case of mergers. An application u/s 391 of Companies Act, initiating a merger proposal can not be proceeded with, where permission of High Court has been granted u/s 18FA of this Act to appoint any one to takeover the management of individual undertaking on the application of Central Government for the purpose of running or restarting it. However, the Central Government may review its order at the request of the parties to proceed with the scheme of merger. There is no requirement to get a new license as license of amalgamating company is treated adequate for amalgamated company since takeover of all assets includes license also.

Income Tax Act 1961

Acquisitions - An Income Tax Perspective

Under the Income Tax Act, 1961 (Act) tax is levied on a "person" in respect of income. Person is defined as an individual, a company, a firm an association of persons or a body of individuals whether incorporated or not. Company includes Indian companies and foreign companies. The category of person influences the tax treatment and the tax rates. The residential status of the person influences the scope of income liable to tax in India.

An acquisition by way of merger/ amalgamation would typically raise questions regarding the tax implications on:

The continuity or otherwise of the tax benefits in the hands of the acquirer company that were enjoyed by the acquired company in respect of its business incomes/expenses.

(1) The gains from sale/ transfer of the assets/ undertaking of the acquired company.

(2) Allotment of shares in the acquirer company to shareholders of the acquired company.

(3) The above would principally impact the income-tax provisions relating to computation of Income from profits & Gains of Business impacting

- Expense claims
- Exempt incomes

(4) Income under the head Capital Gains arising from transfer of capital assets of the acquired company for shares in the acquirer company.

Tax impact on the amalgamating company & its shareholders:-

Gains on transfer of Capital Assets – Not liable to tax

For the purpose determining taxable capital gains under the Act, the transfer of capital assets by the target company to an amalgamated company is not an Indian company. Such transfers enjoy total exemption from capital gains tax.

Exchange/sale of shares

Pursuant to amalgamation shareholders of the target company would become the shareholders of the amalgamated company by receiving shares, in lieu of their existing shareholding. Typically, such an exchange is transfer. However, Act does not regard it as a transfer, where the exchange is in consideration of allotment of shares in the amalgamated company and such company is an Indian company any cash or other benefit given, fully or partially, in exchange for the shares would result in taxable capital gains.

Post amalgamation where shareholders subsequently decide to sell the share of the amalgamated company (acquired pursuant to the merger), the gains on sale would be liable to tax as capital gains. For computing such capital gains, the cost of acquisition and the period of holding would be as under:

Cost of acquisition of their original holding in the amalgamating company prior to the amalgamation; and

Period of holding would include the period the shares of the amalgamating company were held before the amalgamation.

Tax impact on the amalgamated company:-

Expenses in connection with amalgamation

Typically, certain costs like stamp duty, court fees, consultancy fees, ect. Incurred to effect a merger may be significant. The Act allows the amalgamated company to claim on a deferred basis, the expenditure incurred wholly and exclusively for the purpose of the amalgamation. The deduction allowed is 1/5th of such expenditure over a period of 5 successive years, starting with the year of amalgamation.

Issue/Allotment of shares – whether liable to Dividend Distribution Tax (DDT)

As per the Act, certain distributions, payments, etc, made by a company are deemed to be dividends in the hands of the receiver, companies are liable to dividend distribution tax at specified rates on dividends, including deemed dividends. A view may be possible that issue/allotment of shares of the amalgamated company to the shareholders of amalgamating company may constitute deemed dividend and accordingly be liable to DDT payable by the amalgamated company.

However, the Central Board of Direct Taxs (CBDT) has clarified that where a company mergers with another company in a Scheme of Amalgamation, the provision relating dividend distribution {Section 2(22) (a) or (c) of the Act} are not attracted.

Thus, the amalgamated company would not be liable to DDT on such allotment of shares.

Values of acquired assets

Cost of acquisition for purpose of subsequent sale where the capital assets acquired pursuant to amalgamation, are subsequently sold/transferred by the amalgamated company, the same triggers a tax incidence. However, a relaxation has been provided to neutralize the impact of amalgamation on (a) cost of acquisition; and (b) period of holding. Accordingly;

Cost of acquisition would be the same as the cost of such asset in the hands of the amalgamating company;

The holding period would include the period for which the asset was held by the amalgamating company.

The above helps retain the characterization of the gain, viz, short term or long-term, thus ensuring a tax neutral charge in respect of the tax rates.

Cost of depreciable assets for claiming depreciation

The owner of a capital asset is entitled to claim depreciation on the tangible and intangible assets being used for the purpose of the business. As per the Act, depreciation is claimed on the written down value (WDV) of the assets. Rates of depreciation are prescribed for specified blocks of assets and assets.

Pursuant to an amalgamation, the amalgamated Indian company becomes the Owner of the assets and thus entitled to claim depreciation.

The cost of the block of assets taken over by the amalgamated company shall be the WDV of that block as per the Act, in the hands of the target company as on the last day of the preceding previous year. It is on this value that the amalgamated company would be entitled to claim deprecation under section 32 of the Act.

Any goodwill or intangibles recognized in financial statements as a result of mere accounting entries shall not form part of the block of assets eligible for deprecation.

Depreciation Claims

Other than the asset values for purpose of deprecation as discussed above, the following may also be noted:

Depreciation for the year in which amalgamation takes place. Typically an amalgamation would take place during the course of a taxable year. Depreciation is allowable on a pro-rata basis to both the amalgamating and amalgamated company in the ratio of number of days for which they use the unabsorbed depreciation for prior years

In the Finance Bill, 2007, has proposed to extend the benefit of carry forward and set-off of accumulated business losses/depreciation to a public sector undertaking engaged in the business of operation of aircraft with one or more public sector undertakings engaged in similar business. This proposal is intended to facilitate the merger of Indian Airlines and Air India. The summarized conditions are:

(1) Conditions to be complied by the amalgamating company. Compliance with the following is required to be determined as on the Appointed Date.

(2) The amalgamating company should own an "industrial undertaking" or ship or hotel or be a banking company. The term industrial undertaking engaged in – the manufacture or processing of goods; the manufacture of computer software; the business of generation or distribution of electricity or any other form of power; the business of providing telecommunication services; mining; construction of ships, aircraft or rail system.

(3) The amalgamating company should have been engaged in the business for at least 3 years during which the business loss or depreciation have been accumulated.

(4) At least 75% of the book value of the fixed assets held by the amalgamating company should have been held by it for 2 consecutive years prior to the date of amalgamation.

(5) Conditions to be complied by the amalgamated company. The amalgamated company should hold at least 75% of the book value of the fixed assets of the amalgamating company for at east 5 consecutive years from the date of amalgamation.

(6) Carry on the business of the amalgamating company for at least 5years.

(7) Fulfill prescribed conditions to ensure the revival of the business of the amalgamating company viz, the amalgamated company should achieve the level of production of at least 50% of the installed capacity of the undertaking of the amalgamating company

before the end of 4 years from said minimum level of production till the end of 5years from the date of amalgamation.

The conditions prescribed above require compliance over a period of time in order to avail the benefit of carry- forward and set-off of accumulated business losses and unabsorbed depreciation of the amalgamating company.

In case the above conditions are not complied with, the benefit claimed would be taxed in the hands of the amalgamated company in the years in which any of the conditions mentioned above are contravened.

There is no restriction of time for purpose of carry forward of unabsorbed depreciation, though unabsorbed business losses cannot be carried forward for more than 8 assessment years immediately succeeding the assessment year for which the loss was first computed.

Treatment of Unabsorbed Business Losses and Depreciation In Computation Of Minimum Alternate Tax (MAT)

Minimum Alternate Tax (MAT) is payable by companies both foreign and domestic, @ 10% of book profits (including applicable surcharge and education cess). Book profit is derived by adjusting (positively and negatively) the net profit as per the profit & loss A/C.One of the negative adjustments is on the book values of unabsorbed business loss or depreciation, whichever is less. In case the book value of either the accumulated business loss or unabsorbed depreciation is nil, no amount would be reduced from the book profit.

Other than the above, in post amalgamation a situation may arise where the book loss of the amalgamating company ceases to be recognized as loss brought forward in profit & loss account of the amalgamated company, it having been adjusted in the capital account.

In the absence of a brought forward business loss/ depreciation, as belonging to the amalgamating company, in the profit &loss A/C of the amalgamated company the tax authorities may be reluctant to allow the negative adjustment to the book profits for purposes of MAT. Subject to the facts of a case, it may be possible to contest the denial of the adjustment on merits.

Return of Income for the year of merger

In case the approval for the merger is not granted by the jurisdictional High Court by the date of filling of the Returns of income of amalgamating and the amalgamated company, both the companies would need to files their Returns of Income as if the amalgamation has not taken place.

Due disclosure by way of note should be made in the return of income stating that the return shall be appropriately revise after the approval of the Scheme of Merger is obtained from the High Court.

Taxability of bed debts of the amalgamating (target) Companies in the hands of the amalgamated company

Debts provided for and considered in computing income of the amalgamating predecessor company, may be claimed as a deduction by the amalgamated company if the same become irrecoverable subsequently.

Continuing benefits in respect of certain expenses in the hands of the amalgamated company:

Expenses related benefits

Specified expenses are eligible for amortization over a prescribed period and deductible accordingly from the taxable income.

The amalgamated company is entitled to continue to claim the benefit of the unamortized expenses of the amalgamating company over the unexpired period in respect of Preliminary Expenses; expenditure on Scientific Research; Capital expenditure on family planning.

The unamortized expenditure on acquisition of patent or copy rights or know-how would be eligible as a deduction to the amalgamating company. Where, however, the expenditure is incurred after March 31, 1998, the same shall be regarded as intangible assets eligible for depreciation accordingly.

Income related benefits

As per the law on date, the Act permits the amalgamated / resulting company (in case de-merger) to continue to avail the tax holiday of he amalgamating company (or de-merged undertaking) for the unexpired period of the holiday.

The finance Bill, 2007 proposes to altogether withdraw the continuity of the unexpired tax holiday for specified undertaking in the hands of the amalgamated/ resulting neutrality of corporate re-structuring. There is no similar amendment proposed for purpose of specified industrial undertaking and it may therefore be assumed that such amalgamated/ resulting companies may continue to enjoy the unexpired tax holiday post amalgamation/de-merger of such specified industrial undertakings.

Other than the above proposed withdrawal, the existing provisions of the Act do not expressly permit the amalgamating/de-merger company to claim the tax holiday for the year in which the amalgamation/de-merger takes place Also, there is no provision that entitle the amalgamated/resulting company to claim the same in the year of the amalgamation/de-merger. To this extent, the tax holiday for the year of amalgamation/de-merger is lost. It may be recalled that for purpose of depreciation claims for the year in which the Merger/De-merger takes place, both the amalgamating and the amalgamated companies can claim depreciation on a proportionate basis for the number of days of use of the assets.

Share Buyout

Acquisition by purchase of shares is the simplest from of re - organization. If involves take-over without following the Court procedure under section 391-394 of the Companies. Act. The shares are sold and registered in the name of the purchasing company or on its behalf. The selling shareholders receive either cash compensation or shares in the acquiring company as consideration for their shareholding.

Typically a foreign company buys out the shares of Indian company from the shareholders of the Indian company. Where the foreign company acquires 100% of the shares in the Indian Company, it results in Indian company becoming a wholly owned subsidiary of the foreign company. The relevant tax implications are as under:

Gains on transfer of shares – Taxability in the hands of the shareholders

The consideration for exchange of shares in the target company flows directly to the shareholders in the form of cash, equity shares, and the like. Any non-cash consideration in lieu of the shares transferred is taken at the fair market value.

The exchange of shares would trigger a taxable gain, short-term or long-term, in the hands of the shareholders who would be liable to pay tax accordingly based on the period of holding of the shares transferred.

Tax implications on the company after change in shareholding:

Treatment of unabsorbed losses

A change in shareholding in certain circumstances disentitles a closely held company carrying forward and setting off its losses.

The Act provides that in case of a company not being a company in which public are substantially interested where a change in shareholding has taken place in a previous year, no loss incurred in any year prior to such previous year shall be carried forward and set off against the income of the previous year unless on the last day of that previous year and on the last day of the previous year in which the loss was incurred the shares of the company carrying not less than 51% of the voting power were beneficially held by the same person.

The exceptions to the above rule are:

(1) Where a change in shareholding takes place on account of the death of a shareholder, or transfer shares by way of gift to any relative of the shareholder: or

(2) Any change in the shareholding of an Indian company, being a subsidiary of a foreign company, arising as a result of amalgamation or de-merger of the foreign company provided that 51% of the shareholders of the amalgamating or de-merger foreign company continue to remain the shareholders of the amalgamated or the resulting foreign company.

The provision applies to all losses, including losses under the head capital gains. However, it does not affect the set off of unabsorbed depreciation.

Assets values

There would not be any change in cost of assets pursuant to the share buyout.

Depreciation claims

Unabsorbed depreciation would be carried forward and be eligible for set-off, notwithstanding any change in the shareholding pursuant to the buyout. Further, there would not be any change in the depreciation claim to be made in the year of the share buyout.

Expenses incurred on transfer of shares

The expenses incurred on buy-out of the shares may have to be treated as capital expenditure.

Takeover code

Where the Indian company is a listed company is a listed company, the foreign company would have to make a public offer for the acquisition of the shares under the guidelines prescribed under the SEBI Takeover Code.

De-merger

Where a company has a business housed with other businesses under the same entity, the target business may be de-merged into resulting company not foreign acquisitions.

In case of an acquisition by a foreign entity, the stock of such resulting company may be acquired by the foreign company. Alternatively, the de-merger can be structured to vest the target business in a foreign acquirer's pre-owned resulting company. Typically the acquirer would need an Indian SPV to acquire the target business through de-merger.

Tax impact in the hands of De-Merged Company & its Shareholders

Gains on transfer of capital assets- Not liable to tax

Any transfer of a capital asset by the de-merged company to the resulting company under the Scheme of de-merger is exempt from capital gains tax, if the resulting company is an Indian company.

Issue/Allotment of shares – Not liable to tax

Under the Scheme of de-merger, the shareholders of de-merged company are issued shares in the resulting company on a proportionate basis.

Akin to amalgamation the Act provides that any transfer or issue of shares by the resulting company to the shareholders of de-merged company in consideration of the de-merger would not be liable to tax in the hands of the shareholders under the head capital gains.

The cost of acquisitions of shares in the resulting company shall be the amount, which bears to the de-merged company, same proportion as the net book value of the undertaking bears to the net worth of the de-merged company immediately before such de-merger.

Tax impact on the resulting company:

Issue/Allotment of shares – whether liable to DDT

Pursuant to a de-merger, distribution of shares by the resulting company to the shareholders of the de-merged company (regardless of a reduction of capital in the de-merged company) shall not be treated as deemed dividend. Accordingly, the resulting company will not be liable to any DDT on such issue of shares.

Asset values

Actual cost of assets under the scheme of de-merger, all the assets and liabilities of the de-merged company (relating to the undertaking or division) are transferred to the resulting company at book value. In consideration of acquisition of such assets, the resulting company issues shares to the shareholders of the de-merged company.

"Actual cost" is defined as actual cost of the assets to the owner reduced by cost met directly by any other person or authority. Accordingly the cost of the assets acquired by the resulting company would be the fair value of shares issued to the shareholders of the de-merged company.

In order to prevent step up without recognition of gain, the cost of the capital assets in the hands of resulting company is restricted to mean the cost actually incurred by the de-merged company as if the de-merged company had continued to hold the capital asset for the purposes of its own business.

Cost of depreciable assets

Under the Scheme of de-merger, all the assets (including depreciable assets) of the de-merged company (relating to the unit/undertaking) are transferred to the resulting company.

The WDV of the block of assets acquired by the resulting company would be the WDV of such assets of the de-merged company immediately prior to the de-merger.

Depreciation claims

Depreciation under Act is allowed at prescribed rates with reference to WDV of the specified block of assets.

Depreciation in the years of de-merger

In the year of de-merger, depreciation is allowable on pro-rata basis to the de-merged and resulting company in ratio of number of days for which they use the assets.

Expenses in connection with de-merger

Similar to the allowance for claim of the expenses on amalgamation, the resulting company may claim a deduction of 1/5th of the expenditure incurred wholly and exclusively for the purpose of de-merger, over a period of 5 successive year beginning from the previous years in which the de-merger takes place.

Treatment of the accumulated loss and unabsorbed depreciation

The accumulated loss and unabsorbed depreciation of the undertaking/unit of the de-merged company as belonging to the resulting company would be determined as under:

(1) Accumulated loss and unabsorbed depreciation directly relatable to the undertaking or the division transferred of the de-merged company would be deemed to be those of the resulting company.

(2) Where the accumulated loss and unabsorbed depreciation is not directly relatable to the undertaking or the division transferred than the same would be allocated to the resulting company on a proportionate basis, viz, in the proportion of the assets of the undertaking retained by the de-merged company and transferred to the resulting company. The portion of accumulated losses/unabsorbed depreciation so allocated to the resulting company would be deemed to be those of the resulting company.

The term accumulated loss and unabsorbed depreciation have been defined to mean so much loss or depreciation which remains to be allowed, if de-merger had not taken place.

It may be noted that unlike amalgamation, there is no provision relating to de-merger which requires that the undertaking transferred should continue to be owned by resulting company.

Continuing benefits in the hands of the resulting company

The provisions relating to continuity of tax holidays in case of de-merger of specified undertaking/industrial undertakings are similar as is prescribed in the case of merger/amalgamation. Relevant discussion section 2 may accordingly be referred.

Monopolistic and Restrictive Trade Practices Act, 1969(MRTP Act, 1969)

This is an "Act provide that operation of economic system does not result in the concentration of economic power to the common detriment, for the control of monopolies, for the prohibition of monopolistic and restrictive trade practices and for matters connected therewith or incidental there to" Powers of the act have been curtailed by the amendments made by MRTP (Amendment) Act, 1991. Chapter 3 of MRTP Act which allowed scrutiny and clearance of merger proposals has been deleted to a great extent. Later, in the ruling of HLL-TOMCO merger case in 1992, Supreme Court of India stated that prior approval of government is not required for amalgamations following amendment to MRTP Act. The commission has now powers post facto to investigate if merger have had any adverse effect.

Sick Industrial Companies (Special Provisions) Act 1985, (SICA, 1985)

This is an "Act to make in public interest special provision with view to securing the timely detection of sick and potentially sick companies owing industrial undertaking, the speedy determination by board of experts of preventive, ameliorative, remedial and other measures which need to be taken with respect to such companies and expeditious enforcement of the measures so determined and for matters connected therewith or incidental thereto. An industrial company will be deemed to be seek industrial company if it has been registered for at least five years and has accumulated losses more than or equal to its net worth at the and of any financial year. Once a company becomes sick company, it will be referred to BIFR, which may as per section 18 sanction its merger with a healthy company for its revival. The sanctioned scheme must be approved through a special resolution by the shareholders of the healthy company. This Act also provides for hearing the views of employees, particularly of transferor sick company who may anticipate uncertainty on merger, and the scheme once sanctioned will be binding on them.

The Competition Act, 2002

The Competition Act was enacted "to provide, keeping in view the economic development of the country, for the establishment of a Commission to prevent practices having adverse effect on competition, in markets, to protect and sustain competition in markets, to protect the interest of consumers and to ensure freedom of trade carried on by any other participants in markets, in India, and for matters connected therewith incidental thereto" This Act, primarily deals with regulation of combinations (more generally, mergers), in order to prevent anti-competitive practice abuse of dominant positions of an enterprise which affects free competition. It contains a prohibition against a combination, which causes or is likely to cause an appreciable adverse affects on competition also has provisions requiring pre-notification of combinations form through acquisitions, mergers or amalgamations.

Laws Applicable To Takeovers

In Indian context, there are separate legislations applicable for takeover of public limited companies quoted Stock Exchange. These are:

Clauses 40A and 40B of the Listing Agreement the company entered in to the Stock Exchange SEBI's Substantial Acquisition of Shares and Takeovers Regulations, 1997 Takeover and Listing Agreement Exemptions: Clauses 40A and 40B of Listing Agreement Clause 40A deals with substantial acquisition of shares and requires the offeror and the offeree to inform the stock exchange when such acquisition results in an increase in the shareholding of the acquirer to more than 10% clause 40B deals with the takeover offers. A takeover offer refers to change in management, clause 40B also provide an exemption to the schemes by BIFR. There is no provision under clause 40B for exemption of non BIFR companies.

Securities and exchange board of India (SEBI) (substantial acquisition of shares and takeovers) regulations, 1997

Securities and Exchange Board of India (SEBI) is “an Act to provide for the establishment of a board to protect the interest of investors in securities and to promote the development of and to regulate the securities market and for maters connected therewith or incidental thereto” The SEBI’s Substantial Acquisition of Shares and Takeovers Regulations, 1994 are a first and significant step in laying down rules to be followed when corporate takeover is planned. Regulation 3 of Substantial Acquisition of Shares and Takeovers Regulations, 1994 provides that chapter 3 of the Regulations (relating to takeovers) would not apply to acquisitions of shares pursuant to a scheme of amalgamation u/s391 and 394 of Companies Act, 1956 and to the acquisition of shares pursuant to a scheme framed under the Sick Industrial Company (Special Provision) Act by BIFR.

These regulations remained in force till 20 February, 1997 when revised Substantial Acquisition of Shares and Takeovers Regulations, 1997 were reinforced to regulate the takeover bids. The main objectives of these regulations are to provide greater transparency in acquisitions of shares and takeovers of companies through a system of disclosure of information. It provides that any acquirer holding 10% or less of voting rights in capital of company shall acquire further shares only from shareholders of the company by making public announcement in the following way:

Appoint a merchant banker in category one holding a certificate of registration granted by SEBI who is not an associate of group of acquirer or target company.

The public announcement shall be made not later than four working days of entering into an agreement for acquisition of shares.

Copy of public announcement must be submitted to SEBI through merchant banker at least two working days prior to such issuance. Also, copies should be sent to all stock exchanges on which shares are listed and to Registrar's office of the company for being placed before Board of Directors of the company.

Public announcement shall be made by the acquirer in all the editions of one English and Hindi daily each with wide circulation and one vernacular newspaper of the place where shares of that company are listed and traded. It must be ensured that, announcement, any other advertisement, circular, brochure, material or letter of offer issued after acquisition of shares do not contain any misleading information.

The other disclosures in this announcement include the offer price, number of shares to be acquired from the public, identity of acquirer, purpose of acquisition, future plans of acquirer, if any, regarding the target company, change in control of target company if any, procedure to be followed by the acquirer in accepting shares tendered by the shareholders and period within which all formalities pertaining to the offer will be complete.

The offer price in the public announcement is not approved by SEBI but has to be justified in the offer document after taking into consideration the relevant parameters. In order to cover the events and market functions just prior to the public announcement, the concept of average of daily high and low of the closing prices of shares during the two weeks preceding the date of public announcement has been included in determining the offer price. In case were target company's shares are frequently traded on Stock Exchange, the offer price is the higher of average of weekly high and low of closing prices of shares as quoted on Stock Exchange during the twenty six weeks prior to date of public announcement and average of daily high and low of closing prices of shares during the two weeks preceding the date of public announcement. The offer price of infrequently traded shares is determined by taking into consideration the negotiated price under agreement, or parameters like return on net worth, book value of shares of Target Company, earnings per share and price earning multiple vis-à-Vis the industry average.

Within fourteen days from the date of announcement, a draft of letter of offer at minimum price has to be filed with SEBI through merchant bankers and twenty one days thereafter, the letter of offer shall be dispatched to shareholders. Within twenty one days of submission of offer, SEBI may specify some changes which have to be incorporated before dispatching to shareholders.

The offer at minimum price should be to acquire an aggregate minimum of 20% voting capital. If the offer results in decreasing public shareholding to less than or equal to 10% of voting capital of the company, then acquirer can make another offer. This offer can be made within three months from close of public offer to acquire remaining shares at same price, or disinvest, or offer for sale, or issue fresh share capital to public within six months, such number of shares so as to satisfy Listing Agreements.

The acquirer, under regulation 28 is required by way of security for his performance, to deposit is an Escrow Account such sum as specified in the form of cash deposit, bank guarantee or deposit of acceptable security. No public offer, once made can be withdrawn except under special circumstances.

LAWS OUTSIDE INDIA

Laws in US

Mergers and acquisitions continue to be an important phenomenon in the US economy. Their continued presence has created tremendous interest in this topic. Despite US being a free economy, laws have been framed from time to time to regulate these activities coinciding with the merger waves. Congress has, on three occasions tried to deter the growth of corporate size and power, in 1890 with the passage of Sherman Act, in 1914 with the passage of Clayton Act and in 1950 with Celler Kefauver Amendment of Sec 7 of Clayton Act.

In US, Securities and Exchange Commission regulates the conduct of takeovers. The justice Department and the Federal Trade Commission regulate economic and anti-trust issues. Many industries have their own regulatory bodies, such as the Federal Reserve Board (banking), the Federal Communications Commission (Broadcasting), the inter State Commerce Commission (railroads and trucking) and the Transportation Department (airlines).

The major antitrust regulations of US which have a bearing on merger are contained in the following statutes:

The Sherman Act, 1890

This Act, which prohibits any restraint on trade or attempt to monopolistic trade, was passed in the midst of greatest merger wave of US's history. Although not directed solely at mergers, one of the goals of Sec 2 of the Act was to stop creation of monopolies through mergers as was occurring in numerous industries at that time. But the Act could not prevent mergers that brought together companies of less than monopolistic dimensions. Recognition of this fact contributed to the impetus behind the second major effort to curtail corporate power in 1914.

The Clayton Act, 1914

Section 7 of the Act prohibits mergers that would substantially lessen competition or tend to create monopoly. More specifically, the section prohibits full or partial acquisition by a commercial corporation of the stock or assets of another, engaged in commerce in the country, if the effect of such an acquisition may be substantially to lessen competition or tend to create monopoly. The prohibition applies to horizontal, related and conglomerate acquisitions. The various statutory rules are enforced by the Federal Department of justice (FDU) and Federal Trade Commission (FTC). Prospective mergers have to be notified to these agencies. Both agencies then investigate and if necessary, initiate proceedings in federal courts. The FTC also has various appeal procedures involving the administrative law courts and independent FTC commissioners.

Merger Guidelines, 1968

In 1968, Department of Justice issued merger guideline which made it difficult for horizontal and vertical mergers in adjacent stages of production and distribution to take place. This had the effect of encouraging conglomerate acquisitions. According to FTC commission statistics, conglomerate acquisitions which accounted for 3% acquisitions in 1940's and 1950's rose to 49% by mid 70s.

The 1968 guidelines specified the following thresholds:

(1) Horizontal Merger

If the four firm concentration ratios are less than 75%, a merger upto 30% of acquirer and 10% of acquiree might not be challenged. If four firm concentration ratios are more than 75%, the percentages fall to 15% and 1% respectively.

(2) Vertical Merger

Where supplying firm has at least 10% of sales in its market and purchasing firm has at least at 6% of total purchases in that market, the merger will challenged.

(3) Conglomerate Merger

Where reciprocal buying and market dominance occurs, the merger will be challenged.

The Williams Act, 1968

This Act regulates tender offers with the help of Security and Exchange Commission. It imposes obligations on both offeror and targets and prevents secret accumulation of large securities by requiring acquisition of 50% or more of voting shares to be disclosed within ten days. Williams Act defines that when a tender offer commences, the information to be disclosed includes sources of funds and the purpose of the offer. Tender offer must be open for twenty business days and revised offer kept open for another ten business days. Williams Act imposes obligations on targets in response to tender offer. It requires the targets to inform its shareholders of its position on tender offer within ten business days.

Targets management must disclose any conflict of interest and also refrain from any materially misleading statements.

Harr-Scott Rodino Anti Trust Improvement Act, 1976

This Act of 1976 brought an improvement on Clayton Act, 1914 to lighten antitrust laws. Merger transactions in which parties have significant assets or sales are regulated by this Act. It requires such parties to notify the Department of Trade (DOT) and Federal Trade Commission (FTC) of such a transaction, observe a prescribed waiting period before completing them. The Act stipulates a threshold test of applicability based on size of parties and a test based on transaction size. It is a two phase process with an initial filing and a second request for more elaborate information.

In April 1997, the US government unveiled new merger guidelines issued by FTC. Although these guidelines do not have any law backing, they are for government staff and lawyers representing merger parties. It is a common phenomenon even in US that Companies proposing to merge always argues that their merger will bring about efficiency. Under the revised guidelines, the government regulators shall not clear the merger proposal unless it passes the test of claimed efficiencies from merger proposing to enhance merged firm's capacity to behave competitively, leadings to higher quality, better service, lower prices or new products.

Laws in UK

Merger and takeovers have been very frequently in UK also. Laws have been enacted to control and regulate these business combinations. Although restrictive trade practices have been subject of government scrutiny since 1948, mergers have been subject of antitrust regulations only since 1965 with the enactment of Monopolies and Merger Act during which period the UK government policy has gone through distinct phases. While the main trust of antitrust regulation has been maintenance of effective competition, many other issues of public interest have been considered relevant in determining whether merger should be allowed or not. For the first time, merger can be investigated prior to consumation rather than in effective post-merger evaluation situation in which government was never willing to insist on divestiture of private enterprise.

The UK anti-trust regulations are currently dominated by two stage process. The first stage is the preliminary screening by Office of Fair Trading (OFT) created under the Fair Trading Act. 1973. This stage may be lead to recommendation to the President of the Board of Trade for a more detailed investigation by Monopolies and Merger Commission (MMC), the second stage. The MMC undertakes such an investigation and presents its report to the President, who then accepts or rejects its recommendations. The takeover rules are determined by City Panel on takeovers, a self regulatory agency of London Stock Exchange. The secretary for Trade and Industry, regulates all UK industries, so with single regulatory body, government policies are more likely to be consistent across industries.

Fair Trading Act, 1973

The OFT, created under the Fair Trading Act, 1973, is an independent company watch dog and monitors all mergers proposals or actual mergers in U.K. From its initial screening of a merger proposal, the OFT has to determine whether it is merger situation qualifying for investigation by MMC after taking into consideration the various factors and the presents government policy. Over the years, there has been shift of emphasis between competitive and non competitive factors. In period 1965-1973, government encouraged consolidation of UK firms in order to enhance their international competitiveness to build national champions. This led to policy of benign "indifference" towards mergers which decreased competition in UK. In the period 1974-83, the policy was changed. Most of the mergers, including conglomerates were rigorously scrutinized and some even disallowed. More recently, the approach seems to be dilution of competitive approach.

Monopolies and Merger Commission

In the second stage, MMC, which is an independent advisory body, may present one of the following three conclusions to the President for recommendation.

(1) Merger does not operate against public interest and can therefore be allowed to proceed.

(2) The merger operates against public interest and may therefore be prevented.

(3) The merger can be allowed subject to adverse effects on competition being remedied.

To conclude, through this concern of anti-trust authorities in UK and US seems to be paradoxical for these laisses-faire economies, yet they suggest the amount of authority they possess in ensuring competition and fair corporate practices.

VALUATION IN A MERGER: METHOD OF SHARE EXCHANGE RATIO

One of the most important aspects of merger is valuation of business of business in order to determine share exchange ratio in mergers. Valuation of the business is tool to assess the worth of a company which is subject to merger or takeover so that consideration amount can be quantified and the price of the one company for the other can be fixed. Valuation of both companies subject to business combination is required for fixing te consideration amount to be paid in the form of exchange of shares. Such valuation helps in determining the value of share of acquired company as well as acquiring company to safeguard the interest of shareholders of both the companies. There are three methods used for valuation of business.

Net asset value (NAV) Method

Net asset value is the sum total of value of assets (fixed assets, current assets, investments on the date of balance sheet less all liabilities including both current and likely contingent liability, debts, borrowings and preference share capital) Deductions will have to be made for arrears of depreciation, arrears of preference dividend etc.. However, there may be some modifications in this method and fixed assets may be valued at current realizable, (especially real estate and investments), replacement cost (plant &

Machinery) or scrap value(obsolete machinery). The net asset value so arrived is divided by fully diluted equity to get NAV per share.

Following are steps for valuing shares are:

1. Valuation of assets
2. Ascertainment of liabilities
3. Fixation of the value of different types of equity shares

$$\text{NAV=} \quad \frac{\text{Net Assets (All assets valued at appropriate method-all Liabilities-Preference shares)}}{\text{Fully diluted equity shares}}$$

Yield value method

This method, also called profit earning capacity method is based on the assessment of future maintainable earning of the business. While the past financial performance serves as guide; it is the future maintainable profits that have to be considered. Earning of the company for next few years are projected (by valuation experts) and simple or weighted average of these profits is computed. These net profits are divided by appropriate capitalization rate to get true value of the business. This figure divided by equity value gives value per share. While determining operating profits of the business, it just is valued on independent basis without considering benefit on account of merger. Also, past of future profits need to be adjusted for extra ordinary income or loss not likely to recur in future. While determining capitalization rate, due regard has to be given to inherent risk to each business. Thus, a business with established brands and excellent track record of growth and diverse product portfolio will get a lower capitalization rate and consequently higher valuation where as a cyclical business or a business dependent on seasonal factors will get a higher capitalization rate. Profits of both companies should be determined after ensuring that similar policies are used in various areas like depreciation stock valuation etc.

Market value method

This method is applicable only in case where shares of companies are listed on a recognized stock exchange. The average of high or low value and closing over a specified previous period is taken to be reprehensive value per share.

Now, the determination of share exchange ratio i.e. how many shares of amalgamating company are to be exchanged for how many shares of amalgamated company is basically an exercise in valuation of share of two or more of amalgamating companies. This is done by using the above mention techniques not in isolation but keeping in view board objective and other factors. This problem of valuation has been dealt with by Weinberg and Blank (1971) by giving the relevant factors to be taken into account while determining the final share exchange ratio. These relevant factors have been enumerated by Gujarat High Court in Bihari Mills Ltd. And also summarized by the Apex Court in the case of Hindustan Levers Employees Union v. Hindustan levers Ltd. (1995) as under.

1. The stock exchange prices of the shares of the companies before the commencement of negotiation or the announcement of the bid.
2. The dividends presently paid on the shares of two companies. It is often difficult to induce a shareholder to agree to a merger if it involves a reduction in his dividend income.
3. The relative growth prospects of the two companies.
4. The cover, (ratio of after tax earnings to dividends paid during the year) for the present dividends of the two companies. The fact that the dividend of one company is better covered than the other is a factor which has to be compensated to some extent.
5. The relative gearing of the shares of the two companies. The gearing of an ordinary share is the ratio borrowing to equity capital.
6. The value of net assets of the two companies.
7. The voting strength in the merged company of the shareholders of the two companies.
8. The past history of the prices of the two companies.

There are, however, no rules framed specifically for the working out of share exchange ratio in case of amalgamations. According to Delhi High Court statement:" The valuation of shares is a technical matter which requires considerable skill and expertise. There are bound to be difference of opinion as to what the correct value of shares of the company is. If it is possible to value the shares in a manner different from the one adopted in the given case, it cannot be said that the valuation agreed upon has been unfair." Also, in the Hindustan Lever Ltd. Case, Supreme Court held that approved the scheme, and with the valuation having been pursued by the Financial Institutions. The crux of valuation has been rightly summarized by Nan Stone as "what gets measured gets managed". On the basis of decided cases in courts in India, the following points emerge:

1. In case of amalgamations of companies listed on recognized stock exchanges with substantial public holding, the courts have unanimously held that a detailed report of an independent expert have also been laid down by the courts.
2. However, even in the cases of amalgamation of closely held listed companies where unanimous approval of share exchange ratio is obtained from shareholders, some courts (especially in Calcutta) have not insisted on experts certificate.
3. In other cases of private listed companies or closely held unlisted companies, in case of complete unanimity to the determined share exchange ratio, lack of expert's report is overlooked by the courts.

The Law as it stands in India today, does not make it obligatory for the proponents of the scheme of merger to disclose to anyone, the basis on which valuation is done or its actual working unless the court specifically insists on it. It is also not necessary to inform the shareholders or the creditors of the detailed workings of share exchange ratio. Thus, the disclosure of these workings by the company under the present existing scenario is very limited. Hence, very few companies bother to inform the shareholders the basis of arriving at the share exchange ratio or the swap ratio.

SIGNIFICANCE OF APPOINTED DATE AND EFFECTIVE DATE

Amalgamation of two companies involves transfer of all properties and liabilities of amalgamating company to amalgamated company. The date when this transfer takes place is a very crucial decision. Compliance of statutory requirements of income Tax Act and other Acts are dependent on this date. Since the sanction of scheme completely by court may take time (even running up to a few years), the tax liability of the intervening period of both companies could be a matter of dispute. The date is also significant from the point of view of creditors and shareholders of both the companies

Appointed date denotes the cut off date from which all the moveable or immoveable properties, including rights, powers and privileges of all kinds of Transferor Company shall be transferred to the transferee company. Unless the court alters the appointed date contained in the scheme, the date so contained will be the appointed date and all assets and liabilities of Transferor Company shall vest in Transferee Company effective from this date. It is the date from which both the companies accounts are closed and audited. Also, valuation of assets and liabilities is done for this purpose. It is the date when both companies are merged into one i.e. scheme of merger becomes operational. Transfer date or appointed date remains on paper if scheme is not approved by three fourth majorities of shareholders of both the companies or not sanctioned by the court. However, even if scheme is sanctioned by the court, merger does not become effective until certified copy of High Court order is filed with Registrar. This is called effective date. Effective date is the date on which transfer and vesting of undertaking of Transferor Company takes effect. In other words, all the requisite approvals are obtained after company takes effect. In other words, all the requisite approvals are obtained after completing all the required formalities. Once court gives sanction, merger becomes effective not from date of sanction but from the date when it was arrived at. So once the formalities are over, merger is effective from transfer date. In majority of merger cases appointed date is fixed even in future. The Boards of Reliance Group of Companies announced the merger of Reliance Polypropylene and Reliance polyethylene with Reliance Industries Ltd. On 7th November, 1994 and proposed the amalgamation to be effective from 1st January, 1995.

However, appointed date fixed in past can not be earlier than date of incorporation of either of the two companies involves in merger. In case of premises Ltd. The appointed date as per the scheme was fixed at 1st April, 1991 where as transferee company was incorporated on 28th October, 1991. The appointed date was accordingly modified by the court as 28th October, 1991 being date of incorporation of the company. The objection of Central Government that appointed date could not be earlier than 9th April, 1992 when certificate of commencement of business was issued to Transferee Company was overlooked.

Many cases have been cited when disputes have occurred because of confusion over these dates. There have been avoidable legal battles on interpretation of these dates. Review of merger schemes over last few years show lessons being learnt by drafters of these schemes. Now management ensures that appointed date or transfer date is used and all references are linked to these dates. Indofil Chemicals Ltd. Was merged with modipon Ltd. Vide approval date 1st February, 1986 whereas appointed date was 1st July, 1982. Assessing Officer assessed the assesses in respected in income after the appointed date and did not allow credit for Advance Payment of Tax (APT) and Tax Deduction at Source (TDS) by amalgamated company in its own name.

Income Tax Tribunal held that date of amalgamation was from appointed date and there after all assessments would be made by amalgamated company. They considered that amalgamation was like transfer of immoveable property, where transfer is not complete till registered, but once registered, transfer takes effect from date of sale deed. Similarly merger is effective when all formalities are complete (called the effective date) but effective from the appointed date which is the date of merger.

Similarly, in Marshall Sons and Company (I) Ltd, the court considered the question of determining the appointed date since no specific date was laid by the court sanctioning the scheme. It was held that every scheme of amalgamation has to provide a date necessarily, with effect from which amalgamation or transfer shall take place. In the instant case, a date was incorporated in the scheme. It is open for the court considering the scheme to prescribe any other date for transfer. Since in this case, the court did not prescribe any date for giving effect to the scheme, the date contained in the statement itself shall be date of transfer or amalgamation.

INTERIM PERIOD BETWEEN APPOINTED DATE AND EFFECTIVE DATE

As stated earlier, an amalgamation, though effective from the appointed date becomes operative from the last of the following dates or such other date (effective date) as the court may direct, namely,

1 The date on which last of all consents, approvals permissions, resolutions, sanctions and orders as mentioned in ithe scheme are obtained or

2 The date on which certified copies of order of the court under section 391, 392 and 394 0f Companies Act, 1956 are filed with the Registrar of Companies

Thus, there is a time period between appointed date and date on which scheme finally takes effect (i.e. effective date). During this period,

1 The transferor company shall carry on or deemed to have carried on all its business and activities and shall hold and stand possessed of and shall be deemed to have held and stood possessed of all the said assets on account of and in trust for the transferee company.

2 The transferor company shall carry on its business and activities with reasonable diligence and business prudence and shall not undertake any financial commitments, borrow any amounts nor incur any other liabilities, issue any additional guarantees to its subsidiaries or group companies or any third party or save, as expressly permitted by this scheme, and shall not, without the prior written consent of the transferee company, deal with the said assets or any part thereof provide that the transferor company may create charge over the said assets in favors of the transferor group.

3.

a. The transferor company shall not make any change in its capital structure either by increase, (by issue of equity shares whether by way of public issue, private placement, on a rights basis, or issuance of bonus shares, convertible debenture or otherwise) decrease, reduction, reclassification, subdivision or consolidation, re-organization, or in any manner, which may, in any way affect the equity share exchange ratio, except by mutual consent of the board of directors of transferor company.

b. The transferee company shall not make any change in its capital structure by issue of any fresh equity shares except by mutual consent of respective Board of Directors of both the companies.

4. With effect from the appointed date all the profits or incomes accruing or arising to the transferee company or expenditure or loses arising or incurred by the transferor company shall, for all purpose, be treated and be deemed to be and accrue as the profits or incomes or expenditures or losses of the transferee company, as the case may be.

DUE DILIGENCE

Types of Due Diligence

Broadly, due diligence practices can be categorized into two types. One is the Anglo-Saxon" practice. This involves comprehensive legal and financial due diligence and significant disclosure before the signing of an agreement. Contrast this with the practice in much of the rest of the world, which involves more modest preliminary legal and financial due diligence with correspondingly limited disclosure.

Who is involved in due diligence?

This includes company employees, the company's traditional professional advisors and those hired for their expertise in certain legal, tax, finance accounting and operational issues present in Target Company's home country. They include financial legal and operational professionals.

Financial Due Diligence

Financial due diligence involves critically examining the target legal company's historical, current and prospective operative operating result as disclosed /discharged/obtained from the following sources :

1. Audited financial statements.
2. Unaudited financial information
3. Financial information with stock exchanges and regulators regulation
4. Tax returns
5. Cash flow statements etc.

Generally, the process starts at a comprehensive analysis of the balance sheet. A review of the target firm's financing and capital structure is very much required. Further, this analysis should include details of short-term and long-term borrowings, the percentage of debt and equity ratios in the company's balance sheet, interest and fixed charges coverage ratios etc.

Financial due diligence also involves analysis of the cash flow statement. One must not forget to examine the quality of company's relationship with its lenders and an ultimate opinion concerning the reliability and credibility of its financial statements.

Legal Due Diligence

Legal due diligence involves the practices of addressing certain fundamental legal issues which includes good compliance practices as per the Companies Act, SEBI Act, Income Tax Act and other corporate legislations. Analysis of legal due diligence process could be undertaken from the following sources:

(i) Memorandum of Association

(ii) Articles of Association

(iii) Target company's prospectus

(iv) Documents filed with Registrar of Companies including Registration of Charge

(v) Title deeds of properties

(vi) Tax return and compliance certificate

(vii) Environmental law compliance

(viii) Lending agreement, covenants borrowing powers.

(ix) Compliance with any special industry legislations.

(x) Labor agreement, compensation etc.

(xi) Pending litigations

Today's legal environment has become highly specialized. Today, even midsized deals involve battery of corporate tax, real estate, environmental employee benefits, insurance and other kinds of legal professionals. Further, legal due diligence requires careful attention to actual and threatened litigation. Litigations can emerge from various statutory bodies, shareholders, debt holder, suppliers, assistance product liability etc.

Further in the era of increasing regulatory and judicial scrutiny, matters like allegations of improper behavior by corporate officers directors and employees, workplace safety matters, employee benefits, potential equal opportunity violations ever increasing environmental scrutiny may take center stage.

Operational Due Diligence

Operational due diligence includes investigating the target's intellectual property, its production, its sales and marketing efforts, its human resources and the other operational issues. Meaningful generalizations of operational due diligence practice are difficult to make as it varies from target. Operational due diligence practices ca be undertaken by analyzing the information from he following sources:

(i) Newspaper and magazines reporting about the target company

(ii) Available information with trade association's chambers and regulatory bodies.

(iii) Market reports.

(iv) Company journals, brochures and websites.

(v) Gathering inputs from the market, market experts, suppliers and customers

(vi) Interviewing the employees, ex-employer etc.

One has to appreciate that preparation of any due diligence report is as good as the persons who conduct it and the correctness of the information gathered. In the case of operational due diligence it is more often very subjective, depending upon the person who is interviewed to gather the information and one may be able to only estimate the future profitability. The successes of due diligence process will depend on the quality and quantity of data collected or supplied.

A Practical Guide to Due Diligence Process

There are two ways of conducting due diligence:

(a) Presentation of predetermined data by the seller/target company in a 'data room';

(b) Data provided in response to the acquirer's questionnaire.

In Data Room method, large amount of data is presented to interested parties to study and value it and get due diligence conducted. Here mammoth data is provided. Data room method has been successfully used for disinvestments by the tender route. By this process, the seller is able to ensure that all the bidders are treated fairly and that they are given access uniformly to the same data or information. Hence, uniformity of the information and documents supplied to all bidders is maintained.

Any discrimination in the supply of information or documents could vitiate the bidding process. This applies more to disinvestments by the central or state government or government companies, which can be subjected to judicial review under the provisions of the Constitution of India.

In other method, a questionnaire is put to target company and on that basis further one-to one negotiations are done.

Thereafter a due diligence report is prepared by professionals which can be effectively used to negotiate the vexed question of the representations and warranties to be included in the sale and purchase or financing agreement, the disclosures that inevitably qualify (some if not many of them) and the amount, if any, to be set aside in escrow and on what conditions.

Managing the Due Diligence Process

How do we actually go about due diligence? What kinds of people are involved in this procedure? What are the parameters? Let us examine each in some detail.

1. Initial parameters –

Management requires a preliminary evaluation of the areas of key importance for the success of the transaction. This can be continuity of targets, key personnel, suppliers and customers after the mergers & acquisitions.

2. Selecting due diligence teams – The core team for the conduct of the due diligence should consist of:

- Management representatives of the acquirer;
- Legal counsel;
- Valuation adviser;
- Chartered Accountants, company secretaries/Project consultants
- Technical consultants
- Merchant bankers

This stage will also involve the coordination plan among the team members, and allocating responsibilities and functions. Usually, all external counsels are required to execute confidentiality agreements before commencement of the assignment.

3. Preparing and executing preliminary investigation –

The objective of the preliminary survey is to identify deal-breaking issues upfront before money and other valuable resources are committed to detailed investigations. Some of the critical issues that may emerge during this exercise are:

- concealment of facts and figures;
- insufficient internal controls;
- non-compliance of or adventurous interpretations of contracts, legal provisions, accounting principles policies or standards;
- employee retention and core management succession;
- contingent liabilities;
- statutory non-compliance;
- industrial sickness (erosion of net worth); and
- Legal proceedings.

4. **Detailed due diligence –**

The success of the investigation to make a well- informed decision would lie n a well-planned, integrated and coordinated detailed enquiry procedures.

5. **Certification of completeness of disclosures** –

The due diligence team should obtain a declaration or certificate from the target company confirming the completeness of the disclosed information and documents, and that no material data has been withheld by the target company.

Contents of the Due Diligence Report

The due diligence report ordinarily contains information pertaining to:

1. company information; share capital & shareholdings
2. corporate capacity;
3. directors, their interests and conflicts, if any;
4. account & financial statement
5. statutory compliance with the applicable regulations;
6. personnel;
7. compliance with the industrial disputes Act 1947, the payment of Bonus Act 1965, the payment of Wages Act 1936, the payment of Gratuity Act 1972, the Employees Provident Funds and Miscellaneous Provisions Act 1952, the Employees State insurance Act 1948, and the Local Shops and Establishments Act; as well as with any industrial settlement award, judgment or order in any

labor dispute or litigation; recognized trade unions, retrenchments, lay-off and voluntary retirement schemes; and share options, share incentive, profit sharing or other incentive schemes for employees;3pension, retirement provident fund, superannuation and gratuity schemes;

8. licenses, permits, approvals and specific statutory compliance;
9. intellectual property rights – identifications of all patents, trade marks, copyrights, industrial designs, all other forms of registered and unregistered intellectual property rights or other form of monopoly or property rights used or owned by the target company and rights granted to third parties;

10 industrial property know-how, trade secrets;

11 infringement of third party rights;

12 assets- immovable and movable property;

13 exports and imports, compliance with laws;

14 litigation-judicial, quasi-judicial, arbitral and other administrative proceedings;

15 taxation issues – income tax, customs, excise and sales tax;

16 insurance – quality of insurance cover;

17 contractual liabilities and commitments; and

18 Environment-related issues – compliance with law, social issues, and the rehabilitation of people likely to be outsider by large natural resources projects.

Due Diligence Check List

A. Financial Due Diligence

Financial Information

1. Year-to-date financial statements, with comparison to same period of prior year.
2. For the past three years, all annual and quarterly financial statements, including accompanying schedules, of the company and its subsidiaries (balance sheets, income statements, statement of cash flows, and reconciliation of retained

earnings). If available, include financial reporting (revenues and costs) by line of business and revenues from top ten major accounts.

3. Current trial balance and other significant financial statements and internal financial reports of the company and its affiliates.
4. List of bank accounts including bank type or account number, and authorized signatories. Obtain copies of bank reconciliations for review for all accounts for the last two months and each quarter for the last two calendar years.
5. Bank statements for the last month of the fiscal year-end and of the prior year and all months of the current year.
6. Summary of major accounting policies, nothing any that may be controversial or different from the investor country's generally accepted accounting principles (GAAP) or that may not be in accordance it generally industry practices. Listing of accounting selective methods, particularly significant estimates (e.g., accruals, valuation methods, and depreciation).
7. All auditors' and independent certified public accounts' letters and opinions for the company and its affiliates. Obtain auditors' reports to management concerning internal accounting controls and procedures and other matters and any management responses thereto and internal memoranda (particularly internal audit or regulatory compliance memoranda) concerning the company or its affiliates.
8. Financial projections, if any, for the remainder of the current year and next year, including assumptions. Include full-year detailed income statement by month, end-of-year estimated Performa balance sheet and cash flow forecast, budget for the current year, and comparison of actual versus budget year to date for the current year.
9. Identification and description of all contingent liabilities not reflected on the company's financial statements, established monetary provisions, allowances and reserves, and disagreements with company's outside auditors concerning the company's financial reporting during the preceding two years.
10. Copies of letters to management relating to the potential improvement of the company's internal control systems together with any reports, letters, or

correspondence prepared by accountants of the company or any subsidiaries or partnership.

11. Copies of all tax filings and returns (including shareholder, corporate, or partnership) for the last three years, including income taxes, sales, use property, employment, and franchise taxes (and any other local taxes). Include copies of any correspondence with tax authorities (other than routing transmittals) and copies of tax sharing agreements between the company and its subsidiaries or affiliates.
12. All income tax audit results and any communication (documented or oral) from the government agencies in all jurisdictions that require tax filings.
13. Schedule describing ongoing tax disputes ,together with copies of tax authority reports, correspondence, and similar matters, with respect to pending tax proceedings regarding open years or items for the company or any affiliate.
14. Prior year's tax returns for all companies acquired within the past three years
15. A schedule of shareholder "due to" and "due from" accounts for the last two years.
16. A listing of any significant nonrecurring expenses occurring in the past year or current year.
17. Schedule of accounting firms that have represented the company or any of its affiliates in any material matters in the last five years.
18. A schedule with supporting agreements showing cooperative arrangements with suppliers detailing year-to-date payments to be received for the balance of the year.
19. A schedule with supporting agreements showing commission arrangements with top ten suppliers detailing commissions received year to date and estimated commissions to be received for the balance of the year.
20. A schedule showing current accounts receivable & payable, accrued expenses, and customer deposits
21. A schedule of property, plant, and equipment; depreciation schedules, and amortization schedules.

22. Detailed listing of capital investments that will be made during the current fiscal year, especially if not completed as of the date of the company's most recent financial statements.
23. Reports on the company from any outside consultants, analysts, or others.
24. Description of contingent liabilities arising from any agreements, severance payments for terminated employees, unresolved legal matters, price redetermination or renegotiation, sales subject to warranty or service agreements, product liability, unfunded pension plan liability, and environmental or other matters.

Financing Documents

1. Any significant debt agreements to which the company or any affiliate is a party, such as or revolving loan agreements, bank lines of credit, mortgages, promissory notes significant property or equipment leases, and other similar agreements and arrangements, and all guarantees by the company or any subsidiary together with any interest rate cap, hurdle, swap or other hedging mechanism relating to the foregoing.
2. Summaries of all evidences of compliance with the agreements described in preceding item 1, and any communications regarding defaults, potential defaults, or waivers of defaults.
3. Documents relating to proposed new indebtedness, including but not limited to term sheets, commitment letters, draft agreements, and similar documents.
4. Disclosure documents used in public offerings, state of control, private placements of securities, industrial development bond financing or institutional or bank loan applications.
5. Copies of letters of credit, performance guarantees, and bonds.
6. All pledges, security agreements or other agreements or documents creating or purporting to create liens or other security interest in any assets of the company.

Properties and Equipment

1. List of addresses of properties currently owned or leased by the company and related documentation. Obtain a summary of the office floor plan, facility hours (times and hours per weekday), and revenue generated by each facility.
2. Copies of all deeds or other titles evidencing ownership of the properties owned by the company or a subsidiary/affiliate.
3. For each property owned by the company or affiliate, a copy of the latest owner or leasehold title insurance policy issued, as applicable, and the most recent survey covering such properties.
4. Copies of all leases for use of the real property owned or leased by the company or any affiliate.
5. Copies of all mortgages encumbering the properties owned or leased by the company or affiliate.
6. All equipment and auto leases for a period in excess of two years or that require payments in excess of an immaterial amount annually.
7. List of all automobiles, including title documentation.
8. Plans with respect to any facility closings.
9. Summary of any construction plans for significant new facilities and date on projected construction costs for such facilities and any facilities currently under construction.
10. Copies of all principal trademarks. Licenses, patents, copyrights, websites, toll-free telephone numbers, or trade names of the company or its affiliates, the expiration dates thereof, and pending applications therefore.
11. Details of recent acquisitions, divestitures, spin-offs, or dispositions of assets.

Due Diligence Check List

B. : Operational Due Diligence

A Framework

1. **Deal rationale:**

Identify rationale for the transaction (e.g., market, territories, products and product development, other strategies for revenue growth, strategies for cost savings).

2. **Concrete goal:**

What concrete goals expected to be met, and over what time frame? How will achievement of those goals be measured?

3. **Preliminary plan for achieving goals:**

Specifically, what is the preliminary plan for achieving the goals out-lined above?

4. **Drivers of value creation:**

Based on the above, what is preliminary view regarding the drivers of value creation for the transaction?

5. **Most significant hurdles: Preliminary view:**

What is the preliminary view of the biggest hurdles to achieving the goals set for the transaction?

6. **Key due diligence:**

Are these aspects of due diligence, including operational due diligence, that are especially critical to the plan for the combined enterprise?

7. **Integration plan**:

How will the due diligence process be developed into an integration plan? Are the people and processes in place to make sure there is a seamless transition from due diligence to integration?

8. **Negotiation and pricing strategy:**

How will information and analyses generated through the due diligence processes be taken into account in the negotiation and pricing strategies? As the deal negotiations precede, will due diligence be appropriately re-targeted along the way? Are the people and processes in place to make sure that these things happen?

9**. Macro framework for due diligence:**

What are the deal team’s key assumptions about macro economic and demographic factors that should frame operational due diligence? These include world economic growth, trade growth; and population growth, age profile, income levels, and other demographic assumptions in the relevant jurisdictions.

10. **Economic factors affecting the relevant jurisdictions:**

What are the assumptions about economic factors affecting the relevant jurisdictions: foreign exchange rates, currency exchange regulations, and fiscal and monetary policies, including taxation and import-export?

11. **Political factors :** What are the assumptions regarding macro- level political/environment/ecological factors, such as political stability, potential human rights issues, environmental or health issues, and community or social development obligations?

Analysis of the Value-Creation Process

Undertake the following analysis for the target company as well as for the combined enterprise.

(i) The Operations Overview Map

1. **On one or more maps**, chart the supply chain, facilities, personnel, and products and services produced against sales, distribution, and marketing.
2. **On these maps**,

   analyze the following:

   - Markets, including new markets, for products/services
   - Competitive positioning
   - Distribution channels
   - Marketing strategies
   - Operations and technology strategies
   - Sales/services outlets
   - Planned production
   - Supply and transportation synergies and vulnerabilities
   - Political and macroeconomic trends and vulnerabilities
   - Personnel overlap and shortfall
   - Flow of funds and financing needs, both operating and capital expenditures; analyze currency requirements and foreign exchange and exchange control risk, as well as taxation and transfer pricing issues.

(ii) Marketing, Sales, Distribution and Customer Relationship Management

1. Product analysis: Describe the company's products/services. Break down into relevant categories and describe territorial markets. Describe uses of the products and assess the qualities of the products against those of competitors, including products substitution. Consider the following factors.

-price

-Quality

-Service

-Availability/sales formats

-Design/engineering features and standards

-Sales terms (right to return, credit terms, charge-backs, warranties)

-After-sales service, upgrade, follow-on, etc.

Which of the above are most important to customers in the various markets? In which of the above does the company enjoys an advantage sustainable or natural, or is it marginal and temporary (can be copied or eroded)?

At what stage of the product life cycle are the various products in their various markets?

Do any of the products of the combined enterprise compete with one another? What is the proposed approach to this problem were it exists?

Are there any known negative qualities associated with the product, such a health risks, product liability risk? Or negative environmental or social qualities?

2 **Market analyses: demand:** How is demand generated, and on what does the level of demand depend? Is it seasonal or cyclical? Is product substitution or technological obsolescence a major risk in terms of basic demand? To what extent can the company control demand? What are the biggest drivers of changes in demand?

3. **Market analysis: competitors:** Describe the competitive situation by product/market and its effect on product design, product mix, marketing and positioning and pricing.

4. **Market analysis: customers (end users):** What is the market, and who are the company's customers? If customers are not end users, this analysis should be done for direct customers and at each stage of the distribution chain all the way to end users. Break down along all relevant categories (for business: industry, size, profitability, outlook; for retail: national, cultural, income level, lifestyle choirs, other demographic features), including geographic. For each major category of customer (end user), assess prospects and indicate the most significant macro trends that could affect demand. Indicate whether customers (end user) relationships tends to be long term, one-off, or something in between. Is there dependence on one or just a few customers?

5. **Customer data:** What level of information is available and useful, on a realistic basis, about customers (and end users, if different) and the market? How much of that information is being gathered now? How much of the gathered information is, or should be, analyzed for marketing or product design and positioning purposes? What are the implications for IT needs, in terms of capture data in a database, data mining, and customer relationship management?

6. **Using product/market data to identify synergies (cost reduction, rationalization, product extensions):** Map existing products and services to existing customers/markets. Are there obvious overlaps? Are these obvious product or market extensions? What are the implications for production rationalization, cost reduction through efficiencies over a greater base, design and production for product extensions?

7. **End-user remote sales:** How much selling occurs remotely – by phone, mail, or computer? Describe how this works and present volume figures and product/customer information. Indicate where sales are direct; by franchise; through wholesale- retail or other multi-stage distribution chain; or by some other arrangement.

8. **Point of sale analysis:** What exactly happens at the point of sale? In terms of human (or other, such as online) interaction. If people are providing a service or assisting at the point of sale, describe how they interaction. With customers (on-off versus ongoing and personalized), staff turnover, the level of training, and quality control.

9. **Inventory analysis:** Analyze inventory levels and mix. What are the levels of stock-outs, substitutions, and back orders? What is inventory turn at each level and by product

category? What is the analysis at each level of fast-moving, slow-moving, and obsolescent inventory?

10. **Wholesale comparable analysis:** If the company makes a significant amount of sales on a whole-sale or other mediated basis, prepare an analysis comparable to that regarding the point of sale, sales volume by product, and so on.

11. **Sales and distribution analysis:** Based on the above, and as relevant, chart the company's sales through distribution channels, indicating mark-up or other cost at each level and the associated method/timing of transport. Does this analysis suggest possible cost-reduction and efficiency moves, such as following:

- Elimination or consolidation of duplicated or overlapping sales/service outlets
- Elimination or consolidation of duplicated or inefficient distribution paths
- Use of centralized warehousing
- Creation of additional distribution centers
- Negotiation of better transport contracts or integration of the transport function

12. **Possible weaknesses or anomalies**: Is the distribution system subject to channel stuffing or "field warehousing"? What portions of sales are made on consignment or on approval? What is the experience with returns and change backs? What are the possible effects of FIFO/LIFO/average basis accounting as used by the company and others in the chain of distribution, such as retailers- for example, what are the dynamic or pressures relating to inventory management in different price scenarios?

13. **Sales force analysis:** What are the sales channels? Who employs them, or are they independent agents/distributors? From the company's point of view, how are they organized (by product, by region, and so on), and how are they compensated (salary, commission, and so on)?

14. **Channel management:** what are the sales channels? Is there real or potential channel conflict, and is it being managed? Does company organization maximize sales overall, or are business units competing with each other for the same business? Describe any existing areas of channel conflict, and describe the effect of the proposed transaction in terms of channel conflict.

15. **Systems analysis of sales and distribution:** What is the state of systems support of product or service delivery? Consider physical and logistical aspects such as the following:

- The order-processing and order-fulfillment process from a systems perspective. Are there any possibilities for automation or for enhanced support of sales personnel? Are sales data fully exploited for marketing implications for IT support of this function?
- The state of inventory delivery to or availability at point of sales: Is that inventory sufficient, and is the product mix correct? If the company sells through a retailer or other agent, is inventory management executed in a coordinated fashion resulting in optimal product delivery and sell-through?
- Are the logistical aspects of product transport and delivery? Optimized by actively managing scheduling?
- Are the logistical aspects of inventory storage and handling optimized by use of coding, warehouse management, standardization of materials and packing, and so on?
- How does information about sales make its way back into inventory ordering and management system? How does it make its way back into product design and marketing? How frequently and on what basis?
- Are there opportunities for rationalization of the sales and distribution system, such as streamlined order processing; smarter coding and packaging; improved tracking; use of computerized stock picking and automated packaging; improved IT-based scheduling systems, including loading dock scheduling and like; integration of scheduling systems with those of transporters; tighter design of inventory management by use of current sales date and automatic or rapid replenishment/redirection strategies?

16. **System flexibility and responsiveness:** How much flexibility and responsiveness is built into the sales and distribution system, and can it be increased (at what cost?) How sophisticated is the company's rapid replenishment capability, how far back into the

production process does it go, and what is the customer’s ability to change or cancel orders? How does the company deal with unhappy customers or those who change their minds after order fulfillment has been completed? What is the IT support for the above?

17. **Outsourcing:** If aspects of sales/distributions have been outsourced, describe. What are the benefits and possible negative aspects of this out-sourcing?

18. After-sale

- What are the company’s responsibilities after sale?
- What are the company’s policies on returns or exchanges?
- What are the company’s policies on warranties? What is the associated pricing if any? What is the company’s experience? Assess the cost of warranties to the company, and analyze the warranty reserve, if any.
- If the company provides after-sale service, what are the terms and pricing? How well is it performed? If there are call centers, are they staffed and organized to optimize response against cost, using queuing theory, IT support at the phone level, and knowledge management tools to assist personnel? Analyze these systems and their cost.
- If service is at the customer’s location, how is availability and training of personnel managed?
- How is customer satisfaction measured? Be specific.

19. **Brand management:** By product or product category, describe the company’s branding strategy or other corporate identify as it is intended to be perceived by the public, including customers. How is the company’s brand managed across product categories and across borders? Is there a corporate brand that serves as an umbrella across subsidiary brands? Comment on how the branding online and intra company. Comment on how consistent the branding strategy is with the corporate culture, and if there is a mismatch, how that is managed. Do any of the aspects of the proposed transaction pose a challenge in term of managing brand? and

20. **Brand product design and positioning:** How is the company’s branding strategy translated into product or service design and engineering and product positioning, including pricing? Does branding strategy and market information get communicated

effective to R&D, engineering, and others who interact with the public, including customer service call centers and the like?

21. **Outside consultants and advertising agencies:** Describe the company's relationship with corporate image consultants, PR firms, and advertising agencies around the world. Are any firms or individual especially important in this regard? Does the company itself do most of the global coordination in house, or do out- siders handle it?

22. **Value of the brand:** What is the estimated value of the brand? Does proposed transaction pose any threat of diluting brand s for the value?

23. **Implication integration plan:** Do any of the above points suggest potential cost saving through streamlining of the sales and distribution channels or potential product or market extensions, product repositioning, or different or additional branding and marketing strategies?

24. **Implications for projections, negotiation, and pricing:**

How strongly does the information regarding customers, Products, and market support deal assumptions about projected revenues? In particular, if revenue growth for certain product lines is assumed, does the information gathered point to clear paths- through product or market extensions, acquisition of new customers, or higher sustainable price points—through which the increase in revenues can be achieved? Discuss the implication for deal negotiation and pricing.

25 **Extraction, manufacturing, or other production of goods and services:** Assuming the target's market and planned products/services have been defined above, assess in general how well the existing manufacturing or other production system is set up to profitably meet market demands (giving effect to possible divestitures for antitrust or other reasons).

26 **Geographic map of production capacity:** Review the map of productive capacity against customers needs on a geographic basis. Indicate overall industry capacity for the relevant markets. Tie product sales estimates arrived at above to production capacity.

27 **Process and process unit:** Describe the process of production or provision of services at a schematic/technical/engineering level. Categorize the work in terms of work flow as special order, batch process, line process, or continuous flow analyzes the critical inputs into the production process:

- Capital investment, know-how, plant design or specialized machinery,
- Skilled labor, pool of available labor. Is the company's use of these inputs consistent with industry norms? Better? Worse?

28 **Process flow analysis:** Within a physical plant or between physical plants and including approval processes, transport stages, and all other stages of critical path or other comparable basis, with special attention to the following.

- How production tends to relate to production schedules, and how production schedules related to sales forecasts, specific orders, and so on.
- Defective production, excess production, returned goods, and warranty claims.
- Idle time and downtime, for all reasons (differentiate among reasons).
- Waste and scrap.
- At all points in the process, damaged or obsolete stock/inventory.
- Absenteeism, accidents grievances, overtime, employee turnover.
- Whether design and ongoing production reflect sophisticated operations management tools, such as economic production order quantities, time and motion studies, queuing theory, and so on.
- Capacity / throughput mismatches creating bottlenecks.
- Bottlenecks due to approval requirements or other management processes (especially where approval from 3 different location or time zone is required).
- Excess inventory buildups (with associated working capital cost).
- Critical inventory and spare parts requirements management against lead time (where disruptions in supply will immediate stoppage).
- Flexibility for product change (for example, setup time required, batch size, potential to re-order custom steps toward the end of the production process).
- Associated IT or Other information-based or automated support of the process, such as tracking.

29 **Outsourcing:** Is some of the production outsourced? If so, describe the extent to which the company can control execution against specifications, and how quality control

is managed, particularly in light of timing considerations. Assess the pluses and minuses of the outsourcing arrangements. Are there potential environment liabilities, social obligations, or other costs, liabilities and risks associated with the production outsourcing?

30 **Risk analysis based on process flow:** Identify the most significant risks associated with the process flow and their impact on the business. Is backups work-around or replacements available? Is insurance coverage for the risk available on a cost-effective basis? What risks cannot be either mitigated or insured against?

31 **Review of physical plant :** Describe in detail the physical plant and facilities of the company:

- Type
- Location
- Size/capacity/throughput measures
- Measures of utilization, including as a percentage of Capacity
- Level of downtime, exclusive of scheduled maintain ace
- Scheduled maintenance and associated downtime
- Quality of output
- Age, original cost and method of depreciation
- Depreciated (book) value
- Market (appraised) value
- If leased, terms of lease
- Remaining useful life
- Adequacy of warehousing/storage
- Associated environmental facilities
- Social obligations (housing, medical, family care, schools roads, parks, other)
- Facilities related to social obligations (medical or day-care facilities, other)
- Materials handling methods (pallets, conveyors, forklifts, trucks, vacuum or magnetic lifting or moving devices)
- Proximity to transport

- Utilities infrastructure support
- Climate and nature hazards (Flood. Volcano, earthquake, tornado, hurricane, rain, snow)
- Building code and zoning
- Real estate taxes and other fixed costs
- State of title (including leasehold title); lines and condemnation proceedings
- Insurance coverage
- Safety and security features
- Maintenance costs; capital improvements

32. **Review of machinery and equipment**

List and describe principal machinery, noting the following:

- Age ,, original cost, and method of depreciation
- Depreciation (book) value
- Market (appraised) value
- If leased, terms of lease
- Remaining useful life
- Maintenance
- Health and safety issues
- Auxiliary equipment- tools patterns, materials handling equipment

33. **Quality of technology:** Describe the technology used in overall terms: Is the company an industry leader in advanced, high-quality technology? Is its applied technology the most modern? What is risk of rapid obsolescence? How the technology does used rank in terms of production efficiency (inventory, utilities, workers needed, maintenance requirement, and periodic capital improvements)? Is there a rival technology being utilized or upcoming that will create competitive difficulties for the company or render its technology obsolete?

34. **Quality control:** What is the company’s quality structure? Are the company’s facilities ISO-compliant? What specific quality control measures are used (Total quality Management, Statistical Control Processes, Six Sigma, and so on), and what is the management structure for dealing with quality control problems?

35. **Review of engineering platforms and standards:** Describe in detail the engineering platforms and standards used in production. If it is assumed that the production process will be spread among different facilities in order to optimize capacity utilization, have the underlying assumptions been identified and checked out – engineering platforms, measurements and standards, languages used by engineers, and so on? How long will it take for manuals, processes and standards to be written down and harmonized to enable dispersed production? How will conflicts that arise in this process be resolved?

36. **Analysis of capacity on a combined basis:** What does the analysis of process flow suggest about excess, duplicate, or inadequate capacity at one or more points of production? Analyze desirable production capacity, after smoothing within the system, against expected sales volume.

37. **Excess capacity:** If there is excess capacity, how should the determination to reduce capacity be made, and what is the plan for disposition or shutdown? What would be the financial consequences (on an accounting and cash basis) of disposition or shutdown?

38. **Additional capacity:** If the analysis suggests that additional capacity is required, where would it be located and what would it consist of? How long would it take to get online? What are the costs? Are there regulatory or other barriers to the planned expansion?

39. **Production cost structure analysis:** If the analysis suggests the need for investments to improve the production cost structure, quantify the cost of those improvements, taking into account the time required to effect the changes. Weigh these against the expected operating cost reductions.

40. **Tie production to cost accounting:** What are the company's policies for cost accounting? Are these consistent with industry norms? Tie these to the process flow analysis above, and reconcile for each company in the transaction. What is the relationship between fixed and variable costs, the break-even point, and the relation of volume variances? Is the company's production process satisfactorily profitable on a cost accounting basis? What is the range for gross margin (by product or product category as relevant) based on the price assumptions made in the projections and supported by the marketing analysis above?

(iii) procurement and Supply-Chain Management- External Infrastructure Requirements

1. **Raw materials, intermediate inventory, and supplies needed:** Analyze the company's need for raw materials, intermediate inventory, and supplies, based on the market and capacity analyses above. Based on the process analysis above, describe critical items and associated lead times.

2. **Cost raw materials, intermediate inventory, and supplies:** Do raw material, intermediate inventory, or supplies needs represent a vulnerability to price volatility or constricted supply? Track the percentage relation of these components of production to price levels for finished goods, and for each category describe future price trends and market conditions. Assess how much risk the company is taking with respect to these inputs to the production process.

3. **Supplier analysis:** Describe suppliers by category of product and volume. Where they located? Are they stable financially? Are there multiple suppliers for specific needs, or backup suppliers? Which suppliers are dependent on the company's business, and to what extent? On which suppliers is the company dependent?

4. **The procurement system:** What is the procurement system?

    - How centrally managed is it?
    - Does it balance cost saving and efficiency with design and quality control?
    - To what extent does the company use a formal purchasing manual based on order quantities, up-to-date vendor evaluation files (covering delivery on order information), and a formal program for reviewing the value and quality of purchased materials? What procedures are used in procurement? How are costs compared, and hoe is purchase approval given?
    - What are the circumstances in which goods may return? How flexible is procurement system in dealing with changes in customer orders or fluctuation in sales?
    - Does consolidation or streamlining of procurement represent future potential cost savings? If so, quantify.

5 **Long-term contracts:** If there are long-term contracts, describe the process for reaching agreement on them, their status, and in what circumstances they would be favorable and unfavorable to the company.

6 **Utilities and other infrastructure support:** Analyze the company's need for utilities (including water supply) and other infrastructure support, such as transportation and communication. Are these facilities all available on an assured basis, or can back-up be arranged if there is a problem? Are there potential cost savings here or does infrastructure a vulnerability to price volatility or constricted supply?

7 **Support for facility expansion:** If there is a decision to expand the facility are sufficient supplies of the following available at the selected location?

- Manpower with the right skill levels
- Utilities, transportation, communication, and other infrastructure support
- Raw materials and supplies on a secures and cost- effective basis
- Real estate at appropriate pricing with appropriate zoning

8 **Supply-chain analysis:** Analyze the logistical of supply chain in light of rationalized production capacity. Are there potential cost saving in the supply-chain structure, such as streamlined order processing; smarter coding and packaging; improved tracking; computerize stock picking; auto-mated packing, improved IT-based scheduling systems with those of transporters; tighter design of inventory management by use of current sales/production data; and automatic or rapid reordering/redirection strategies?

9 **Supply-chain risk analysis:** Are there vulnerabilities in the supply chain- to shipping disruption, transportation price volatility, currency risks- and if so, is there available work-around, or are these risks inherent to the production process?

10 **Collapsing the supply chain:** Are there potential efficiencies in combining the company's supply chain to the point of production/shipping with the distribution/sales to customers?

(iv) Analysis of information, Technology, Communications, and General Systems Support of the Vale-Creation process; intellectual Capital and intellectual Property

1. **Traditional MIS:** Describe the management information systems of the company as they relate to traditional NIS functions: payroll, benefits, payables, receivable, cost accounting and financial accounting generally. What is the target company's hardware configuration for data processing and for networking? What is the target's software platform-venders, operating systems, database management system, programming environments, and software applications-and how integrated is it across company units, both functionally and geographically?

2. **Integration for MIS:** What does an integration plan for traditional MIS look like? Can apply, and are there any items that do not really need to be integrated? What is a realistic time frame for MIS integration, and how can functions be maintained with minimal disruption for that period?

3. **ERP:** Does the company have an ERP system or other partially or fully integrated IT system? Which one? Describe implementation, vendor and contracts.

4. **Other valuable IT systems and assets :** Does the company have other valuable systems or processes that are IT-based, such as

- Online order or transaction processing
- Online search, tracking, or other information-retrieval systems
- Knowledge-sharing systems, such as a firm intranet or other groupware
- Engineering platforms such as computer-assisted design systems
- Computer-based scheduling or routing systems
- Document production systems that go beyond general office needs
- Special mathematical or engineering data-modeling or data-processing support, such as that required for minerals extraction
- Decision support systems
- Robotics
- Sensing, feedback, and control mechanisms in extraction or production
- Large database support of, for example, customer relationship management or R&D

5. **System assessment; IT personnel and budget:** For any of the items above hat are fundamental to the business, a full-scale assessment of hardware (data storage, processing, and network) and software adequacy, scalability, and robustness of the systems is required. Security and backup are both very important to most of these types of systems, as is error-free ordinary operation. For all such systems: What level of personnel support is required? What are ongoing maintenance costs? How long to obsolescence? Are there multiple systems, and should some standardization be imposed? How is procurement managed?

6. **Ownership; vendor relationships:** Does the company own the rights to its IT systems, or are some aspects of the systems operated under license? What is the company's position in term of vendor lock-in? How vulnerable is it to force and round-robin upgrades and price increase? Are some aspects of the company's IT systems proprietary to it, and if so , are these proprietary aspects treated as confidential of otherwise as protected as they can be from duplication by competitors, including departing employees?

7. **Outsourcing:** Are any of the company's IT functions outsourced? Describe the arrangements, the vendor (including the vendor's stability), and the backup and recovery systems. Describe the pros and cons of the arrangements.

8. **Systems risk analysis of the IT systems:** Describe the systems risk inherent in the company's IT infrastructure and such issues as redundancy, backup, crashes, and how often do these occur? What is the tolerance for IT failure in terms of the company's operations?

9. **Intellectual property and know-how; licensing:** What intellectual property underlies the company's value-generating processes? Describe these including processes or branding concepts that might not be written down or that might not fall within a legal definition of intellectual property. Describe all licensing agreements and their terms.

10. **Ownership of intellectual property:** Does the company have the right to use of its important know-how? What is the risk of infringement claims? How much of the company's valuable know-how is property to the company, and of that how much is entitled to legal protection and under what rubric- e.g. trademark and trade name, patent, copyright, trade secrets? Has the company taken all appropriate steps to protect its rights

in its cross-border implications (in what countries are the company's intellectual properties protected, and so on).

11. **Product development and innovation:** Assess the company's general product development and product innovation experience and strengths in design, engineering, and general creativity and responsiveness.

12. **Cross-border implications:** For each aspects of the constituent companies' important know-how that it is assumed will be applied cross-border after closing: Must such know-how be tailored to local needs and conditions? Will the know-how retain its protected character it transplanted to the new site? How easy will be for competitors to copy the know-how?

13. **R&D generally:** How important is R&D to the company and to competitors? How does the company's R&D budget compare to those comparable companies, as a percentage of sales and against other measures? How successful is the company at turning R&D into valuable products/services over a reasonable period time? How integrated is the company's R&D efforts with its marketing strategy (or how relevant is its marketing strategy to its R&D effort)?

14. **R&D facilities and capabilities:** Describe in detail the R&D facilities, capabilities, and directions of the company and define areas of overlap or obvious areas of extension for the combined enterprise. Are there opportunities for cost reduction or important new initiatives in combined R&D functions?

15. **IT and intellectual property/know-how overview:** Of all of the company's IT-based systems and other know-how noted above, are some elements so valuable that they constitute a critical aspect of the value proposition? If so, are they fully understood, and is their legal status and confidentiality protected as fully as possible? Can the associated systems and know-how be successfully scaled and deployed across borders in the combined enterprise?

16. **IT systems overview:** What knowledge and information requirements of the combined enterprise cannot be met through combination and integration of the existing information system? What are the budget and timetable for these, and can they be grafted into the more basic IT infrastructure?

(v) People Analysis: Management Structure. Labor Relations, Corporate Culture, Recruitment and Training as Related to Operations

A. Management structure from an Operational Perspective

1. **Management structure and lines of reporting:** Document the official lines of reporting, and comment on management communications formats that do not coincide with the formal structure.

2. **Management structure and business units:** How does management structure translate into operational/production functions, entities, or units such as:

   - Factories/mines/other facilities for extraction/production (manufacturing)
   - Professional and production offices and studios (professional services firms, media)
   - Networks and systems (transportation, communication)
   - Sales outlets and customers service centers
   - Corporate office: corporate-wide systems such as accounting and finance, legal, information systems, procurement, brand management and marketing, engineering, R&D, and quality control

3. **Management operations across borders:** Are there any country/regional managers? How autonomous is the country manager, and how do country manager roles integrate corporate-wide decision making? Are there matrix management structures or other processes in place to coordinate country practices and policies within a global strategy?

4. **Identifying key personnel (non-management) from an operational perspective:** Which non-management categories of personnel are key from an operational perspective? Consider the following:

- Creative
- Writers and editors (media) – Designers (retail/manufacturing) Marketing
- Scientists and engineers

: Systems and operations engineers (airlines, other transportation, telecommunications)

: Doctors and other health professionals and researchers (Pharmaceuticals, health care)

: Design engineers (automotive, other manufacturing)

: Software engineers, electrical engineers (information Technology)

: Mining, construction, mechanical, or other engineers (Extraction, construction, manufacturing)

- Finance/legal/other professionals

: Lawyers, accountants, consultants

: Bankers

: Pilots (for an airline)

- Sales and customer-relationship-management

: Sales and marketing personnel

- Skilled and unskilled production labor

: Office staff (for a professional services firm, for Example)- Factory skilled and unskilled workers (Manufacturing firm)

For the target and the combined company, rank the relevant categories, and set forth the analysis and implications for integration strategy:

- Are there individuals or teams in this category so essential that losing them after closing would negate the value of deal? Those people can take the value of the business with them or become competitors (for example, key bankers leaving after a bank is acquired star sales managers leaving an advertising agency, the most productive software engineers leaving a software development firm).
- Is one category of personnel so essential that managing that group as a whole is key element of the deal (for example, airline pilots for an airline, and doctors for a health care organization)?
- Are replacement personnel available?
- Will there be personnel redundancies post deal? How will these be deal with?

For existing personnel, consider in general terms their numbers, location, work performed, compensation, and terms of employment (including union or other contracts).

B. Operational Questions across Categories of Personnel

5. **Workers and planned strategic Initiatives:** Review all categories of workers in light of strategic initiatives for the combined company. Will strategic redirection reengineering of processes render some workers unneeded, or will new categories of workers be required?

6. **Recruitment and training:** How are workers recruited and trained? Is recruitment and training appropriately geared to operational needs?

7. **Workers and process review:** What are the general terms of employment as they relate to process design and other operations matters, such as shift length vacation expectations, and flexibility in learning new skills and being rooted into different jobs? Will these need to be reconciled between the companies after closing, or reconfigured in order to implement new process designs, and if so, how?

8. **Workforce integration:** Will there be integration of workforces? If so, what impediments are there to smooth integration (such as language barriers)?

9. **Workforce reduction:** If a workforce reduction is contemplated, how will that be executed, keeping in mind the need to retain motivated staff? How much will it cost-soft costs as well as hard costs?

10. **New hires:** If the combined enterprise plans relocation or expansion, or if new facilities or lines of business are planned, will new employees be required, and are they available?

11. **Social obligations:** Does the company have social obligations to its workers, such as requirements to provide or fund housing, schooling, or medical services? What is the basic infrastructure available to employees to meet these needs? How do these obligations potentially affect operations?

C. Corporate Culture and Operations

Compare the corporate cultures of the parties to the transaction in terms that seem most useful to the deal structure and to developing an integration plan from an operational perspective.

12. **General aspects of corporate culture:** Some markers or attributes that might be considered in terms of how employees work together might be these:

- Relative rankings of jobs as perceived in the companies, importance of formal hierarchy
- Formality, style of dress, office configuration, open doors or closed doors

13. **Communications formats:** What are the formats for various types of communications, such as:

- Meeting scheduled in advance with/without prepared agendas
- Impromptu meeting
- Memos, e-mails, voice mails
- Formal reporting lines versus back channels
- Formal committees versus 'kitchen cabinets"
- Collaborative work

14. **IT support for communications:** Is there adequate IT support for IT-based intra-company communications (for example, e-mail, an internet, or other groupware is important for intra company communication, quality control and promulgation of standards, and collaborative design and engineering)?

15. **Knowledge sharing and knowledge management:** What is the attitude about information in the enterprise: Is it shared, or do individuals tend to keep their knowledge to themselves? If knowledge is shared, is that solely through informal means or by way of formal training formats? What are the implications for IT support of knowledge sharing and transference (for example, for worker training and rotation)?

16. **Company approaches to systems design:** Are employees rewarded for exercising initiative or for acquiescence in management instruction? How free do employees feel to question their superiors? How comfortable are managers with, questions or challenges from those they supervise?

17. **Documentation of systems design:** Are work processes and practices fluid and open, or do they tend to be rigidly defined rule bound? Do work processes and practices tend to be documented, or is there more of an oral tradition?

18. **Conflict resolution and change management in integration planning and systems design:** How do employees react to things that they don't agree with? Do they have a forum for discussing and resolving issues with management, or will dissatisfaction show up in other up in other ways? Are people more or less comfortable with group or

consensus decision making in comparison to individual Leadership? How important is it that groups validate leaders' decisions? What is the mechanism for creating "buy-in," and has this process been considered in integration planning at a practical?

19. **Life- balance issues in operations planning:** How permissible is it to acknowledge the importance of family or personal life, and how flexible is the company in accommodating the family and personal lives of their employees?

D. Background Culture Questions Affecting Operations

20. **Language:** What is the dominant language used for spoken and written communications, within the company and with suppliers, customers, and investors? Are there enough persons with multilingual capacity to bridge the language gaps?

21. **How things really get done? :** Does the background culture accord a significant amount of weight to long-term contracts, or are the most importance relationships or aspects of relationships likely to be undocumented? A related question: How is business agreements reached? Are key decision makers interested in and patient with lengthy and detailed negotiations? Or do they rely more on establishing personal bonds with their correspondents? Do people enjoy haggling, or do they avoid it?

22. **Importance of documentation and record keeping:** Are things generally written down or otherwise recorded and kept? How important is record keeping and the memorialization of events and decisions/ How important are formal and written inquiries and justifications? To what extent is arbitrariness accepted?

23. **Transparency to outsiders:** Do companies routinely share information with outsiders, such lenders, investors, or the press, or are information closely held? What types of information are shared with vendors, suppliers, and customers, and on what terms?

24. **Involvement of equity owners:** Does the ownership structure of the company have an impact on operational decisions- for example, has common ownership resulted unfavorable or unfavorable business relationships with vendors and suppliers or customers? Is the background culture one in which professional management is given a

great deal of leeway day to day or one in which equity owners are likely to be involved in operational issues?

25. **Attitude toward rules and protocol:** Do people tend to follow written rules and procedures to the letter or take a more relaxed attitude?

26. **Attitudes toward accounting standards, taxation, and regulatory compliance:** What is the company's attitude toward these requirements?

27. **The basis of customer relationships:** How would you characterize typical business-to-business transactions and business-to-consumer transactions? For example, is there more emphasis on a branded or otherwise consistent corporate identity or on local/personal relationships? In what circumstances are purchasers entitle to refunds and exchanges? What are the most effective channels for marketing and production/company communication?

28. **Social contract with workers:** What is the background understanding about the social contract with workers? Among government, the family, and business, who bears the costs of various risks to workers: unemployment, health, family care, retirement, and need for retraining? What are the long-term obligations assumed by a company when it hires an employee?

29. **Attitude toward change:** Is change and rapid response valued, or do people tend to value tradition, the status quo, and stability?

Due Diligence Check list

C: Legal Due Diligence

(A) Corporate Documents of the Company and Subsidiaries

(1) The latest Memorandum and Articles of Association of the Companies and its subsidiaries.

(2) Minutes of all Board of Directors, committee and shareholders meetings and all circular resolutions passed;

(3) List of branches and offices in different States from where the business is run.

(4) Material information or documents furnished to shareholders and to directors during the last two years;

(5) Copy of Annual returns and form 32 filed for the last two years;

(6) Copy of charge registered;

(B) Issue of Shares

(1) Shareholders, debenture holders, if any, information, indicating number of shares/debentures held, dates of issuance, and subscribed amount;

(2) All stock options, stock purchase and other employee benefit plans and forms of agreements.

(3) List of any outstanding stock option;

(C) Material Contracts an Agreements

(1) List of banks or other lenders with whom Company has a financial relationship (briefly describe nature of relationship-lines of credit, etc.);

(2) Mortgages, financial or performance guaranties, indemnification, liens, equipment leases or other agreements evidencing outstanding loans to which the company is a party or was a party within the past two years.

(3) All material correspondence with lenders during the last three years including all compliance reports submitted by the company or its accountants

(4) List of major clients and their locations.

(5) Any other material contracts.

(D) Litigation

(1) Copies of any lawsuits involving the company or the subsidiaries;

(2) Summary of dispute with suppliers, competitors or customers.

(3) Correspondence with auditor or accountant regarding threatened or pending litigation, assessment or claims.

(4) Decrees, orders or judgment of courts or governmental agencies.

(5) Any settle made in any of the litigations and if so documents relating thereto.

(E) Employees and related information

(1) A management organization chart and information on managerial personnel.

(2) Summary of any labour agreement and disputes, if any.

(3) Notes concerning pending or threatened labor disputes, if any.

(4) All employment and consulting with officers, directors, key employees and related parties.

(5) Schedule of all remuneration paid to officers, directors and key employees for most recent fiscal year showing separately salary, bonuses and perquisites (i.e. use of cars, property, ect.).

(6) Summary of employee benefits and copies of any provident fund trusts, gratuity trusts, pension schemes, and other employee benefit schemes and related documents.

(7) Confidentiality agreements with employees.

(F) Immovable property

(1) List of all immovable properties owned by the company.

(2) Documents of title, mortgages, and other security agreements pertaining to the properties listed in (1) above.

(3) All outstanding leases with an original term greater than one year for immovable property to which the Company is either a lesser or lessee.

(4) Documents pertaining to any copyright or patent fillings.

(G) Taxation

(8) Income tax, Sales tax returns for the three years.

(9) Details of all pending assessments before Income-tax, Sales tax, customs and Excise authorities

(10) All pending litigation relating to the above taxes and/or

(11) Evidence of company being up to date on income-tax deduction at source, sales tax, service tax, professional tax, payment of provident fund, and other tax payments.

(H) Insurance and Liability

(12) Schedule or copies of all material insurance policies of the company covering property, liabilities and operations, including product liabilities,

(13) Schedule of any other insurance policies in force such as “key man” policies or director indemnification policies.

(14) All other **relevant** documents pertaining to the company’s insurance and liability exposure, including special reserve funds and accounts.

(I) Joint venture or collaboration Agreements: Copies of any Partnership agreements or joint Venture Agreements or collaboration agreements

(J) Governmental Regulations

(15) Copies of all permits and licenses necessary to conduct the Company’s business.

(16) Copies of all approvals received from the Government authorities relating to issues of shares to non-residents, export credit obtained etc.

(17) Copy of all filing with Securities Exchange Board of India and Stock Exchanges and Approvals, if any, taken.

CONCLUSION

Merger and Acquisitions are most impotent strategic tools for the corporate restructuring of business. The assets and liabilities of acquired company transferred to the acquiring company. The basic difference between these two terms is that, in case of merger, the merging company loses its identity, while acquiring company maintains its identity. In case of acquisition or takeover, however, acquired company maintains its identity, only a change in ownership takes place. Both these methods have been traditionally used for business consolidations, increasing market share and diversification of risk through diversification of operations.

In last two decades M&A activity has been seen across the world for restructuring and consolidation in various sectors. In India also after linearization opportunities for external growth is increased due to simplified legislation and reduction in control by the government. Corporate restructuring activities in Indian industries made business combinations effective empower companies to gain core competencies, adopt new technology, expansion of business in new market, and to achieve significant growth.

However, it matter of great concern that number of mergers have been resulted in failures in spite their best efforts in due diligence pre-deal and post deal require to ascertain what determines their success or failure.

In subsequent chapter, review of literature and analyze M&A deal that have taken place in India and abroad have been included. Efforts have also been made to examine success or failure of these deals.

REFERENCES

- Aaronovitch, S. and M. S. Sawyer, Big Business (London: Mac millan, 1975)
- Bhatia N.L. Jagruti Sampat, Takeover Games & SEBI Takeover Regulations (New Delhi: Taxman Allied Services Private Ltd. 2002)
- Bhattacharya H. K. 1988: Amalgamation and Takeovers; Company news and notes.
- Cooke, Terrence E., Mergers and acquisitions (UK : Basil Blackwell Ltd., 1980)
- Cowling, Keith, Paul Stoneman and John Gubbin, Mergers and Economic Performance (UK : Cambridge University Press, 1980)
- Gaugham, Patric, Reading on Mergers and Acquisitions (UK : Basil Blackwell Ltd; 1994)
- Gera M. R. 1996: Corporate Restructuring Strategies & Implications, All India Management Association Excel Book.
- Goldberg, Walter H., Mergers : Motives, Modes, Methods (Hampshire : Gower Publishing Company Ltd. 1983)
- J. Fred Weston, Kwang S. Chuing, Susan E. Hong (2003) Mergers, Restructuring and Corporate control, PHI Ltd. Publication
- Kuchn,Douglas, Takeovers and Theory of the Firm (UK: Macmilan Press, 1975)
- Naik S.A. The Law of Sick Industrial Companie Nagpr,Wadhwa & Co.,1999)
- Ramaiya A., Guide to Companies Act, (Nagpur Wadhwa & Co.)
- Ramaujan.S., Mergers (New Delhi: Tata McGraw Hill publishing Co. Ltd., 2000)
- Sharma L.M., Amalgamations,Mergers,Takeovers,Aceuisitions: Principals,Practices,Regulatory Framework (New Delhi: Company Law Journal, 1997)
- Siva Ramu S, Corporate Growth Through Mergers and Acquisitions(New Delhi: Response Books, 1996)
- Sridharan N. R. and P.H. Arvindh PAndian, A guide to Takeover and Mergers (Nagpur, Wadhwa & Company,
- Weston chang and Hoag, 2000: Mergers Restructuring and Corporate Control

CHAPTER - 3

REVIEW OF LITERATURE

CHAPTER – 3
REVIEW OF LITERATURE

- Overview
- Studies conducted abroad
- Survey of studies on M & A
- Performance measure
- Studies conducted in India
- References

An attempt has been made by researcher to review and locate literature related study in this chapter. The relevant studies have been found from the various sources, are as below.

OVERVIEW

Merger and acquisition for long have been an important phenomenon in the US and UK economics. In India also, they have now become a matter of everyday occurrence. They are the subject of counting interest to different persons such as the business executives who are looking for potential merger partners, investment bankers who manage the mergers, lawyers who advice the parties, regulatory authorities concern with the operations of security market and growing corporate concentration in the economy and academic researchers who want to understand these phenomenon better.

The 1970s and 1980s was an active era for mergers and acquisitions and for research on them in most of the countries. During these decades, economics and finances researchers (especially in US and UK) made great strides in understanding the operations of capital markets and ways in which causes and effects of merger and acquisitions might be model and measure. Hence, a whole plethora of research on these and relate issues has been conducted abroad. However, not much research available on this topic relevant to the Indian conditions since it is relatively a new phenomenon which has gain momentum only during the last decade.

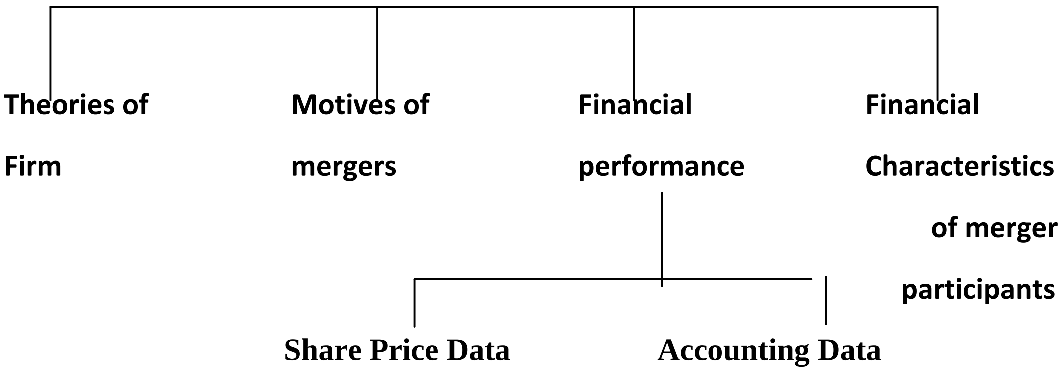
An extensive review of literature has been carried out in order to enhance the present level of understanding in the area of mergers and acquisitions, gain insight into the success of failure of mergers and formulate the problem for further research in this area. Broadly, literature review has been done on empirical studies in books, journals, published papers etc. In the literature survey out of India, the issues covered include theories of the firm conceptualized into the motives for merged, their empirical investigation, performance measure of merged firms using share price data and accounting data, empirical examination of financial characteristics of merged and merging firms and the determinants of aggregate merger activity. These studies have been reviewed and summarized in following manner, though very limited has been reviewed on studies conducted in India.

STUDIES CONDUCTED ABROAD

Chart 3.1 presents a bird's eye view of various aspects relating to mergers and acquisitions on which studies have been conducted abroad. These are discussed in detail in the following paragraphs.

Chart – 3.1

Survey of studies on merger


Theories of Firm
Motives of mergers
Financial performance
Financial Characteristics of merger participants
Share Price Data
Accounting Data

SURVEY OF STUDIES ON MERGERS AND ACQUISITIONS

Theories of Firms

Corporate restructuring attained through M&A, tender offer, joint venture, demerger, going private, might be to increase buying power, capturing market and control over supply, or to reduce risk by way of diversification. However, one fundamental reason for restructuring is to strengthen the present business conditions and help its growth. Different theories have been developed by various analysts to explain the motives for such corporate restructuring through M&A activities. These theories are two major competing theories of the firms have been evolved in the academic literature and empirical evidence in support of both is available. These two theories can be used to explain why companies engage in mergers and takeovers and to predict the outcome of post-merger performance.

First is the Neo Classical Profit Maximization Theory of the firm which holds that competitive markets forces motivate firms to maximize shareholders wealth. The theory states that the firms will engage in takeovers if it results in increased wealth for acquiring company's shareholders [Manne (1965)].[1] increased shareholders wealth is likely to results if acquiring company's profitability increase after the takeover. The shareholder wealth maximization theory thus requires that a takeover should lead to increased profitability for the acquiring firm for it to be justified. Profitability can increase through the creation of monopoly power, synergies or injecting superior management into the acquired firm.

However, a constraint on this motive for takeover occurs when lots of firms compete with each other to take over target firms. These firms tend to bid against each other until all the potential profit available from monopoly power, synergy, restructuring etc. Is driven away [This is the case with perfectly competitive acquisition market as termed by Mandelkar (1974)][2]

In opposition to the neo classical economists, Robin Marris (1964)[3], W.J. Baumol (1959)[4] and others have put forward the Theory of Maximizing Objective of Growth. While each of them attribute different behavioral objectives to management (for example, Baumols' sales maximization, Marris growth maximization), they all have recognized the separation of ownership and control in a modern public company. The theory therefore, holds that beyond achieving a certain satisfactory level of profits, managers will attempt to maximize their own self interests and these do not necessarily correspond with maximizing shareholders wealth. Management's self interests include such factors like reducing the risk of losing their jobs, increasing their salary levels and increasing their power and job satisfaction. These self interests can be aided by growth in size and takeovers are, in practice, the quickest way of growing. Hence, the maximization of management growth theory does not necessarily require increased profitability; an increase in size and an increase in manager's benefits are the criteria. This is also because level of manager's salaries and other goals they seek (such as power, prestige etc.) are related more to the size of the firm than to its profitability. Market for managers is imperfect and managerial promotion generally takes place through bureaucratic and political process within the firm, rather than through market. So, managers are more likely to increase size of the firm they work for, than to maximize its profitability.

Marris, in his Economic Theory of Managerial Capitalism, propounded for the first time a theory of takeovers bids. Before his work, there did not exist in literature, any formal theory of takeovers i.e. an explanation of what kind of firm is acquired. The literature, however, did contain motives usually given for acquisitions which are summarized as follows.[5]

1) Desire to achieve production economies of large scale and multi unit operations.
2) Possibility of achieving distribution and advertising economies.
3) Financial advantages of large size.
4) Strategic control of patents.
5) Acquisition of financial resources.
6) Response to legal and institutional environment.
7) Tax advantages.
8) Gain from sale of securities.
9) Gains to promoters.
10) Desire to limit competition.

Marris summarized all these motives for takeover in terms of a single variable the "Valuation ratio".[6] The valuation ratio "V" at any point of time is defined as:

$$V = \frac{\text{Stock market value of a firm's equity capital}}{\text{Book value of its net equity assets}}$$

If assets are valued in the firm’s balance sheet at replacement cost the denominator of the above expression reflects the value of economic resources employed by the firm. The numerator, on the other hand, reflects stock market’s valuation of earning power of these resources under the present management.

Marris suggests that, corresponding to the market’s valuation ratio (Vim) of any firm i, there also exists some other firm j’s subjective valuation ratio (Vij) reflecting j’s valuation of i if were to acquire i. When Vij is greater than Vim, there are chances of a takeover bid. In other words, the theory of takeover bid simply asserts that, other things being equal, firm I is likely to be taken over by firm j if j’s valuation ratio for is higher than market’s and any other firm’s valuation ratio for i.

In addition to these two theories, two general theories have also being advanced in literature to explain the motives of merger/ takeover activity. Williamson’s (1968)[7] Native Trade off Model states that only a small gain in efficiency is necessary to offset a relatively large gain in market power and as such mergers are generally beneficial because the loss suffered by consumers resulting from an increase in price is more than outweighed by gains to producers. This model, which is not without critics, has been cited in many US antitrust law suits as justification for mergers.

Gort’s (1969)[8] Economic Disturbance Theory is based on the premise that differences exist between the shareholders concerning the present value of share because of information imperfection as individuals possess different information and asses it differently. These differences occur because of economic disturbances such as rapid change in technology and share prices. When technology changes are rapid, the product life cycle is shortened and past record of the firm becomes less relevant to its future. Rapid changes in share prices represent a break with the past leading to a temporary disequilibrium since it takes time for the investor expectations to be realigned to market events. Consequently, whenever share price change rapidly; (upward or downward) merger activity will increase.

Gort examined whether explanations of mergers, such as pursuit of monopoly power or economies of scale, actually explained fluctuations in the level of merger activity. The rate of merger was defined as the number of acquisitions to total business firms in a given sector.

He tested the hypothesis that frequency of merger was a function of either economic disturbances that lead to valuation discrepancies or economies of scale by taking few explanatory variables. His results supported the valuation discrepancy hypothesis and argued against an important role for economies of scale.

To sum up, although many contributions have been offered from different perspectives and disciplines, researchers have not been able to formulate a general theory of mergers and acquisitions.[9]

Motives of Mergers

A number of reasons have been advanced and hypothesized in literature as justifications of mergers. Classification of merger motives to explain merger activities were found to be one of the most difficult and complex task by most of the researchers.

An attempt made by Steiner (1975)[10] emphasized on the multivariate nature of motives for merger. Depicting mergers as being contingent of actors, climates, motives and participants, he classified motives into four categories: Efficiency, inefficiency, strategic and monopoly theories. According to him, efficiency occurs if value is increased to shareholders. Synergies, economies of scale, acquisition of market share may be strategic or even aimed to create monopoly. Inefficiency theories include managerial motives which lead to agency problems i.e. mergers may enhance wealth of managers at the expense of shareholders. Management may pursue its own aim than that of its shareholders. Similarly, an opportunity for managers to indulge in insider trading may be another reason for merger. Fourth kind of motive may be strategic and may include acquisition of growth, reduction in capacity and opportunity for accounting manipulations. Some of these may lead to increase in value and may overlap with efficiency.

In a pioneer compilation of merger studies in seven major countries[11] with the same set of hypotheses (about determinants and effects of mergers) and methodological homogeneity, D.C. Mueller (1980)[12] reports three kinds of results:

1) How merging firms differ from the ones that do not merge.
2) Certain tests of hypotheses concerning determinants of mergers.
3) Those concerning the effects of mergers.

These results are based on empirical investigations carried out at micro-economic level within each country and relate to the merger wave of 1960's.

The economic rationale and motivation for the specific hypotheses and issues that have been examined in empirical studies across the seven countries have been laid down by Hughes, Mueller and Singh.[13] They have cited three reasons for comparing pre-merger characteristics of various groups of merging and non merging firms.[14] Firstly, such comparisons are important from the point of view of both economic theory and policy. Neo classical economists hypotheses profit maximization as major incentive for takeover i.e. takeover mechanism selects profit maximizing firms and punished non maxi misers (Mead, 1968).[15] On the other hand, managerial theorists such as Galbraith (1967),[16] Marris (1968),[17] Mueller (1969)[18] hypothesized that takeover mechanism is more likely to favor firms who pursue fast growth. So, a comparison of living (none taken over firms) and dead (taken over) firms provides evidence on this issue. A comparison of acquiring firms as compared to the acquired firms also gives an indication of acquiring firms as compared to the acquired. Secondly, with the different economic and institutional background, in what way these characteristics differ in each country are of special interest and thirdly, a profile of various groups of merging and non merging firms is required for full understanding of subsequent results of determinants and effects of mergers.

Hypotheses concerning the determinants of mergers can be classified into various categories (Steiner 1975) [19] but the authors have categorized them into three:

(1) The most frequently hypothesized cause of mergers is bring about an increase in profits by either increasing market power of the firm or by reducing its cost or both. Increasing size or diversification can make various organizational changes more efficient. Also, possible tax advantage from mergers has been emphasized as another cause of merger activity.

(2) Another hypothesized cause of merger is based on Gort's (1969) [20] economic disturbance theory of mergers. There are differences in individual stockholders expectations because of differences in information possessed, evaluation of information done and different degrees of optimism. That is to say, merger activity is associated with rapid changes in stock market prices.

(3) Finally, the broader set of hypothesized cause of merger is maximization of growth or sales based managerial model of Marris (1968) [21] and Baumol (1967).[22] The possible effects of mergers have been discussed by the authors in terms of three types of mergers, namely, horizontal, vertical and conglomerate mergers.

The cross sectional comparisons of merger statistics done by Mueller (1980)[23] produced some consistent patterns across countries and some inconsistencies requiring further theorizing of the determinants. None of the hypotheses examined received consistent confirmation across the seven countries. The conclusion drawn is based on Steiner's electric theory of mergers. "Since no single hypothesis explains all mergers, a variety of hypothesis must be assumed to govern."[24]

On the effect side, the rather consistent lack of evidence that mergers lead to or are expected to lead to significant increases in profits is inconsistent with all the neo classical theories of mergers. Some form of managerial motives for mergers i.e. pursuit of growth is left as sort of residual explanation for why mergers take place. Further, not much difference emerged in the result of US and other European countries in spite of the much heavier incidences of horizontal merger activity in European countries. Similarly, the anticipate differences in results of US and UK (with highly developed stock markets) with other countries also did not emerge significant.

Paul Halpern (1983) [25] categorized acquisitions theories in to two classes. The first refers to non value maximizing behavior by management of acquiring firms. Acquisitions are considered as attempts to maximize growth in sales or assets or to control a large empire. Acquisitions of this type have no economic gain to be divided among companies. Given the cost of negotiating and the potential problem of co-ordination of expanding corporate empire, there is an overall economic loss. The growth maximization hypotheses is more likely to occur for acquiring firms that are engaged in conglomerate mergers and have active acquisition programs.

The second class of theories refer to value maximization motivations in which acquisitions should meet the same criteria as any other investment decisions. There are number of acquisition motivations that are consistent with value of goal maximization. The first type refers to financial motivations where acquisition permits a redeployment of excess cash held by either acquirer or acquiree. Then, diversification benefits provided by the acquisition can reduce the probability of default thereby reducing expected bankruptcy costs and increasing debt capacity of new entity. Both of these influences would increase market value of equity after acquisition relative to sum of market values prior be acquisition.

Another set of motivations is captured by synergy in which an acquisition results in an increase in the expected cash flows over their sums as independent firms. These gains can occur from economies of scale for horizontal mergers, excess capacity in some factors of production (such as managerial or financial control) or economies of scope which generate cost advantage when output is increased by the post-acquisition entity. Finally, the achievement of monopoly power through an acquisition is often included in synergy class because of expected increase in post-acquisition cash flows.

Another motivation is an attempt by the acquiring firm's management to take advantage of asymmetry in information. This information hypotheses populates that acquire firm has information concerning the target firm that is not available to other participants in this market and is not reflected in current share price of target firms.

The last set of value maximization acquisition motivations is based on the attempt by an acquirer to obtain control of the target. In its most general form, the acquiring firm desires control to replace an incompetent management or to force existing management to follow profit maximization strategy. The corporate control hypothesis is developed by Berk and Means (1932)[26] where managers who control the firms make decisions which do not maximize the market value of equity to existing shareholders.

This study reviewed the studies that empirically these competitive hypotheses to identify whether value or non-value maximizing behavior is the dominant explanation of merger activity.

The results of studies by Kummer and Hoffmeister (1978),[27] Dodd and Ruback (1977),[28] Bradle (1980) [29] and Bradley, Desai and Kim (1982)[30] observed positive and significant abnormal performance surrounding the event date, thus concluding that takeovers are value maximizing decisions in which markets expect benefits to the bidding firm after the tender offer is successfully completed.

Eckbo (1981) [31] and Stillman (1982)[32] tested for the existence of monopoly power by observing abnormal return performance of horizontal rivals of the target firms involved in a merger. Stilman's study found no evidence consistent with the market power motivation for mergers in a sample of sixteen horizontal mergers. Eckbo, applying his methodology to define rival firms to Stillman's sample found results consistent with his large sample.

The tests provided by both these studies cannot however, reject economies of scale cost reduction or monopoly power motivations since there is no reason provided as to why mergers would be expected to generate benefits to rivals as identified by abnormal gains.

Bradley, Desai and Kim (1982) [33] also empirically evaluated the information hypotheses. Their results indicated a significant positive return to target shareholders after an unsuccessful tender offer in an expectation of a future tender offer. If such an offer is not forthcoming (within five years of an unsuccessful offer), the share prices fall back to their pre-offer level. If the offer materializes and there is a successful bid, and additional significant abnormal return is obtained by target shareholders. Therefore, their evidence is inconsistent with the pure information hypotheses.

Brick, Haber and Weaver (1982) [34] empirically explored the financial motives in mergers. To isolate effect of diversification from other possible motives for mergers (such as operational synergies), they have confined their analysis to conglomerate mergers only. Their study analyzed fifty seven conglomerate mergers to investigate the role of leverage and diversification in the determination of total merger premium. The regressions performed indicated that significant positive correlation exists between the merger premium and diversification. The results corroborated the view that diversification, especially in presence of high levels of debts provided a powerful stimulus for mergers.

Another study by Myers and Majluf (1984) [35] suggested a specific financial motive for mergers based on a complimentary fit between slack [36] rich bidders (those with low gearing levels) and slack poor targets. The study assumed asymmetry in information between managers and shareholders, and that manager's act in interest of existing shareholders. The assumption made the form of financing important i.e. the model generally predicted disadvantage to equity financing and value to internal financing.

Another study by Asquith and Millins (1986)[37] confirmed the negative impact of external equity financing. According to their theory, the value created through a merger of compliments arose from additional positive NPV investment taken up by a merged firm that slack poor firm might ignore. The value created here depends on the alternative ways of financing target investments. Thus, value will be created in mergers if firms rich in financial slack[38] acquire slack poor firms.

Robert Bruner (1988) [39] explored the hypothesis that capital structure change provided bidder and targets a motive for merger. Their study, in testing capital structure change, used both traditional debt to total capital ratio and net debt ratio, [40] a new measure that adjusts for cash. It also controlled for the secular rise in leverage of firms over an eighteen year observation period and finally explicitly tested for a relationship between merger related changes in capital structure and shareholder return.

Their results, conducted on a sample of seventy five bidder target pairs of which forty nine were, consummated and twenty six were terminated, are consistent with the financial economies motives for mergers. Bidders are relatively unleveled extant and then lever up. Merger announcement returns are associated with these changes.

The findings also support the information based theory of Myers and Majluf (1984).[41] before merger, bidders are relatively slacking rich and target slack poor. The strength of these differences depends upon whether merger was ultimately consummated or not. Successful mergers confirm to the theory more than the unsuccessful ones. The change in targets slack because of mergers is somewhat associated to total gains to target and bidding shareholders.

Another rationale for mergers, target managerial incompetence or the existence of agency costs was empirically evaluated by Ellert (1976) [42] Asquith (1983) [43] and Langetieg (1978). [44] Regardless of definition of event dates, all studies using monthly share price data observed negative abnormal returns for target firms over periods well before the event date. These observations are consistent with the hypothesis that merger occur to discipline target firms management.

Additional evidence on this hypothesis of corporate control was presented by Dodd (1977)[45] by evaluating abnormal returns for terminated merger proposals. Managers or Board of Directors of target firms have veto power of rejecting a merger proposal on any grounds or even to maximize the size of premium obtained by target shareholders. In either case, management veto must be accompanied by negative abnormal returns and relatively stable equity price in the expectation of a new merger or tender offer. The study's empirical evidence was consistent with these expectations; the abnormal returns for vetoed mergers at days -1 and 0 were negative and significant.

Amihud and Lev (1981)[46] empirically evaluated the managerial motive of reducing risk through mergers and their effect on shareholders. Their results found that corporations in which ownership was not concentrated engaged in conglomerate merger more often than did other corporations. This happened because management of the former firms are not closely monitored, and therefore pursue risk reduction activities for their personal benefits. Agarwal and Mandelker (1987), [47] on the other hand, reported that large ownership positions in their firm's shares by manager of acquiring firms are typically associated with risk increases rather than risk decrease from mergers. Langetieg, Haugen and Wichern (1980)[48] also found that mergers generally resulted in increase in systematic and unsystematic risk for the combing firms.

Lewellen, Loderer and Rosenfeld (1989)[49] also empirically evaluated risk reduction motive of mergers on a sample of two hundred and three NYSE listed firms that merged during the time period 1963-84. Merger related changes in the firm's risk as reflected by changes in variability of acquiring company's stock returns were measured by the two ratios estimated from market model.[50]

(1) DVR (i.e. the ratio of estimated total variance of stock return after the merger to the estimated total variance before it) and

(2) DVRR (i.e. the ratio of estimated merger to before merger residual variances of acquiring firms' stock returns).

For the majority of firms in their sample, the results found an increase in total and residual stock return risk. In addition, there was very less evidence that risk reducing cases were more frequent when senior managers had especially large, own company shareholdings. Finally, from the examination of estimates of stock return performance of acquiring companies on and around the dates of merger offer announcements and approvals, they found no indication that risk reducing mergers in the sample tended to occur at the differential expense of shareholders' wealth.

Further investigation into the rationale for mergers was the empirical analysis of mergers as a means of restructuring distressed firms carried on by Clark and Ofek (1994).[51] They examined a sample of thirty eight takeovers occurring during the time period 1981-88, (generally all within the same group) identified as an attempt to restructure distress targets. The study used the indicators that focused on post-merger performance of both combined firms and target firms alone to test whether the combination of target and bidder was a successful method of restructuring the targets. Their results indicated that most of the mergers were not successful. Out of the sample of thirty eight takeovers classified as restructuring attempts, twenty were termed as failures, nine as marginally successful and nine as successful. Nevertheless, the study could not conclude that mergers are a poor choice for restructuring distressed targets since they did not analyze the success rate for alternative method of restructuring or the consequences of doing nothing on total welfare.

Averbach and Reishus (1987)[52] carried out an empirical investigation of three hundred and sixteen merged firms to examine whether tax synergies are significant determinants of incidence and pattern of corporate mergers.

The study compared the tax characteristics of a sample of three hundred and sixteen merging firms during the time period 1966-83 to those of a similar sample of non merging firms (identical in terms of size and year) chosen at random and using both samples, estimated a model of merger activity.

Their results suggested that an increase in interest deduction could not have been an important factor influencing merger activity during the period under study. The two samples exhibit very insignificant differences in borrowing patterns and model estimated by them suggested that low debt ratio is associated with lower probability that firm will be acquired. This means that probability that a merger yield corporate tax benefits is no higher than probability that random pairing between two firms will produce tax benefits. In conjunction to their discovery that significant corporate tax benefits are obtained in only 20% of merger cases, these results cast doubt on the claim that taxes have induced significant fraction of merge during this period.

Berkovitch and Naryanan (1990) [53] conducted an empirical investigation to distinguish among the three major motives that have been advanced in literature: the synergy motive, the agency motive and hubris motive. The synergy motive suggests that takeovers occur because of economic gains that results by merging the resources of two firms. The agency motive suggests that takeovers occur because they enhance the acquirer management's welfare at the expense of acquir's shareholders. The hubris hypotheses suggest that managers make mistake in evaluating target firms, and engage in acquisitions even when there is no synergy.

This study used correlation among targets, acquirers and total gains to distinguish among these motives. In hypothesized positive correlation between target and total gains in case of synergy, negative correlation in case of agency and zero correlation in case of hubris. Using sample of three hundred and thirty tender offers during 1963-88, these hypotheses were tested for the entire sample and for sub-sample of positive and negative total gains.

The results of the study indicated that, on an average, takeovers yield positive total gains (in 75% of their sample). In a sub-sample of positive total gains (two hundred and fifty two tender offers) correlation between target and total gains was positive, indicating that synergy motive dominated. In the sub-sample og negative total gains (seventy eight) ,the correlation was negative, indicating that dominant motive was agency. There was evidence that hubris existed at least in positive total gains sample. The study concluded that while synergy is the reason for majority of takeovers, there is strong evidence that many takeovers are motivated by agency hubris also.

An in-depth study of merger motives by Sudarsanam, Holl and Salami (1996)[54] in U.K. integrated number of hypotheses concerning the different sources of value creation. It measured the impact of possible agency conflicts between shareholders and managers on the way this value is created and distributed between bidder and target shareholders. They developed various hypotheses to investigate the sources of synergy between bidders and targets and the impact of ownership structure on the returns to shareholders, on a sample of four hundred and twenty nine completed acquisitions in U.K. during 1980-90. The various sources of value creation identified by them from the existing literature included operational synergies arising from economies of scale and scope or increased monopoly power, managerial synergy and financial synergy.

The results of the study confirmed that shareholder wealth experience was indeed conditioned by these three broad categories of influences. In particular, financial synergy dominated operational synergy. A combination of companies with complimentary fit in terms of liquidity slack and surplus investment opportunity was value creating for both groups of shareholders. However, when highly rated firms acquired less highly rated targets, the acquiring firm's shareholders experienced wealth losses where as target shareholders experienced wealth gains. This result is consistent with acquiring managers acting out of hubris.

Further, their results confirmed that ownership structure had significant impact on shareholders returns. Large shareholding decreased the return to target shareholders.

Equity offers generated smaller wealth gains for both bidders and targets than pure cash or hybrid offer.

To sum up, despite many excellent research papers, we still do not fully understand the motives behind mergers and tender offer or whether they bring an increase in aggregate market values.[55]

PERFORMANCE MEASURE

This section reviews the literature to highlight the effect of M&A's on the performance of merged firms to see if they are value creating activities or not. There are two approaches for analyzing post-merger performance vis., analysis based on share price and analysis based on operating performance of the concerned firm.

1. Shareholder performance Measures

Performance measures based on share price data require computation of measure of theoretical share price which would exist in case there is no event (i.e. proposed merger). The financial theoretical share price is then compare to the equal price and the difference is attributed to merger event. This method, referred to as "Events Study" makes an assumption of an efficient market framework [56] to measure shareholders return. The efficient market hypothesis assumes that investor's anticipation of future benefits will be reflected in the acquiring and acquired firms' stock prices at the time of merger announcement. The evidence whether M&A s creates value for shareholders or not comes from events studies, where the average abnormal stock market reaction at merger announcement is used as an indication of value creation or destruction. In a capital market that is efficient with respect to public information, stock prices quickly adjust following a merger announcement, incorporating any expected value changes. Thus, the studies based on stock prices measure the impact of M&As on share price returns by comparing the combined firms post- merger share price returns with some benchmark return based on beta risk and/or broad market indices.

For this purpose, a technique called Market Model [57] has been used in most of the empirical studies using share price data in US and UK and elsewhere. This model asserts that there exists a linear relationship between return on individual security and that of market and is given in the form.

$$Rit = I + i + Rmt + it$$

Where,

Rit = represents return on share I on period t
Rmt = return on general market index
it = degree to which share varies other than the market (Error term)
Ii = intercept and slope of linear relationship between Rit and Rmt

Once, the parameters It and Ii are estimated, market model are used to generate estimates of residuals around the time of merger announcement. The residuals measure the difference the predicted share price estimated by market model and actual share price i.e. abnormal gain or loss.

The research studies using this approach have thrown up conflicting findings in UK and US. The contrasting findings relate to shareholders return to acquiring firms and to overall gain or loss position. The review of these studies is summarized below.

Events studies conducted in U.K.

Firth's Study (1976) [58] and Franks, Broyles and Hecht's Study (1977)[59] both used market models to establish whether abnormal gains or losses had arisen to merger participants. Firth's study investigated with a sample of two hundred and four merger events covering a period of two years i.e. 1973, 1974. Frank's study investigated the breweries and distilleries industries during 1955-72 working on a sample of seventy events. Both these studies found that there was little evidence that acquirers lost as a result of acquisitions but there was considerable evidence that acquiree gained from it. The summarized their conclusions as under:

1. Shareholders in acquired companies enjoyed abnormal returns averaging 26% during four months prior to completion of merger.
2. During same period prior to merger, shareholders in acquiring companies experienced small positive abnormal returns, which were not sustained.
3. Gains on combined shareholding in acquiring and acquired companies reflected net gains from mergers within industry.
4. Evidence suggested that market began to anticipate mergers at least three months in advance before mergers were announced.

The results of both these studies differ from each other in one important aspect. Both found substantial gains to acquirees, but Firth study [60] found that as far as acquirers were concerned, merger proved expensive.

In a later study, Firth (1980)[61] examined the impact of takeovers on shareholders returns and management benefits and, some implications for the theory of the firm were drawn from the results. Their results showed that mergers and acquisitions resulted in benefits to the acquired company's shareholders and to acquiring company's managers but losses were suffered by acquiring company's shareholders. The study concluded that overall benefits to the economy in terms of share price gains or losses were nil in the sense that abnormal gains accruing to acquired companies shareholders were neutralized by losses of acquiring companies.

Table 3.1 highlights the results of the neutral impact of mergers in U.K. during the period 1969-75.

Table: - 3.1

Impact of Mergers on the Economy:

Overall Gains/Losses Analysis

	1 **Offeree**	**2** **Offeror**	**3 Offeree- Offeror Combined**
Mean gain/loss	-36.6	1103.6	-1140.2
No. of losses	224	3	350
No. of takeovers	434	434	434

Source: Firth (1980)[62]

In the sample of four hundred and thirty four companies, in all except three companies, abnormal gains accrued to shareholders of Offeror Company. The mean gain of 1103.6 m was offset by a loss incurred by majority of offeror companies which totaled 1140.2 m. The net impact was a loss of 36.6 m. The study concluded that "this implies that stock market is expecting little change in the profitability of firms once they have combined any possible benefit in the form of synergy or re-organization of acquired firms are presumably being countered by doubts of whether the offeror has access to management capable of greatly increasing efficiency and because of costs involved in takeover process".[63]

Franks and Harris's Study (1989)[64] investigated the wealth gains to shareholders on an exhaustive sample of 1898 target firms and 1058 acquirer (bidders) in UK acquisitions during the time period 1955-85. The results of the study found that mergers were on an average, value creating for shareholders as measured by equity market prices around the merger announcement date. Shareholders of target firms gain and bider shareholders gain or do not lose. The evidence is similar to that found in US studies. The study found higher target wealth gains when bidders held pre-merger equity interest. There was no strong evidence, however, that revised bids or contested bids or pre-mrger equity interests affected bidder gains around merger dates.

The study also compared UK results with US and examined the importance of institutional difference between two countries. It also provided an insight into the generality of US results. The results suggested that target wealth gains in UK and US increase after 1968 and also, if form of offer (tender or other) is controlled, results in US and UK are similar.

Limmack' Study (1991)[65] investigated the distribution of returns to shareholders of four hundred and sixty two UK companies involved in acquisition during the period 1977-86. Three control models have been used in their analysis: the market model with parameters identified through ordinary least square regression, a model based on adjusted betas and finally, an index relative model. Abnormal returns have been identified around both, bid announcement and outcome dates for bidders and targets in successful and successful bids. Investigation has also been carried out to measure the distribution of wealth changes for bidders and targets separately and both in combination. The results demonstrated that although there has been no wealth decrease to shareholders in totality as a result of takeover, acquiring shareholders of bidder firms did suffer wealth decreases. On the other hand, shareholders in target firms obtained significant positive wealth increases in both completed and abandoned bids. The results thus provided conflicting evidence depending upon period included in analysis of abnormal return and control model used.

The summarized results of three UK based studies on the market model are given in Table below:

Table: - 3.2

Abnormal Returns for Target and Bidder Shareholders Surrounding UK Takeover Announcements

Study period Sample Size	**Window**	**Data**	**Target**	**Bidder**
1.Firth (1980) 1969-75 486 Targets	Announcement Month	Monthly Returns	28	-6.3
2. Franks and Harris (198) 1955-85 1445 targets	Announcement Month	Monthly Returns	22	0.0
3. Limmack (1991) 1977-86 462 targets	Bid Period	Monthly Returns	31	-0.2

Source: Sudi Sudarsanan, op. cit., 1997

Table: - 3.3

Post-Merger Performance of Acquirers

Study period Sample Size	**Window**	**Data**	**Bidder**
1.Firth (1980) 1969-75 434 acquirers	+1 to 36 Month	Monthly	-6.3
2. Franks and Harris (1989) 1955-85 1048 target	+1 to 24 Month	Monthly	0.0
3. Limmack (1991) 1977-86 462 targets	+1 to 24 Month	Monthly	-0.2

Source: Sudi Sudarsanan, op. cit., 1997

Events Studies Conducted in US

US literature on mergers and acquisitions is voluminous, and the event study methodology has its origin in US. There are two sets of empirical evidence, one on capital market reactions to take over announcements and other on post merger performance of firms. While most empirical researchers are focused on daily stock returns surrounding the announcement dates, few studies also look at long run performance of acquiring firms after mergers.

Mandelkar(1974)[66] is the first researcher to use the Capital Asset Pricing Model (CAPM) to determine residual returns. He examined the market for acquisitions and the impact of mergers on the returns to stockholders of constituent firms. While employing the two factor model, the study also examined change in risk in analyzing the impact of mergers on stock prices. This study, conducted on a sample of two hundred and forty one acquiring firms during the period 1941-1962 found, on one hand the stockholders of acquiring firms earned abnormal returns during the pre and post merger periods (as compared to other investment productive activities with commensurate risk levels), and on the other hand, stockholders of acquired firms earned significant abnormal returns (approximately 14%) in the seven months preceding the completion of mergers. These results are consistent with the hypothesis of perfectly competitive efficient market (on the demand side) for acquisitions and with the hypothesis that information regarding mergers is efficiently incorporated in the stock prices.

Ellert (1976)[67] in a study of effects of anti-trust action on the performance of merger patterns used methods similar to Mandelkar study[68] but with a much larger sample for an overlapping period. The results of the study found significant positive performance before and during the merger month for both, acquired and acquiring firms. The study, however, noted that while acquiring firms had positive excess returns prior to mergers, these returns occurred long time before they could be attributable to any merger activity. Also, while the acquired firm’s experienced marked positive returns in the seven months prior to merger completion. The main result of study is that anti- merger action by government has little effect on merger gains and hence is not likely to affect the concentration of monopoly power.

Dodd and Ruback (1977)[69] used date of public announcement of merger as the event date. This study of stock market reaction to tender offers, both successful and unsuccessful was conducted on a sample of one hundred and seventy two target and bidding firms, of which 72% were merged with five years. The study found that target firms earned significant abnormal returns in the month in which the offer was announced (approximately 20%), regardless of whether offer was accepted or not. Also, the study reported that stockholders of successful bidding firms earned small abnormal returns (approximately 2.83%) in the month of announcement of merger. These results are similar to those of Mandelker's study[70] since most of the gains from takeovers accrue to target shareholders.

This study also conducted an empirical assessment of the market's reaction to unsuccessful takeover attempts. The stockholders of bidding firms which initiated unsuccessful tender offers neither gained nor lost: they earned normal returns in the offered period. Unsuccessful target, however, earned large significant positive abnormal returns of 18.96% in the month in which offer was announced. Furthermore, the price changes were permanent since they earned normal returns for five years after the offer.

The findings that acquiring firms earned excess returns corroborated an earlier finding. Halpern (1973)[71] using a variant of market model found that when he adjusted for the general market factors using an industry index and for the relative size of acquiring and acquired firms, the gains of the mergers were equally distributed among the participants. Halpern concluded that the market for mergers is efficient but not competitive (both the acquired and acquiring firms are uniquely suited to one another in some way)

Haugen and Langetieg (1975)[72] compared the performance of merged firms with a control group of firms of the same industry that did not merge. The study covered fifty nine industrial mergers of companies listed on NYSE during the time period 1951-1968.

The study detected little evidence of synergism in their sample with focus only on changes affected in the risk attributes of distribution of stock returns. If the market is efficient, a change in profitability of assets should be quickly capitalized in the price of combined company stock. This change was not detected in this study.

Langetieg (1978)[73] re-examined the magnitude of stockholder gains from mergers. His studies employed two factor models (market and industry factors) to describe the stochastic return process in the capital market. The study also introduced a third factor, the non merging control group to measure its impact on their performance.

To re-examine the pre and post merger stock performance from the perspective of three factor performance indexes, the sample size was restricted to one hundred and forty nine single merger events during the time period 1929-1969

The results of the study indicated significant negative post merger performance for acquiring firm's shares cumulating to -0.0659 over the twelve months after the merger. The study also found negative abnormal returns for acquired firms during the period well before the merger Abnormal returns during the six months preceding the merger were significantly positive. For acquiring firms, the pattern was reversed and less pronounced.

Schipper and Thompson (1980)[74] evaluated the impact of merger related regulatory changes introduced during the high merger activity period of 1960's on the shareholders of the firms that were active in the acquisition programs. The approach was a form of events' study in which the events (announcements of regulatory reforms) were grouped according to calendar time. The influence of each individual event was evaluated based on a shift parameter introduced into the market model which identified the sub period over which the announcement of a particular reform occurred during 1966-70. If the regulatory changes reduce the net benefit from future acquisitions, the market value of equity of firms with the acquisition programs should fall. Of the four regulatory changes,[75] the Williams Amendments[76] and the Tax Reforms Act 1969 had a negative impact on security prices of the sample of companies involved in the active acquisition program.

The study estimated that the impact on the active acquirer's was -6% for Wiliams Act announcement and -1.2% for the Tax Reforms Act. The finding of positive abnormal performance associated with the announcement of the acquisition programs and negative abnormal performance associated with the regulatory changes is consistent with a positive average capitalized value of acquisition program. The evidence is also consistent with an extreme form of size maximization hypothesis which suggests that entrenched managers seek expansion by mergers to the net detriment of current shareholders.

Asquith (1983)[77] also investigated the effect of mergers on stockholders returns. This study was extended to include investigation of abnormal returns through out the entire merger process for both successful and unsuccessful merger bids starting from 480 trading days before a merger bid until 240 days after the bid. Two merger events were considered; the announcement date and the out come date of merger. Using a sample of three hundred and eleven target firms and one hundred and ninety six bidding firms in successful mergers and ninety one target firms and eighty nine bidding firms in unsuccessful merger bids, the stock market reaction to event uncertainty was explored i.e. the extent to which probabilistic merger announcement was incorporated into security price movement was examined.

The results of the study are consistent with the hypothesis that target firms have unique resources, which provide synergy when combined across firms. There were stockholders gains associated with a merger bid and these gains increased as the probability of merger decreased. Most of the gains of mergers went to stockholders of target firms with the stockholders of successful bidding firms earning little, If any return. This suggests that bidder market is competitive and sources of synergy are unique to target firms.

Asquith and Kim (1981)[78] in an earlier study on bondholders' returns in conglomerate mergers concluded a similar behavior of stockholders return. Part of the study which investigated the effect of mergers on the bondholders of merging firms opined neither gain nor loss for them from mergers. This demonstrated that the stockholders gains are not the result of wealth transfers from bondholders but apparently the result of real gains.

Another study at the same time by Malatesta (1983)[79] examined the net effect of long run sequence of events leading to merger of merger pre se, on shareholders wealth. The study developed three hypotheses concerning mergers, namely, value maximizing or investment hypotheses, size maximization hypotheses and improved management hypotheses. It empirically tested them to see which one rationalizes the results best. The appropriate measure of merger related gain employed was cumulative abnormal returns in dollar term over a five year time period 1969 to 1974.

The results of the study are consistent with the hypothesis that merger per se have a positive impact on acquisition firms shareholders wealth. Cumulative abnormal dollar returns to acquired firms over a five month interval ending with the approval announcement averaged 19.67 million dollars in their sample which was statistically significant estimate. However, acquired firms shareholders apparently suffered wealth losses during the period well before a merger. Over the 61 months prior to and including the approval announcement, estimated cumulative abnormal dollar returns averaged -9.42 millions dollars. Hence, the estimated net impact of events culminating in mergers on acquired firms' shareholders wealth is negative. The improved management hypothesis predicted these results.

Further, the results indicated that acquiring firm's stockholders suffered wealth losses both immediately before and well before a merger. Over the five month interval ending with the approval announcement, Cumulative Abnormal Return over sixty one months ending with the announcement was -11.17 million dollars. Both of these estimates were statistically significant which led the study to conclude that merger is a negative net value project for acquiring firms.

Seth's Study (1990)[80] provides a conceptual framework and an empirical methodology to assess the extent of value creation in acquisitions. On a sample of one hundred and four tender offers which look place between 1962 and 1979 event study methodology was applied as a basis for estimating synergistic gains in acquisitions and for testing if these gains were equal for related acquisitions. The results of the study found positive and significant value creation for all types of acquisition, whether related or unrelated. They cautioned researchers as well as practitioners from concluding about the superiority related acquisitions as compared with unrelated strategies. Further, they opined that performance differences between related and unrelated diversification strategies depend upon the basis of classifying firms as following one or the other strategy. This conclusion useful to consider the broader question of usefulness of classification schemes. One obstacle to classification is presented by the fact that majority of US firms are diversified to some degree; hence the task of identifying pattern of relatedness between two diversified merging corporations is of immense complexity.

Agarwal, Jaffe and Mandelkar's Study (1992)[81] re-examined the post-merger performance of acquiring firms after adjusting for the firm's size effect and beta risk on its exhaustive sample of 937 mergers and 227 tender offers[82] which took place in US during the period 1955-87.

Their results, based on two alternative methodologies, both adjusted for beta risk and market capitalization indicated that stockholders of acquiring firms experienced a statistically significant wealth loss of about 10% over five years after the merger completion date. The result was robust to a variety of specifications and did not seem to be caused by changes in beta. The study, therefore conclude that the efficient market anamoly of negative post-merger performance highlighted by Jenson and Ruback (1983)[83] is not resolved.

Further, the causes for large negative returns after a merger were not known. One possibility would be that market was slow to adjust to the merger event. Then, the long run performance should reflect that part of Net Present Value of merger to the acquirer which was not captured by the announcement period returns. However, the results of the study were not consistent with this hypothesis also. The resolution of this anamoly was left by the study as a challenge for future research.

To conclude, the most frequent finding from the plethora of research in this area in US is that shareholders in the acquired firms tend to make gains; the evidence for the shareholder's of acquiring firms is, however, mixed. In a review of empirical evidence on shareholders wealth effects of US takeovers, Jenson and Ruback (1983)[84] conclude that "corporate takeovers generate positive gains; target firms shareholders benefit and that bidding firms shareholders do nit lose". There seems to be no such consensus about UK experience. Evidence on acquisition activity in UK is less plentiful. Some of the main findings for the US are consistent with detailed study for UK over the period 1955-85 carried by Franks and Harries (1989). They find that shareholders of target firms' gains from mergers, gains are higher if bid is contested or bidder already has stake in target firm before acquisition, bidders out performed in pre-bid period and lost subsequently.

2. Managerial Performance Measures

In the context of studies based on stock prices, it is generally argued that these cannot determine either the extent of real economic gains or the source of such merger related gains. Gains from mergers could arise from variety of sources, such as operating synergies, tax savings and monopoly rents. To measure these real effects of mergers and to determine whether expected gains at the time of merger announcement are actually realized or not operating performance of firms is analyses. Studies based on operating performance generally focus on various accounting measures of profitability. In analyzing the effect of merger profit rate of merging firms before the merger. Any changes in performance are then contrasted either with performance in pre-merger period or with that of firms not engaged in merger activity or are compared with industry benchmark. Performance measure studies based on accounting data summarized below.

Studies Conducted in UK

Singh's Study (1971)[85] examined the performance of firms before and after the merger and efficiency of stock market as a means of enabling the resources to move into more profitable uses. The study investigated the relationship between market valuation, some financial variables (namely, pretax return on net assets, dividend return on equity assets, size, liquidity, gearing, retention, growth of net assets ect.) and takeovers. The study employed data on a sample of 2126 UK public quoted companies for the period 1948-60 to examine the characteristics of taken over firms. In addition to the differences in the composition of companies examined, the time period and the emphasis placed on industry analysis, the study relied primarily on discriminate analysis for testing the various hypotheses about takeovers.

The results of the study show that on an average, about 60-65% of firms which were taken over had profitability, growth and valuation ratio lower than their industry average indicating that firms which performed better took over worst performing firms. The success of merger is questionable as 57% of merged firms in the sample had post-acquisition profit record which was worse than record of separate firms before merger. The study, therefore, concluded that mergers are non-profitable.

Further, the study also concluded that while firms with higher profitability over firms with lower, the ability to resist takeover was related to size. The large and medium sized firms had a much lower probability of being acquired than small ones, hence it was possible for a firm to defeat takeover bids by acquiring other firms itself.

A complimentary study by Utton (1974)[86] compared the performance of merger intensive group during and after a heavy bout of merger activity for each company with that of a group which relied instead on internal growth. The merging company's average profitability was appreciable below that of non merging companies too far below to be explained by any of measurement problems presented by the study. Thus, this study, deliberately framed to capture the consequences of series of takeovers, yielded results in full harmony with those of other complimentary studies for single merger case also.

The other two studies of the same type by Kuehn (1975)[87] and Aaronovitch and Sawyerr (1975)[88] showed that mergers and takeovers seldom lived upto the expectation of profitability at the time when companies came together. In addition, Kuehn's study[89] also examined the relationship between financial variables (like size, growth rate, profit rate, retention ratio, and liquidity ect.) and stock market performance of firms taken over and not taken over.[90] The study was conducted on a sample of 3566 companies which had merged or were acquired during the thirteen year period 1957-69. The study concluded an inverse relationship between a firms probability of being takeover with its profit rate, growth rate and liquidity. Higher the ratios, less was the chance of the firms of being taken over. While retention policy of firms seemed to have no effect on firm's probability of being taken over, valuation ratio provided more consistent indicator of the same.

A study of the gains from merger by Meeks (1977)[91] assessed the performance of mergers, mainly in terms of profitability, though other characteristics of acquiring firms were also considered. Two complimentary null hypotheses were also tested.

1 Other things being equal, profitability of merger was on an average no different from pre-merger level of participants.

2 Other things being equal, half of mergers experienced an improvement in profitability after merger and half a decline.

The study chose a sample of two hundred and thirty three acquisitions that took place during 1964-72. The basic methodology was to compare reported post- merger profits to the pre-bid profits of each of merging firms. To allow for changes in profits brought about by factors independent of merger, they were calculated relative to the performance of company's own industry. The results of the study accepted the null hypothesis of decline in post-merger profitability. In three to five years, this decline was significant at 1% level and in each post merger year, majority of companies experienced decline. This decline although of the same order of magnitude, was however, not found to be significant in six-seven years following the merger. This may be due to the small size of sample. For the year of merger itself, the study found a significant improvement in profitability, a result that was dismissed due to distortions. Further, the study made adjustment for the accounting bias due to revaluation of merged firms and for external influences by measuring a firm's profit rate relative to its industry. The study concluded that since the market power of merging firms is unlikely to have declined, the decline in profitability could be taken to indicate decline in efficiency.

This study has been followed by many other accounting based studies in UK (Cosh, 1980, Kumar1984) with the same methodology adopted for comparing pre and post merger profitability taking industry performance as benchmark. Cosh (1980)[92] concluded significant improvement of profitability for post merger companies conducted on a sample of two hundred and twenty five companies covering time period 1967-70. Kumar's (1984)[93] results on a sample of two hundred aond forty one companies over eight year period 1967-74 was consistent with those of Meeks (1977)[94]. They concluded significant decline in profitability after mergers.

Another study by Levin and Aaronovitch (1981)[95] examined the financial characteristics of the firm with a view to test various hypotheses drawn from the theory of the firm. The study empirically analyzed a sample of one hundred and fifty four firms in manufacturing and distribution involved in large mergers in UK. It conducted a univariate comparison of group averages of financial characteristics of acquiring firms in terms of grouped variables corresponding to stock market efficiency hypothesis. The results found no evidence of any significant difference between acquiring and acquired firms for the profit related variables (rate of return, earning per share) and their growth (growth of rate of return, growth in earning per share). Further, the results showed that both size (measured in terms of capital employed) and valuation ratio or price earning ratio discriminated well individually between acquiring and acquired firms[96] but the results as a whole suggests that stock market does not reward only profitability and efficiency. Also, apart from size and capital market assessment (in terms of valuation ratio, price earning ratio), acquiring firms did not have a distinct set of financial characteristics from those of acquired firms.

These results of the study supported the contention that financial characteristics of acquiring and acquired firms are not primarily important in explaining merger activity involving large firms. There appeared to be little evidence that acquiring firms choose less efficiently.

The multivariate results which looked at growth and profitability together found no support for acquiring firms having higher growth. There was some evidence of immediate investors gain from the higher P/E ratio for the acquired firms. The evidence further pointed to mergers as strategic decisions not involving immediate economic or financial gains. The study indicated two advantages of size. Firstly, large firms with equal efficiency as indicated by growth and profitability had higher valuation ratio than smaller firms.[97] Secondly, advantage of size was the security from takeover that it brought. Being large could insulate a firm from takeover threat arising from small valuation ratio.

To sum up, the verdict of these studies is not wholly averse to mergers. However, it does not also show that mergers are effective in improving post- merger performance.

Studies conducted in US

Empirical research on accounting measures provides results similar to those in UK. These are summarized as under.

Kitching's Study (1967)[98] examined the financial performance of companies and also the objectives of managers involved, in terms of what they hoped to achieve by merger and what extent these objective were realized. The study used two methods to determine whether a merger could be classified as success or failure.

a) Survey of management literature and field interviews with executives of twenty two companies (covering various industries like textiles, electronics, communications, marketing recreation products, food, aviation, tobacco, finance etc.) designed to measure manager's qualitative assessment of success or failure of acquisition program measured against original strategy.

b) Financial results obtained from the companies in order to compare the actual performance with forecasts made before the merger.

This procedure was designed to crosscheck the manager's subjective judgment on the acquisition's success or failure (though acquisition objectives could sometimes be successfully reached without achieving financial targets). The results showed a high incidence of failure with certain types of mergers, particularly conglomerate mergers. Simple vertical and horizontal mergers were usually successful. Concentric mergers came in between these two extremes of success and failures.

The study summarized the primary reasons for failures of mergers to be as below.

1. The existence of managers of change, that is to say that the managers of one of the companies involved in the mergers must be able to deal with the changing circumstances.

2. The acquisition should be planned as growth diversification strategy rather than a mere reaction to an opportunity for buying.

3. There must be careful analyses of future needs. The study showed that the successful companies made a careful analysis of their subsidiary's future requirement for parent company's funds.

Weston's Study (1971)[99] carried out various tests on the performance of sixty conglomerate firms over the period 1958 to 1967. The sample also consisted of two control groups one consisting of industrial companies only and the other combining both industrial and non industrial companies. The study measured the performance of conglomerates in terms of growth per share using the following variables of growth rates: (1) Total assets (2) Sales (3) Net income (4) Earning per share (5) Market price based on yearly high, yearly low and arithmetic of annual high and low prices.

The study found that the earning performance of conglomerates measured by returns on total assets and return on net worth was not significantly different from that of all manufacturing companies. However, given the unfavorable earning opportunities in industries from which conglomerates emerged the performance was favorable. It, therefore, concluded that in financial terms, on an average, conglomerates performed no better than the average industrial company. What, however, was surprising was the range of performance of these conglomerates.[100] The great diversity in the conglomerates performance had important implications. The results of some mergers were a success, other a failure. It was not important to consider mergers and acquisitions as either wholly good or bad thing but to be able to different the mergers that have high probability of success from that could well fail. The results of financial conglomerates were less predictable but the study opined that their criticisms were not substantiated, so there were no grounds for raising barriers against them.

Ravenscraft and Scherer's Study (1987)[101] offered an alternative method to the stock price analysis for estimating economic effects of merger events. Their study was broad range covering an approximate sample of six thousand acquisitions in different lines of business with three dimensions of merger performance, namely, survival, profitability and R&D intensity. The study showed that acquiring firms in their large sample failed to significantly improve operating performance of their acquisitions but paid substantial premiums for privilege of trying.

In case of voluntary mergers, once acquisition effects were controlled, tender offers and takeovers were followed by neither degradation nor improvement of operating performance, where as normal mergers in such case showed definite post-merger performance deterioration. For the mergers consummated under pooling of interest accounting, pre merger operating income to asset ratio averaged more than ten percentage points above peer industry averages. Post merger values of same performance indicator for 100 percent pooling lines was1.3 percent points above, 1.6% below and 3.5% points above peer industry norms controlling also for shares for 1974, 1976, 1977, respectively.

For three years together, pooling merger lines surpasses their peer industry to 0.4% points. This represented a sharp drop from pre-merger performance.

This study of matched pre-and post-merger sample confirmed the conclusion that profitability dropped sharply after merger. In addition, this sample was compared to non acquired firms with similar size and above average profitability for same time period. The non acquired firms maintained 40% of supernormal profits while acquired firms kept only 10%. The difference between acquired and non acquired profits decline was substantially significant.[102]

On the effect the merger had on R&D, the study concluded that their analysis of 2955 lines of business for the year 1977 provided no support for the hypotheses that "mergers permit intensification of R&D effort by blending innovating enterprises into larger corporations".[103] Lines of business originating from mergers had significantly lower company financed R&D to sales ratio than product lines with similar market shares in same industry but without merger history.

Looking at the final aspects of long run performance improvement, the study opined that "analysis" of short run stock market reactions to merger announcements suggested that they may result in such improvement. The exact cause of short run stock price gains remained unclear. However, an analysis of stock prices two or three years after a merger cast doubt as to whether the combined returns to acquired and acquiring companies shareholders remained positive.[104]

Healy, palepu and Ruback's Study (1992)[105] is also motivated by inability of stock price performance studies to determine whether takeovers created real economic gains or not to identify sources of such gains. For this purpose, it analyzed post-merger accounting data to test for changes in operating performance that resulted from mergers. The study used operating cash flows in place of accrual profits with industry performance as a bench mark to evaluated post merger performance. It analyzed 50 large acquisitions during the period January 1979 to June 1984 and concluded that merged firms showed significant improvement in asset productivity relative to their industries, leading to higher operating cash flow returns.

Further, the study also investigated into the possible correlation between merger related stock market performance and post-merger cash flows performance. It found a strong positive correlation between post-merger increase in operating cash flows and abnormal stock returns at the time of merger announcements. This indicated expectations of economic implications explained a significant portion of equity revaluation of merged firms.

Accounting Studies Conducted Elsewhere

Hoshino's Study (1982)[106] analyzed the performance of corporate in Japan using accounting ratios. It conducted two tests on the performance of mergers. The first test compared the financial ratios before and after merger and the second test compared the performance of merging firms with non merging firms. The analysis led to the following conclusions:

1. There was a difference in the financial performance both before and after merger in fifteen corporate mergers examined in the study. After the merger, net worth in total liabilities and assets, debt equity ratio the turnover ratio and net profit to total liabilities and assets, ratio were worse than before the merger. An improvement was found only in case of current ratio.
2. There was no clear distinction between merging and non-merging firms in the same industry.
3. The comparison between ninety merging firms and forty eight non-merging firms showed that the two group's financial performance could be distinguished with clear adverse effect mergers on net worth to total liabilities and assets ratio.

Sharma and Ho's Study (2002)[107] examined the operating performance of a sample of thirty six firms involved in acquisitions in Australia occurring between 1986 -1991, both years inclusive. Using matched firms to control for industry and economy wide factors, the following hypotheses have been tested empirically.

1. Operating performance in the post-acquisition period is greater than operating performance in the pre-acquisition period.
2. There are no significant differences in post- acquisition operating performance between conglomerate and non- conglomerate acquisitions
3. There are no significant differences in post – acquisition operating performance for firms using different methods of acquisition financing.

The results of the study based on eight different performance indicators (being four accrual and four cash flow performance measures) revealed decline or no gain in operating performance following an acquisition. The various performance indicators used in this study explained that inconsistencies in prior research could be attributed to differences in performance indicators used to capture synergistic benefits. The study also found that the type of acquisition (conglomerate and non-conglomerate) and the form of acquisition financing (cash, share or a combination) do not significantly influence post-acquisition performance. Similarly, size of the acquisition and the payment of premium (goodwill) do not influence post-acquisition performance. While the results of study are not consistent with synergy theory underlying corporate acquisitions, they are interpreted to be consistent with the agency (acquisitions resulted in lower post acquisition performance but increased firm size), the hubris and the financial motivation hypothesis (acquirers had higher levels of leverage than acquirees, though not statistically significant).

To conclude, the evidence of merger's effect on profitability reveals no distinct pattern. While few studies report profit increases following mergers (Cosh, Hughes and Singh 1980, Muller, 1980), the preponderance of evidence in UK and US point towards no increase and probably some decline in the profitability of merged firms after merger.[108]

3. Performance Measures Based on Share Price and Accounting Data

Newbound's Study (1970)[109] examined a sample of two hundred and twenty three merger events in UK over a period of two years 1967-68 in respect of their share price behavior. The study measured biddings and target company's share prices four weeks before the bid against their year's high and concluded relative weakness in share price performance of target firms as compared to that of bidding firms. The analysis was carried out for all the three types of takeovers classified in the study according to the opposition to takeovers namely,

1. Uncontested takeover (where directors of the target firm did not any opposition in public).
2. Contested by directors (directors of the target firm were seen opposing/contesting the bid).
3. Contested by third parties (where some vigorous but undisclosed contests were seen).

It was found that in each type of takeover, the mean of target firm's share prices lower than the mean of bidding firm's share prices. The study concluded that target firms, in any type of takeover were on average, relatively weaker in terms of share prices than the associated target firms. Further this study also analyzed the operation of the enlarged firms for first five years after takeover in terms of financial indicators of growth namely, profits, sales, dividend yields, rate of return on capital employed, earnings per share and price earning ratio. The main aim was to determine what rates of growth were required to justify price paid for target firms. In majority of cases, required rate of growth on five year view was more than double than what had been achieved or in some cases, it even seemed unattainable. Also, investigations showed that firms should takeover only those firms whose share stand on a price earning ratio lower than its own.

Reid's Study (1968)[110] investigated a sample of four hundred and seventy eight US firms picked from fortune's list of five hundred largest industrial corporations for the year

1951. The study utilized three measures characterized as reflecting the interests of mergers, namely,

1. Growth in sales
2. Growth in assets
3. Growth in employment

And three measures reflecting the interest of stock holders namely,

1) Growth in market value of shares
2) Growth in ratio of net income to total assets
3) Growth in ratio of net income to sales

The study found that growth rates in three measures reflecting manager's interest were favorable for conglomerates as compared with other companies, while conglomerates performed less effectively in measures reflecting stockholders interest. Thus, it concluded that more actively merging firms and firms that diversified to a greater extent in their merger activity, scored high on criteria relating to manager's interest and low on criteria to stockholders interest.

However, the conclusions of the study were at variance with its own data. In the detailed industry analysis, the results of the performance measures were either not significant or significant in opposite direction for ten or more of the fourteen industries for each of his six measures. This suggested that it was grater weighing of small number of industries that produced results for his total sample.

To sum up, "not all mergers are unsuccessful … there are many examples of successfully merged companies, without proving that they would not have been even more successful without any merger. But on average, there is no evidence that mergers have conferred any general benefit on the company. The large firms tends to experience a falling rate of return on capital employed, and the merged firm, after the initial stock exchange excitement, larger acquirers a lower investment rating."[111] This fact that merger do not seem to benefit acquirers as shown by many studies could be because acquiring firms seek mergers for many reasons. Many firms mention motivations of mergers as a means to achieve possible economies of scale, synergies, and greater efficiencies in managing assets. Thus, there is contradictory evidence of mergers being a means of empire building by managers. If mergers were undertaken for true underlying motivations they could benefit acquirers but in average statistics, these are cancelled out by mergers undertaken for less benign reasons.

Financial characteristics of Merger Participants

The literatures on mergers and acquisitions contains several research studies that estimate the factors leading to firms being taken over by examining the difference between the firms acquired and firms not acquired and also acquirers and acquirees in terms of their financial characteristics. The purpose of such an investigation is to reach to some conclusions on why and how acquirers choose their victims. A summary of findings of some of the studies under taken in UK in terms of financial characteristics of acquirees and acquirers is given in Table 3.4 and Table 3.5 respectively which have been adapted from study of Firth (1976)[112] by Cooke (1980).[113] While Table 3.4 summarizes the financial characteristics of acquirees as concluded by various researchers in UK, Table 3.5 summarizes the same results of acquirers. In both the tables problems like differing definitions of variables analysed and different dates on which analyses have been done are faced.

Table: - 3.4

The financial Characteristics of Acquirees: Summary of Research Findings in UK

Financial Characteristics [114]	New Bond [115] (1970)	Singh (1971) [116]	Buckley (1972) [117]	Tzoannos &Samuels [118] (1972)	Kuehn (1975) [119]	Firth (1976) [120]	Meek (1977) [121]
1.Profitibality Low Average High		•	•	•	•	•	•
2.Dividend performance Low Average High				•	•		
3Valuation Ratio Low Average High	•	•	•		•	•	
4. Price earning Ratio Low Average High	•		•	•		•	
5. Gearing Low Average High		•	•	•	•		
6. Liquidity Low Average High		•	•	•	•	•	
7. Growth in Net Assets Low Average High		•			•	•	

Source: Terrence E. Cooke (1980), op.cit. pp.51

Profitability of acquires has been calculated in all studies except New bound (1970). The evidence suggests that victims tend to be those whose profitability may be described as low. The only exception to this is the study by Meeks (1977) who found the profitability of victim to be average.

As far as dividend policy is concerned, only Tzoannos and Sammuals (1972) and Firth (1976) have looked at this variable in a merger context separately since information content of a dividend is already included in measures of profitability as well as poor dividend performance.

The valuation ratio attempts to measure the degree of over and under utilization of net assets of the victim and is calculated by dividing hare price by net assets per share. New bound (1970)[122] found that "this ratio did not offer any explanation of incidence of mergers "whereas Buckly (1972)[123] found that "the variable provided good signals for identifying potential victims".

With respect to price earning ratios, all the studies calculating this variable found that target companies are lower than average. Since the capitalization rate depends upon growth prospects and risk attributes, victims generally have low P/E ratios and low valuation ratios. Firth (1976)[124] concluded that acquisitions are not in general made with the aim of improving initial earning per share.

Gearing has proved to be unstable variable with these studies, suggesting that low, average or even high levels of gearing were prevent.

Liquidity ratio was calculated in most of the studies but there was no significant difference between victim and control groups. Only Kuehn (1975)[125] found that victims tended to have lower levels of liquidity. Belkaoui (1978)[126] in his study of Canadian takeovers found that working capital to total assets ratio was the single best variable indicating likelihood of company becoming subject of takeover.

Three of the studies looked at size of victims and all came to the conclusion that they were smaller than non taken over firms.

With respect to financial characteristics of acquiring companies, the evidence in inconclusive. Table 3.5 summarizes the research findings in UK. The acquirer is usually one with average or above average profitability, with high dividend payouts and high growth rates. The other ratio did not potray any consistent pattern. In addition, no significant relationship has been established between financial ratio of acquirer and acquirees.

Table 3.5
The Financial Characteristics of Acquirers: Summary of Research Findings in UK

Financial Characteristics	**Singh (1971)**	**Tzoannos Samuels**	**Kuehn (1975)**	**Firth (1976)**	**Meeks (1977)**
1. Profitability					
Low					
Average			•	•	
High	•	•			•
2.Dividend Payout					
Low	•				
Average					
High		•	•		
3.Valuation ratio					
Low					
Average					
High			•		
4.Price Earning Ratio					
Low					
Average		•		•	
High					
5.Gearing					
Low					
Average		•		•	
High					
6.Liquidity					
Low	•				
Average					
High					
7.Growth in Net Assets					
Low					
Average					
High			•		

A later study by Rege (1984)[127] on Canadian data, investigating the possibility of locating takeover targets using five variables concluded as follows:

"The results indicated that the pre-takeover measurement of five variables were not useful in discriminating between the three categories of firms. Perhaps this was because the management of taking over firms was more interested in the expected levels of these variables and these expectations affected the major entrepreneurial perception of value of the firm. Ratio based on published accounting information may not be adequate proxies for the expectations of entrepreneur in takeover situations" [128]

Apart from UK based studies, some studies in US also explicitly tried to predict the firms that could be acquired in terms of their financial characteristics. Important ones include those of Monroe and Simkovitz (1971)[129] and stevans (1977) who used discriminant analysis to study the financial attributes of acquired firms. Monroe and Simkovitz's Study (1971) examined takeover targets for the year 1968 and concluded that acquired firms (relative to non acquired firms) were smaller, had low price earning ratios, lower dividend payouts and lower growth in equities. However Steven's Study (1973)[130] found that neither dividend payout nor price earning ratios seemed to be important variables. The study, however, claimed that a discriminant model based on financial characteristics of acquired firms provided useful classification.

Specifically investigating a sample of forty acquired firms (which were acquired in 1966) and forty non acquired firms (matched by size to the acquired), this study developed a dicriminant model that demonstrated 70% classification accuracy (between acquired and none acquired). The same model was also able to classify with 67.5% accuracy between a set of acquired and non acquired firms in subsequent years. The major difference between acquired and non acquired firms was that acquired firms used significantly less debts than non acquired firms. Some evidence of more liquidity for acquired firms was also present. In following table results are summarized.

Table: - 3.6
Steven's Ratios for 40 Acquired firms and 40 Non Acquired Firms

Measurement	Ratio	Significant in Discriminant Model	Means	
			Acquired	Non Acquired
Profitability	EBIT/Sales	yes	0.0883	0.104
Liquidity	Net working capital/Total assets	Yes	0.4066	0.3459
Activity	Sales/Total Assets	Yes	1.41	1.36
Indebtness	Total Liabilities/Total Assets	Yes	13.77	22.31
Dividend Policy	Cash dividend/Net income	No	0.37	0.34
Stoke value	Price/EPS	No	15.0	17.5

These studies were followed by another similar study by Harris, Stewart and Carleton (1980)[131] that used profit analysis[132] for the same objective. They developed samples of different sizes of acquired firms in two separate time periods 1974-75 and 1976-77 to check for changes through time. The sample consisted of sixty one firms acquired in 1976 and 1977, a sample of forty five firms acquired in 1974 and 1975 and a sample of approximately twelve hundred non acquired firms. The financial characteristics of only acquired firms were analysed to measure the probability of acquisitions as given in Table 3.7.

The following conclusions have been drawn:

1. Statistical models (profit) to estimate probability of acquisition did achieve statistical significance. These models indicated that smaller firms and firms with lower price earning ratio were more likely to be acquired. Other factors (for example, liquidity and indebtness) had effects that changed over time.

2. Despite this statistical significance (99% level) only a very small portion of factors contributing to acquisition was captured by the statistical models based upon only acquired firms characteristics.

3. Empirical studies to predict merger targets must be careful in selecting sample of firms to be investigated. It was important to keep the ratio of acquired to non acquired firms in sample approximately equal to the ratio found in the firm population.

Table: - 3.7

Merger Motives, Variables and Hypotheses

Motives	**Variables**	**Hypotheses**
1. Finance		
1.Economies in obtaining funds (Financial leverage)	a) Long term Debt/Total assets b) Long term Debt/Total assets c) Interest on coverage ratio	Acquired firms use less financial leverage than non acquired firms.
2. Corporate liquidity	Net working capital/Total assets	Acquired firms are more liquid than non acquired firms.
3Tax saving	Tax losses carry forward.	Acquired firms have different tax loss carry forward position than non acquired firms.
4. Profitability	a) Return on assets b) Return on equity	Acquired firms differ from non acquired firms in terms of profitability.
5. Diversification	a) Variability of returns to	Firms diversify via

	stockholder b) Variability of corporate returns	merger.
6. Earnings per share manipulation	Price per share/ Earnings per share	Acquired firms have lower P/E ratios than non acquired firms.
2. Miscellaneous		
1. Managerial	Growth in sales	Firms use mergers as means to further growth.
2 .Assorted motives.	Size	Acquired firms are smaller than non acquired firms.
3. Valuation	Book value per share/ Market value per share	Acquired firms have different valuation ratios than non acquired firms.

Palepu's Study (1986)[133] investigated a sample of one hundred and sixty three firms acquired in the period 1971-79 and a random sample of two hundred and fifty six firms that were not the mining and manufacturing industry. Both samples were listed on either New York or American Stock Exchange. The study found that firms with a mismatch between growth and resource were more likely to be taken over. These were firms with high growth (measured by average sales growth), low liquidity (measured by ratio of liquid assets to total assets) and high leverage and firms with low growth, high liquidity and low leverage. The results also indicated that poor performance (measured by net of market returns in the four years before the acquisition) was significantly related to probability of takeover. Accounting measures of past performance such as return on equity were unrelated to probability of take over.

Time Series Analysis of Aggregate Merger Activity

The study of merger activity is of long standing to economists as well as financial community. Reference to merger activity in American industry generally acknowledges three major mergers waves. The first one occurred during the turn of the century, the second one during 1920's and the third one during 1960s. Currently, the United States seems to be in the midst of fourth merger wave. Stigler (1950)[134] described the second merger wave as being "mergers for oligopoly" in contrast with the earlier "mergers for monopoly" movement, increased market power through consolidation and corporate concentration and operating economies of scale were identified as motives for mergers during these two waves. Horizontal mergers (i.e. mergers between direct competitors) were relatively more important during the first merger wave which began shortly after end of World War second came to be known as conglomerate merger wave because of its emphasis on mergers between unrelated firms or firms seeking product extension objectives.

While many researchers have been engaged in the study of mergers in US, empirical examination of changes in aggregate merger activity has been limited both as to type and time period covered.

Weston Study (1953)[135] examined annual merger data for the period between the two world wars. Employing multiple regression analysis, the study found that mergers were significantly and positively related to security prices and wholesale commodity prices but were not significantly related to industrial production levels.

Nelson,s Study (1959)[136] looked at quarterly merger data stretching from 1895 through 1956 with primary focus on the years 1895 – 1920. The study explored number of hypotheses concerning the origin and motives underlying the mergers of the period. It rejected the propositions that mergers were a consequence of slow down in growth of US economy or decreases in transportation costs.

The study found that achievement of market power and the development of securities market played a major role in encouraging the mergers. The results (both in terms of number and market capitalization) gave a significant positive correlation between mergers and levels of industrial production. The same results were obtained on an extended analysis to cover the complete period from 1895 to 1954. In a follow up study which extended aggregate merger data through 1962, Nelson conclude that merger activity exhibited a positive and highly consistent response to change in business activity (measured as business cycle).

Similar to the efforts made by this study, Westons Study (1961)[137] also examined annual changes in merger activity during the interwar period (between World War first and second). Using a multiple regression model, the study found merger activity to be significantly related to stock prices but not significantly related to industrial production activity.

Steiner's Study (1975)[138] used multiple regression analysis to explain annual merger actively (in terms of number and value) from 1949 through early 1970s. For the years 1949-71, the study found that both, GNP and change in level of security prices had significant positive influences but prime rate of interest had positive but insignificant effect. When year 1972 was added to the analysis, the results were reversed i.e. change insecurity price variable became insignificant and prime rate of interest showed significant positive effect.

Beckenstein's Study (1979)[139] examined annual data on merger numbers and values for the years 1949-75. Using multiple regression analysis on number of variables, the study found that only nominal level of security price and nominal interest rate had consistently significant effects but the interest rate effects were consistently positive.

Chung and Weston's Study (1982)[140] employed multiple regression analysis to explore determinants of annual number of large conglomerate mergers. The study found that these mergers were positively and significantly related to the difference between yields on lower and higher grade corporate bonds, ratio of short and long term corporate yields and the rate of growth of GNP. However, mergers were negatively related to rate of return on corporate bonds. When Tonin's q[141] was used instead of last two variables, the results were significant and positive.

Melicher, Ledolter and Antonio's Study (1983)[142] empirically examined quarterly merger data between 1947 and 1977. Their results indicated a weak relationship between merger activity and economic conditions with changes in industrial production and business failures lagging behind changes in merger activity. However, the results of correlation analysis and multiple time series model indicated that changes in stock prices and bond yield could be used to forecast future changes in recorded merger activity. To the extent that merger negotiations began about two quarters before consummation, increased merger negotiation activity seemed to reflect expectation of more receptive and possibly less costly capital market conditions in the form of higher stock prices and lower interest rates.

Shugrat and Tollison's Study (1984)[143] analyzed annual merger data for the years 1895-1920 and 1947-1979. The study did not explicitly test wave hypotheses but the results conclude that merger series could be described as generated by a "white noice process with a possible drift and rejected the characteristic of merger data as occurring in waves.

Guerard's Study (1985)[144] examined quarterly merger data for the years 1895-1950 and using the procedure similar to Milicher, Ledolter and Antonio's (1983)[145] conclude that mergers were positively related to stock prices but unrelated to level of industrial production.

Becketti's Study (1986)[146] used quarterly data on the number and value of mergers from 1960 through 1985. Using ordinary least square regression, and emphasizing on legged values of explanatory variables, the study found that mergers and acquisitions were in general influenced, positively by security prices negatively by real interest rates, positively by general level of debt in the economy and negatively by real GNP. However, the statistical influences of these results were not strong, except for the influence on GNP.

Globe and White's Study (1988)[147] empirically examined the determinants of merger activity over the past thirty five years. The study developed hypotheses concerning the economic factor that explained the pattern of mergers and acquisitions subjected these hypotheses to econometric tests on post war merger data. The results were consistent with the earlier empirical finding that security prices had positive effect on mergers. The study offered a more specific test of wave hypotheses for time series pattern of mergers was consistent with a wave characterization.

To sum up, in a period of last thirty years, the literature devoted to time series analysis of mergers and acquisitions has not been very extensive. A few variables have consistently appeared as potential explanatory influences of determinants of merger activity, namely, measure of economic activity (like GNP or industrial production), interest rates (on bond yield) and security prices. Measures of economic activity and security prices have found to be positively related to merger activity in most of the studies where as interest rates has shown conflicting relationship with merger activity.

STUDIES CONDUCTED IN INDIA

Kaveri's Study (1986)

The first pioneering attempt in India to measure the success of company mergers was made by Kaveri (1986)[148] in context or revival of corporate sickness. This study conducted as in-depth analysis of nine specific cases of mergers that took place during the years 1975-84 (in which seven mergers took place within the group and two outside the group). It attempted to measure the effectiveness of mergers by comparing actual performance of mergers vis-à-vis various expectations laid down in respect of mergers. The expectations along with their conclusions (*) are as follows:

1. Revival of sickness is possible through mergers: (which is measured through sales).

- During the post-merger period, sick companies were able to raise sales but whether rise was significant or not was debatable.

2. Mergers are advantageous to healthy companies also.

- Healthy companies continued to be healthy after merger but degree of improvement in health varied from case to case.

3. Mergers provide sick companies to expand / diversify / modernize business activities.

- Revival measures of improvement in technology, diversification, expansion, changing market strategy etc. Were found satisfactory though varied in most of the cases.

4. Performance of sick companies during post-merger period must be better than projected performance if there had not been a merger.

- In five out of nine cases, actual performance was no way nearer to projected performance. It could be possible that revival measures initiated merger might not have been completed by then. Some more time might be required to gain full benefits of mergers.

5. With mergers, sick companies contribute to aggregate strength of healthy companies.

- Sick companies did contribute to the total strength (measured in terms of total sales of healthy companies, though the contribution varied from case to case depending upon the size of merger. Bigger the size of merger, greater would be the contribution of sick company to total sales of healthy company after merger.

6. Merger produces positive effect on the share values of merged companies.

- The fluctuating share prices in most cases followed an upward trend after merger i.e. merger proposal was welcomed by shareholders of healthy companies. However, it would be a worthwhile exercise to understand the behavior of share prices during the entire process of merger which generally takes two-three years to complete.

7. During the post merger period, bank borrowing should decline when the merged company becomes financially stronger.

- Bank borrowings declined during the post-merger period due to better performance of merging and merged companies in eight out of nine cases. Hence, bankers' interest was safeguarded in these cases.

Singh and Kumar's Study (1994)

Singh and Kumar (1994) [149] analyzed the role played by BIFR in the revival of sock industrial units through the medium of mergers. With the help of three case studies, they concluded that rehabilitation of sick company by merging with the health company is the most effective way of their rehabilitation. All the three cases (namely Kothari General Food Corporation Ltd. With Brooke Bond India Ltd., Challapalli Sugars Ltd. With KCP Ltd. And Sewa Paper Lid. With Ballarpur Industries Ltd.) could be termed as successful mergers and BIFR seemed to have fulfilled its assured objective of revival of sick companies. Another conclusion drawm was that tax implications were singularly the most inviting feature for healthy company to merge with sick company.

Yadav, Jain and Jain's Study (1994)

Yadav, Jain and Jain (1994)[150] carried out an assessment of profitability of mergers by looking at the mergers synergy i.e. comparing sum of pre-merger values of various attributes (like cost ratios, earnings and profit ratio, return on investment asset ratios ect.) of merged companies with post-merger value of combined companies.

Their sample consisted of four Indian companies, two of which had merged with Indian companies while the other two merged with multinationals. The performance of these companies was analyzed over a period of three years before merger and three years after the merger. The hypothesis tested was to see if mergers with multinationals were more successful than with Indian companies. The in depth investigation of the following issues was carried out the help of various statistical techniques like ratio analysis, trend analysis act.

1. Are profits adequate?
2. What is the rate of return on total assets?
3. What is the rate of return to equity holders?
4. What is earning per share?
5. What amount is paid as dividends?

The cases analyzed in the study indicated that growth had been achieved by all the companies involved in the merger whether Indian or multinational but it was more in case of latter. Looking at earning per share I was found that post-merger EPS in MNCs was more than their Indian counterparts. In fact, in one Indian case it had decreased. As regards dividends, again percentage increase was more in case of MNCs, while Indian companies had maintained a constant dividend. On the issue of expenses, there was no clear trend. One case of both categories showed rising trend after merger and the other in both showed downward trend.

Mandal's Study (1995)

Mandal (1995)[151] critically reviewed merger gains that emerged out of various economic categories of mergers (for example horizontal, vertical, conglomerate and co generic). The study also quantified tax benefits arising out of corpora rate mergers to the acquiring company and the extent of such benefits towards the revival of a sick company. The study used nineteen merger cases to investigate into the merger motives, means of payment, exchange ratio, success and failure of mergers and quantum of tax benefits. The various hypotheses tested along with their conclusions are as follows:

!. Equity based merger is an essential product of management strategy to grow without embarking on cash reserve.

Empirical verification of this hypothesis was conducted on the sample nineteen cases for a five year post- merger time frame. The following conclusions were drawn:

a) Means of payment chosen in Indian merger case could be explained using the theorem of preservation of access to capital market for future growth, structural exchange for tax benefit and willingness of shareholders of Target Company to share merger synergy.

b) Exchange of equity was found in 90.01% cases, in 5% cases equity shareholders of targets were discharged by preference shares and in 4.99% cases by debentures.

c) Preference share of Target Company was exchanged using equity shares, preference shares, debentures and cash. Mostly preference shares and debentures of the acquiring company were used to discharge preference shares of the target.

d) There was no definite pattern of change in equity share capital of acquiring company due to merger.

e) Mostly, reserves and surpluses of merged company increased as a result of merger and in most of the cases, leverage ratios had also increased.

2. Conglomeration helps to reduce business risk.

Empirical examination of two cases of conglomerates (out of nineteen cases) opined that risk reduction through acquisition was not a general phenomenon in India. However, generalizations on the basis of just two case studies could not be done.

3. In India, merger has been chosen as easy route for corporate growth by way of acquisition of sick company.

Out of empirical examination of ten case studies in this regards, six cases were of loss making target companies. Three out of these six cases became profitable division of acquiring company in the post-merger period. In two cases, satisfactory performance of losing target was achieved very quickly, while in one case, it took eight years to revive financial health if sick target. Thus, it could not be concluded that merger as an easy route for corporate growth by way of acquisition of sick company.

4. Revival of financial health of sick transferor company is possible through merger with a financially sound company.

This is overlaps with the third hypothesis. In three cases, losing targets became contributory to the overall profits in the post-merger period. The other two cases showed satisfactory performance and one case took eight years to losing target was possible through merger although it was not an easy route. This supported the effectiveness of tax incentive scheme u/s 72 A of Income Tax Act and justified the BIFR approach to merger of a sick company with a profitable one. But this was not a general rule.

Sankar and Rao's Study (1999)

Sankar and Rao's study (1999)[152] empirically examined the success or failure of takeover as a strategy of turning around a sick unit. The study also analyzed the implications of takeovers from the financial point of view with the help of certain parameters like liquidity, leverage, profitability and other parameters. To attain these objectives, the following hypotheses were tested on a sample of eight merger cases sanctioned by BIFR.

1. When a company was taken over for turnaround, it achieved better liquidity, better solvency and improved profitability after the takeover.

2. When a company was taken over, the taken over company with the support of the taking over company expanded or modernized its business activities in the process of turning around.

The finding of study validated these hypotheses. The conclusions that emerged were that the takeovers could be successfully used to turnaround a sick company. Another observation of the study was that units which had turned around after takeover were those which were taken over by reputed management group. Therefore, it is concluded that if a sick company is taken over by a healthy company with good management who make serious attempts, it is possible to turn around such sick companies successfully.

Beena's Study (2000)

Beena (2000)[153] carried out an analysis on the nature of mergers in terms of their management during the period 1990-95 on a selected sample of forty five merger cases. The results showed that thirty one cases were horizontal mergers and remaining divided equally among vertical and conglomerate mergers. This suggested that merger movement during the early 1990s showed the dominance of mergers between firms with related management, though there were signs of increased role of mergers between unrelated companies or those under different management.

Further, it was found that merger was not a route to growth, but was predominantly financed through resources acquired from a buoyant market share. The study argued that though the merger movements in early 1990s might have contributed to an increased in asset concentration at firm level (asset growth was not in more than 20% of sample cases), it had not contributed to an increased in concentration in terms of relatives shares of business groups.

The study also analyzed some of financial motives for mergers to see if any of these could explain the merger wave of 1990s. Using a sub sample of thirty three out of forty five sample cases, statistical test of Wilcoxon-rank paired test was conducted to see if there was any significant difference in the financial characteristics of acquiring and acquired firms. The results did not suggest any significant differences amongst them although the shareholder profit in the acquiring firms was significantly different from the acquired firm.

Besides relative profitability another significant issues analyzed was whether mergers were a means by which profit making firms absorbed loss making ones, either in order to expand at lower cost or garner tax benefits available for such mergers. The results showed that only 22% of the total acquiring firms which were earning profits were involved in mergers with loss making firms in order to reap tax benefits or expand at low cost.

Another issue analyzed on a sub sample of twenty five merger cases was the extent of changes in the shares in total equity of those holding the controlling block in the acquiring firms as a result of merger. Of the twenty five acquired firms, eleven firms were foreign owned and rest were domestic. As a result of these acquisitions through merger, the share of major controlling block increased in the merged company as compared with the acquiring firm in eighteen out of twenty five cases. In the remaining seven cases where there was reduction in shareholding of major controlling block, two were mergers between firms belonging to unrelated management. This evidence suggested that, one of the financial motives for mergers and why it occurred generally in related firms was the need for mergers and why it occurred generally in related firms was the need for the business group to increase its controlling block in order to guard against a takeover.

Again, on a sub-sample of thirty nine out of forty five sample cases, impact of profitability was assessed in term of various variables (like rate of return on capital employed, profit margin, shareholders profit, gearing ratio dividend per share ect.). The results showed mixed evidence on profitability. However, wilcoxon matched pairs signed ranks test showed no significant difference in rate of return and profits between the periods before and after the merger. However, the trend on average gearing ratio showed a decline significant in 69% of cases and returns on shareholders equity showed an improvement in 69% of acquiring firms. These trends suggested hat desire to improve financial position of the firm through a viable capital structure could be one of motives of merger.

Finally, an analysis of effects of mergers on shareholders gains was carried out on a sub sample of twenty acquiring firms out of sample of forty five firms in terms of share price data. The results suggested that on an average, a majority of acquiring firms went through a period of share prices rises prior to merger, then experienced a fall in their share prices on the announcement of merger and this continued for two – three yeas after merger. This confirmed the earlier evidence that majority of merger cases were characterized by pre-merger buoyancy in share prices of acquiring firms. Once mergers occurred, their prices showed a bearish trend because of intervening phase of process of revamp and restructuring and consequentially share price decline in post-merger period.

Ravindra P. Purohit's study (2000)

Ravindra P. Purohit (2000)[154] stated, the dynamics of globalization is now a major force in shaping development in countries. The basic reasons behind this globalization are rapid advances in and convergence of information and communication technology. Increasing availability of capital at global level has also played major role.

Vardhana Pawaskar's study (2001)

Vardhana Pawaskar (2001)[155] stated the impact of mergers on corporate performance. It compares the pre and post merger operating performance of the companies involved in in merger to study their financial characteristics. Also the effect on merger induced monopoly profits is identified by looking at persistence of profits. This is by taking 36 cases of merger from 1992 to 1995, it is seen that there are no significant differences in the financial characteristics of the two companies involved in merger. The merger seems to lead to financial synergies and one- time growth. The regression analysis shows that there is no significant increase in the post merger profits.

Anupaag Saxena and Naresh Grandhy's study (2001)

Anupaag Saxena and Naresh Grandhy (2001)[156] carried out study on payments in merger activity are usually made in cash, in stock or in different shades of a mix of both. This study is an attempt to demystifying the strategic intent behind each of these models of payments and designs a conceptual framework that would help decision makers to evaluate which method they should choose in an acquisition. This study is to show the advantages and disadvantages of various options, both to the acquirer and the acquired. Another important area covered by this study considering contextual background of the Indian legal framework, the accounting and tax implications. In the and however, any merger boils down to numbers and for anybody involved in merger, the main aim is to atleast be aware of the risk. So it can be reduced up to possible level, if can not be eliminated in total.

Arindam Ghosh and Brataai Das's study (2003)

Arindam Ghosh and Brataai Das (2003)[157] carried study on this subject and stated that a transaction involving two or more companies in the exchange of securities and only one company remain in existence is called merger. Merger results in number of advantages to both the companies. There are three types of merger. The reason of merger is mainly to reduce the competition, economies of large scale and tax benefits.

Macchi and Menon's study (2004)

Hetal K. Machhi and Preeti V. Menon (2004)[158] stated the in this competitive global business world Merger has become essential requirement for a company to run a business with profit. The main reasons for Merger are increase in market share, use of modern technology and maximizing profit etc. The merger wave has spread in India. The actual merger wave in India started after 1994. The number of good and reputed companies has gone for merger in domestic as well as in international market. Merger leads a very big question "Will company will do well after merger action".

ICFAI Group[159] stated that procedure for merger and amalgamation is different from takeover and amalgamation is different from takeover. Merger and amalgamation are regulated under the provisions of the Companies Act, 1956 whereas takeovers are regulated under the Substantial Acquisition of Shares and takeovers Regulations.

Vijay Shrimali and Karunesh Saxena's study (2004)

Vijay Shrimali and Karunesh Saxena (2004)[160] stated, due to the imminent implementation of WTO Guidelines with effect from July 2005, it was become mandatory for business organization to strengthen their R&D base. Consequently, the size of the business organization matters most, merger and acquisition have, therefore, become order of the day, an attempt has been made in the paper to provide a theoretical framework of M&A, various examples of merger and acquisition in the world market and finally, the economic advantage of M&A have been outlined.

Seema Narzareth's study (1999)

Seema Narzareth (1999)[161] stated, corporate restructuring is the most powerful tool available for those companies, which are in dire straits. The most possible thing for these companies is to 'restructure" their operations so that performance may improve. Some of the steps include hiving-off of the subsidiaries, merging loss-making units with profitable ones, demerger of company etc, among others. But how practicable are merger and other ways of restructuring? Are they really working? Of the merger in Indian corporate sector since last two years, none can highlight that mantra of corporate strategy by mergers is working.

R.G Bhatnagar's study (2002)

R.G Bhatnagar (2002)[162] in his study said that as Indian economy precedes with globalization process the Indian corporate and financial sector are left with no choice, but to consolidate the stand up to global competition. This lead the consolidation through mergers has become the trend across the globe.

A number of benefits will accrue to the Indian financial sector and to the Indian economy as whole. Due to merger banks would definitely be in a better position to diversify their operations and thereby reduce their risks.

After merger, banks are likely to become strong with better earning capacity. This will enable banks to further strengthen their capital base. The strong capital base will in turn banking sector to take up new and diversified activities. This may be financing equity underwriting, distribution of investment, and insurance products, issuing of asset based securities, etc. Further, merging activities in banking sector is bound to reduce overhead cost by rationalizing branch locations and avoiding duplications.

Bailout mergers and linking of small and weak banks to the stronger ones may not serve to create any competitive edge for the merged activity. Merger is not a panacea to the problem of weak banks, while it may make sense for some weak banks to be merged, it must bust be realized that some may have to winded up.

One of the major obstacles to the consolidation in banking sector is labor law. This is particularly relevant for public sector banks which continue to be overstaffed. A working group of prime minister' task force on administrative and legal simplifications suggested recently that there should be adequate provisions for industry to shed surplus manpower after payment of reasonable compensation.

Another aspect, which requires attention is information, flows to the investors. The SEBI created to protect the interest of the investors particularly, the smaller ones, must devise a monitoring mechanism to ensure that gaps in information flows do not affect the shareholders of the banks concerned. When two banks of contrasting corporate culture are merged, brining harmony and a sense of identity are other issues that have to be sorted out.

Joydeep Biswas 's study(2004)

Joydeep Biswas (2004)[163] in his study on recent trend of merger in the Indian private corporate sector. Corporate restructuring in the form M&A has become a natural and perhaps a desirable phenomenon in the current economic environment. In the tune with the worldwide trend, M&A have become an important conduit for FDI inflows in India in recent years. In this paper it is argued that the Greenfiled FDI and cross-border M&As are not alternatives in developing countries like India.

CONCLUSION

Although there is a plethora of research literature on mergers and acquisitions, most of the studies have been done for the efficient markets of the developed world especially US and UK. In India, very limited research has been done on this burning topic. Books available are in plenty but they are mostly theory based. None of the few studies conducted in India have explored the performance of mergers and acquisitions empirically in terms of their motives and their effect on shareholders value. The present study makes an attempt to fill these voids and aims to investigate the financial performance of mergers and acquisitions that have taken place during 1999-2000.

REFERENCES

1. J.G Manne, "Merger and the market for corporate Control", journal of political Economy, LXXIII (April 1965), pp. -120.
2. Gershon Mandelkar, "Risk and Return : The case of Merging Firms", jouranal of financial Economics (January,1974), pp110-121
3. R.L Marris, The Economic Theory of Managerial Capitalism (London : Macmillion, 1964), pp.20, 29-40
4. W.j Baumol, Business Behavior, value and Growth (New york : Macmillion, 1959).
5. J.Fred Weston, The Role of Mergers in the Growth of Large Firms, Berkeley, 1953, pp. 85, 86.
6. R.L. Marris (1964), op. cit., pp. 22-23.
7. O.E Williamson, "Economies as an Antitrust Defense: The Welfare Trade-Offs", American Economic Review, March 1968, pp.18.
8. M.Gort, "An Economic Disturbance Theory of Mergers" The Quarterly journal of Economics, vol 83, no. 4 (N0vember 199), pp.624-642.
9. Allesandra Sindra and Paola Dubini, "Predicting success after the Acquisition: The Creation of a Corporate Profile", in the Management of Corporate Acquisition, Edited by George Von Krogh, Allesandra and Sinotra and Harbir Singh (London: Macmillan press, 1994), pp 484.
10. P.O Steiner, Merger, Motives, Effects, Policies (Ann Arbor : University of Michigan Press, 1975).
11. These countries are UK, US, Sweden, Belgium, France, Netherlands and West Germany.
12. Dennis C. Mueller, The Determinants and Effects of Mergers: An International Comparison, Edited by D.C, Mueller (Cambridge: Gunn & Hain Publishers Inc, 1980).
13. Allan Hughes, Dennis C Mueller and Ajit Singh, "Hypotheses about Mergers", in Determinants and Effects of Mergers, 1980, op. cit., pp. 27-65.

14. These groups include merging and non merging and merged and merged and non merged firms.

15. J.E. Mead, “Is the New Industrial State Inevitable”?, Economic journal, June 1968.

16. J.K. Galbraith, “A Review of Review “, The public Interest, fall (1967).

17. R.L Marris (1968) op. cit

18. D.C. Muller, “A Theory of Conglomerate Mergers”, Quarterly journal of Economics, Vol.83, 643,1969.

19. P.O. Steiner (1975), op. cit., pp 30, 31.

20. M.Gort (1969), op. cit.

21. R.L Marris (1968), op. cit.

22. W.J. Baumol (1967), op. cit.

23. D.C. Mueller (1980), op. cit., pp. 314-315.

24. P.O. Steiner (1975), op. cit., pp. 180-184.

25. Paul Halpern, “Corporate Acquisitions: A Theory of Special Cases.” Journal of Finance, vol.38, May 1983, pp. 297-317.

26. A. Berk and G. Means, The Modern Corporation and Private (New York: Macmillan co., 1932).

27. D.R. Kummer and J.R. Hoffmeister, “Valuation Consequences of Cash Tender Offers”, journal of finance, 33 (May 1978), pp. 505-16.

28. P.Dodd and R.Ruback, “Tender Offers and Stockholders Returns: An Empirical Analysis”, journal of Financial Economics, 5 (Dec 1977),pp.351-73.

29. M.Bradley, “Interfirm Tender Offers and Market for Corporate Control,” journal of business,4 (October1980),pp.345-76.

30. M.Bradley, A Desai and E.H. Kim, “The Rationale Behind Interfirm Tender Offers : Information or Synergy ?”, Working paper, University of Michigan (Septmber1982).

31. B.E. Eckbo, “Assessing the Anti Competitive Significance of Large Mergers”, Working Paper, University of Rochester,Graduate School of Management, 1981.

32. R. Stillman, Examining Anti Turst Policy Towards Horizontal Mergers (Chicago : Lexecon Inc.,1982).

33. M.Bradley, A. Desai ad E.H.Kim (1982), op. cit.

34. Ivan E. Brick, Lwrence J. Haber and Daniel Weaver, “Financial Motives in Conglomerate Merger : An Empirical Test”, in Mergers and Acquisitions, edited by Michael Keenam and Lawrence J. White (New York : Lexingtn Books, 1982), pp. 205-221.

35. S.C.Myers and N.S. Majluf, “Corporate Financing and Investment Decision When Firms have Information that Investors do not have,” journal of financial Economics, 13 (June 1984), pp. 187-221.

36. Unused debt capacity.

37. P.Asquith and D.W. Millins, “Equity Issues and Offering Dilution”, journal of financial Economics, 15 (Jan 1986), pp. 61-89.

38. S.c. Myers and N.S. Majluf (1984), op. cit., pp.188. This term is used for “Large holdings of cash or marketable securities or ability to issue risk free debt.”

39. Robert Bruner, “The use of Excess cash and Debt Capacity as a Motives for Merger”, journal of Financial and Quantitative Analysis, vol.23, no.2 (June1988),pp.

40. A direct measure of financial slack as defined by Myers and Majluf (1984) op. cit., and also used by Asquith and Millins (1986) op. cit is as follows :

$$\text{Net Debt Ratio} = \frac{\text{Net Debt}}{\text{Common Equity + Preference Stock}}$$

Net Debt = Short term debt + Long term debt + Net debt – (Cash, cash equivalents and marketable securities).

41. S.C.Myers and N.S. Majluf, op. cit.

42. J.C. Ellert," Mergers, Anti trust Law Enforcements and Stockholders Returns", journal of finance, May 1976, pp. 715-32.

43. Paul Asquith, " Merger Bids, Uuncertainty and Stockholders Returns," journal of financial Economics, 1983, pp. 51-83.

44. T.C. Langetieg, " An Application of Three Fctor Performance Index to Measure Stockholders Gains from Mergers," journal of financial Economics,6, (1978), pp. 365-383.

45. P. Dodd, 1977, op.cit.

46. Y. Amihud and B.Lev, "Risk Reduction as Managerial Motives for Merger," Bell journal of Economics, 12 (Autumn 1981), pp. 605-617.

47. A. Agarwal and G. Mamdelkar, "Managerial Incentives, Corporate Financing and Investment Decisions," journal of Finance, 42 (September 1987), pp. 823-838.

48. T. Langetieg, R. Haugen and Wichern, "Mergers Stockholders' Risk journal of Financial and Quantitative Analysis, 15 (September 1980), pp. 689-717.

49. Welbur Lewellen, Claudio Loderer and Ahron Rosenfeld, "Mergers, Executive Risk Reductin and Stockholder Wealth", journal of Financial and Quantitative Analysis, vol. 24 , no. 2 (December 1989), pp. 459-472.

50. Technique developed by E.L. Fama, L Fisher, M.G.Jenson and Richard Roll in "The Adjustments of Stock Price to New Information," International Economic Review, 1 (February 1969, pp. 1-21.

51. R. Clark and Eli Ofek, "Mergers as a Means of Restructuring Distressed Firms : An Empirical Investigation", journal of Financial and Quantitative Analysis, vol. 29, no. 4 (December 1994), pp. 541-61.

52. Allan J. Averbach and David Reishus, " The effects of Taxation on Merger Decisions," In Corporate Takeovers : Causes and Consequences, edited by Allan J. Averbach (Cicago : The University of Chicago Press, 1988), pp. 157-83.

53. E. Berkovitch and m.p. Narayanan, "Motives for Takeovers : An Empirical Investigation," journal of financial and Quantitative Analysis,(1990), pp. – 356.

54. Sudi Sudarsanam, Peter Holl and Ayo Salami, "Shareholders Wealth Gains in mergers: Effect of Synergy and Ownership Structure," journal of Business Finance and Accounting, 23 (5&6), July 1996, pp. 673 – 697.

55. Richard Roll, "The Hubris Hypotheses of Corporate Takeovers," journal of Business, 59 (April1986), pp. 197.

56. An efficient Market is defined as one where share price fully incorporates ale available information in that security and share price provides accurate signals for resource allocation. Studies on British and American stock markets have shown them to be efficient.

57. Develop by EF. Fama, L. Fisher, M.G. Jenson and Richard roll, op. cit.

58. M.A. Firth, Share Prices and Mergers (Westmead, Farnborough : Saxon House, 1976).

59. J.r. Franks, J.E. broyles and M.J. Hecht, "an Industrial Study of profitability of Mergers in U.K.," journal of finance, no. 5 (Dec. 1977), pp. 151-35.

60. M.Firth, 1976, op. cit.

61. M. Firth, Takeovers, Shareholders Returns and Theory of the Firm," Quarterly journal of Economics, no.2, March 1980, pp. 235-260.

62. M. Firth (1980), op. cit. pp. 252.

63. M. Firth (1980), op.cit. pp. 252.

64. J. Franks and R. Harris, "Shareholder Wealth Effects of Corporate Takeovers : The U.K. Experience 1955-1985," journal of financial Economics, vol.23, 1989, pp. 225-249.

65. R.J, Limmack, Corporate Mergers and shareholders Wealth Effects : 1977 – 1986," Accounting and Business Review, vol,21 no. 83 (19991), pp. 239-251.

66. G. Mandelker, "Risk and Return : Case of Margins", journal of financial economics (January 1974), pp,110-121.

67. J.C. Ellert, "Mergers, Anti-trust Law Enforcements and Stockholders Returns," journal of finance, May 1976, pp. 715-32.

68. G. Mandelkar (1974), op.cit.

69. Peter Dodd and Richard Ruback , “Tender Offer and Stock Holders Returns : An Empirical Analysis,” journal of financial Economics, 5 (1977), pp. 351-373.

70. G. Mandelkar (1974), op. cit., pp. 110-120.

71. P.J. Halpern, “Empirical Estimates of the amount and Distribution of Gain to Companies in Mergers,” journal of Business, 46 (Oct. 1973), pp. 554-573.

72. Robert A Haugen and Terrence c. Langetieg. “An Empirical Test for Synergism in Merger,” journal of Ginance vol. 30, no. 4 (September 1975), pp. 1003-14.

73. T.C. Langetieg “An Application of Three Factor Performance Index to Measure Stockholders Gains from Mergers” journal of Financial Economics, 6 (1978), pp. 365-383.

74. K. Schipper and R. Thompson, “The Impact of Merger Related Regulations on Shareholders of Acquiring Firms,” Working Paper, Carnegic, Mellon University (July 1982), pp. 85-120.

75. (The four regulatory changes of 1966-70 include the Williams Amendment to Security Laws, Tax Reforms Act, 1969, Accounting principal Board (APB) opinion 16 and 17.

76. Williams Amendments regulates cash tender offers, forced disclosure of information and statutory waiting period.

77. Paul Asquith, “Merger bids, Uncertainity and Stockholders Returns”, journa of Financial Economics, 11 (1983), pp. 51-83.

78. P. Asquith and E.H. Kim, “The Impact of Merger Bids on the Participating Firms’ Security Holders,” journal of financial, 37, no. 5 (1981) pp. 71-82.

79. Paul H. Malatesta, “The Wealth Effects of Merger Activity and the Objective Function of Merging Firms,” journal of financial Economics, 11 (1983), pp. 155-181.

80. Anju Seth, “Value Creation in Acquisitions : A Re-examination of Performance Issues,” Strategic Mangement journal,11 (1990), pp. 99-115.

81. Anup Agarwal, Jeffrey F. Jaffe and G.Mandelkar, "The post Merger Performance of Acquiring Firms : A Re-examination of an Anamoly," journal of Financial, Vol. 17. No.4 (September 1992), pp. 1605-1621.

82. An event was classified as tender offer if the firm purchased at least 60% of target firms' shares by tender offer and later bought the remaining shares as clan up merger.

83. Michael C. Jenson and Richard S. Ruback, "The Market for Corporate Control, The Scientfic Evidence," journal of financial Economics, 11 (1983), pp. 47.

84. ibid

85. Ajit Singh, Takeovers, Their Relevance to Stock Market and Theory of the firm (Cambridge University press,1971).

86. M.A. Utton, " Measureing the Effects of Industrial Mergers," Scottish journal of political Economy, xxI, no.1, February 1974, pp. 13-28.

87. Douglas Kuehn, Takeovers and Theory of the Firm (London : Macmillin, 1975).

88. S. Aaronovitch and M.C. Sawyer, big Business (London : Macmillan, 1975).

89. Douglas Kuehn, 1975, op. cit.

90. As done by A. ingh (1975), op.cit.

91. G. Meeks, Disappointing Marriage : A Study of Gain from Mergers (Cambridge University Press, 1977).

92. Andrew Cosh, Alan Hughes and Ajit Singh, "The Causes and Effects of Takeovers in United Kingdom : An Empirical investigation of late 1960's at Microeconimic level," in Deteraminants and effects of mergers by D.C. Mueller, 1980, op cit. pp. 227-270.

93. M. Kumar, Growth, Acquisition and Investment (UK : Cambridge University press,1984).

94. G.Meeks (1977) op. cit.

95. Paul Levin and Sam Aaronovitch, "The Financial Characterostics of Firms and Theory of Merger Activity," journal of Industrial Economics, vol..30, no. 2 (Dec. 1981), pp. 1490172.

96. More specifically, when firms with high P/E ratio takes over firms with lower ratio, there is an expected, immediate investore gain through merger.

97. Since variation in profits for large firms is smaller than for smaller firms, so investment in large firms involves less risk.

98. J. Kitching, "Why do Mergers Miscarry?", Harvard Business Review, November-December 1967,pp. 40-47.

99. Fred J. Weston, " Tests of Efficiency Performance of Conglomerate Firms," journal of Finance, Septemer 1971, pp. 25-39.

100. ibid, pp.30

101. David J. Ravenscraft and F.M. Scherer, "The Long Run Performance of Mergers and Takeovers", in Public Policy Towards Corporate Takeovers, Edited by Murray L. Weidenbaum and Kenneth W. Chilton (USA Transction Publishers, 1987).

102. David J. Ravenscraft and F.M. Scherer, op. cit. pp.43.

103. ibid. pp.44.

104. Paul M Healy, Krishna G. Palepu and Richard S. Ruback, "Does Corporate Performance Improve After Mergers ?' journal of Financial Economics, 31 (1992) pp. 132-172.

105. Y. Hoshino, "The Performance of Corporate Mergers in Japan," journal of business Finance and Accounting, Vol.2, no.9 (1982).

106. Y.Hoshino, "The performance of Corporate Mergers in Japan," journal of Business Finance and Accounting, vol.2, no.9.(1982).

107. Divesh S. Sharma and Jonathan HO, "The Impact of Acquisitions on Operating Performance : Some Australian Evidence," journal of Business Finance and Accounting, 29 (1) & (2), January-March 2002, pp.155-200.

108. D.C. Muller, Mergers : Theory and Eidence" in Mergers and Acquisitions : Critical Perspective on Business and Management ed. By Simon Peck and Paul Temple (London and New York : Routledge, 2002), pp. 281-310.

109. G.D.Newbound, Management and Merger Activity (U.K. : Guthsheid Limited, 1970).

110. Samuel R Reid, Mergers and the Economy (US : Mcgraw Hills, 1968).

111. F.R.Jervis, The Economics of Merger (Routledge and Kegan Paul Ltd., 1971), pp. 144.

112. M. Firth, (1976), op. cit.

113. Terrence E. Cooke, Mergers and Acquisitions (UK : Basil Blackwell Ltd., 1980), pp. 51-54.

114. The description of Low, average and high are those used in industrial studies, hence are subjective. A Complete analysis of financial characteristics in term of each characteristics is not possible since some studies have calculated few variables only.

115. 116 119 120 121 op. cit.

117 A .Buckley, "A Profile of Industrial Acquisitions in 1971," Accounting and Business Research (Autumn 1972), pp. 243-52.

118 J. Tzoannos and J.M. Sammuels, "Mergers and Takeovers : The Financial Characteristics of Companies Involved," journal of Business Finance, 4, no. 3 (Autumn 1972), pp. 5-16.

122 G.D. New bound (1970), op. cit.

123 A. Buckley (1972), op. cit.

124 M.A. Firth (1976), op. cit.

125 Douglas Kuehn (1975), op. cit.

126 A. Belkaoui, "Financial Ratios as Predictors of Canadian Takeovers," journal of Business Finance and Accounting, vol.5, no.1,1978.

127 U.P. Rege, "Accounting Ratios to locate takeover Targets," journal of business Finance and Accounting, (Autumn 1978).

128 Ibid.

129 R.J. Monroe and M. Simkovitz, "Investment Characteristics of Conglomerate Targets : A Discriminant Analysis," Southern journal of Business, November 1971.

130 Donald L.Stevens, "Financial Characteristics of Merged Firms: A Multivariate Analysis," journal of Financial and Quantitative Analysis, 8 (March 1973), pp. 149-158.

133 Krishna G.Palepu, “Predicting Takeover Targets : A Methodological and Empirical Analysis,” journal of Accounting and Economics, 1986, pp.813-35.

134 George j. Stigler, “Monopoly and Oligopoly by Merger”, American Economic Review, 40 (May 1950), pp. 23-34.

135 Fred j. Weston, The Role of Large Firms (Berkeley : University of Califonia Press, 1953).

136 Ralph L. Nelson, Merger Movements in American Industry, 1895-1956 (Princeton: Princeton University Press for NBER,!(%(),

137 Fred J. Weston, The Role of Mergers in Growth of Large Firms (Berkeley and Ls Angeles : University of California Press, 1961) Chapter 5

138 P.O. Steiner, Mergers : Motives, Effects, Policies (Ann Arbor : University of Michigan press,1975).

139 Allan R Beckenstein, Merger Theories : An Empirical Investigation, Anti trust Bulletin, 24 , pp. 105-28.

140 Kwang S. Chung and Fred J. Weston, “Diversification and Mergers in a Strategic Long Range Planning Framework,” in Mergers and Acquisitions : Current Problems in Perspective, edited by Michael Keenam and L. White (Lexington, Mass: D.C. Heath, 1982), pp.315-347.

141 Tobin’s q (1969), explained by the ratio of market value to asset replacement costs was suggested as a possible explanation of changes in merger activity. When replacement costs exceed market value (i.e.q ratios < 1), one might expect an increase in number of mergers andacquisitions as assets could be acquired in the market cheaply and vice versa.

142 Ronald W. Melicher, Johannes Ledolter and Louis J. Antonio, “A Time Series Analysis of Aggrete Merger Activity”, Review of Economics and Accounting Statistics, 65 (1983), pp. 423-30.

143 Willims F. Shugart and Robert D. Tollison, “ The Random Character of Merger Activity”, Rand jorna of Economics, 15, 1984, pp. 500-509.

144 John B. Guerard, Jr. “Merger, Stock Price and Industrial Production : An Empirical Test of Nelson Hypotheses,” in Time Serials Analysis : Theory

and Practice, edited by O.D. Anderson, vol. 7 (Amsterdam : Elsevier, 1985), pp. 239-247.

145 Ronald W. Meicher, Johannes Ledolter and Louis J Antonio, 1983, op.cit.

146 Sean Becketti, “Corporate Mergers and Business Cycle”, Economic Review, Fedral Reserve Bank of Kannas City, 1986,pp.13-26.

147 Devra L. Globe and Lawrence J. White, “A Time Series Analysis of Mergers and Acquisitions,” in Corporate Takeovers : Causes and Consequences, edited by Allan J. Averbach (Chicago : University of Chicago Press, 1988) pp. 265-301.

148 V.S. Kaveri, Financial Analysis of Company Mergere in India (New Delhi : Himalaya publishing House, 1986).

149 S.R. Singh and V. Kumar, Corporate Rehabilitation and BIFR (New Delhi : Shipra Publications, 1994).

150 Surender S. Yadav, P.K. jain and Nitin Jain, “Profitability of Mergers – Some Selected Cases,” journal of Management Accounting (July 99), pp. 502-507.

151 Ranjit Kumar Mandal Corporate Mergers in India : Objectives and Effectiveness (New Delhi : Kanishka publishers, 1995), pp. 75-76, 222-223.

152 K. Ravi Sankar and K.V. Rao, “Takeovers as a Strategy of Turnaround : An Empirical Study,” Chartered Secretary, February 1999, pp. 149-154.

153 P.L. Beena, “Mergers and Amalgamations: An Analysis of the Changing Structure of Indian Oligopoly,” Doctoral Dissertation, Centre for Economic Studies and Planning, JNU, New Delhi, 1998.

154 P.L. Beena (2000) “An Analysis of Mergers in Private Corporate Sector in India,” Working Paper no.301, Centre for Development Studies, Kerala, India,

155 Ibid.

156 See Sidney Siegel, Non Parametric Statestic for Behavorial Sciences (New York: Ms Graw Hill, 1956).

157 Ghosh Arindam and Das Bratati, 2003 : Merger & Takeovers, The Management Account, pp. 543-545

158 MachhiHetal K. and Menon Preeti V., 2004 : Corporate Merger & Acquisition, Indian Journal of Accounting Vol.XXXV (1), pp.7-12

159 ICFAI-ARF GROUP, 2004 : Procedure for Merger and Amalgamation, The Chartered Accountant, pp. 1234-1239

160 Shrimali Vijay and SaxenaKarunesh, 2004 : Merger & Acquisitions : Indian Journal of Accounting Vol. XXXV(1), pp 48-54

161 Nazareth Seema, 1999 : Short-lived M&As in India, ICFAI Reader, pp. 283-287

162 Bhatnagar R.G.,2002: M&AThe Key to Survival, Mergers & Acquisitions – New Prespectives, ICFAI Press, pp 167-172

163 Biswas Joydeep,2004 : Corporate Mergers & Acquisitionsin India Indian Journal of Accounting Vol. XXXV(1), pp.67-72

CHAPTER 4

AN ANALYSIS OF ECONOMIC VALUE ADDED BASED ON MERGERS & ACQUISITIONS

CHAPTER 4

AN ANALYSIS OF ECONOMIC VALUE ADDED BASED ON MERGERS & ACQUISITIONS

- Introduction
- Concept of EVA
- Accounting profit versus economic profit
- The Calculation for EVA
- Steps in computing EVA
- Issues relating to calculation of EVA
- Adjustment rationale
- NOPAT
- Usefulness of EVA
- Implementation of EVA
- EVA and traditional performance measures
- EVA and discounting cash flow (DCF) model:-
- Market value added
- Relationship between EVA & MVA
- Problems with EVA as performance measure
- Conclusion
- References

INTRODUCTION

This chapter includes the historical evolution of corporate performance metric popularized by Stern Stewart of US, namely Economic value added (EVA) and its twin, Market value added (MVA). After giving the rationale of its use and its superiority over other performance metrics like Earning Per Share (EPS) & Return On Net Worth (RONW), the detailed theoretical methodology regarding its computation has been discussed.

CONCEPT OF EVA

The onset of liberalization and globalization of the Indian economy over the ten years has resulted in shift of the corporate goals from socio-economic focus to an increasing shareholders value. Therefore, the present day need is to choose the right metrics that would help to measure organizational progress in meeting the above mentioned strategic goal. Although there are few traditional performance metrics like balance sheet measures (namely, rate of return, shareholders' profit, earning per share) and market driven measures (namely, market capitalization, price earning ratio), these are subject to certain deficiencies. Balance Sheet based measures are veiled in accounting anomalies that generally measure notional profit, not real ones. And market driven measures are prone to volatility of the bourses. The need is for a mix and match measure that factor in a market's assessment of a company's value. At the same time, it should be a real measure of its financial performance extracted from its financial statements.

Thus, corporate world's need for a tool to measure value creation has been filled with the emergence of a new concept namely, EVA. It has been redefined and popularized by US based Stern Stewart & Company. It is an attempt to resolve the need for a performance measure that is highly correlated to the shareholders wealth and responsive to the actions of the company's managers. Shareholder value is considered as an essential measure of the corporate performance. It is an accurate reflection of the quantum of incremental value a company generates for shareholders after accounting for its cost of operations, which include the cost of capital. The number of companies that have adopted EVA worldwide is startling. Stern Stewart Management Services (the founders of EVA) claim that more than four hundred companies globally are using EVA. Fortune magazine has termed it as today's hottest financial idea with underlying scope of getting hotter. Management Guru Peter Drucker has described EVA as a vital measure that reflects all the dimensions by which management can increase value. EVA is the financial measure that comes closer than any other measure in capturing true economic profit of an enterprise.

To elaborate, EVA is the same as what economists call as economic profit. In business, revenue comes from customers and is distributed among the shareholders. Suppliers are paid for their goods and services and employees for their services. Depreciation amount is deducted from revenue as it results in loss of the value of assets. Creditors are paid interest while loans and taxes are paid to the government. Ultimately, shareholders are also paid a return. The shareholder's return is not the usual dividend payment, but it is the return commensurate with the risk undertaken by them by investing money in the business. It is the earning that the shareholders could have earned by investing in similar risk profile investments i.e. they have to be paid their opportunity cost of capital. This differentiates EVA from the accounting model as the accounting model does not acknowledge the cost of equity. After paying to all whatever is left out from revenue is know as EVA. EVA is thus the residual income. As shareholders are the owners of the business, the residual income adds to their wealth.

The current demand for adopting EVA is based on a simple i.e. you cannot know whether your enterprise is creating value for your shareholders until you subtract cost of the capital from income. To the extent EVA is positive; the firm is adding value for its shareholders. But if a firm's EVA is negative, the firm is destroying value even though it may be reporting a positive or growing earning per share (EPS) or return on investment (ROI). This means that if a firm wants to have an attractive investment, it has to have a return that would exceed other investment options with a similar risk. Though EVA just reiterates the basic tenet behind any enterprise, it is not just any other metric for the firm. It is a framework for complete financial management and compensation system. It can guide every decision a company makes that can a corporate culture and help produce greater wealth for shareholders, customers and themselves.

While creating value for the shareholders is an objective measure of corporate performance, the measure of creation of wealth for the company as a whole is also equally important. The best measure for this is another value add measure, namely, Market Value Added (MVA). MVA is an absolute measure of wealth creation obtained by subtracting the economic capital of an organization (book capital after perfect measure of a company's ability to create wealth but is as volatile as any market index and so, can be calculated for the company as a whole only.

EVA on the other hand is the most accurate measure of economic performance of the company and can be calculated at the level of divisions and product lines. So, while EVA of a company is the excess of its return on capital over its cost of capital, MVA is the difference between company's total market value and its capital employed. In mature markets, MVA of a company is equal to the net present value of all future EVAs. In countries like India where markets are not efficient, MVA is volatile with no mathematical link with EVA.

In a nutshell, EVA can be described as:

1. Most accurate value based measure of financial performance.

   A registered trademark redefined and popularized by US based Stern Stewart & Company.
2. Concept, a variation of residual income.
3. Concept, practically the same as economic profit.

   A measure indicating amount of shareholder wealth created or destroyed during each year.
4. A framework of complete financial management and incentive compensation.

ACCOUNTING PROFIT VERSUS ECONOMIC PROFIT

According to conventional accounting concepts, business income is measured by matching revenues by costs. It is a purely monetary concept. In such a system, ones sales revenues are determined; various costs are divided between present and future. The present costs or expenses are charged against revenues and appeared in the income statement and future costs are treated as deferred expenditure and hence appeared as assets in Balance Sheet to charge against revenues in later years. The accounting concept lays more emphasis on objectivity and accuracy through the use of certain conventions, principals and accounting standards.

Economic profit is also a concept that was established long ago, as is understood by the writings of Alfred Marshall over hundred years ago.

"When a man is engaged in business, his profits for the year are the excess of his receipts from his business. The difference between value of stock of the plant, machinery etc. at the end and beginning of the year is taken as part of his outlay, accordingly as there has been an increase or decrease of value. What remains of his profits after deducting interest on his capital at the current rate...... is generally called his earnings of the undertaking or management."

Today, this concept has been developed in every principle of economic text. The idea of economic profit is the basis of capital budgeting techniques of net present value and internal rate of return which can be found in finance texts over past thirty years. The cost of capital is the return required by suppliers of capital. Cost reflects both, the time value of money and compensation for risk – the more risk associated with the firm, greater is the firm's cost of capital. Factoring in the cost of capital tells us whether accounting profit is sufficient to keep suppliers i.e. creditors and owners from moving their funds elsewhere. The cost capital in these cases is referred as "minimum acceptable return" or "minimum revenue required". Profit is defined as earnings in the excess of cost of the capital. Economic concept, thus, basically deals with the real terms instead of only monetary terms as is the case of accounting concept. Summary, of the difference between accounting profit and economic profit is given below.

Table4.1
Differences between Accounting Profit & Economic Profit.

Sr. No	Accounting Profit	Economic Profit
1.	Based on theory of accountancy, profit is calculated as book as perceived by the accountants as per accounting standards.	Based on theory of value and utility of economics, profit is worked out as per the perception of an economist.
2.	Accounting profit is affected by one time irregular adjustments.	For calculating economic profit, one time adjustment as discounted by market is considered.
3.	Depreciation is based on adhoc rates.	Depreciation is based on market value and economic assets.
4.	Expected losses and expenses are provided for on adhoc basis.	Expected losses and expenses are provided for as per market perception.
5.	Considers monetary transactions only.	Considers non-monetary transactions by
6.	Change in earnings not considered on account of external/internal factors unless ascertainable.	Changes in earnings are considered on account of external/ internal factors even though not ascertainable.
7.	Does not consider cost of capital.	Considers cost of capital.

CALCULATION OF EVA

The value based performance measure, namely, EVA, introduced by Stern Stewart & Company is an incarnation of Residual Income concept. They defined "EVA as an estimate of true economic profit, the amount by which earnings exceed or fall short of required minimum rate of return investors could get by investing in other securities of comparable risk." It is the net operating profit minus the appropriate charge for the opportunity cost of capital invested in an enterprise (both debt and equity). The capital charge is the most distinctive and an important aspect of EVA. Under conventional accounting, most of the companies appear profitable. However, many are actually destroying shareholder value because the profits they earn are less than their cost of capital. EVA corrects this error by explicitly recognizing that when managers employ capital, they must pay for it. By taking all capital costs into consideration, including cost of equity, EVA shows the amount of wealth a business has created or destroyed in each reporting period.

Expressed as a formula, EVA for a given period can be written as:

EVA = NOPAT – COST OF CAPITAL EMPLOYED
= NOPAT - WACC X CE

Where
NOPAT : Net Operating Profit After Taxes but before financing costs

WACC : Weighted Average Cost of Capital

CE : Capital Employed

OR equivalently, if rate of return is defined as NOPAT/ CAPITAL EMPLOYED then, it turns into a more revealing formula.

EVA = (RATE OF RETURN – COST OF CAPITAL) X CAPITAL EMPLOYED

Where,

RATE OF RETURN = NOPAT/ Capital Employed

CAPITAL EMPLOYED : Total of balance sheet – Non interest
Bearing current liabilities (NIBCL) in the
Beginning of the year

COST OF CAPITAL : Cost of equity x proportion of equity in
Capital + Cost of debt x proportion of debt in
Capital (1- tax).

If, Return on Investment is defined as above after taxes, EVA can be presented with the following familiar terms:

$$\text{EVA} = (\text{ROI} - \text{WACC}) \times \text{CAPITAL EMPLOYED}$$

Where

CAPITAL EMPLOYED: Net fixed assets – Revenue reserve – Capital
Work in progress + Current assets –Funds
Deployed outside business – NIBCL

STEPS IN COMPUTING EVA

Various steps in computing EVA are as follows:

(1) Calculation of NOPAT :

NOPAT refers to amount of profit remaining of the business after tax and adding back interest payments. It can be calculated as per accounting concept after making necessary adjustments for certain for non- operating incomes and expenses.

$$\text{NOPAT} = \text{PBIT (nnrt)} (1\text{-T})$$

Where,

PBIT (nnrt) Profit before Interest and Taxes
(Net of non recurring transactions)

T= Effective tax rate

$$T = \frac{\text{Tax paid}}{\text{Profit before tax}}$$

(2) Calculation of capital employed:

In calculation of EVA capital employed refers to economic capital, which means economic value of funds invested in a business. It consists of total amount in circulation and total amount of borrowings or debts raised.

Stewart defined capital employed as company's net asset at the beginning of the year after following three adjustments:

(i) Marketable securities and construction in progress are subtracted.

(ii) Present value of non- capitalized leases is added to net property , plant and machinery

(iii) Certain equity equivalent reserves are added to assets. For example:

(a) Bad debts reserve is added to receivables.

(b) Last in first out (LIFO) reserve is added to inventory.

(c) Cumulative amortization of goodwill is added back to goodwill.

Research and Development (R&D) expenses is capitalized as long term asset and depreciated over five years.

(e) Cumulative unusual losses/gains after taxes are considered to long term investment.

(3) Calculation of Cost of Capital:

It defined as the weighted average cost of both equity capital and debt. It is the weighted average of both the specified costs with weights equal to proportion of each in total capital. The tax shield of the debt is adjusted with the cost of debt:

Cost of capital = Cost of equity*solvency ratio*cost of debt
(1-solvancy ratio)(1-tax)

Solvency ratio defines the proportion of both equity capital and debt separately in total capital:

$$\text{Solvency ratio} = \frac{\text{Equity capital}}{\text{Total capital}}$$

The calculation of an average cost includes solvency ratio. Solvency ratio generally changes according to business cycles and changes in other factors. Financial theory suggests that when solvency changes, the cost of equity and debt shift so much that WACC itself does not change. When solvency or debt-equity ratio decreases, risk of equity increases. So, when relative proportion of debt from capital increases, return on equity become more fluctuating and therefore true cost of equity capital increases. Also, lenders demand premium at high rate on debt when leverage increases. So when solvency ratio decreases, both the cost of equity and debt increase and vice-versa. The increase in the cost of equity and debt cancel out the decrease in WACC, caused by bigger relative proportion of a cheaper debt capital. Hence, the change in WACC is zero.

This change in leverage not affecting WACC can be considered from expected returns angle also. WACC reflects the expected return of capital with similar risky business because opportunity cost i.e. the expected return of capital with similar risky business because of opportunity cost i.e. expected risk on similar risky investments. If change in leverage does not affect the expected return on investment (expected ROI), then WACC does not change, changing only liability side of the balance sheet i.e. replacing equity capital with debt capital does not affect the expected return on assets but decreased solvency raises expected ROI because an increased financial leverage raises reruns on the equity capital and risk of equity capital as well.. Also, expected return on stock market does not depend on how investors finance their investments. For an individual investor, the expected return changes if he uses more financial leverage i.e. debt with his investments although this can not affect return for whole investment. Changing leverage changes the return and risk of equity and debt capital but it can not influence the expected return of whole investment. It merely allocates risk and return new manner. However, if tax shield of debt is considered, when leverage increases, increase tax shield from debt will decrease WACC to some extent. Therefore, increasing leverage might decrease WACC slightly. On the other hand, if leverage decreases too much, then the increased probability of bankruptcy and cost attached to it increases WACC.

(4) Calculation of Cost of Debt:

Cost of debt refers to the average rate of interest the company pays for its debt obligations. To calculate cost of debt, the company's interest payments are measured against the total borrowings and then adjusted for taxes.

$$\text{Cost of Debt} = \frac{\text{Interest expenses } (1\text{-t})}{\text{Total borrowings}}$$

Tax:

$$\text{Effective tax rate} = \frac{\text{Tax Paid}}{\text{Profit before Tax}}$$

(5) Calculation of Cost of Equity:

For computation of cost of equity, Stern Stewart & Co. (founders of EVA concept) recommended the use of Capital Asset Pricing Model (CAPM). This model holds that firm's equity costs is the composition of risk free rat of return for a stock plus premium representing the volatility of share prices.

Broadly,

$$\begin{aligned} \text{Cost of equity} &= \text{Risk free} + \text{Specific risk premium} \\ Ke &= Rf + B\ (\text{Equity risk premium}) \\ &= Rf + B\ (\text{Market rate - Risk free rate}) \\ &= Rf + B\ (Rm - Rf) \end{aligned}$$

1) Rf : Risk free return

Normally, 364 days Treasury Bill rates are considered risk free. Treasury securities are highly liquid and free of default risk. Interest rates on these securities are used to measure the risk free rate. It serves as a bench mark from which cost of risky security is calculated.

2) B (RM –Rf) : Specific risk premium

Specific risk premium is the product of level of risk and compensation per unit of risk. More specifically, it refers to premium required by he investors to invest in specific company. It is the multiple of equity risk premium of the company in which the investors want to invest their money and it's Beta (B).

a) Equity risk premium is the excess return over and above risk free rate that the investors demand for holding risky security. It is calculated as the difference of market rate of return and risk free rate (Rm- Rf).

b) Beta (B) is the risk free co-efficient which measures the volatility of a given script of a company with respect to volatility of market. It is a measure of responsiveness of company's shares due to changes in economic factors (micro and macro both) of the economy. It is calculated by comparing return on a share to return in the stock market. Mathematically, beta is the statistical measure of volatility. It is calculated as covariance of daily return on stock market indices and the return on daily share prices of a particular company, divided by variance of return on daily stock market indices. While considering market index, broad based index must be considered.

Simply calculated,

1. The market expected rate of return (Rm) is normally given as growth rate of market index:

$$\underset{\text{(Independent Variable)}}{\text{Rm}} = \frac{\text{T0day's index- Yesterday's index}}{\text{Yesterday's Index}}$$

2. The Security Return

$$\text{Dependent Variable} = \frac{\text{Today's index} - \text{Yesterday's index}}{\text{Yesterday's index}}$$

The statistical method of estimating this kind of dependence of one variable on the other is known as simple linear regression. Once the security and market returns of a long period have been computed to get a large number pairs of returns, the regression technique can be used to estimate Beta.

6. Calculation of quantum of Value Addition

If NOPAT exceeds cost of capital employed, it will be construed that an organization has created value for the shareholders during the period of operation or vice versa.

NOPAT- Cost of capital employed = Value Addition

ISSUES RELATING TO CALCULATION OF EVA

Calculation of EVA is totally different from Generally Accepted Accounting Principles (GAAP).

The first major departure is to recognize the full cost of capital. Accountants generally treat cost of equity to be free. EVA calculation recognizes that equity has a cost, hence subtracts if from profits. Also, EVA solves the problems of GAAP accounting by converting accounting earnings to economics earning and accounting capital to economic capital. The result is a NOPAT figure (net operating profits after taxes) that gives a much truer picture of funds contributed by shareholders and lenders. The major issue involved in computation of EVA is to decide on which adjustments to make to GAAP accounts. Stern Stewrt has identified 164 adjustments to GAAP and to internal accounting treatments, all of which can improve the measure of operating profits and capital. Any change in accounting adjustment will give a different EVA. According to Ehrbar (1998), if all EVA are considered as running along a spectrum (as shown **in chart** the one at the extreme left is called basic EVA.

Chart:- 4.1
THE EVA SPECTRUM

BASIC EVA
DISCLOSED EVA
TAILORED EVA
TRUE EVA

This is the EVA that would be computed using unadjusted GAAP operating profits and GAAP balance sheet. Basic EVA is an improvement on regular accounting earnings because it recognizes that equity capital has a cost, but all other problems with GAAP remain. Moving to the right, is the disclosed EVA which Stern stewart use in their published EVA rankings Disclosed EVA is computed by making about ten to twelve standard adjustments to publicly available accounting policy available accounting data. It is better than basic EVA. Next, is what most companies need , a custom tailored definition of EVA peculiar to each company's organizational structure, business mix strategy and accounting policies. This is the EVA that is assumed to optimally balance the trade off between simplicity (the ease with it captures true economic profit). Then, finally, at the extreme right is the true EVA, which is the most theoretically correct and the accounting data (these run into a huge number) and using precise cost of capital for each business unit in a corporation.

Various types of adjustments to be made to NOPAT and capital include treatment of such things like timing of expense and revenue recognition, passive investment in marketable securities, securitized assets and other off balance sheet financing, restructuring, inflation, inventory valuation, book keeping reserves, bad debt recognition, intangible assets, taxes, pension, post retirement expenses, marketing expenses, goodwill and other accounting issues ect. Some avoid mixing stocks and flows. Then, there are some adjustments which convert GAAP accrual items to cash-flow basis while the others convert GAAP cash-flow items to additions to capital.

These and many other like adjustments complicate the calculation of EVA. Most of the organizations do not maintain in-depth data required for these adjustments and even if the data is maintained, computation is not possible without professional consultants help. Also, many of these adjustments may not be palatable and may differ among consultants. Thus, out of detailed 164 adjustments, only a few major ones are practically carried out to convert GAAP based accounting profit and capital to economic profit and capital. These are given in Table 4.2 :

Table 4.2

Broad Adjustments to be made to Capital and NOPAT

ADD TO CAPITAL	ADD TO NOPAT
Equity equivalents	Increase in equity equivalents.
Deferred tax reserves	Increase in deferred tax reserves
LIFO reserves	Increase in LIFO reverses
Cumulative goodwill amortization	Goodwill amortization
Unrecorded goodwill	Increase in capitalized intangibles
Capitalized intangibles (R&D) Cumulative unusual gains/losses	Increase in other reserves unusual gains or losses
REDUCE FROM CAPITAL	**REDUCE FROM NOPAT**
Cash and marketable security	Any finance income in the form of interest
Non interest + +bearing current Liabilities	Interest expenses

ADJUSTMENT RATIONALE

Capital

1. Cash and marketable securities

   These represent discretionary investment of funds not required on day to day operations.

2. Non interest bearing current liabilities (NIBCL)

   The financing cost associated with paying suppliers and employees with some delay are already included in the cost of goods sold. Hence, these costs are excluded from capital.

3. Present value of operating leases

   As long as asset being leased is required in business, the lease is capitalized and considered as debt, hence as an asset.

4 LIFO Reserves

   Under the LIFO method, cost of recently acquired and used raw materials are charged to production while costs of earlier purchases are accumulated. So, LIFO reporting generally understates the inventory. During period of rising prices, companies' saves taxes by adopting LIFO system of inventory valuation. Economic reality suggests that inventory should be valued at replacement cost. Rather, keeping in view the large number of items in large companies., it is suggested tat inventory be valued at weighted average cost for EVA calculations as separately identifying each batch may not be practically feasible. Hence, for calculating EVA, LIFO system of valuation is changed to first in first out (FIFO) system by adding the difference to capital and NO PAT.

5. Bad debt reserve

   Management must be held accountable for bad debts and so add back to capital.

6. New R&D expense

   GAAP requires companies to immediately charge all outlays for R&D. But these expenses may not be truly revenue in nature. EVA treatment considers R&D as an asset, hence to be capitalized (add current outlays to the balance sheet as an asset) and amortized (charge a position against earning each year) over the period during which benefits of successful R&D project will be reaped.

7 Deferred tax reserves

GAAP earning statements generally report book taxes which are not the same as taxes actually paid by the company. Accumulation of this difference of accounting provision of taxes and tax actually paid is called reserve for deferred taxes. These are to be added back to capital.

8. Cumulative after tax gains or losses

Any successful or unsuccessful investment which gives rise to loses or gains should be recognized in capital calculation.

NOPAT

1. Interest expense on operating lease.

   Since EVA determines profits before financing costs, an estimate of the interest component is subtracted from operating costs.

2. Interest on LIFO reserves

   This backs out the excess consumption created by LIFO accounting. However, if weighted average costing method is folled, no adjustment will be required to be made.

3. Change in bad debt reserve

   By considering change in bad debts in earings, NOPAT accurately reflects the timings of cash receipts and disbursements.

4. increase in net capitalized R&D

   Since investment in R&D is treated as an asset and capitalized, depreciation on the same has to be treated as an expense or it has to be amortized over the appropriate period. The average useful life of R&D for all industries is generally considered as five years which is the amortization period that Stern Stewart have used.

5. Increase in deferred tax reserves

Deferred tax reserves arise due to difference in the timing of recognition of revenues and expenses for financial reporting as against reporting for tax purposes. It is an accumulation of the difference between accounting provision of taxes and tax amount actually paid under the head "Reserve for deferred taxes". NOPAT is to be adjusted for tax actually paid instead of any provisions.

6. Other incomes

Ay non finance income or expense not included in operating expenses and not part of unusual loss or gain in the capital calculation is included to reflect the real operating costs. However, in Indian context, this component would be included in the "Miscellaneous income? Expenses" head. Hence, miscellaneous income after reducing finance income should be considered.

Apart from these broad adjustments, similar other adjustments that can distort the accounting profits and capital employed figures are made to achieve the following objectives:

i) To produce an EVA figure that is closer to cash flows and subject to less distortions of accrual accounting.

ii) To remove arbitrary distinction between investments in intangible assets which are capitalized and intangible assets which tend to be written off as incurred.

iii) To correct biases caused by accounting depreciation.

iv) To prevent amortization or write off of goodwill.

v) To bring all off-balance sheet items such uncapitalised leases and securitized receivables back into balance sheet to avoid mixing of operating and financing decisions.

However, each company's EVA has to be tailored specifically to its needs, so which adjustments would give the best results cannot be defined. Also, certain conditions need to be fulfilled for enabling computation of adjusted EVA namely,

(i) The necessary data is available.

(ii) The amounts of adjustments are significant.

(iii) The adjustments are understandable to the operating managers.

(iv) The adjustments can be made completely and left unchanged for a period of three years.

(v) The adjustments align calculated EVA more closely with market value of the firm

So, for the Indian corporate sector, accounting adjustments to GAAP profit are largely non existent or inapplicable; due to frequent fluctuation in interest rates and relatively high volatility in Indian capital markets than capital markets in developed economies. Moreover, there is an incomplete grip of the regulators on the capital market to enhance its efficiency and difficulty in ascertaining risk premium because of short history of Indian capital market that has become active only in the last decade.

USEFULNESS OF EVA

The EVA method can be used in areas like valuation, mergers and acquisitions, capital budgeting, equity research ect.. But its best use is in corporate strategy making and management compensation setting. In EVA model, total business can be divided in to small units and each manager is held responsible for unit's EVA. Based on performance, management may divest those businesses which have consistently negative EVA invest in positive EVA projects. As unit manager's compensation is related to yearly EVA figure and its growth, it's ensuring better management. Each employee's bonus gets related to EVA generated by him. Thus, whole company is geared up for shareholder's value maximization. EVA, thus, ensures capital allocation efficiency. Usefulness of EVA is concluded as below.

1. EVA is closely related to Net Present Value (NPV). It is theoretically linked to corporate finance theory that value of firm will increase if you opt for positive NPV projects.

2. It makes the top managers responsible for a measure that they have more control over (the return on capital and the cost of capital are affected by their decisions) rather than the one that they feel they cannot control (the market price per share).

3. It is influenced by all the decisions that the managers have to make within a firm the investment decision and the dividend decisions affect the return on capital (dividend decisions affect it indirectly through cash balance) and the financing decisions affect the cost of capital.

4. EVA as a performance measure is also gaining grounds because of its unbiasness towards any of stakeholders (for example equity holders, debt managers, management, suppliers of materials and services, employees and customers). Proponents of EVA argue that EVA is a superior measure as compared to other measures due to the following reasons:

I) It is near to the real cash flows of the business entity.

II) It has higher correlation with the market value of the firm

III) It is easy to calculate and understand.

IV) It's application to employee's compensation lead to the alignment of managerial interest with those of the shareholders.

IMPLEMENTATION OF EVA

EVA has been implemented successfully and used as an important tool in the following areas:

1. Valuation

Leading investment firm such as First Boston, Goldman Sashes, Merrylynch and Mogan Stanley in U.S. and Banque Paribas flemming in Europe are using EVA as a primary valuation tool. In India, NIIT is the first company to adopt EVA from Stern Stewart & Co. as a measure of corporate performance followed by Infosys Technologies, Godrej Industries.

2. Acquisitions

In one of the largest acquisition in recent years, AT&T used EVA method to decide on $ 126 billion purchase of McCAW Cellular. The ball Corporation rejected acquisition of Eastman Kotak unit because it failed the EVA test for creating value.Heekin Can Inc assed the EVA test and so, was acquired.

3. Strategic Decision Making

International Business Machine (IBM) applied EVA to evaluate strategic plans for the key Latin American markets such as Mexico, Brazil and Argentina. At Georgia Pacific, strategic focus shifted from profit creation to value creation.

4. Operational Improvement

Briggs and Stratton realized that its return on capital was poor and getting lower. They restructured their operations and adopted EVA as a way of focusing manager's attention on how they were employing capital. EVA is, now the firms' benchmark for product introduction, equipment purchases, process improvements ect.

5. Product Line Discontinuation

EVA helped Coca Cola to identify and sell those businesses that failed to recover cost of capital. Perfect Data Corporation and Incstar both discontinued unprofitable product lines based on EVA analysis.

6. Incentive Compensation

Compensation of supervisors and managers above certain salary in Coke is linked to EVA. At Transamerica, 100% of annual bonuses of Chief Executive Officers (CEO's) and Chief Finance Officers (CFO's) is based on EVA. In India, at NIIT, Infosys Technologies and Godrej Soaps, EVA linked compensation plan has been adopted.

7. Cost of Capital Focus

Dow Chemicals used EVA to shed light on cost to run business and return a positive economic profit. Deere and Company used EVA to focus management on the value drivers of its business and the true cost of its asset base. AT&T changed its focus from income statement earnings to a broader view that included balance sheet. SPX, a Michigan based corporation, large manufacturer of specialty tools and parts for auto industries used EVA framework to concentrate on cost of capital in every phase of company's work. They discovered lots of assets which were uselessly employed in business.

8. Working Capital Focus

Quaker Oats used EVA to account for large dollar amount tied up in finished goods and packaging materials inventory. Morrison Restaurants used EVA to focus on management and its receivables.

EVA AND TRADITIONAL PERFORMANCE MEASURES

EVA is a standardized accounting process independent of balance sheet approach. It is a potential financial tool for continued economic growth of organization and all its constituents. This approach ensures that growth is not sacrificed at the cost of short term results. Conceptually, EVA is superior to accounting profits as a measure of value creation because it recognizes the cost of capital and the riskiness of firms operations. Further EVA can be constructed in a way that maximizing any accounting profit of accounting rate of return leads to undesired outcome. Benefits of EVA as compare to conventional performance measures are summarized as under:

EVA AND DISCOUNTING CASH FLOW (DCF) MODEL

Determination of value of the company is very important. Discounting Cash Flow (DCF) and Net Present Value (NPV) models have been used very widely over the years to determine the value with which to discount the future free cash flows to the present value. Also, DCF approach has been considered as an important tool in analyzing mergers and acquisitions. However, in EVA model, value of a company can be determined. Mathematically, EVA gives the same results in valuation as DCF or NPV models, which have been for long acknowledged as theoretically best tools from shareholders' perspective. Both measures include opportunity cost of capital, take into account time value of money and do not suffer from any accounting distortions. However, NPV and DCF model are not relevant in performance evaluation since they are exclusively based on cash flows. A benefit of discounting EVA with free cash flow is the additional insight it provides being a period by measure. EVA also imposes an added accountability for capital over only enforces capital discipline and accountability at the initial approval of capital expenditure. Further, benefit is derived from power of commonality and focus in using EVA as single financial measure for budgeting, capital planning, performance evaluation and incentive compensation.

NPV of a project provides a standard for assessing its contribution to value and also can be used to compare relative value among a selection of investment opportunities. The conventional procedure for calculating NPV involves discounting of projects forecast with free cash flows. Typically, as initial investment is made, cash flow is negative. Then, as benefits are realized, cash flows become positive. The discounting to present value indicates whether project benefits offset initial investment and provide value to investors.

Problem with free cash flow approach is that, once invested, the new capital is mixed with all other assets on the balance sheet. After that, rarely does the management look back to assess whether actual returns are in line with forecasts used to justify the project. Also free cash flow as a single period measure cannot be used in post investment audits, since it mixes profits and investments and forgets about early investment. As a result accountability is lost.

Table 4.3

Differences between EVA and DCF/NPV Models

	DCF/NPV Model	**EVA Model**
1.	These are generally employed to analyze the attractiveness of an acquisition activity or when to divest from business.	This is a measure of past and current performance. EVA for past performance can be used for trend analysis.
2.	These measures do not take into account opportunity cost of capital i.e. expected return to stakeholders. They consider dividend payment only when paid.	This measure takes into consideration opportunity cost of capital irrespective of cash flows.
3.	Manager's compensation cannot be tied to DCE/NPV because these are measures of future expected performance.	Manager's compensation can be tied to achieve EVA as it is a measure of current and past performance.
4.	These measures do not help in coordinated working in an enterprise.	This measure results in coordinated working in an enterprise.
5.	These measures do not indicate whether shareholder value is created or not.	EVA indicates the amount of shareholders value created or eroded during a particular period.

Example:

Assume, a project with an initial investment of Rs. 1oo is expected to create a perpetual free cash flow (FCF) of Rs. 12 every year. Depreciation is charged at 10% straight line method and the same amount is reinvested which makes net operating profit after axes (NOPAT) and FCF same. Let cost of capital be assumed at 10%. Values given by both these methods are given underneath in Table 4.4:

Table 4.4

Valuation of Business: EVA and DCF Models

Year	**O**	**1**	**2**	**Infinite**
FCF	(100)	12	12	!2
NOPAT		12	12	12
ROIC		12%	12%	12%
WACC		10%	10%	10%
ROIC-WACC		2%	2%	2%
EVA		2	2	2

In DCF model

Value = 12/ 0. 1 = 120

Net Present Value (NPV) = 120 - 100 = 20

IN EVA Model

MVA = 2 / o.1 = 20

Value = 100 + 20 = 120

Both models give identical results but each has some inherent advantages over the other. EVA model tells us how much value is added in better strategic decision making and communication with shareholders. Moreover, Eva method gives warning signals if major part of valuation comes from terminal values. This makes EVA a better tool in capital budgeting and corporate strategy making. On the other hand DCF model tells about the cash in hand situation. Managers can use this information to plan the use of excess cash or borrow capital from the market to meet shortages. This makes DCF a better tool in asset liability management, financial restructuring and working capital management. EVA, as pointed out earlier, tells management instantly whether capital management. EVA, as pointed out earlier, tells management instantly whether value has been added or not without discounting it, A growing Eva figure shows better management.

EVA and Earning Per Shares (EPS)

Earning Per share (EPS) is a measure relevant to only shareholders. It is prone to accounting distortions and also, does not capture risk factor associated with business. The measure simply tells the shareholders how much each share has earned for them. This means that if the opportunity cost per share is reduced from EPS, it would give them EVA per share and a mush better idea of whether the company is creating value or destroying it. EPS, in isolation, cannot give any information on value creation. EPS can be increased, simply by investing more capital in business. If additional capital is equity capital is debt only, EPS will rise if rate on return on invested capital is more than cost of debt only. In reality, however, invested capital is generally mix of debt and equity and EPS will increase if rate of return on additional capital is somewhere between cost of debt and zero. Therefore, it is completely inappropriate measure of corporate performance.

Example

Assume, profits available for equity shareholders of a company for the years 2006, 2007, 2008 were Rs. 150 lakes and Rs. 200 lakhs respectively. The subscribed capital of the company has remained constant at Rs. 1000 lakhs (100 lakhs share of Rs.10 each). The opportunity cost of capital has also remained constant at 18.50%. If EPS is looked in isolation, performance trend would appear as given in Table 4.5

Table 4.5

Performance Trends: With EPS

Years	2006	2007	2008
Earning for equity Shareholders	100 lacs	150 lacs	200lacs
No. of equity shares	100lacs	100lacs	100lacs
EPS	Rs.1. 00	Rs.1.50	Rs.2.00

The above trend shows that the performance of company is improving each year. There is no indication of whether value of firm is being created or not.

If opportunity cost is brought into the picture performance would look as given in Table 4.6

Table 4.6

Performance Trend: With EVA

Years	2006	2007	2008
EPS	1.OO	1.50	2.OO
% RETURN ON CAPITAL OF Rs. 10.0	1o%	15%	2o%
Opportunity cost of capital	18.50 %	18.50	18.50
EVA	-8.50 %	-3.5%	1.5 %

The above trend shows that company's performance is improving but in the last two years, if has destroyed value. Only in the year 2008, it had added value.

EVA and Return on Investment (ROI)

Rate of return on capital is quite common and a relatively good performance measure. Different companies calculated this return in different ways and call it with different names like Return on Investment (ROI), Return on invested capital (ROIC), Return on capital employed (ROCE), Return on net assets (RONA), Return on assets (ROA) ect. The main short coming in all these measures is that the maximizing rate of return does not necessarily maximize the return to shareholders. As a relative measure and without risk component, ROI fails to steer operations completely. Therefore, capital can be misallocated on the basis of ROI. Firstly, ROI ignores the definite requirement that the rate of return should be at least equal (if not more) to cost of capita. Secondly, ROI does not recognize that shareholders wealth is not maximized when rate of return is maximized. Shareholders want the firm to maximize the absolute return over and above the cost of capital and not of capital just because the expected return is less than the present return. Cost of capital is a much more important hurdle rate than company's current rate of return.

In the corporate control, in spite of differences between EVA and ROI, they both go hand in hand. The former stresses on impact on shareholders wealth and the latter tell about rate of return. ROI cannot be abandoned since it is a very good and illustrative measure about rate of return. However, decisions cannot be based on ROI since maximizing rate of return does not matter when aim is to maximize return to shareholders.

EVA and Return on Net worth (RONW)

Rate of return on equity (ROE) or net worth (RONW) is again a function of returns the company's products and projects generate, irrespective of its cost of capital. ROE suffers from the same shortcoming as ROI. Risk component is not included and hence, there is no comparison. The level of RONW does not tell the owners if company is creating shareholders wealth or destroying it. With ROE, this shortcoming is much more than ROI for simply increasing leverage can increase financial risk. As ROI, RONW is also an informative measure but it should not guide the operations.

Thus, all accounting based rate of returns (ROI, ROE, RONA, RONW, ROIC ect.) fail to assess true or economic return of a firm because they are based on historical asset values, which in turn, are distorted by inflation and other factors. Stewart defined EVA as after tax return on beginning capital. EVA is like a corporate nervous system. It enables organization is to add to its shareholders value and EVA is an accurate measure of incremental annual shareholder value generated by a company. BY using EVA to evaluate options, a company chooses strategies that result in maximum addition to shareholder value. This makes EVA an ideal tool for equity analysis. Also, since EVA standardizes financial information, it provides common platform for comparison of companies across the globe. EVA has thus, taken the best of residual income concept, eliminated the worst of accounting practices and emerged as a reliable performance metric.

Superiority of EVA as a measure of rate of return is summarized as follows:

. A performance measure that can be maximized as an objective.

. It can be used as a metric to evaluate capital budgeting proposals (it is the only measure of both, performance evaluation and strategic decision making).

. It integrates effect of profitability and growth into the same measure.

. It simplifies the concept of profitability which was earlier complex with traditional measures.

. It unifies the goal of companies and their shareholders.

. It has good correlation with market capitalization (not yet demonstrated in India).

MARKET VALUE ADDED

EVA is aimed to be a measure of the wealth of shareholders. According to this theory, earning a return greater than the cost of capital increase value of company while earning less than the cost of capital decreases the value. For listed companies, Stewart defined another measure that assesses if the company has created shareholder value or not. If the total market value of a company is more than the amount of capital invested in it, the company has managed to create shareholder value. However, if market value is less than capital invested, the company has destroyed shareholder value. The difference between the company's market value and book value is called

Market Valued Added or MVA.

Simply stated,

Market Value Added (MVA) = Market value - Capital invested
Of the company in the company

Where,

Market value: - For a public listed company it is calculated as the number of shares outstanding x share price + book value of debt (since market value of debt is generally not available).

Capital invested: - It is the book value of investments in the business made up of debt and equity.

Effectively, the formula becomes

MVA = Market value of equity - Book value of equity

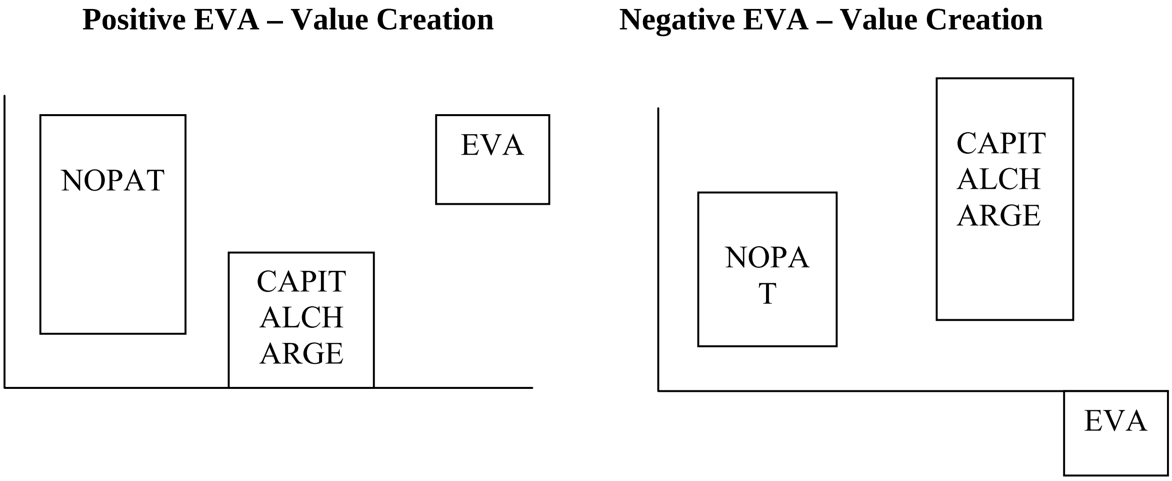
According to Stewart, MVA tells us how much value company has added to or subtracted from its shareholders investments. Successful companies add their MVA and thus, increase the value of capital invested in the company. Unsuccessful companies decrease the value of capital originally invested in the company. Whether a company succeeds in creating MVA (increasing shareholder value) or not, depends on its rate of return. If a company's rate of return exceeds its cost of capital, the company will sell on stock markets with premium compared to the original capital and thus, have positive MVA. On the other hand, companies that have rate of return smaller than their cost of capital, sell with discount compared to the original capital invested in the company. Whether a company has positive or negative MVA depends on the level of rate of return compared to the cost of capital. All this applies to EVA also. Stewart has defined relationship between EVA and MVA.

RELATIONSHIP BETWEEN EVA AND MVA

When a business earns a rate of return higher than its cost of capital, EVA is positive. In other words, investors are earning more than their investment in that business than they could elsewhere. In response, investors bid up share prices, increasing the value of their business and driving up its MVA. Similarly, investors discount the value of businesses that earn a return below their cost of capital. Thus, in a way, EVA drives MVA as is shown in chart 4.2.

Chart:- 4.2

EVA DRIVES MVA



Thus, MVA is an estimate made by the investors of the net present value of all current and expected future investments in the business. In other words, it can be said that MVA is same as NPV and can be calculated as the present values of all future EVAs. Similarly, it can be the present value of future free cash flows, because discounted EVA and discounted free cash flows are mathematically equivalents.

From the definition of MVA, the value of firm can be expressed as

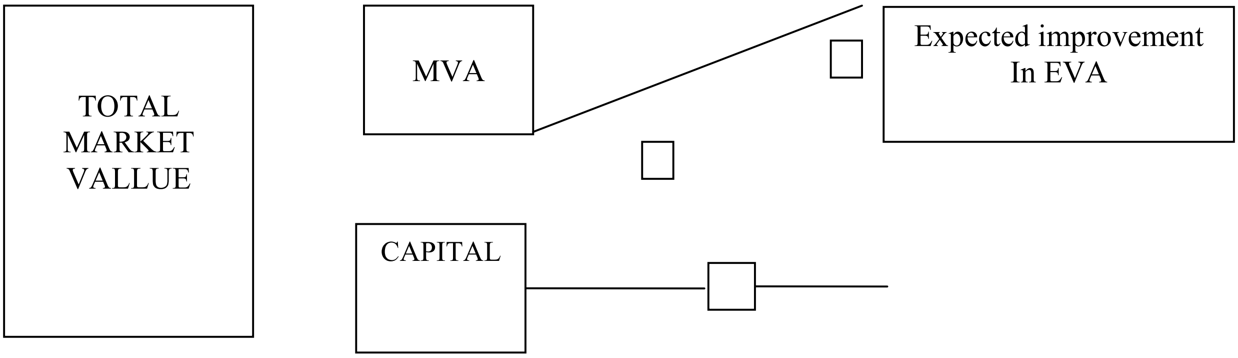
Market Value = Capital + MVA of firm

However, MVA is the present value of all future EVAs. Therefore, the value of the firm can be expressed as sum of its capital; current EVA capitalized as perpetuity and the present value of all the expected future EVA improvements.

Market Value = Capital + Value of current EVA as perpetuity + Present value of expected EVA Improvement.

Since, market value is dependent on market implications of all future performance, market values are sensitive to the changes in current EVA as well as expected EVA improvement. This results in an interesting problem for the managements. They need to decide the level of focus on generating current results and future prospects. The solution seems to be clear. Management must focus on producing best results today a while making significant efforts for future simultaneously. The stress has to be on long term and short term perspective both. Relationship between MVA and EVA is reflected in Chart:- 4.3.

Chart:- 4.3
RELATIONSHIP BETWEEN EVA AND MVA



Current level of EVA

In a nutshell, relationship between EVA and MVA can be summarized as follows:

1. The relationship between EVA and MVA is more complicated than the one between EVA and he firm value.

2. MVA of a firm reflects not only expected Eva of assets in place but also expected EVA from future projects.

3. To the extent that the actual EVA is smaller than expected EVA, the market value can decrease even if EVA is higher.

MVA is, thus, in a way best performance measure because it focuses on cumulative value added or lost on invested capital. It is the difference between the capital investors have put in business (cash in) and the value they could get by selling their claims (cash out). It is a focus on wealth in dollar or rupees rather than rate of return in percentage. It, therefore, recognizes all value adding investments even if than original rate of return.

PROBLEMS WITH EVA AS PERFORMANCE MEASURE

A better understanding of the concept of EVA requires understanding of the problems it faces in measuring operating performance of the company. No performance measure is perfect. Likewise, EVA has its weaknesses and it is for the companies to realize that EVA is not the ultimate truth and it does not always tell the amount of shareholders value created or destroyed. Table gives the overview of these measurement problems faced by the companies in computation of EVA.

Table 4.7

Some Measurement Issues in EVA

Sr. No.	**Measurement Issues**
1.	**How to measure the capital invested in assets in place**:
	Many firms use book value of capital invested. To the degree that book values reflect accounting choice made over time, this may not be true.
	In case where firms alter their capital invested through their operating decisions (for example, by using operating leases), the capital and after tax operating income have to be adjusted to reflect true capital invested.
2.	**How to measure return on capital:**
	Again, the accounting definition of return on capital may not reflect the economic return on capital.
	In particular, the operating income has to be cleansed of any expenses which are really capital expenses (in the sense that they create future values). One example would be R&D.
	The operating income also has to be cleanse of any cosmetic or temporary effects.

3.	**How to estimate cost of capital**:
	DCF valuation assumes that cost of capital is calculated using market values of debt and equity.
	If it is assumed that both assets in place and future growth are financed using the market value mix, the EVA should also be calculated using the market value.
	Instead, if the entire debt is assumed to be correct by assets in place, the book value debt ratio will be used to calculate cost of capital. Implicit is then the assumption that as the firms grow, its debt ratio will come close to book value debt ratio.

In addition to these measurement problems, EVA computation is subject to two limitations:

1. Wrong Period sing

EVA is poor in period sing returns of a single investment for. It under – estimates the return in the beginning and over-estimates at the end of the period. The companies in the growth phase or business units with heavy new investments are likely to have current negative EVA although their true rate of return may be good and so long term shareholders wealth added (TRUE long term EVA) would be positive. This is the main criticism of EVA being a short term performance measure.

2. Distortions caused by inflation, asset structure.

EVA, on an average, is also a poor estimator of true underlying rate of return because historical asset values cannot describe accurately the current value of assets tied into the business. Being distorted by inflation and different depreciation schedules ect. Historical values distort EVA and ROI also. As ROI fails (on an average) to estimate the true return, so periodic EVA fails to estimate the value added to shareholders.

Distortions of EVA are more pronounced in cyclic businesses where peaks and valleys feature in EVA figures. Further, projects in infrastructure, new product launches with high gestation period have negative initial EVA figure through NPV of the project may be positive. Thus, it gives wrong signals about the aggregate company performance. However, industries with lots of current assets (instead of fixed assets and with short investment period e.g. banking, food and beverages, personal computers, retailing and publishing ect.) do not get affected by these pitfalls since current assets represent the majority of total amount of assets; so value of assets would be close to current value of capital tied into the business.

To cope with distortions and eliminate this problem, DE Villiers (1997) suggests using the current value of assets instead of book value. The extent of this problem depends very heavily on the assets structure (how relatively big are the proportions of current, depreciable and non depreciable assets) and on the average project duration. Thus, the extent and direction of this problem can be estimated. The EVA targets can be adjusted accordingly, although it is not an easy task. Also, this problem is generally small though it does not require too many adjustments. EVA can be and has been successfully applied in many companies without any special adjustment to capital base (Birchard 1996). This is also the way the companies have calculated their ROI for decades without massive criticism. So far, this distortion in ROI has been widely ignored although the theoretical weakness in using historical values in calculating ROI has been acknowledged.

CONCLUSION

In spite of these shortcomings, EVA has turned out to be a better shareholder's performance measure than the traditional accounting based performance metrics. In fact, EVA is regarded as the most accurate measure of shareholder value creation around the world. It is an accurate reflection of the quantum of incremental value a company generates for its shareholders after accounting for its cost of operations including cost of capital. Since creating shareholders value is the basic objective of every organization, hence the present study has employed this metric for analyzing post-merger performance of merged firms.

REFERENCES

- Bhalla V. K. 2000: International Financial Management; Text and Cases; First Edition, Anmol Publication Pvt. Ltd., New Delhi
- Bhalla V. K., 1997: Financial Management and Policy, Anmol Publication Pvt. Ltd., New Delhi
- Cowling, Keith, Paul Stoneman and John Gubbin, Mergers and Economic Performance (UK : Cambridge University Press, 1980)
- Ehrbar, A. L., EVA : Real Key to Creating Wealth, 1st edn. (New Yourk : John Willey and Sons, 1998)
- Kaveri, V.S. Financial Analysis of Company Mergers in India (New Delhi : Himalaya Publishing House, 1986)
- Kothari. C .R. Research Methodology: Methods and Techniques, 2nd edn. (UK: Wiley Eastern Ltd., 1992)
- Rapport Alfred, Creating Shareholders Value: The New Standard for Business Performance (New York: The Free Press, 1986)

CHAPTER - 5

AN ANALYSIS OF FINANCIAL PERFORMANCE

INTRODUCTION:-

This chapter deals with the analysis of companies and at industry level using tools like RONW, MVA and EVA for selected companies of post and pre merger period is given as below:

Table:- 5.1 RONW AND INTRA COMPANY COMPARISON

Sr No.	COMPANY	RONW						
		POST				PRE		
		2004	2003	2002	2001	2000	1999	1998
1	Ultramarine & Pigments Ltd	21.57	8.56	11.41	5.49	14.43	16.04	16.39
2	Crompton Greaves Ltd	21.83	6.63	1.03	-24.16	-38.78	4.20	3.93
3	Areva T&D India Ltd	9.67	4.00	-1.32	-1.86	1.15	-6.68	2.53
4	BPL Ltd	-21.86	-50.09	5.88	13.24	19.57	22.41	23.19
5	Samtel Color Ltd	6.47	10.65	14.69	19.52	23.03	-10.85	-8.45
6	TRF Ltd	8.48	-1.15	24.18	9.43	15.52	4.75	34.78
7	GMR	10.41	8.04	4.66	3.15	17.65	28.28	18.10
8	Dharamsi Morarji Chemicals Co Ltd	-16.49	0.70	2.92	2.14	7.49	8.58	12.56
9	Khatian Fertilizer	13.63	-2.19	-6.51	-6.67	3.94	27.10	34.31
10	Zenith Infotech Ltd	2.82	0.50	-19.11	3.42	7.93	52.27	NA
11	Tata Infotech Ltd(merged)	24.35	14.82	10.75	15.09	7.51	29.45	28.92
12	B & A Ltd	-5.13	-15.11	0.76	2.20	4.18	0.90	9.20
13	Max India Ltd	3.94	-11.81	1.88	0.98	7.07	92.74	6.80
14	Emami Paper Mills Ltd	3.58	1.84	0.58	-1.64	1.80	1.52	NA
15	Bayer CropScience Ltd	10.20	14.57	17.57	11.96	8.53	6.18	12.52
16	PSL Ltd	16.71	9.09	19.31	NA	11.58	10.22	13.02
17	Ratnamani Metals & Tubes Ltd	10.28	6.80	6.52	6.73	6.33	8.89	11.69
18	Balrampur Chini Mills Ltd	21.97	12.49	21.70	19.21	10.63	22.61	26.97
19	NHN Corporation Ltd	NA	615.14	-32.82	-19.30	0.85	0.04	0.56
20	Sical Logistics Ltd	7.58	3.02	1.86	14.25	18.21	18.38	16.06
21	Arvind Products Ltd	-4.54	0.94	-51.07	-105.98	-16.03	15.38	13.33
22	Bhilwara Spinners Ltd	-219.12	-94.47	-881.82	-36.92	-33.71	-20.76	9.79
23	RSWM Ltd	10.39	5.32	3.29	5.30	7.89	5.53	11.95
24	Shyam Telecom Ltd	0.24	0.14	4.91	8.40	2.70	NA	6.48
25	DPIL Ltd	-12.62	1.26	3.16	4.54	16.34	0.20	-203.77
26	Rossell Tea Ltd	-10.58	-9.50	-6.66	3.69	5.18	9.52	20.81
27	Matrix Laboratories Ltd	70.10	75.82	20.83	34.15	-108.05	2.63	1.05
28	Twilight Li-Taka Pharma Ltd	-18.57	52.75	196.51	-193.57	-26.87	-4.84	-38.72
29	Sun Pharmaceuticals Industries Ltd	28.50	34.00	31.98	31.25	26.55	22.18	25.24
30	SRHHL Industries Ltd	2.74	3.08	2.71	2.74	3.93	4.99	4.53
31	NLC Nalco India Ltd	35.71	36.61	10.93	-3.26	20.27	20.93	15.51

32	Dr Reddys Laboratories Ltd	13.83	21.70	31.53	26.12	13.86	13.48	14.33
33	Roto Pumps Ltd	3.10	-8.51	-9.43	-19.07	NA	0.09	1.45
34	GHCL Ltd	13.08	21.15	21.53	10.30	8.71	16.97	21.13
35	DLF Ltd	11.16	9.26	12.83	11.63	24.80	28.64	NA
36	Repro India Ltd	12.93	18.12	9.37	20.57	20.76	15.17	NA
37	Finolex Cables Ltd	5.49	4.73	11.24	12.32	12.97	10.90	9.33
38	Hindustan Organic Chemicals Ltd	204.90	-37.01	-38.10	-18.54	-38.93	-5.73	-1.36
39	Tata Coffee Ltd	11.12	14.06	7.00	10.46	21.44	24.73	23.84
40	Gulf Oil Corporation Ltd	18.13	12.94	5.60	54.01	9.97	10.44	20.36
41	Pidilite Industries Ltd	243.26	234.98	206.54	190.02	376.94	304.98	222.88
42	TTK Healthcare Ltd	6.20	46.29	30.09	-70.06	41.15	40.76	77.73
43	HBL Power Systems Ltd	8.51	10.57	12.82	17.38	19.79	42.15	29.07
44	Carol Info Services Ltd	NA	2.49	5.07	-8.45	-4.88	16.76	12.32
45	Todays Writing Products Ltd	13.42	6.77	15.98	24.27	29.99	22.89	25.93
46	Jindal Poly Films Ltd	19.34	12.70	13.87	4.95	3.92	9.97	6.15
47	Gujarat Perstorp Electronics Ltd	23.44	11.73	18.74	4.50	11.75	11.34	26.35
48	Berger Paints (India) Ltd	23.68	20.14	20.86	20.16	18.59	21.00	NA
49	Hindustan Unilever Ltd	57.23	82.87	48.38	53.94	52.67	50.90	47.62
50	Jubilant Organosys Ltd	38.62	33.58	20.18	9.46	7.77	18.45	27.60
51	Bright Brothers Ltd	-11.38	-11.61	-23.05	-1.79	3.46	8.61	8.90
52	Ion Exchange (India) Ltd	1.99	1.84	4.82	-5.12	-3.59	4.26	9.96
53	Hindustan Fluoro Carbons Ltd	22.29	13.00	8.46	7.44	20.28	15.48	70.53
54	IFGL Refractories Ltd	21.09	8.03	2.23	0.67	4.30	0.20	0.34
55	Pix Transmission Ltd	4.48	1.48	0.73	7.03	13.35	9.74	NA
56	Zenith Computers Ltd	6.61	2.32	1.31	5.14	10.44	7.85	6.79

1 RONW AND INTRA COMPANY COMPARISON

The technique of cluster analysis has been followed for the next measure of value addition, RONW for different group of companies.

Group I

A set off sixteen companies in this case have shown improvement in profitability in terms of RONW in the four post merger years. The companies which have shown marked improvement include NLC Nalco India limited, Jindal Poly Films Limited, and Jubilant Organosys Limited.

There are other companies which have shown an increasing trend, though not very significant. These include Emami Paper Mills Limited.

Group II

Twelve companies get categories in this group showing decrease in profits according to the traditional measure of value addition in the four post merger years. Companies have shown significant deterioration in profitability in post-merger period includes BPL Limited, Dharamsi Morarji Chemicals Co Limited, and DLF Limited.

Some other companies' shows decrease in profitability over the post merger years which is however; not very significant includes B&A Limited, Shyam Telecom Limited and Tata Coffee Limited. .

Group III

A majority of Twenty eight belongs to this group indicating no impact of mergers on profitability in subsequent post-merger years. Some companies have shown marked improvement in profitability from first to second year which gets lost in the third year. To name a few companies all belong to this category. TRF Limited, Bayer CropScience Limited PSL Limited.

Further, there are few companies which have shown no trend in post merger years thus signifying no effect, whatsoever of mergers on profitability.

2. MVA AND INTRA-COMPANY COMPARISON

The observations with this measure of value addition are given below:

Table:- 5.2 MVA AND INTRA-COMPANY COMPARISON

Sr No.	COMPANY	MVACE						
		POST				PRE		
		2004	2003	2002	2001	2000	1999	1998
1	Ultramarine & Pigments Ltd	-8.24	-30.54	-26.04	-31.92	103.54	-31.47	-18.86
2	Crompton Greaves Ltd	62.55	-16.77	-17.00	-17.04	-14.60	-30.24	-28.40
3	Areva T&D India Ltd	-20.27	-38.56	-44.12	-44.30	-18.77	31.78	26.21
4	BPL Ltd	-133.28	-21.81	-34.79	-39.84	-0.18	68.13	16.98
5	Samtel Color Ltd	-4.51	-21.01	-16.23	-28.28	-3.20	-17.43	-23.23
6	TRF Ltd	-14.06	-41.43	-55.99	-54.97	-41.95	-14.66	-15.40
7	GMR	-26.71	-45.79	-26.11	-25.54	-19.28	-34.73	-31.32
8	Dharamsi Morarji Chemicals Co Ltd	-17.91	-30.62	-28.18	-34.22	-35.49	-33.53	-27.25
9	Khatian Fertilizer	-43.56	-50.20	-34.71	-37.82	-65.24	-50.44	NA
10	Zenith Infotech Ltd	-49.02	-69.63	-34.57	-42.46	460.83	-200.00	NA
11	Tata Infotech Ltd(merged)	218.83	35.26	94.69	39.17	326.37	1196.12	714.05
12	B & A Ltd	-20.05	-31.88	-41.07	-41.12	-44.72	-38.73	-24.39
13	Max India Ltd	-27.17	-46.73	-33.03	-46.96	38.12	-6.30	62.60
14	Emami Paper Mills Ltd	-43.31	-43.52	-41.60	-82.39	-28.06	-26.80	NA
15	Bayer CropScience Ltd	191.19	257.69	40.50	27.88	3.86	58.86	101.98
16	PSL Ltd	10.36	-14.31	-20.09	-	-37.18	-17.13	-113.54
17	Ratnamani Metals & Tubes Ltd	-39.36	-58.62	-46.86	-54.26	-54.35	-55.31	-38.74
18	Balrampur Chini Mills Ltd	44.03	-5.32	2.38	-17.06	-17.94	-7.67	16.19
19	NHN Corporation Ltd	NA	131.96	48.50	74.47	-71.67	-105.07	-95.78
20	Sical Logistics Ltd	-18.18	-21.84	-16.88	-20.75	-19.81	-19.08	-20.41
21	Arvind Products Ltd	-74.44	-90.98	-92.58	-88.82	-194.90	1201.61	1403.08
22	Bhilwara Spinners Ltd	2.64	-3.59	0.84	-14.14	-16.98	-19.87	-25.41
23	RSWM Ltd	-28.65	-35.53	-38.35	-41.07	-32.59	-34.30	-26.37
24	Shyam Telecom Ltd	5.88	-47.44	-8.12	50.32	975.47	NA	-16.09
25	DPIL Ltd	27.70	23.93	-53.77	-55.46	-58.15	-96.35	-9.04
26	Rossell Tea Ltd	-43.70	-54.07	-60.47	-72.29	-85.92	-98.73	-93.21
27	Matrix Laboratories Ltd	506.01	113.03	4.53	-25.48	-13.48	-40.63	-52.90
28	Twilight Li-Taka Pharma Ltd	40.07	19.54	16.62	9.56	7.83	-4.52	-16.45
29	Sun Pharmaceuticals Industries Ltd	550.54	294.12	500.74	451.86	652.17	136.00	54.94
30	SRHHL Industries Ltd	-61.45	-67.14	-69.68	-82.54	-58.28	-50.94	-50.53
31	NLC Nalco India Ltd	209.94	249.05	67.57	150.11	353.46	583.17	396.14
32	Dr Reddys Laboratories Ltd	274.33	314.90	578.46	440.30	694.13	423.72	184.34
33	Roto Pumps Ltd	-60.45	-61.90	-67.29	-56.75	-64.56	-62.66	-60.17
34	GHCL Ltd	-1.96	-13.19	-24.89	-42.10	-40.71	-32.84	-12.49
35	DLF Ltd	-53.63	-92.67	-81.43	-55.14	-40.69	-34.50	NA

36	Repro India Ltd	-47.75	-43.55	-53.59	-52.05	-45.70	-40.98	NA
37	Finolex Cables Ltd	-24.64	-39.26	-15.27	-9.04	51.77	16.12	-26.53
38	Hindustan Organic Chemicals Ltd	42.86	-4.65	-13.03	-27.84	-31.58	-39.93	-42.81
39	Tata Coffee Ltd	-0.45	-29.40	-15.21	7.44	56.99	51.40	171.42
40	Gulf Oil Corporation Ltd	0.10	-26.29	-43.52	-56.24	-32.68	-22.06	-31.05
41	Pidilite Industries Ltd	129.50	90.44	65.56	101.96	231.43	170.39	41.83
42	TTK Healthcare Ltd	-35.56	-38.41	-37.58	-46.76	-11.07	-17.93	-20.70
43	HBL Power Systems Ltd	-49.30	-48.74	-48.01	-46.34	-59.54	-53.63	-31.05
44	Carol Info Services Ltd	NA	-43.71	-42.55	-42.45	-34.03	286.99	1.78
45	Todays Writing Products Ltd	35.54	-40.10	-7.51	38.04	120.26	-2.23	-20.33
46	Jindal Poly Films Ltd	-0.57	-49.76	-59.22	-60.51	-43.24	-28.35	-20.70
47	Gujarat Perstorp Electronics Ltd	156.87	91.73	71.59	59.76	186.38	170.52	84.34
48	Berger Paints (India) Ltd	103.56	10.48	17.65	42.78	70.65	33.06	NA
49	Hindustan Unilever Ltd	796.57	1135.63	1062.32	1613.25	1759.62	2233.48	1607.14
50	Jubilant Organosys Ltd	255.65	15.41	-10.20	-22.31	-20.66	-14.68	-5.41
51	Bright Brothers Ltd	-23.91	-24.30	-19.75	-30.85	-33.55	-13.85	-15.48
52	Ion Exchange (India) Ltd	-39.35	-45.56	-46.06	-42.18	-38.29	-41.38	-31.28
53	Hindustan Fluoro Carbons Ltd	188.24	130.37	114.88	106.31	92.98	69.17	64.21
54	IFGL Refractories Ltd	21.03	-44.89	-59.48	-55.78	-66.25	-33.23	-37.69
55	Pix Transmission Ltd	-30.57	-29.63	-30.80	-38.86	-40.70	-23.54	NA
56	Zenith Computers Ltd	-17.95	-42.15	-13.99	-18.27	71.29	29.41	-34.58

Group I

This group includes only six companies indicate an increase in value addition to shareholders in terms of their market's assessment but increase in most cases is very significant. Companies like all add positive value to shareholders which has increased subsequently in post merger years. In a grup remaining companies shows value addition in first post-merger years in negative but has decreased each year indicating an improvement in value addition. This group includes Twilight li-taka pharma Limited, Matrix Laborites, Hindustan Unilever Limited, Roto Pumps Limited, Rossell Tea Limited.

Group II

This group has Ten companies again exhibit the same trend. Few companies started with positive value in first year which reduced subsequently. Some companies started with negative values which increased in post-merger years. This group includes companies like Dr Reddys Laboratories, Tata Coffee Limited, Today's Writing Products Limited.

Group III

The last group with maximum number of twenty three companies shows that mergers have no effect on market's assessment of company's value thus not showing any clear increasing or even decreasing trend in post- merger years. The companies included in this list are GMR Industries Limited, Sical Logistics Limited, Bright Brothers Limited, Zenith Computers.

3. EVA AND INTRA COMPANY COMARISON

EVA has been computed for all sample companies for three post merger years to see whether shareholder value has improved in the post-merger period i.e. has shareholder value addition improved in each passing year after the merger since it is generally believed that it takes a year or to start getting these benefits. The year- wise analysis has been summarized as follows:

Table:- 5.3 EVA AND INTRA COMPANY COMARISON

Sr No.	COMPANY	EVACE						
		POST				PRE		
		2004	2003	2002	2001	2000	1999	1998
1	Ultramarine & Pigments Ltd	-0.02	-2.69	-1.90	-2.88	-	-1.31	-1.19
2	Crompton Greaves Ltd	-0.37	-7.28	-9.24	-13.78	-19.20	-8.41	-8.77
3	Areva T&D India Ltd	-12.44	-16.65	-20.95	-20.07	-17.88	-22.84	-14.46
4	BPL Ltd	-75.86	-18.90	-7.25	-5.46	-2.20	-0.84	0.75
5	Samtel Color Ltd	-5.91	-3.78	-2.42	-1.09	0.66	-9.02	-9.17
6	TRF Ltd	-6.85	-13.66	2.12	-9.82	-3.81	-8.21	6.24
7	GMR	-6.56	-8.78	-6.34	-6.72	-2.72	2.54	-1.58
8	Dharamsi Morarji Chemicals Co Ltd	-9.10	-7.69	-6.46	-7.84	-7.23	-6.56	-4.57
9	Khatian Fertilizer	-4.76	-12.76	-13.40	-13.95	-11.54	2.56	NA
10	Zenith Infotech Ltd	-20.12	-22.37	-20.33	-14.02	-19.27	-239.48	NA
11	Tata Infotech Ltd(merged)	2.89	-6.57	-10.06	-6.15	-12.86	7.66	6.25
12	B & A Ltd	-19.74	-26.35	-23.76	-25.15	-25.46	-29.38	-23.77
13	Max India Ltd	-13.48	-23.45	-14.84	-16.98	-17.89	57.64	-8.04
14	Emami Paper Mills Ltd	-1000.19	-903.19	-887.90	-1532.29	-6659.83	-5453.51	NA
15	Bayer CropScience Ltd	-7.34	-4.85	-1.53	-2.80	-3.94	-4.76	-3.05
16	PSL Ltd	-2.25	-5.73	-1.06	NA	-5.59	-1.39	-10.53
17	Ratnamani Metals & Tubes Ltd	-9.32	-10.79	-9.78	-10.79	-10.79	-8.48	-5.90
18	Balrampur Chini Mills Ltd	0.13	-4.29	0.01	-1.38	-6.22	0.42	2.11

19	NHN Corporation Ltd	NA	-106.48	-32.66	-26.61	-14.89	-22.68	-20.18
20	Sical Logistics Ltd	-4.41	-5.01	-4.77	-3.01	-2.47	-2.37	-3.24
21	Arvind Products Ltd	-3.04	-2.34	-7.56	-20.58	-23.07	-0.65	-0.96
22	Bhilwara Spinners Ltd	-5.92	-9.41	-5.12	-9.66	-11.10	-10.45	-3.61
23	RSWM Ltd	-5.27	-7.14	-8.02	-8.02	-6.26	-7.02	-3.93
24	Shyam Telecom Ltd	-20.25	-18.80	-13.52	-10.93	-13.94	NA	21.51
25	DPIL Ltd	-19.64	-7.06	-9.93	-9.48	-4.06	-20.64	-20.39
26	Rossell Tea Ltd	-13.43	-16.17	-17.11	-12.97	-14.13	-11.96	-0.77
27	Matrix Laboratories Ltd	27.86	38.93	-0.51	6.18	-39.36	-12.35	-13.71
28	Twilight Li-Taka Pharma Ltd	0.00	-8.61	-15.41	-18.52	-8.53	-7.00	-22.56
29	Sun Pharmaceuticals Industries Ltd	5.82	13.02	10.69	7.56	1.22	-2.90	3.05
30	SRHHL Industries Ltd	-13.33	-13.40	-14.36	-16.40	-12.48	-9.80	-10.29
31	NLC Nalco India Ltd	7.91	5.80	-7.04	-15.02	-1.10	-0.72	NA
32	Dr Reddys Laboratories Ltd	-8.10	0.08	12.02	3.23	-6.12	-6.98	-6.20
33	Roto Pumps Ltd	-14.19	-22.02	-22.42	-29.48	-17.89	-17.44	-16.56
34	GHCL Ltd	-5.46	-0.31	-0.05	-6.99	-7.98	-2.94	-0.29
35	DLF Ltd	-5.61	-11.46	-7.17	-5.52	1.29	1.45	NA
36	Repro India Ltd	-4.16	-1.53	-6.57	-0.55	-0.40	-2.65	NA
37	Finolex Cables Ltd	-11.97	-12.31	-8.70	-8.08	-7.01	-8.72	10.23
38	Hindustan Organic Chemicals Ltd	-28.83	-11.78	-16.50	-14.46	-24.61	-14.83	-13.14
39	Tata Coffee Ltd	-7.51	-5.47	-9.84	-8.79	-0.21	2.46	1.55
40	Gulf Oil Corporation Ltd	-2.11	-4.21	-10.82	24.51	-5.62	-5.60	-0.67
41	Pidilite Industries Ltd	-1.65	0.22	-1.53	0.39	0.55	0.47	-1.47
42	TTK Healthcare Ltd	-8.30	-8.17	-9.42	-16.42	-7.46	-8.33	-5.60
43	HBL Power Systems Ltd	-8.06	-6.79	-5.45	-2.61	-1.56	18.44	5.43
44	Carol Info Services Ltd	NA	-14.81	-9.88	-17.89	-12.86	-4.73	-1.14
45	Todays Writing Products Ltd	-5.69	-9.97	-3.90	2.51	8.02	1.28	7.57
46	Jindal Poly Films Ltd	-6.84	-9.83	-8.78	-12.07	-9.56	-4.80	-5.84
47	Gujarat Perstorp Electronics Ltd	-2.85	9.08	2.07	10.24	10.30	9.55	-3.98
48	Berger Paints (India) Ltd	1.59	-1.34	-0.70	-1.19	-2.26	-0.66	NA
49	Hindustan Unilever Ltd	20.11	34.64	28.59	34.33	31.64	29.04	22.46
50	Jubilant Organosys Ltd	5.82	3.20	-0.61	-4.10	-4.95	-1.94	1.08
51	Bright Brothers Ltd	-9.48	-9.81	-13.46	-8.38	-8.38	-6.66	-7.59
52	Ion Exchange (India) Ltd	-11.33	-11.62	-10.17	-13.81	-14.11	-11.67	-8.12
53	Hindustan Fluoro Carbons Ltd	-1.25	11.25	15.13	15.09	1.26	4.26	-39.35
54	IFGL Refractories Ltd	-0.46	-10.78	-15.00	-15.31	-16.57	-13.83	-13.51
55	Pix Transmission Ltd	-6.45	-7.66	-8.21	-7.22	-4.54	-4.38	NA
56	Zenith Computers Ltd	-8.55	-10.35	-10.37	-7.66	-6.14	-7.07	-8.09

Group I

The set of twelve companies belonging to this group show an increasing trend of shareholder value addition in the post-merger period by showing decreased value erosion from first post-merger year to the forth indicating an improvement in value addition in the subsequent years. like Zenith Infotech Limited, Arvind Products Limited, NLC Nalco India Limited, IFGL Refractories

Group II

In this group of ten companies indicating decrease in value addition from first post-merger year or increase in negative value of EVA in subsequent years of merger. Khaitan Fertilizer Limited, Hindustan Organic Chemicals Limited, Gulf Oil Corporation Limited.

Group III

Sample companies in this group, indicating no influence of mergers on shareholders' value addition has the maximum number of thirty four companies belonging to it. There are companies which have shown significant deterioration in the second post merger year itself with improvement in the third year. Companies includes in this group are Ratnamani Metal & Tubes Limited, Max India Limited, Balaramapur Chini Mills Limited, Finolex Cables Limited.

Table:- 5.4

Intra Company Analysis with Value Added Metrics: Summary of Results

	RONW		**MVA**		**EVA**	
GROUP	**No. of Companies**	**%**	**No. of Companies**	**%**	**No. of Companies**	**%**
GROUP I	16	28.27	23	41.07	12	21.43
GROUP II	12	21.43	10	17.86	10	17.86
GROUP III	28	50.00	23	41.07	34	60.71
TOTAL	56	100	56	100	56	100

INTER-COMPANY ANALYSIS WITH RONW MVA AND EVA

After post-merger assessment of value addition within companies, an investigation has been conducted to measure variations across companies for all the three value added metrics for average post merger period. In this case also, technique of cluster analysis has been applied by:

1) Ranking the companies by all three value added metrics separately in descending order.
2) Classifying companies with similar values into broad clusters or groups.
3) Examining these groups and explaining them.

The below table gives the average value addition in the post merger period by all three value added metrics, namely EVA, RONW and MVA along with their respective rankings. A perusal of the rankings in the table reveals the following groups:

GROUP I: Companies with Value Addition in Post – Merger Years

This group consists of with positive values indicating that such companies have added to shareholders value in the post merger period.

Group II: Companies with Value Erosion in Post-Merger Years

This group consists of companies with negative value indicating that these companies have eroded value in the post-merger period.

Table:- 5.5
INTER COMPANY ANALYSIS WITH RONW,MVA & EVA

Sr. No.	COMPANY	AVERAGE RONW				AVERAGE MVACE				AVERAGE EVACE			
		POST	RANK	PRE	RANK	POST	RANK	PRE	RANK	POST	RANK	PRE	RANK
1	Ultramarine & Pigments Ltd	11.76	24	15.62	24	-24.18	29	17.74	20	-1.87	12	-1.28	15
2	Crompton Greaves Ltd	1.33	41	-10.22	51	2.94	17	-24.41	32	-7.67	29	-12.13	45
3	Areva T&D India Ltd	2.62	40	-1.00	50	-36.81	38	13.07	22	-17.53	49	-18.40	51
4	BPL Ltd	-13.21	54	21.73	14	-57.43	51	28.31	18	-26.87	54	-0.76	12
5	Samtel Color Ltd	12.83	20	1.24	47	-17.51	24	-14.62	26	-3.30	17	-5.85	29
6	TRF Ltd	10.24	27	18.35	19	-41.61	42	-24.00	31	-7.05	23	-1.93	19
7	GMR	6.56	33	21.34	15	-31.04	32	-28.45	34	-7.10	24	-0.59	11
8	Dharamsi Morarji Chemicals Co Ltd	-2.68	48	9.54	32	-27.73	31	-32.09	39	-7.77	30	-6.12	30
9	Khatian Fertilizer	-0.43	45	21.78	13	-41.57	41	-57.84	53	-11.22	41	-4.49	26
10	Zenith Infotech Ltd	-3.09	49	30.10	7	-48.92	47	130.42	10	-19.21	51	-129.37	55
11	Tata Infotech Ltd(merged)	16.25	14	21.96	12	96.99	8	745.51	3	-4.97	21	0.35	9
12	B & A Ltd	-4.32	50	4.76	40	-33.53	35	-35.95	42	-23.75	53	-26.20	54
13	Max India Ltd	-1.25	47	35.54	4	-38.47	39	31.47	17	-17.19	48	10.57	2
14	Emami Paper Mills Ltd	1.09	42	1.66	45	-52.71	50	-27.43	33	-1080.89	56	-6056.67	56
15	Bayer CropScience Ltd	13.58	19	9.08	33	129.32	7	54.90	14	-4.13	18	-3.91	23

Sr. No.	COMPANY	AVERAGE RONW				AVERAGE MVACE				AVERAGE EVACE			
		POST	RANK	PRE	RANK	POST	RANK	PRE	RANK	POST	RANK	PRE	RANK
16	PSL Ltd	15.04	17	11.61	29	-8.01	21	-55.95	52	-3.01	14	-5.84	28
17	Ratnamani Metals & Tubes Ltd	7.58	31	8.97	34	-49.78	49	-49.47	49	-10.17	35	-8.39	40
18	Balrampur Chini Mills Ltd	18.84	12	20.07	16	6.01	16	-3.14	23	-1.38	11	-1.23	14
19	NHN Corporation Ltd	140.77	2	0.49	49	84.98	11	-90.84	55	-55.25	55	-19.25	52
20	Sical Logistics Ltd	6.68	32	17.55	22	-19.41	25	-19.77	28	-4.30	20	-2.69	21
21	Arvind Products Ltd	-40.16	55	4.23	43	-86.71	56	803.26	2	-8.38	32	-8.23	38
22	Bhilwara Spinners Ltd	-308.08	56	-14.90	52	-3.56	20	-20.75	29	-7.53	28	-8.39	39
23	RSWM Ltd	6.08	34	8.45	35	-35.90	37	-31.09	38	-7.11	25	-5.74	27
24	Shyam Telecom Ltd	3.42	37	4.59	41	0.16	18	479.69	4	-15.88	47	3.78	5
25	DPIL Ltd	-0.92	46	-62.41	56	-14.40	23	-54.51	51	-11.53	42	-15.03	48
26	Rossell Tea Ltd	-5.76	51	11.84	28	-57.63	52	-92.62	56	-14.92	46	-8.95	41
27	Matrix Laboratories Ltd	50.22	4	-34.79	55	149.52	5	-35.67	41	18.11	2	-21.81	53
28	Twilight Li-Taka Pharma Ltd	9.28	28	-23.48	54	21.45	14	-4.38	24	-10.63	40	-12.70	46
29	Sun Pharmaceuticals Industries Ltd	31.43	5	24.66	10	449.32	2	281.03	7	9.27	4	0.46	8
30	SRHHL Industries Ltd	2.82	39	4.49	42	-70.20	54	-53.25	50	-14.37	45	-10.86	42

Sr. No.	COMPANY	AVERAGE RONW				AVERAGE MVACE				AVERAGE EVACE			
		POST	RANK	PRE	RANK	POST	RANK	PRE	RANK	POST	RANK	PRE	RANK
31	NLC Nalco India Ltd	20.00	11	18.90	18	169.17	4	444.26	5	-2.09	13	-0.91	13
32	Dr Reddys Laboratories Ltd	23.29	8	13.89	26	402.00	3	434.07	6	1.81	7	-6.43	32
33	Roto Pumps Ltd	-8.48	52	0.51	48	-61.60	53	-62.47	54	-22.03	52	-17.30	49
34	GHCL Ltd	16.52	13	15.60	25	-20.53	26	-28.68	36	-3.20	16	-3.74	22
35	DLF Ltd	11.22	25	26.72	8	-70.72	55	-37.59	44	-7.44	27	1.37	6
36	Repro India Ltd	15.25	15	17.96	20	-49.24	48	-43.34	46	-3.20	15	-1.52	17
37	Finolex Cables Ltd	8.44	29	11.07	31	-22.05	27	13.79	21	-10.26	36	-1.83	18
38	Hindustan Organic Chemicals Ltd	27.81	6	-15.34	53	-0.67	19	-38.11	45	-17.89	50	-17.53	50
39	Tata Coffee Ltd	10.66	26	23.34	11	-9.40	22	93.27	11	-7.90	31	1.27	7
40	Gulf Oil Corporation Ltd	22.67	9	13.59	27	-31.49	33	-28.60	35	1.84	6	-3.96	24
41	Pidilite Industries Ltd	218.70	1	301.60	1	96.86	9	147.89	8	-0.64	10	-0.15	10
42	TTK Healthcare Ltd	3.13	38	53.21	2	-39.58	40	-16.57	27	-10.58	39	-7.13	35
43	HBL Power Systems Ltd	12.32	23	30.33	6	-48.10	46	-48.07	48	-5.73	22	7.43	3
44	Carol Info Services Ltd	-0.30	44	8.07	37	-42.90	44	84.91	12	-14.19	44	-6.24	31
45	Todays Writing Products Ltd	15.11	16	26.27	9	6.49	15	32.57	16	-4.26	19	5.62	4

Sr. No.	COMPANY	AVERAGE RONW				AVERAGE MVACE				AVERAGE EVACE			
		POST	RANK	PRE	RANK	POST	RANK	PRE	RANK	POST	RANK	PRE	RANK
46	Jindal Poly Films Ltd	12.71	22	6.68	39	-42.51	43	-30.76	37	-9.38	34	-6.74	33
47	Gujarat Perstorp Electronics Ltd	14.60	18	16.48	23	94.99	10	147.08	9	4.64	5	-7.13	35
48	Berger Paints (India) Ltd	21.21	10	19.80	17	43.62	13	48.83	15	-0.41	9	-1.46	16
49	Hindustan Unilever Ltd	60.60	3	50.39	3	1151.94	1	1866.75	1	29.42	1	27.72	1
50	Jubilant Organosys Ltd	25.46	7	17.94	21	59.64	12	-13.59	25	1.08	8	-1.94	20
51	Bright Brothers Ltd	-11.96	53	6.99	38	-24.70	30	-20.96	30	-10.28	37	-7.54	37
52	Ion Exchange (India) Ltd	0.88	43	3.54	44	-43.29	45	-36.98	43	-11.73	43	-11.30	44
53	Hindustan Fluoro Carbons Ltd	12.80	21	35.43	5	134.95	6	75.46	13	10.05	3	-11.28	43
54	IFGL Refractories Ltd	8.01	30	1.61	46	-34.78	36	-45.72	47	-10.39	38	-14.64	47
55	Pix Transmission Ltd	3.43	36	11.55	30	-32.47	34	-32.12	40	-7.38	26	-4.46	25
56	Zenith Computers Ltd	3.85	35	8.36	36	-23.09	28	22.04	19	-9.23	33	-7.10	34

RONW AND INTER COMPANY COMPARISON

This empirical analysis study has been done with the traditional measure of profitability (RONW) and the following observations are made.

Group I

Grouping companies according to traditional measure of shareholder wealth creation (RONW) resulted in 43 companies (rank1-43) falling in the first group with the range of 218.70 crores (by Pidilite Industries, which got the first rank) to 0.88 crores (by ION Exchange co. limited with 43 rank).In between, again there are companies like Dr. Reddy’s Laboratories Ltd., Gulf oil corporation Ltd., Hindustan Unilever Ltd., Hindustan Organic Chemicals Ltd..All showed positive returns to shareholders.

Group II

13 companies (from 44 to56) belonged to this group which revealed negative value for average post merger period ranging from -0.30crores (by carol Info Services) to -308.08crores (by Bhilwara Spinners.) In between, there were companies like Arvind Products Ltd., Bright Brothers Ltd., Rossell Tea Ltd, Roto Pumps Ltd.All of which has resulted in loses for their shareholders in the post merger period.

MVA AND INTER COMPANY COMPARISON

This measure of market’s assessment of value addition to shareholders in the post merger period has again grouped sample companies into following two categories:

Group I

18 Companies from rank 1to 18 belong to this group with positive shareholder value addition ranging from 1151.94 crores (by Hindustan Unilever Ltd.getting the first rank) to 0.16 crores (by Shayam Telecom Ltd.) Some other companies which have added to shareholder value include NLC Nalco Limited, Bayer crposcience Ltd., Tata Infotech Ltd. (merged),Matrix Laboratories Ltd., etc

Group II

From19 to 56 fall in this category of value erosion as a result of merger as per market's assessment in post merger period. The values range from -0.67crores (by Hindustan Organic Chemicals Ltd.) to -86.71crores (by Arvind Products Ltd.) companies like Areva T&D India Ltd.,Rossell Tea Ltd., SRHHL Industries Ltd.,DLF Ltd., etc all fall in this category.

EVA AND INTER COMPANY COMPARISON

Average economic value added (EVA) has been computed for the post merger period for all selected companies to see which companies have added value for their shareholders after mergers and which have destroyed it. Following classification has been done based on empirical results.

Group I

This group consists of only 8 companies (by rank1to8) only out of the companies selected which have revealed positive value addition in terms of EVA. The shareholder value addition has been in the range of 29.42 crores (by Hindustan Unilever Ltd., which got first rank) to 1.08 crores (by Jubilant Organosys Ltd., which got 8rank) In between, there were other companies like Matrix Laboratories lLtd., Sun Pharmaceutical Industry Ltd., Gulf Oil Corporation Ltd., Gujarat Perstorp Elctronics Ltd., Etc.

Group II

All rest of the companies from rank 9 to 56 belong to this group with the negative value addition in the post merger period. The range of value erosion has been from -0.41 crores to (By berger paints Ltd.) to tune of -1080.89 crores (by Emami Paper Mills Ltd.) In between there are companies like B&A Ltd., BPL Ltd., NHN Corporation LTD., Dr. Reddy's Laboratories Ltd., etc. which have resulted in value erosion in the post merger period.

The summary of results of inter company analysis with these value added metrics is presented below in.

Table:- 5.6

Inter Company Analysis with Added Metrics; Summary of Results

Group	Ranks	RONW	%	Ranks	MVA	%	Ranks	EVA	%
I	1 – 43	43	76.79	1 – 18	18	32.14	1 - 8	8	14.29
II	44 -56	13	23.21	19 -56	38	67.86	9 - 56	48	85.71
Total		56	100		56	100		56	100

Industry wise Classification and analysis with RONW, MVA and EVA

An attempt has been made to make inter industry comparison of post merger performance of selected companies in terms of value added metrics: RONW, MVA and EVA. Industry wise classification has been done by all fifty six companies into ten sub groups. Measuring and analyzing performance of merged companies at industry level gives useful insight. The industrial variations in value added metrics has also been analyzed using cluster analysis by:

1. Ranking industries by all these metrics in descending order.
2. Classifying industries with similar values into broad groups
3. Examining these groups and explaining them.

The below table gives the average aggregate value addition in the post merger period by all the industries by all three value added metrics, namely RONWS,MVA and EVA along with their respective ranking. Perusals of ranking in table--- reveal the following two distinct groups.

Table:- 5.7

INTER INDUSTRY COMPARISION USING RONW, MVA AND EVA

Sr. No.	INDUSTRY	No.Co.	AVERAGE RONW				AVERAGE MVACE				AVERAGE EVACE			
			POST	RANK	PRE	RANK	POST	RANK	PRE	RANK	POST	RANK	PRE	RANK
1	Chemicals, Petrochemicals	8	42.57	2	49.80	1	51.15	3	78.65	5	-3.27	2	-5.68	3
2	Electric, Electronics, Computer-Hardware	9	4.59	7	12.62	6	-17.11	7	96.23	4	-11.64	8	-18.63	9
3	Fertilizers,pesticides	3	3.49	8	13.47	5	20.00	5	-11.68	7	-7.71	5	-4.84	2
4	Packaging	4	5.44	6	15.86	2	-4.88	6	27.96	6	-11.42	6	-7.38	4
5	Phamaceuticlas	6	22.31	3	8.18	8	160.36	1	104.97	3	0.80	1	-8.56	7
6	Steel,Engineering	4	9.86	5	15.07	3	-32.61	9	-39.47	9	-6.83	3	-4.19	1
7	Textiles	3	-114.06	10	-0.74	9	-42.06	10	250.47	1	-7.67	4	-7.45	5
8	Tea-Coffee	3	1.33	9	-9.08	10	-27.15	8	-17.95	8	-11.45	7	-7.57	6
9	Trading	2	73.72	1	9.02	7	32.78	4	-55.30	10	-29.78	9	-10.97	8
10	Miscelleneous	14	9.99	4	13.82	4	51.48	2	151.83	2	-82.70	10	-434.74	10
	Total	**56**	**59.23**		**128.03**		**191.97**		**585.71**		**-171.67**		**-510.00**	

RONW AND INTER INDUSTRY ANALYSIS

Same analysis has been carried out with this traditional measure of profitability and the following observations have been made.

Group I

With this traditional measure of profitability of shareholder value addition (RONW), 9 industries (from rank1to 9) get categorized in this group with positive values ranging from 73.72 crores (by Tading Industries, With first rank) to 1.33 crores (by Tea-coffee Industries) other industries includes Chemicals and Petrochemicals, Electric, Electronics, Computer-hardware all have resulted in gains for shareholders in post merger period.

Group II

The only remaining industry is Textiles with losses of -114.06 crores in post merger period get categorized in this group.

MVA AND INTER INDUSTRY ANALYSIS

This measure of market's assessment of value addition to shareholders has again grouped all industries in to following two categories.

Group I

5 industries (from rank 1 to 5) gets qualified in this group with positive shareholder value addition in the post merger period ranging from 160.36 crores (by Pharmaceutical Industries, with the first rank) to 20.00 crores(by Fertilizers Industries) Than there are other industries adding to shareholder value which includes Chemicals & petrochemicals, Trading, etc.

Group II

Remaining 5 industries resulted in negative values for shareholders. The range of value erosion is -4.88 crores (by packing industry) to -42.06 crores (by textile industry).

EVA AND INTER INDUSTRY ANALYSIS

Average EVA has been calculated for for each industry after grouping all selected companies into – groups to see which industries have resulted in value addition to their shareholders after mergers and which have destroyed it. The following results have emerged.

Group I

This group consists of only one industry namely pharmaceutical. The positive shareholder value addition in the average post merger period is 0.80 crores.

Group II

The remaining 9 industries falling (from 2 to 10) in this group with negative EVAs indicating value erosion for shareholders in post merger period.

Value erosion for these industries has been in the range of -3.27 crores (by chemical industry) to -82.7 crores (by miscellaneous), In between other industries like chemical & petrochemical, steel & engineering, textiles, etc.

Table:- 5.8

Inter Industry Analysis with Added Metrics; Summary of Results

Group	Ranks	RONW	%	Ranks	MVA	%	Ranks	EVA	%
I	1 - 9	9	90	1 – 5	5	50	1	1	10
II	10	1	10	6 - 10	5	50	2 – 10	9	90
Total		10	100		10	100		10	100

INTRA- INDUSTRY ANALYSIS WITH RONW, MVA AND EVA

After examining net gain or loss in terms of value addition for an industry as whole, it is further investigated whether within an industry with net gain or loss, are their any variations in terms of real gainers or losers i.e are there any value creators in industries which have on the whole not faired well or vice versa. Table gives the results of classification of all selected companies into ten broad categories along with average mean for each industry for all three values added metrics. More descriptive analysis based on above table has also been completed. For this purpose correlation analysis has been used to establish the relationship between these three values added metrics within industry to get an insight into the variation in the performance vis-à-vis three metrics. Results of correlation between various values added metrics RONW, MVA and EVA for all industries are summarized in below table:

Table:- 5.9
INTRA INDUSTRY COMPARISION USING RONW,MVA & EVA

Sr. No.	COMPANY	AVERAGE RONW		AVERAGE MVACE		AVERAGE EVACE	
		POST	PRE	POST	PRE	POST	PRE
I	**CHEMICALS,PETROCHEMICALS**						
1	Berger Paints (India) Ltd	21.21	19.80	43.62	48.83	-0.41	-1.46
2	Hindustan Fluoro Carbons Ltd	12.80	35.43	134.95	75.46	10.05	-11.28
3	Hindustan Organic Chemicals Ltd	27.81	-15.34	-0.67	-38.11	-17.89	-17.53
4	Jubilant Organosys Ltd	25.46	17.94	59.64	-13.59	1.08	-1.94
5	NLC Nalco India Ltd	20.00	18.90	169.17	444.26	-2.09	-0.91
6	Pidilite Industries Ltd	218.70	301.60	96.86	147.89	-0.64	-0.15
7	SRHHL Industries Ltd	2.82	4.49	-70.20	-53.25	-14.37	-10.86
8	Ultramarine & Pigments Ltd	11.76	15.62	-24.18	17.74	-1.87	-1.28
	TOTAL	**340.55**	**398.44**	**409.18**	**629.22**	**-26.14**	**-45.40**
	INDUSTRY AVERAGE	**42.57**	**49.80**	**51.15**	**78.65**	**-3.27**	**-5.68**
II	**ELECTRIC,ELECTRONICS,COMPUTER-HARDARE**						
1	Areva T&D India Ltd	2.62	-1.00	-36.81	13.07	-17.53	-18.40
2	BPL Ltd	-13.21	21.73	-57.43	28.31	-26.87	-0.76
3	Crompton Greaves Ltd	1.33	-10.22	2.94	-24.41	-7.67	-12.13
4	Finolex Cables Ltd	8.44	11.07	-22.05	13.79	-10.26	-1.83
5	HBL Power Systems Ltd	12.32	30.33	-48.10	-48.07	-5.73	7.43
6	Samtel Color Ltd	12.83	1.24	-17.51	-14.62	-3.30	-5.85
7	Tata Infotech Ltd(merged)	16.25	21.96	96.99	745.51	-4.97	0.35
8	Zenith Computers Ltd	3.85	8.36	-23.09	22.04	-9.23	-7.10
9	Zenith Infotech Ltd	-3.09	30.10	-48.92	130.42	-19.21	-129.37
	TOTAL	**41.35**	**113.57**	**-153.99**	**866.03**	**-104.76**	**-167.65**
	INDUSTRY AVERAGE	**4.59**	**12.62**	**-17.11**	**96.23**	**-11.64**	**-18.63**

Sr. No.	COMPANY	AVERAGE RONW		AVERAGE MVACE		AVERAGE EVACE	
		POST	PRE	POST	PRE	POST	PRE
III	**FERTILIZERS,PESTICIDES**						
1	Bayer CropScience Ltd	13.58	9.08	129.32	54.90	-4.13	-3.91
2	Dharamsi Morarji Chemicals Co Ltd	-2.68	9.54	-27.73	-32.09	-7.77	-6.12
3	Khatian Fertilizer	-0.43	21.78	-41.57	-57.84	-11.22	-4.49
	TOTAL	**10.46**	**40.40**	**60.01**	**-35.03**	**-23.12**	**-14.52**
	INDUSTRY AVERAGE	**3.49**	**13.47**	**20.00**	**-11.68**	**-7.71**	**-4.84**
IV	**PACKAGING**						
1	B & A Ltd	-4.32	4.76	-33.53	-35.95	-23.75	-26.20
2	Gujarat Perstorp Electronics Ltd	14.60	16.48	94.99	147.08	4.64	-7.13
3	Jindal Poly Films Ltd	12.71	6.68	-42.51	-30.76	-9.38	-6.74
4	Max India Ltd	-1.25	35.54	-38.47	31.47	-17.19	10.57
	TOTAL	**21.74**	**63.45**	**-19.53**	**111.84**	**-45.68**	**-29.50**
	INDUSTRY AVERAGE	**5.44**	**15.86**	**-4.88**	**27.96**	**-11.42**	**-7.38**
V	**PHARMACEUTICALS**						
1	Dr Reddys Laboratories Ltd	23.29	13.89	402.00	434.07	1.81	-6.43
2	GHCL Ltd	16.52	15.60	-20.53	-28.68	-3.20	-3.74
3	Matrix Laboratories Ltd	50.22	-34.79	149.52	-35.67	18.11	-21.81
4	Sun Pharmaceuticals Industries Ltd	31.43	24.66	449.32	281.03	9.27	0.46
5	TTK Healthcare Ltd	3.13	53.21	-39.58	-16.57	-10.58	-7.13
6	Twilight Li-Taka Pharma Ltd	9.28	-23.48	21.45	-4.38	-10.63	-12.70
	TOTAL	**133.88**	**49.09**	**962.17**	**629.79**	**4.78**	**-51.35**
	INDUSTRY AVERAGE	**22.31**	**8.18**	**160.36**	**104.97**	**0.80**	**-8.56**

Sr. No.	COMPANY	AVERAGE RONW		AVERAGE MVACE		AVERAGE EVACE	
		POST	PRE	POST	PRE	POST	PRE
VI	**STEEL,ENGINEERING**						
1	GMR	6.56	21.34	-31.04	-28.45	-7.10	-0.59
2	PSL Ltd	15.04	11.61	-8.01	-55.95	-3.01	-5.84
3	Ratnamani Metals & Tubes Ltd	7.58	8.97	-49.78	-49.47	-10.17	-8.39
4	TRF Ltd	10.24	18.35	-41.61	-24.00	-7.05	-1.93
	TOTAL	**39.42**	**60.27**	**-130.44**	**-157.87**	**-27.33**	**-16.74**
	INDUSTRY AVERAGE	**9.86**	**15.07**	**-32.61**	**-39.47**	**-6.83**	**-4.19**
VII	**TEXTILES**						
1	Arvind Products Ltd	-40.16	4.23	-86.71	803.26	-8.38	-8.23
2	Bhilwara Spinners Ltd	-308.08	-14.90	-3.56	-20.75	-7.53	-8.39
3	RSWM Ltd	6.08	8.45	-35.90	-31.09	-7.11	-5.74
	TOTAL	**-342.17**	**-2.21**	**-126.17**	**751.42**	**-23.02**	**-22.35**
	INDUSTRY AVERAGE	**-114.06**	**-0.74**	**-42.06**	**250.47**	**-7.67**	**-7.45**
VIII	**TEA.COFFEE**						
1	DPIL Ltd	-0.92	-62.41	-14.40	-54.51	-11.53	-15.03
2	Rossell Tea Ltd	-5.76	11.84	-57.63	-92.62	-14.92	-8.95
3	Tata Coffee Ltd	10.66	23.34	-9.40	93.27	-7.90	1.27
	TOTAL	**3.98**	**-27.24**	**-81.44**	**-53.86**	**-34.35**	**-22.71**
	INDUSTRY AVERAGE	**1.33**	**-9.08**	**-27.15**	**-17.95**	**-11.45**	**-7.57**
IX	**TREADING**						
1	NHN Corporation Ltd	140.77	0.49	84.98	-90.84	-55.25	-19.25
2	Sical Logistics Ltd	6.68	17.55	-19.41	-19.77	-4.30	-2.69
	TOTAL	**147.44**	**18.04**	**65.57**	**-110.60**	**-59.55**	**-21.94**
	INDUSTRY AVERAGE	**73.72**	**9.02**	**32.78**	**-55.30**	**-29.78**	**-10.97**

Sr. No.	COMPANY	AVERAGE RONW		AVERAGE MVACE		AVERAGE EVACE	
		POST	PRE	POST	PRE	POST	PRE
X	**MISCELLENEOUS**						
1	Balrampur Chini Mills Ltd	18.84	20.07	6.01	-3.14	-1.38	-1.23
2	Bright Brothers Ltd	-11.96	6.99	-24.70	-20.96	-10.28	-7.54
3	Carol Info Services Ltd	-0.30	8.07	-42.90	84.91	-14.19	-6.24
4	DLF Ltd	11.22	26.72	-70.72	-37.59	-7.44	1.37
5	Emami Paper Mills Ltd	1.09	1.66	-52.71	-27.43	-1080.89	-6056.67
6	Gulf Oil Corporation Ltd	22.67	13.59	-31.49	-28.60	1.84	-3.96
7	Hindustan Unilever Ltd	60.60	50.39	1151.94	1866.75	29.42	27.72
8	IFGL Refractories Ltd	8.01	1.61	-34.78	-45.72	-10.39	-14.64
9	Ion Exchange (India) Ltd	0.88	3.54	-43.29	-36.98	-11.73	-11.30
10	Pix Transmission Ltd	3.43	11.55	-32.47	-32.12	-7.38	-4.46
11	Repro India Ltd	15.25	17.96	-49.24	-43.34	-3.20	-1.52
12	Roto Pumps Ltd	-8.48	0.51	-61.60	-62.47	-22.03	-17.30
13	Shyam Telecom Ltd	3.42	4.59	0.16	479.69	-15.88	3.78
14	Todays Writing Products Ltd	15.11	26.27	6.49	32.57	-4.26	5.62
	TOTAL	**139.80**	**193.54**	**720.71**	**2125.56**	**-1157.80**	**-6086.37**
	INDUSTRY AVERAGE	**9.99**	**13.82**	**51.48**	**151.83**	**-82.70**	**-434.74**

Table:- 5.10
INDUSTRY WISE CORRELATION ANALYSIS

Sr. No.	COMPANY	RONW & MVA		MVA & EVA		EVA & RONW	
		POST	PRE	POST	PRE	POST	PRE
I	CHEMICALS,PETROCHEMICALS	0.27	0.22	0.67	0.47	0.12	0.41
II	ELECTRIC,ELECTRONICS,COMPUTER-HARDARE	0.59	0.32	0.54	-0.01	0.91	-0.31
III	FERTILIZERS,PESTICIDES	0.98	-0.70	0.91	0.53	0.80	0.24
IV	PACKAGING	0.60	0.39	0.85	0.33	0.91	0.61
V	PHARMACEUTICALS	0.51	0.24	0.58	0.48	0.99	0.76
VI	STEEL,ENGINEERING	0.77	0.88	0.96	0.86	0.84	0.99
VII	TEXTILES	-0.71	0.34	0.75	-0.46	-0.06	0.68
VIII	TEA.COFFEE	0.79	0.44	0.90	0.84	0.98	0.85
IX	TREADING	1.00	1.00	-1.00	1.00	-1.00	1.00
X	MISCELLENEOUS	0.84	0.71	0.13	0.11	0.18	0.26

OBSERVATIONS

Chemicals & Petrochemicals

Out of the sample companies selected for the study there are eight companies has undergone for merger during 99-00 in Chemicals & Petrochemicals industries. In respect of traditional measure RONW in this industry are relatively stable with average 42.57 with few extreme gainers or losers.

In respect of value addition in terms of market assessment most of the companies in this industry have been gainers in post merger period with an average of 51.15 crores. The average value addition in terms of EVA for all the companies in post merger period is resulted in value erosion with on an average -3.27 crores. However, companies like Hindustan Fluoro Carbans Ltd.and Jubilant Organosys Ltd. in post merger period with contribution of 10.05 crores and 1.08 crores respectively.

The correlation coefficients of this between RONW and MVA is 0.27 & 0.22 for post and pre merger period, while that of between MVA and EVA 0.67 & 0.47 and between RONW and EVA is 0.12 & 0.41.

Electric, Electronics, Computer-Hardware

Out of the sample companies selected for the study there are nine companies has undergone for merger during 99-00 in electric, electronics and computer –hardware industries. In respect of traditional measure RONW in this industry are relatively positive with average 4.59 with few extreme losers.

In respect of value addition in terms of market assessment most of the companies in this industry have been losers in post merger period with an average of -17.11 crores. The average value addition in terms of EVA for all the companies in post merger period is resulted in value erosion with on an average -104.76 crores.

The correlation coefficients of this between RONW and MVA is 0.59 & 0.32 for post and pre merger period, while that of between MVA and EVA 0.54 & -0.01 and between RONW and EVA is 0.91 & -0.31.

Fertilizers, pesticides

There are three companies has undergone for merger during 99-00 in fertilizers and pesticides industries. In respect of traditional measure RONW in this industry are relatively positive with average 3.49.

In respect of value addition in terms of market assessment all the companies in this industry have been gainers in post merger period with an average of 20.00 crores. The average value addition in terms of EVA for all the companies in post merger period is resulted in value erosion with on an average -7.71 crores.

The correlation coefficients of this between RONW and MVA is 0.98 & -0.70 for post and pre merger period, while that of between MVA and EVA 0.91 & 0.53 and between RONW and EVA is 0.80 & 0.24.

Packaging

There are four companies has undergone for merger during 99-00 in packaging industries. In respect of traditional measure RONW in this industry are relatively poor with average 5.44.

In respect of value addition in terms of market assessment all the companies in this industry have been losers in post merger period with an average of -4.88 crores. The average value addition in terms of EVA for all the companies in post merger period is resulted in value erosion with on an average -11.42 crores.

The correlation coefficients of this between RONW and MVA is 0.60 & 0.39 for post and pre merger period, while that of between MVA and EVA 0.85 & 0.33 and between RONW and EVA is 0.91 & 0.61.

Pharmaceuticals

Out of the sample companies selected for the study there are six companies has undergone for merger during 99-00 in pharmaceutical industry. In respect of traditional measure RONW in this industry are relatively stable with average 22.31 with few extreme gainers or losers.

In respect of value addition in terms of market assessment most of the companies in this industry have been extreme gainers in post merger period with an average of 160.36 crores. The average value addition in terms of EVA for all the companies in post merger period is resulted in little improvement with on an average -0.80 crores. However, companies like Matrix laboratories and Sun pharmaceuticals ltd. in post merger period with contribution of 18.11 crores and 9.27 crores respectively.

The correlation coefficients of this between RONW and MVA is 0.51 & 0.24 for post and pre merger period, while that of between MVA and EVA 0.58 & 0.48 and between RONW and EVA is 0.99 & 0.76.

Steel & Engineering

There are four companies has undergone for merger during 99-00 in steel and engineering industries. In respect of traditional measure RONW in this industries are relatively poor with average 9.86.

In respect of value addition in terms of market assessment all the companies in this industry have been without major change in post merger period with an average of -32.61 crores. The average value addition in terms of EVA for all the companies in post merger period is resulted in value erosion with on an average -6.83 crores.

The correlation coefficients of this between RONW and MVA is 0.77 & 0.88 for post and pre merger period, while that of between MVA and EVA 0.96 & 0.86 and between RONW and EVA is 0.84 & 0.99.

Textiles

There are three companies have undergone for merger during 99-00 in Textile industry. In respect of traditional measure RONW in this industry is negative with average -114.06 In respect of value addition in terms of market assessment most of the companies in this industry have been extreme losers in post merger period with an average of -42.06 crores. The average value addition in terms of EVA for all the companies in post merger period is resulted in value erosion with on an average -7.67 crores.

The correlation coefficients of this between RONW and MVA is -0.71 & 0.34 for post and pre merger period, while that of between MVA and EVA 0.75 & -0.46 and between RONW and EVA is -0.06 & 0.68.

Tea-Coffee

There are three companies have undergone for merger during 99-00 in Tea- coffee industry. In respect of traditional measure RONW in this industry is relatively stable with average 9.86. In respect of value addition in terms of market assessment most of the companies in this industry have been without major change in post merger period with an average of -32.61 crores. The average value addition in terms of EVA for all the companies in post merger period is resulted in value erosion with on an average -6.83 crores.

The correlation coefficients of this between RONW and MVA is 0.79 & 0.44 for post and pre merger period, while that of between MVA and EVA 0.90 & 0.84 and between RONW and EVA is 0.98 & 0.85.

Trading

There are two companies undergone for merger during 99-00 in trading industry. In respect of traditional measure RONW and market assessment in terms of MVA in this industry is relatively good positive with average 73.72 and 32.78 respectively. The average value addition in terms of EVA for all the companies in post merger period is resulted in value erosion with on an average -29.78 crores.

The correlation coefficients of this between RONW and MVA is 1.00 & 1.00 for post and pre merger period, while that of between MVA and EVA -1.00 & 1.00 and between RONW and EVA is -1.00 & 1.00.

Miscellaneous

There are fourteen companies undergone for merger during 99-00 in various industry like sugar, construction etc. In respect of traditional measure RONW and market assessment in terms of MVA in this industry is relatively positive with average 9.99 and 51.48 respectively. The average value addition in terms of EVA for all the companies in post merger period is resulted in value erosion with on an average -82.70 crores.

The correlation coefficient of this between RONW and MVA is 0.84 & 0.71 for post and pre merger period, while that of between MVA and EVA 0.13 & 0.11 and between RONW and EVA is 0.18 & 0.26.

REGRESSION ANALYSIS

In order to analyze data of post and pre merger period a statistical tool is useful and provides better understanding. To study the impact of merger on shareholders value creation we have carried out the regression analysis on Indian corporate sector.

Pre-Merger Model:

$$EVA = \alpha_i + \beta_1 DE_{i,t} + \beta_2 CR_{i,t} + \beta_3 GR_{i,t} + \beta_4 OE_{i,t} + \beta_5 PM_{i,t} + \beta_5 ROCE_{i,t} + \beta_6 ER_{i,t} + \beta_7 RONW_{i,t} + \beta_8 SG + \beta_9 BIFR + € _{i,t}$$

Post-Merger Model:

$$EVA = \alpha_i + \beta_1 DE_{i,t} + \beta_2 CR_{i,t} + \beta_3 GR_{i,t} + \beta_4 OE_{i,t} + \beta_5 PM_{i,t} + \beta_5 ROCE_{i,t} + \beta_6 ER_{i,t} + \beta_7 RONW_{i,t} + \beta_8 SG + \beta_9 BIFR + € _{i,t}$$

Where,

DE = Debt Equity Ratio

CR = Current ratio

GR = Gearing Ratio

OE = Operating Expense

PM = Profit Margin

ROCE = Return on Capital Employed

ER = Expense Ratio

RONW = Return on Net Worth

SG = Firm Acquired by Same Group

BIFR = Acquired firm was under BIFR

T = Period

α is intercept, β_1, and β_2 are regression coefficients, and € is the error.

Table:- 5.11:- Independent & Dependent variables

Sr. No.	Independent Variables	Dependent Variables	
		Pre Merger	**Post Merger**
1	Debt Equity	-1.20 (-0.28)	-2.189 (-1.131)
2	Current Ratio	-5.63 (-0.92)	-0.756 (-0.176)
3	Gearing Ratio	0.25 (1.43)	0.077 (0.505)
4	Operating Expenses	0.06 (14.69)*	0.097 (18.518)*
5	Profit Margin	12.53 (0.46)	-150.027 (-4.083)*
6	ROCE	125.69 (2.26)**	270.153 (3.755)*
7	Expense Ratio	-4.79 (-23.50)*	-29.135 (-29.175)*
8	RONW	-0.02 (-0.22)	-0.027 (-0.431)
9	Same Group	-6.73 (-0.74)	-5.600 (-0.520)
10	BIFR	8.01 (0.76)	28.646 (2.198)
11	R^2	0.86	0.87
12	Adj.R^2	0.85	0.86
13	F	92.99*	140.99*

Note:

1. t-statistics are given in parenthesis;
2. * denotes significant at 99% level of confidence.
3. ** denotes significant at 95% level of confidence.

Looking at empirical results we can say that expense ratio of the firm is significantly and negatively related to pre and post merger's share holders value creation. It means higher expenses lead to lower share holder's value which is according to the theory of finance. We also find that operating expenses of the firm is positively related to EVA and also significant at 1% level in firm's pre and post mergers performance. ROCE of the firm is significantly also positively correlated to EVA in pre and post mergers financial performance of firm. While Debt equity, Current Ratio, and RONW are negatively correlated with shareholders creation capacity of the firm. It can be said that increase in Debt equity, Current Ratio, and RONW will leads to decrease in EVA. While evaluating the impact of acquirer of firm and scheme of merger as dummy variable are not significant. But acquirer in same group is negatively correlated with EVA.

In pre-merger regression analysis results shows that the value of R^2 is 0.86, which shows that the sample regression explain 86% of aggregate data. The overall model is also significant with adjusted R^2 value of 0.85. So, it can be concluded that the model applicable to Indian corporate.

Regression result of post merger indicates the vale of R^2 and adjusted R^2 value are 0.87 and 0.86 which is significant at 1% level. So model is fit for study.

The classical finance theory said that firm's shareholders value creation is based on firms earning ability and firms return on its net worth. On the basis of our regression research we have proved that the firm's shareholders value creation is highly dependent on Operating expenses, Profit market, ROCE and Expense ratio.

CONCLUSIONS

In case of any business shareholders value maximization being recognized as the most important goal, performance evaluation of fifty six selected companies which have undergone mergers during the 1999-2000 has been done using value added metrics EVA and MVA and the traditional value added measure metric RONW. The following conclusions have been drawn based on empirical results and their analysis:

1. From the analysis of companies for four cross sectional post merger years, it was found that 81 % of companies resulted in value erosion in terms of EVA with decreasing or no trend over the four merger years. Only 19% of sample companies revealed positive value addition with increasing trend in post merger years.

2. The traditional measure of estimation of value for shareholders, namely RONW revealed results with EVA. Only 28% companies showed increasing trend of value in post merger period. The remaining 72% of companies failed to deliver value after mergers.

3. With regards to market's assessment of company's value in post merger period, 67% of companies revealed positive post merger values in the first year indicating that companies gained from mergers in terms of appreciation in their stock value. Only 14% of these companies however, exhibited an increasing trend over four years which was very significant. Number of companies benefited maximum in terms of share holder value appreciation in the post merger period. But in most of the companies, however, appreciation in stock value gained immediately after mergers was lost in the subsequent years.

4. Inter companies analysis carried on with average post merger computed values of EVA revealed value erosion in case of 81% of companies. Only 19% of companies gained values for their shareholders, the important ones being Berger paints Ltd, Emami Paper Mills Ltd., B&A Ltd., BPL Ltd., NHN Corporation LTD., Dr. Reddy's Laboratories Ltd., etc. which have resulted in value erosion in the post merger period. .This indicates that the null hypothesis that mergers do not result in value addition to shareholders has been accepted and alternate hypothesis that merger result in value addition to shareholders has been rejected. As regards the other measure of value addition, i.e. MVA, the result was almost50%

5. The result of inter company analysis with RONW showed all most opposite findings. As per this measure, 77% of companies added value for their shareholders after mergers indicating that mergers are profitable. Only 23% of companies resulted in value erosion.

6. Results of inter industry analysis revealed that most of industries on the whole (9 out of 10) lost shareholder value in the post merger period in terms of EVA. Only one industry gained positive value for their shareholders .However in terms of other value added metrics, MVA and traditional measure RONW, the results were reverse Pharmaceutical Industries, Fertilizers Industries and other industries adding to shareholder value which includes Chemicals & petrochemicals, Trading, etc. industries gained value in terms of appreciation in post merger period.

7. Merger has been spread over various industries. Over all, as compared to other industry groups, companies in chemicals, petrochemicals, electric and electronics have had relatively higher involvement in merger activity.

8. These results are also corroborated by correlation co- efficient calculated between these measures for all industries separately. In industries like steel, engineering, tea and coffee shows significantly high correlation has been revealed between the new values added metric EVA and traditional metric RONW. For other industries this relationship is low and insignificant. As far as association between economic efficiency of industry and its market assessment is concerned, in case of industries like chemical, petrochemicals, electric, electronics and computer industries it has emerged significant. For the rest of the industries economic performance does not seem to drive market value. However, no significant correlation was observed between MVA and RONW in most of the industries.

9. Thus, in this chapter, post-merger performance of sample merged companies has been evaluated in terms of shareholders value additions.

CHAPTER – 6

SUMMARY, FINDINGS & SUGGESTIONS

CHAPTER – VI
SUMMARY, FINDINGS & SUGGESTIONS

Till the early nineties, Indian economy functioned in a controlled and regulated environment. With the reforms initiated by the government (namely, amendment in MRTP Act, 1969 to facilitate expansion of an enterprise, amendment in FERA, 1973 to permit direct foreign investment and abolition of industrial licensing in most of the industries.), the economy transitioned from "controlled" to market driven and competitive environment. This liberalization of the earlier state controlled sluggish economy forced Indian industries to undergo the process of restructuring in order to gain competitive strength, both in domestic and export market.

The present business environment is characterized by globalization, opening up of economy, would wide competition, expanding markets, fast changing technologies, never ending need for finance and necessity of diversification etc. The Indian Corporate World, while benefiting from decontrol and deregulation has begun to feel the effect of these competition, Indian corporate are changing their strategic focus and restructuring their businesses by adopting tools like mergers, acquisitions and strategic alliances. Now, small is no longer beautiful in the field of business, trade and commerce. The focus is on larger business establishments to achieve efficiencies and to stand up against global in challenges and world wide competition by availing economies of scale. This has resulted in "Merger Wave" in India and abroad. Various business establishments and multinationals are expanding by means of mergers and acquisitions.

A number of studies have been carried out on this burning topic abroad especially in the developed capital markets of U.S. and U.K. These studies have covered various aspects, vis., a) financial performance evaluation of the merged firms using share price data and accounting data, b) Motives of mergers and their empirical investigation, c) examination of financial characteristics of merged and merging firms and d) Determination of aggregate merger activity.

M & As being relatively less popular phenomenon in India has not received much attention of researchers. The present study is aimed at examining the M&A activity in India during the post-liberalisation period in terms of its financial performance. An attempt has also been made to evaluate the pre- and post-merger performance.

This concluding chapter of the study is mainly devoted to the discussion of its main findings. The chapter is divided into four sections. Recapitulates the methodology followed in the study. Next part enumerates the main findings of the study, its conclusion and summarized in last part of this chapter followed by suggestions for further research.

OBJECTIVES AND RESEARCH METHODOLOGY

The study had the following objectives:

1. To evaluate the post-merger performance of merged firms using the value added metrics namely EVA, MVA and RONW.
2. To identify the motives of mergers and acquisitions as avowed in the merger schemes and to assess if motives as avowed in the scheme have been fulfilled of not.
3. To evaluate the pre-and post-merger financial performance of merged firm's vis-à-vis the influence of motives' variables such as:
    a) Profit maximization
    b) Growth
    c) Tax Consideration
    d) Diversification
    e) Leverage

For achieving these objectives, the study focused on three main aspects, vis.,) evaluation of post-merger performance in terms of value addition to shareholders, b) examination of motives as avowed in the merger schemes and c) pre-and post-merger motives' analysis. It is reiterated that methodology followed for each of these aspects was different. It is therefore useful to briefly recapitulate the methodology followed in the study. In the first aspect, post-merger performance of companies which merged during the year 1999-2000 was analyzed in terms of value addition to shareholders. For this purpose, value added metrics namely EVA, MVA and RONW were computed for three post-merger years for a sample of two hundred and twenty three companies whose financial data was derived from CMIE. Further, inter-firm analysis and inter-industry analysis were conducted using the correlation analysis.

The second aspect was related to an in-depth pre-and post-merger financial analysis in terms of motives of merger to assess if, motives as avowed in the merger schemes have been achieved or not. Five variables were defined as motives of mergers, namely, profitability, tax advantage, and growth of assets. These variables were empirically calculated with the help of ratios for the sample of fifty six merged firms for a period of three years preceding the merger and compared with value of these variables motives on value addition to shareholders in the post-merger period was also established.

The following null hypotheses were tested in the study:

1. Mergers and acquisitions do not result in value addition to existing shareholders

2. Merger in India is not predominantly horizontal.

3. There is no difference between pre- and post-merger performance of merged companies under the study period.

4. Synergy in profits, acquisition of market share, tax consideration and diversification, all do not result in value addition to existing shareholders.

5. There is no significant difference in the value addition to the existing shareholders due to Growth and Leverage.

6. Motives as avowed in the merger schemes have not been affected after mergers.

FINDINGS OF THE STUDY.

With the transition of Indian economy to a competitive and market driven environment, M&A activity has gained momentum, both, in terms of number and volume. Shareholder value addition and survival of the fittest are the buzz words.

The corporate sector has increasingly resorted to consolidations in the form of mergers in order to achieve motives of increased synergies and economies scale, achieve global competitive strength, acquire better marketing and financial advantages, diversify and reduce earnings' variations, increasing domestic share, enhance production capacities and capture fast growing markets abroad.

The findings of the study are discussed under three major heads, vis., a) post-merger performance evaluation in terms of value addition of shareholders, b) merger scheme analysis and c) competitive pre-and post-merger motives' analysis.

Post-merger Performance Evaluation.

As stated earlier, post-merger performance of fifty six sample merged firms was examined with the help of value added metrics, namely, EVA, RONW, and MVA. Statistical techniques of clusture analysis were employed to analyse and interpret the results. The null hypothesis that mergers do not result in value addition to shareholders has been accepted and alternate hypothesis that mergers add to shareholders' value has been rejected. The findings of the analysis are summarised in five categories as follows:

1. **Intra-company Analysis**.

1) Cross sectional analysis of sample merged firm in terms of EVA revealed that 79% of the firms resulted in value erosion for its shareholders with decreasing, or no visible trend in three post-merger years. Only 21% of firms exhibited positive value for shareholders who increased in these years. Zenith Infotech Limited, Arvind Products Limited, NLC Nalco India Limited, IFGL Refractories were few companies gained in post merger period

2) Similar analysis carried on with the traditional tool of measuring shareholder value, namely, RONW revealed almost similar results. Only 28% of firm exhibited increasing trend of value addition in post-merger years. The major gainers in terms of this measure were NLC Nalco India limited, Jindal Poly Films Limited, and Jubilant Organosys Limited. were few firms that gained in post-merger years .

3) As regards to shareholder value addition in terms of markets' assessment of it's stoke value, 59% of firms revealed positive value in the first post-merger year. This indicated that good number of companies gained from mergers in terms of appreciation of their stoke value. However, only 17% of these firms exhibited a significant increase in the subsequent post-merger years. Twilight li-taka pharma Limited, Matrix Laborites, Hindustan Unilever Limited, Roto Pumps Limited, Rossell Tea Limited. appreciation in post-merger period. For others, stoke value gained immediately after mergers were lost in subsequent years.

2. Inter-company Analysis

1) Result of inter-firm analysis based on comparison of average values of EVA in the post-merger period revealed value erosion to the shareholders in case of 85% of sample firms. Only 15% of the firms gained shareholder value, the important achievers were Hindustan Unilever Ltd., Jubilant Organosys Ltd., and Matrix Laboratories Ltd.

2) The results of inter-firm analysis with the measure of RONW revealed almost reverse findings. As per this traditional measure, 77% of the firms gained value for their shareholders in the post-merger period indicating that mergers are profitable. Only 23% of firms were found to be non profitable. The major gainers with this measure were Pidilite Industries, ION Exchange co. limited, Dr. Reddy's Laboratories Ltd., Gulf oil corporation Ltd., Hindustan Unilever Ltd., Hindustan Organic Chemicals Ltd.

3) With regard to market's assessment of appreciation in shareholder value, comparison amongst firms revealed that 67% of firms gained stoke value in the post-merger period and 33% of sample firms had lost it. Few companies like Hindustan Unilever Ltd.by Shayam Telecom Ltd., NLC Nalco Limited, Bayer cropscience Ltd., Tata Infotech Ltd. (merged),Matrix Laboratories Ltd., etc

3. Inter-industry Analysis

1) Comparison of post-merger performance of merged firms belonging to different Industry with average EVA figures revealed that in most of the industries(nine out of ten), shareholder value is lost. Only pharmaceutical industry sector gained positive value for their shareholders.

2) Similar analysis with RONW revealed almost opposite results. As per measure, merged firms in nine out of ten industries gained Trading Industries, Tea-coffee Industries, Chemicals, Petrochemicals, Electric, Electronics, Computer-hardware all have resulted in gains for shareholders in post merger period. Only merged companies in Taxtile industry was unprofitable.

3) Value addition in terms of markets' appreciation of shareholder's stoke was revealed for merged firms in five out of ten industries with MVA as the value added metric.

4. **Intra-Industry Analysis.**

1) M&A activity has been spread across various industry groups. Maximum number of mergers occurred in chemical and pharmaceutical industry in the last decade constituting almost 14% of our sample followed by electro, electric equipment, and electronics with nine companies in most of them. However, tea and trading industries had two to four companies falling in this sector merged..

2) Significant variations also emerged in value addition to shareholders by merged firms in these industries in terms of three value added metrics, namely, EVA, RONW and MVA. While the results revealed almost similar quantum of value addition in terms of EVA and RONW, the results for EVA and MVA were reverse. Companies in industries like electrical equipment, electronics, computer, fertilizers, textiles packings and engineering industries, all revealed value erosion in terms of EVA. In terms of MVA.

3) The variation in quantum of value addition in terms of EVA and RONW and EVA and MVA are also corroborated by the coefficients of correlations computed between these variables for merged firms belonging to each separately. In industries like general engineering, electro electric equipment, electronics, tea, coffee, textiles, trading and engineering, correlation coefficients between new values added metric, EVA and traditional measure, RONW is very high and significant at 1% level of significance. In case of chemical and pharmaceuticals, textiles correlation coefficients between EVA and MVA are also highly significant at 1% level of significant.

Merger Scheme Analysis

The causes or motives of mergers as elucidated in the merger schemes of fifty six sample companies have been extensively scrutinized by tabulating them and then pattern regarding the types of merger have been traced. The findings that emerge in terms of type of merger suggests null hypothesis that mergers are not predominantly horizontal has been rejected ane alternate hypothesis that mergers are predominantly horizontal has been accepted. The summarized findings are as follows.

1) An in-depth security of merger schemes revealed that the prime motives are to afford greater synergies with economies of scale, better administration, expanded capital base, better leverage, operational improvement and consequent cost savings, improve market share

and achieve market dominance, achieve diversification, thus enhance growth prospects by product extension and market extension. Few mergers are undertaken for revival of sick companies and claim tax benefits in return.

2) It is further found that firms were making their efforts to consolidate in few chosen areas, thus stressing on horizontal from of mergers. A good number, almost 45% of sample firms are merger events of horizontal type, followed by mergers for revival of sick units as part of restructuring exercise constituting 24% of the sample. These results suggest that firm prefer horizontal mergers rather than conglomerate and vertical integration.

3) Large number of mergers has also been undertaken in India at the behest of Board for Industrial and Financial Reconstruction for revival of sick companies. Most of these mergers, however, belong undertaken primarily to protect group reputation and the process, claim tax benefits available under section 72A of Income Tax, 1961.

4) In significant number of merger cases (almost 50%), it is found that both, the merged and merging firms belonged to the same group thus indicating predominance of within-group mergers.

SUMMARY

The following summaries have been drawn from the study:

1. Mergers are not value creating strategies only. They, in fact take place for more than one objective. As is evident, from intensive security of merger schemes, the reasons include the desire and need for horizontal growth, vertical combinations, expand capital bases, get tax shelter or increase tax efficiency, correct leverage imbalances, achieve economies of scale through improvement of operations, reduced costs etc. There is, however, no body of research which suggests the relative importance of each of these motives. Several of them are generally present in each merger case.

2. Predominance of mergers seen to be either in the same product line (horizontal mergers) or within a business group (within group mergers). These patterns suggest that firm have attempted to consolidate in similar product lines. This also implies that over diversification resulting from earlier business strategies are being corrected. The regulated regime of pre-reform period often made companies within group complete with each other

for market share. The economic reforms of nineties have created a liberalised environment for rectifying such mistakes.

3. Most of the mergers that took place in India during this last decade seemed to have followed the consequences of mergers of US during the same period. The results of mergers in India corroborate the conclusions of research work in US with most of the mergers not being profitable. However, most of the mergers are taking place in India to grow in size to be able to withstand international competition which they have been exposed to in the post-liberalisation regime.

4. With regard to economic efficiency and depending upon the extent of compatability and complimentarily between merged firms, merger activities should lead to economies of scale and scope. Whether a merger is successful or not depends to what extent thee benefits are achieved. Each merger is a unique marriage and thus generalizations may not be possible. However, broadly, the result of the various analyses conducted in the study concludes that mergers have not resulted in any significant improvement in the performance of merged firms.

5. The fall in profitability immediately after merger may be justified by attributing this fall to various adjustment lags and rises associated with merger activities. Also, it can be hoped that after a reasonable time period when all adjustments have been made, this fall would be reversed. It does, however, raise some doubts as to the sustainability of these mergers in particular, and M&A activities in general in our economy.

6. Looking at empirical results we can say that expense ratio of the firm is significantly and negatively related to pre and post merger's share holders value creation. It means higher expenses lead to lower share holder's value which is according to the theory of finance. We also find that operating expenses of the firm is positively related to EVA and also significant at 1% level in firm's pre and post mergers performance. ROCE of the firm is significantly also positively correlated to EVA in pre and post mergers financial performance of firm. While Debt equity, Current Ratio, and RONW are negatively correlated with shareholders creation capacity of the firm. It can be said that increase in Debt equity, Current Ratio, and RONW will leads to decrease in EVA. While evaluating the impact of acquirer of firm and scheme of merger as dummy variable are not significant. But acquirer in same group is negatively correlated with EVA.

7. In pre-merger regression analysis results shows that the value of R^2 is 0.86, which shows that the sample regression explain 86% of aggregate data. The overall model is also significant with adjusted R^2 value of 0.85. So, it can be concluded that the model applicable to Indian corporate.

Regression result of post merger indicates the vale of R^2 and adjusted R^2 value are 0.87 and 0.86 which is significant at 1% level. So model is fit for study.

The classical finance theory said that firm's shareholders value creation is based on firms earning ability and firms return on its net worth. On the basis of our regression research we have proved that the firm's shareholders value creation is highly dependent on Operating expenses, Profit market, ROCE and Expense ratio.

SUGGESTIONS FOR FUTURE RESEARCH

The area of mergers and acquisitions has been extensively researched in many developed nations especially in UK. However, not much work has been done in this area in India. The present study is a comprehensive attempt to empirically analyze the financial performance of mergers which have taken place in the year i.e. 1999-2000. But, there are some areas of research which could not be taken up in the study. It would be worthwhile for the future researchers to investigate these areas. These areas are listed below:

1. The present study has made in-depth analyses of corporate mergers in India. However, M&A activity taking place in India is not limited to corporate mergers alone as there are number of other activities like takeovers, spin offs, management buyouts, demergers etc. In fact, internationally, the term mergers and acquisitions (M&A) is now used to cover all transactions relating to the sale and purchase of subsidiaries, divisions, brands, assets and entire company[1]. Hence, research in this associated areas needs to be taken up.

2. The study has assessed success or failure of mergers in financial terms. Human aspect of mergers has not been touched. Gauging the success of mergers through this aspect could be another area of research.

3. Rehabilitation of sick companies by the means of merger under the aegis of BIFR has been covered as one of the motives of mergers. A studies specifically covering merger cases sanctioned by BIFR for their rehabilitation could be taken a viz-a-viz other rehabilitation schemes to find out which measures are better for revival of sick companies.

4. Long run success of mergers can be analysed by taking a longer time period, say five to seven post-merger years. For this, however, one would have to wait for few years to get the relevant data as most of the mergers in India have taken place only in past few years.

BIBLIOGRAPHY

- A direct measure of financial slack as defined by Myers and Majluf (1984) op. cit., and also used by Asquith and Millins (1986) op. cit is as follows :
- A. Agarwal and G. Mamdelkar, “Managerial Incentives, Corporate Financing and Investment Decisions,” journal of Finance, 42 (September 1987), pp. 823-838.
- A. Belkaoui, “Financial Ratios as Predictors of Canadian Takeovers,” journal of Business Finance and Accounting, vol.5, no.1,1978.
- A. Berk and G. Means, The Modern Corporation and Private (New York: Macmillan co., 1932).
- A. Buckley (1972), op. cit.
- Ajit Singh, Takeovers, Their Relevance to Stock Market and Theory of the firm (Cambridge University press,1971).
- Allan Hughes, Dennis C Mueller and Ajit Singh, “Hypotheses about Mergers”, in Determinants and Effects of Mergers, 1980, op. cit., pp. 27-65.
- Allan J. Averbach and David Reishus, “ The effects of Taxation on Merger Decisions,” In Corporate Takeovers : Causes and Consequences, edited by Allan J. Averbach (Cicago : The University of Chicago Press, 1988), pp. 157-83.
- Allan R Beckenstein, Merger Theories : An Empirical Investigation, Anti trust Bulletin, 24 , pp. 105-28.
- Allesandra Sindra and Paola Dubini, “Predicting success after the Acquisition: The Creation of a Corporate Profile”, in the Management of Corporate Acquisition, Edited by George Von Krogh, Allesandra and Sinotra and Harbir Singh (London: Macmillan press, 1994), pp 484.
- An efficient Market is defined as one where share price fully incorporates ale available information in that security and share price provides accurate signals for resource allocation. Studies on British and American stock markets have shown them to be efficient.
- An event was classified as tender offer if the firm purchased at least 60% of target firms’ shares by tender offer and later bought the remaining shares as clan up merger.

- Andrew Cosh, Alan Hughes and Ajit Singh, "The Causes and Effects of Takeovers in United Kingdom : An Empirical investigation of late 1960's at Microeconimic level," in Deteraminants and effects of mergers by D.C. Mueller, 1980, op cit. pp. 227-270.
- Anju Seth, "Value Creation in Acquisitions : A Re-examination of Performance Issues," Strategic Mangement journal,11 (1990), pp. 99-115.
- Anup Agarwal, Jeffrey F. Jaffe and G.Mandelkar, "The post Merger Performance of Acquiring Firms : A Re-examination of an Anamoly," journal of Financial, Vol. 17. No.4 (September 1992), pp. 1605-1621.
- As done by A. ingh (1975), op.cit.
- B.E. Eckbo, "Assessing the Anti Competitive Significance of Large Mergers", Working Paper, University of Rochester,Graduate School of Management, 1981.
- Bhatnagar R.G.,2002: M&AThe Key to Survival, Mergers & Acquisitions – New Prespectives, ICFAI Press, pp 167-172
- Biswas Joydeep,2004 : Corporate Mergers & Acquisitionsin India Indian Journal of Accounting Vol. XXXV(1), pp.67-72 cash equivalents and marketable securities). Common Equity + Preference Stock
- D.C. Mueller (1980), op. cit., pp. 314-315.
- D.C. Muller, "A Theory of Conglomerate Mergers", Quarterly journal of Economics, Vol.83, 643,1969.
- D.C. Muller, Mergers : Theory and Eidence" in Mergers and Acquisitions : Critical Perspective on Business and Management ed. By Simon Peck and Paul Temple (London and New York : Routledge, 2002), pp. 281-310.
- D.R. Kummer and J.R. Hoffmeister, "Valuation Consequences of Cash Tender Offers", journal of finance, 33 (May 1978), pp. 505-16.
- David J. Ravenscraft and F.M. Scherer, op. cit. pp.43.
- David J. Ravenscraft and F.M. Scherer, "The Long Run Performance of Mergers and Takeovers", in Public Policy Towards Corporate Takeovers, Edited by Murray L. Weidenbaum and Kenneth W. Chilton (USA Transction Publishers, 1987).

- Dennis C. Mueller, The Determinants and Effects of Mergers: An International Comparison, Edited by D.C, Mueller (Cambridge: Gunn & Hain Publishers Inc, 1980).
- Develop by EF. Fama, L. Fisher, M.G. Jenson and Richard roll, op. cit.
- Devra L. Globe and Lawrence J. White, "A Time Series Analysis of Mergers and Acquisitions," in Corporate Takeovers : Causes and Consequences, edited by Allan J. Averbach (Chicago : University of Chicago Press, 1988) pp. 265-301.
- Divesh S. Sharma and Jonathan HO, "The Impact of Acquisitions on Operating Performance : Some Australian Evidence," journal of Business Finance and Accounting, 29 (1) & (2), January-March 2002, pp.155-200.
- Donald L.Stevens, "Financial Characteristics of Merged Firms: A Multivariate Analysis," journal of Financial and Quantitative Analysis, 8 (March 1973), pp. 149-158.
- Douglas Kuehn (1975), op. cit.
- Douglas Kuehn, 1975, op. cit.
- Douglas Kuehn, Takeovers and Theory of the Firm (London : Macmillin, 1975).
- E. Berkovitch and m.p. Narayanan, "Motives for Takeovers : An Empirical Investigation," journal of financial and Quantitative Analysis,(1990), pp. – 356.
- F.R.Jervis, The Economics of Merger (Routledge and Kegan Paul Ltd., 1971), pp. 144.
- Fred J. Weston, " Tests of Efficiency Performance of Conglomerate Firms," journal of Finance, Septemer 1971, pp. 25-39.
- Fred j. Weston, The Role of Large Firms (Berkeley : University of Califonia Press, 1953).
- Fred J. Weston, The Role of Mergers in Growth of Large Firms (Berkeley and Ls Angeles : University of California Press, 1961) Chapter 5
- G. Mandelkar (1974), op. cit., pp. 110-120.
- G. Mandelkar (1974), op.cit.
- G. Mandelker, "Risk and Return : Case of Margins", journal of financial economics (January 1974), pp,110-121.

- G. Meeks, Disappointing Marriage : A Study of Gain from Mergers (Cambridge University Press, 1977).
- G.D. New bound (1970), op. cit.
- G.D.Newbound, Management and Merger Activity (U.K. : Guthsheid Limited, 1970).
- G.Meeks (1977) op. cit.
- George j. Stigler, "Monopoly and Oligopoly by Merger", American Economic Review, 40 (May 1950), pp. 23-34.
- Gershon Mandelkar, "Risk and Return : The case of Merging Firms", jouranal of financial Economics (January,1974), pp110-121
- Ghosh Arindam and Das Bratati, 2003 : Merger & Takeovers, The Management Account, pp. 543-545
- ibid
- ibid, pp.30
- Ibid.
- Ibid.
- ibid. pp.44.
- ICFAI-ARF GROUP, 2004 : Procedure for Merger and Amalgamation, The Chartered Accountant, pp. 1234-1239
- Ivan E. Brick, Lwrence J. Haber and Daniel Weaver, "Financial Motives in Conglomerate Merger : An Empirical Test", in Mergers and Acquisitions, edited by Michael Keenam and Lawrence J. White (New York : Lexingtn Books, 1982), pp. 205-221.
- J. Franks and R. Harris, "Shareholder Wealth Effects of Corporate Takeovers : The U.K. Experience 1955-1985," journal of financial Economics, vol.23, 1989, pp. 225-249.
- J. Kitching, "Why do Mergers Miscarry?", Harvard Business Review, November-December 1967,pp. 40-47.
- J.C. Ellert, "Mergers, Anti-trust Law Enforcements and Stockholders Returns," journal of finance, May 1976, pp. 715-32.

- J.C. Ellert," Mergers, Anti trust Law Enforcements and Stockholders Returns", journal of finance, May 1976, pp. 715-32.
- J.E. Mead, "Is the New Industrial State Inevitable"?, Economic journal, June 1968.
- J.Fred Weston, The Role of Mergers in the Growth of Large Firms, Berkeley, 1953, pp. 85, 86.
- J.G Manne, "Merger and the market for corporate Control", journal of political Economy, LXXIII (April 1965), pp. -120.
- J.K. Galbraith, "A Review of Review ", The public Interest, fall (1967).
- J.r. Franks, J.E. broyles and M.J. Hecht, "an Industrial Study of profitability of Mergers in U.K.," journal of finance, no. 5 (Dec. 1977), pp. 151-35.
- John B. Guerard, Jr. "Merger, Stock Price and Industrial Production : An Empirical Test of Nelson Hypotheses," in Time Serials Analysis : Theory and Practice, edited by O.D. Anderson, vol. 7 (Amsterdam : Elsevier, 1985), pp. 239-247.
- K. Ravi Sankar and K.V. Rao, "Takeovers as a Strategy of Turnaround : An Empirical Study," Chartered Secretary, February 1999, pp. 149-154.
- K. Schipper and R. Thompson, "The Impact of Merger Related Regulations on Shareholders of Acquiring Firms," Working Paper, Carnegic, Mellon University (July 1982), pp. 85-120.
- Krishna G.Palepu, "Predicting Takeover Targets : A Methodological and Empirical Analysis," journal of Accounting and Economics, 1986, pp.813-35.
- Kwang S. Chung and Fred J. Weston, "Diversification and Mergers in a Strategic Long Range Planning Framework," in Mergers and Acquisitions : Current Problems in Perspective, edited by Michael Keenam and L. White (Lexington, Mass: D.C. Heath, 1982), pp.315-347.
- M. Firth (1980), op. cit. pp. 252.
- M. Firth (1980), op.cit. pp. 252.
- M. Firth, (1976), op. cit.
- M. Firth, Takeovers, Shareholders Returns and Theory of the Firm," Quarterly journal of Economics, no.2, March 1980, pp. 235-260.
- M. Kumar, Growth, Acquisition and Investment (UK : Cambridge University press,1984).

- M.A. Firth (1976), op. cit.
- M.A. Firth, Share Prices and Mergers (Westmead, Farnborough : Saxon House, 1976).
- M.A. Utton, " Measureing the Effects of Industrial Mergers," Scottish journal of political Economy, xxI, no.1, February 1974, pp. 13-28.
- M.Bradley, "Interfirm Tender Offers and Market for Corporate Control," journal of business,4 (October1980),pp.345-76.
- M.Bradley, A Desai and E.H. Kim, "The Rationale Behind Interfirm Tender Offers : Information or Synergy ?", Working paper, University of Michigan (Septmber1982).
- M.Bradley, A. Desai ad E.H.Kim (1982), op. cit.
- M.Firth, 1976, op. cit.
- M.Gort (1969), op. cit.
- M.Gort, "An Economic Disturbance Theory of Mergers" The Quarterly journal of Economics, vol 83, no. 4 (N0vember 199), pp.624-642.
- MachhiHetal K. and Menon Preeti V., 2004 : Corporate Merger & Acquisition, Indian Journal of Accounting Vol.XXXV (1), pp.7-12
- Michael C. Jenson and Richard S. Ruback, "The Market for Corporate Control, The Scientfic Evidence," journal of financial Economics, 11 (1983), pp. 47.
- More specifically, when firms with high P/E ratio takes over firms with lower ratio, there is an expected, immediate investore gain through merger.
- Nazareth Seema, 1999 : Short-lived M&As in India, ICFAI Reader, pp. 283-287

Net Debt = Short term debt + Long term debt + Net debt – (Cash,

Net Debt Ratio = Net Debt

- O.E Williamson, "Economies as an Antitrust Defense: The Welfare Trade-Offs", American Economic Review, March 1968, pp.18.
- P. Asquith and E.H. Kim, "The Impact of Merger Bids on the Participating Firms' Security Holders," journal of financial, 37, no. 5 (1981) pp. 71-82.
- P. Dodd, 1977, op.cit.
- P.Asquith and D.W. Millins, "Equity Issues and Offering Dilution", journal of financial Economics, 15 (Jan 1986), pp. 61-89.

- P.Dodd and R.Ruback, "Tender Offers and Stockholders Returns: An Empirical Analysis", journal of Financial Economics, 5 (Dec 1977),pp.351-73.
- P.J. Halpern, "Empirical Estimates of the amount and Distribution of Gain to Companies in Mergers," journal of Business, 46 (Oct. 1973), pp. 554-573.
- P.L. Beena (2000) "An Analysis of Mergers in Private Corporate Sector in India," Working Paper no.301, Centre for Development Studies, Kerala, India,
- P.L. Beena, "Mergers and Amalgamations: An Analysis of the Changing Structure of Indian Oligopoly," Doctoral Dissertation, Centre for Economic Studies and Planning, JNU, New Delhi, 1998.
- P.O Steiner, Merger, Motives, Effects, Policies (Ann Arbor : University of Michigan Press, 1975).
- P.O. Steiner (1975), op. cit., pp 30, 31.
- P.O. Steiner (1975), op. cit., pp. 180-184.
- P.O. Steiner, Mergers : Motives, Effects, Policies (Ann Arbor : University of Michigan press,1975).
- Paul Asquith, " Merger Bids, Uuncertainty and Stockholders Returns," journal of financial Economics, 1983, pp. 51-83.
- Paul Asquith, "Merger bids, Uncertainity and Stockholders Returns", journa of Financial Economics, 11 (1983), pp. 51-83.
- Paul H. Malatesta, "The Wealth Effects of Merger Activity and the Objective Function of Merging Firms," journal of financial Economics, 11 (1983), pp. 155-181.
- Paul Halpern, "Corporate Acquisitions: A Theory of
  Special Cases." Journal of Finance, vol.38, May 1983,
  pp. 297-317.
- Paul Levin and Sam Aaronovitch, "The Financial Characterostics of Firms and Theory of Merger Activity," journal of Industrial Economics, vol..30, no. 2 (Dec. 1981), pp. 1490172.
- Paul M Healy, Krishna G. Palepu and Richard S. Ruback, "Does Corporate Performance Improve After Mergers ?' journal of Financial Economics, 31 (1992) pp. 132-172.

- Peter Dodd and Richard Ruback , “Tender Offer and Stock Holders Returns : An Empirical Analysis,” journal of financial Economics, 5 (1977), pp. 351-373.
- R. Clark and Eli Ofek, “Mergers as a Means of Restructuring Distressed Firms : An Empirical Investigation”, journal of Financial and Quantitative Analysis, vol. 29, no. 4 (December 1994), pp. 541-61.
- R. Stillman, Examining Anti Turst Policy Towards Horizontal Mergers (Chicago : Lexecon Inc.,1982).
- R.J, Limmack, Corporate Mergers and shareholders Wealth Effects : 1977 – 1986,” Accounting and Business Review, vol,21 no. 83 (19991), pp. 239-251.
- R.J. Monroe and M. Simkovitz, “Investment Characteristics of Conglomerate Targets : A Discriminant Analysis,” Southern journal of Business, November 1971.
- R.L Marris (1968) op. cit
- R.L Marris (1968), op. cit.
- R.L Marris, The Economic Theory of Managerial Capitalism (London : Macmillion, 1964), pp.20, 29-40
- R.L. Marris (1964), op. cit., pp. 22-23.
- Ralph L. Nelson, Merger Movements in American Industry, 1895-1956 (Princeton: Princeton University Press for NBER,!(%(),
- Ranjit Kumar Mandal Corporate Mergers in India : Objectives and Effectiveness (New Delhi : Kanishka publishers, 1995), pp. 75-76, 222-223.
- Richard Roll, “The Hubris Hypotheses of Corporate Takeovers,” journal of Business, 59 (April1986), pp. 197.
- Robert A Haugen and Terrence c. Langetieg. “An Empirical Test for Synergism in Merger,” journal of Ginance vol. 30, no. 4 (September 1975), pp. 1003-14.
- Robert Bruner, “The use of Excess cash and Debt Capacity as a Motives for Merger”, journal of Financial and Quantitative Analysis, vol.23, no.2 (June1988),pp.
- Ronald W. Meicher, Johannes Ledolter and Louis J Antonio, 1983, op.cit.
- Ronald W. Melicher, Johannes Ledolter and Louis J. Antonio, “A Time Series Analysis of Aggrete Merger Activity”, Review of Economics and Accounting Statistics, 65 (1983), pp. 423-30.

- S. Aaronovitch and M.C. Sawyer, big Business (London : Macmillan, 1975).
- S.c. Myers and N.S. Majluf (1984), op. cit., pp.188. This term is used for “Large holdings of cash or marketable securities or ability to issue risk free debt.”
- S.C.Myers and N.S. Majluf, “Corporate Financing and Investment Decision When Firms have Information that Investors do not have,” journal of financial Economics, 13 (June 1984), pp. 187-221.
- S.C.Myers and N.S. Majluf, op. cit.
- S.R. Singh and V. Kumar, Corporate Rehabilitation and BIFR (New Delhi : Shipra Publications, 1994).
- Samuel R Reid, Mergers and the Economy (US : Mcgraw Hills, 1968).
- Sean Becketti, “Corporate Mergers and Business Cycle”, Economic Review, Fedral Reserve Bank of Kannas City, 1986,pp.13-26.
- See Sidney Siegel, Non Parametric Statestic for Behavorial Sciences (New York: Ms Graw Hill, 1956).
- Shrimali Vijay and SaxenaKarunesh, 2004 : Merger & Acquisitions : Indian Journal of Accounting Vol. XXXV(1), pp 48-54
- Since variation in profits for large firms is smaller than for smaller firms, so investment in large firms involves less risk.
- Sudi Sudarsanam, Peter Holl and Ayo Salami, “Shareholders Wealth Gains in mergers: Effect of Synergy and Ownership Structure,” journal of Business Finance and Accounting, 23 (5&6), July 1996, pp. 673 – 697.
- Surender S. Yadav, P.K. jain and Nitin Jain, “Profitability of Mergers – Some Selected Cases,” journal of Management Accounting (July 99), pp. 502-507.
- T. Langetieg, R. Haugen and Wichern, “Mergers Stockholders’ Risk journal of Financial and Quantitative Analysis, 15 (September 1980), pp. 689-717.
- T.C. Langetieg “An Application of Three Factor Performance Index to Measure Stockholders Gains from Mergers” journal of Financial Economics, 6 (1978), pp. 365-383.
- T.C. Langetieg, “ An Application of Three Fctor Performance Index to Measure Stockholders Gains from Mergers,” journal of financial Economics,6, (1978), pp. 365-383.

- Technique developed by E.L. Fama, L Fisher, M.G.Jenson and Richard Roll in "The Adjustments of Stock Price to New Information," International Economic Review, 1 (February 1969, pp. 1-21.
- Terrence E. Cooke, Mergers and Acquisitions (UK : Basil Blackwell Ltd., 1980), pp. 51-54.
- The description of Low, average and high are those used in industrial studies, hence are subjective. A Complete analysis of financial characteristics in term of each characteristics is not possible since some studies have calculated few variables only.
- These countries are UK, US, Sweden, Belgium, France, Netherlands and West Germany.
- These groups include merging and non merging and merged and merged and non merged firms.
- Tobin's q (1969), explained by the ratio of market value to asset replacement costs was suggested as a possible explanation of changes in merger activity. When replacement costs exceed market value (i.e.q ratios < 1), one might expect an increase in number of mergers and acquisitions as assets could be acquired in the market cheaply and vice versa.
- U.P. Rege, "Accounting Ratios to locate takeover Targets," journal of business Finance and Accounting, (Autumn 1978).
- Unused debt capacity.
- V.S. Kaveri, Financial Analysis of Company Mergere in India (New Delhi : Himalaya publishing House, 1986).
- W.j Baumol, Business Behavior, value and Growth (New york : Macmillion, 1959).
- W.J. Baumol (1967), op. cit.
- Welbur Lewellen, Claudio Loderer and Ahron Rosenfeld, "Mergers, Executive Risk Reductin and Stockholder Wealth", journal of Financial and Quantitative Analysis, vol. 24 , no. 2 (December 1989), pp. 459-472.
- Williams Amendments regulates cash tender offers, forced disclosure of information and statutory waiting period.

- Willims F. Shugart and Robert D. Tollison, " The Random Character of Merger Activity", Rand jorna of Economics, 15, 1984, pp. 500-509.
- Y. Amihud and B.Lev, "Risk Reduction as Managerial Motives for Merger," Bell journal of Economics, 12 (Autumn 1981), pp. 605-617.
- Y. Hoshino, "The Performance of Corporate Mergers in Japan," journal of business Finance and Accounting, Vol.2, no.9 (1982).
- Y.Hoshino, "The performance of Corporate Mergers in Japan," journal of Business Finance and Accounting, vol.2, no.9.(1982).

BOOKS

- Aaronovitch, S. and M. S. Sawyer, Big Business (London: Mac millan, 1975)
- Averbach, Allan j, Corporate Takeovers : Causes and consequences (Chicago: The University of Chicago press, 1988)
- Bhalla V. K. 2000: International Financial Management; Text and Cases; First Edition, Anmol Publication Pvt. Ltd., New Delhi
- Bhalla V. K., 1997: Financial Management and Policy, Anmol Publication Pvt. Ltd., New Delhi
- Bhatia N.L. Jagruti Sampat, Takeover Games & SEBI Takeover Regulations (New Delhi: Taxman Allied Services Private Ltd. 2002)
- Bhattacharya H. K. 1988: Amalgamation and Takeovers; Company news and notes.
- Cooke, Terrence E., Mergers and acquisitions (UK : Basil Blackwell Ltd., 1980)
- Copeland, T.E. and F. J. Weston, Financial Theory and Corporate Policy, 3rd edn. (New York : Addision Weseley publishing Company, 19920
- Cowling, Keith, Paul Stoneman and John Gubbin, Mergers and Economic Performance (UK : Cambridge University Press, 1980)
- Doctroff, Mark, Company Mergers and Takeovers (Melbourne : Cheshire Publishing House, 1972)
- Ehrbar, A. L., EVA : Real Key to Creating Wealth, 1st edn. (New Yourk : John Willey and Sons, 1998)

- Gaugham, Patric, Reading on Mergers and Acquisitions (UK : Basil Blackwell Ltd; 1994)
- Gera M. R. 1996: Corporate Restructuring Strategies & Implications, All India Management Association Excel Book
- Goldberg, Walter H., Mergers : Motives, Modes, Methods (Hampshire : Gower Publishing Company Ltd. 1983)
- Gupta, L.C., Corporate Financial Health : Building Reliable Corporate Indicators (New Delhi : Manas Publications, 1993)
- Habeck, Max M., F. Kroger and Michael Train, After and Merger : Seven Strategies for Successful Post Merger Integration (UK : Prentic Hall, 2000).
- Harvey J.L. and P.New Garden, Management Guide to Mergers and Acquisitions (New York : Wiley Interscience, 1969)
- J. Fred Weston, Kwang S. Chuing, Susan E. Hong (2003) Mergers, Restructuring and Corporate control, PHI Ltd. Publication
- Jervis, F.R., The Economics of Mergers (UK : Routledge and Kegan Paul Ltd. 1971)
- Kaveri, V.S. Financial Analysis of Company Mergers in India (New Delhi : Himalaya Publishing House, 1986)
- Keenam, L. and Lawrance J. White, Mergers and Acquisitions : Current Problems in Prespective (Toronto: Lexinton Books, 1982)
- Kothari. C .R. Research Methodology: Methods and Techniques, 2nd edn. (UK: Wiley Eastern Ltd., 1992)
- Krogh G.V. and Sintra H. Singh, The Management of Corporate Acquisitions(UK: Macmilan Press,1994)
- Kuchn,Douglas, Takeovers and Theory of the Firm (UK: Macmilan Press, 1975)
- Mandal, RAnjit Kumar, Corporate Mergers in India: Objectives and Effectiveness(New Delhi: Kanishka Publishers,1995)
- Majmudar A.K. and Dr. G.K.Kapoor, Company Law and Practice (New Delhi: Taxman Publication, 2005)
- Naik S.A. The Law of Sick Industrial Companies (Nagpr,Wadhwa & Co.,1999)
- Ramaiya A., Guide to Companies Act, (Nagpur Wadhwa & Co.)

- Ramaujan.S., Mergers (New Delhi: Tata McGraw Hill Publishing Co. Ltd., 2000)
- R.N.Kar, Corporate mergers & Acquisitions by JBA Publication. 2008
- Rapport Alfred, Creating Shareholders Value: The New Standard for Business Performance (New York: The Free Press, 1986)
- Rock Milton L., The Mergers and Acquisitions Handbook(New York: McgrawHill Book Co. Ltd.,1987)
- Sharma L.M., Amalgamations,Mergers,Takeovers,Aceuisitions
- S.David Young, EVA and Value based management, By Tata Mcgrill. 2003.
- Principals,Practices,Regulatory Framework (New Delhi: Company Law Journal, 1997)
- En S.C. Meregers,Amalgamations and Takeovers: The Law Procedure and Valuation of Shares(New Delhi, Eastern Law House Private Limited, 1969)
- Singh S.R and V.Kumar, Corporate Rehabilitation and BIFR (New Delhi: Shipra Publication 1994)
- Siva Ramu S, Corporate Growth Through Mergers and Acquisitions(New Delhi: Response Books, 1996)
- Sridharan N. R. and P.H. Arvindh PAndian, A guide to Takeover and Mergers (Nagpur, Wadhwa & Company,
- Sundarsanam P. S. 1997: The Essence of Mergers and Acquisitions, Prentice Hall of India Private limited
- Tetnbaum Teby J. 1999: Beating the odds of Mergers and Acquisitions failure
- Vedpurishwar Prabhu, 2000 : India Inc. begins M&As Innings, Mergers and Acquisitions- New Prespectives, ICFAI Press
- Weston chang and Hoag, 2000: Mergers Restructuring and Corporate Control

WEBLIOGRAPHY

- www.capitaline.com
- www.prowess.com
- www.wikipedia.com

ANNEXURE - A
EMPIRICAL RESULTS - PERFORMANCE EVALUATION

Sr. No.	Name of Company	Year	Net Sale	PBIT	PBT	ROG-Total Assets	ROG-PBIDT	D/E	CA/CL	Gearing Ratio	Operating Exps.	Profit Margin	ROCE	Expense Ratio
1	**Ultramarine & Pigments Ltd**	2004	54.06	12.17	11.46	0.32	81.00	0.26	1.16	17.14	39.17	0.21	0.25	0.72
		2003	53.14	5.41	3.99	-8.91	-23.80	0.46	1.18	3.81	44.96	0.08	0.10	0.85
		2002	77.21	8.25	5.90	-2.82	22.91	0.54	1.48	3.13	67.09	0.08	0.15	0.87
		2001	83.67	6.40	3.51	12.22	-23.68	0.45	1.46	2.44	77.75	0.04	0.11	0.93
		2000	90.12	9.23	7.34	7.27	-1.34	0.38	1.28	4.88	81.02	0.08	0.18	0.90
		1999	75.44	9.42	7.11	11.64	13.39	0.43	1.38	4.08	67.88	0.09	0.19	0.90
		1998	61.97	8.32	6.01	3.85	12.02	0.47	1.35	3.60	49.86	0.10	0.19	0.80
2	**Crompton Greaves Ltd**	2004	1695.58	129.07	89.52	0.07	16.40	1.06	1.13	2.94	1586.09	0.05	0.20	0.94
		2003	1520.85	103.55	37.20	-7.96	15.33	1.25	1.15	1.42	1468.20	0.02	0.12	0.97
		2002	1498.35	84.76	6.63	11.07	98.43	1.65	1.08	0.73	1413.73	0.00	0.09	0.94
		2001	1268.42	17.72	-73.16	-22.40	76.73	2.06	1.18	-0.99	1238.63	-0.06	0.02	0.98
		2000	1525.49	-21.92	-146.57	3.25	-77.65	1.62	1.33	-0.18	1523.64	-0.10	-0.02	1.00
		1999	1559.71	119.07	24.12	4.23	10.67	1.19	1.31	1.25	1435.91	0.02	0.10	0.92
		1998	1464.71	109.49	20.62	11.97	-8.81	0.95	1.30	1.23	1335.91	0.01	0.09	0.91
3	**Areva T&D India Ltd**													
		2004	555.50	24.89	20.18	16.05	17.08	0.09	1.47	4.59	533.68	0.04	0.13	0.96
		2003	455.96	19.05	12.53	-1.99	93.42	0.16	1.46	2.92	427.28	0.03	0.11	0.94
		2002	380.92	3.97	-4.11	15.24	-18.05	0.20	1.48	2.02	379.56	-0.01	0.02	1.00
		2001	351.03	4.95	-2.75	-9.51	-19.91	0.24	1.40	1.10	339.17	-0.01	0.03	0.97
		2000	368.83	9.79	1.96	3.64	73.79	0.27	1.28	1.08	359.49	0.01	0.05	0.97
		1999	388.88	-0.72	-9.51	-8.83	-51.46	0.28	1.25	0.76	445.25	-0.02	0.00	1.14
		1998	477.61	17.09	7.63	6.71	4.54	0.27	1.25	2.03	NA	0.02	0.08	NA
4	**BPL Ltd**													
		2004	963.67	-69.01	-74.11	-18.86	66.93	2.49	1.42	-51.65	596.29	-0.08	-0.06	0.62
		2003	1186.59	-67.82	-289.57	-5.26	-101.85	1.87	1.59	-0.31	884.39	-0.24	-0.04	0.75
		2002	1509.00	163.71	42.20	20.60	10.63	1.23	1.95	1.35	929.63	0.03	0.10	0.62
		2001	1850.70	152.32	90.15	16.62	-10.43	0.96	2.20	2.45	1393.68	0.05	0.11	0.75
		2000	1850.70	179.65	118.84	12.25	10.49	0.81	1.78	2.95	1652.53	0.06	0.17	0.89
		1999	1785.50	164.96	113.98	23.28	16.29	0.93	1.75	3.24	1652.18	0.06	0.18	0.93
		1998	1608.08	144.72	92.27	8.31	50.33	1.18	1.61	2.76	1418.08	0.06	0.19	0.88

Sr. No.	Name of Company	Year	Net Sale	PBIT	PBT	ROG-Total Assets	ROG-PBIDT	D/E	CA/CL	Gearing Ratio	Operating Exps.	Profit Margin	ROCE	Expanse Ratio
5	**Samtel Color Ltd**	2004	803.42	59.38	15.17	-3.95	-12.89	1.60	0.59	1.34	735.22	0.02	0.13	0.92
		2003	758.34	78.29	31.59	10.80	13.38	2.01	0.67	1.68	697.11	0.04	0.14	0.92
		2002	600.69	80.81	46.04	37.50	1.93	1.59	0.89	2.32	481.17	0.08	0.15	0.80
		2001	564.49	80.59	45.57	23.00	0.42	1.20	1.19	2.30	496.67	0.08	0.18	0.88
		2000	569.79	80.61	40.10	21.46	99.83	1.72	1.03	1.99	473.61	0.07	0.22	0.83
		1999	436.35	32.85	-9.81	0.43	76.59	2.42	0.96	0.77	388.21	-0.02	0.10	0.89
		1998	266.42	16.82	-8.47	5.81	-24.03	2.11	1.04	0.79	251.50	-0.03	0.05	0.94
6	**TRF Ltd**	2004	169.80	8.08	5.29	18.62	138.21	0.96	1.51	3.56	158.17	0.03	0.10	0.93
		2003	132.27	2.44	-0.94	23.88	-74.72	0.64	1.32	0.66	136.85	-0.01	0.04	1.03
		2002	122.22	14.48	12.54	19.44	61.99	0.29	1.20	3.63	115.31	0.10	0.25	0.94
		2001	125.74	7.96	5.02	-21.05	-21.59	0.27	1.16	2.98	113.40	0.04	0.22	0.90
		2000	127.07	10.67	6.34	18.31	10.87	0.73	1.16	2.03	113.94	0.05	0.22	0.90
		1999	188.14	9.43	2.97	-45.22	-47.71	1.06	1.14	1.46	113.70	0.02	0.17	0.60
		1998	149.82	19.50	11.78	21.54	30.42	1.33	1.10	1.71	163.79	0.08	0.35	1.09
7	**GMR**	2004	246.11	30.14	16.30	-8.26	-17.20	1.08	1.01	2.45	218.82	0.07	0.09	0.89
		2003	239.93	38.29	13.87	34.30	35.64	1.18	0.99	1.65	192.63	0.06	0.15	0.80
		2002	155.46	27.75	3.65	2.37	11.04	1.80	1.31	0.77	148.03	0.02	0.11	0.95
		2001	143.27	23.59	2.66	8.34	-19.30	1.84	1.64	0.89	139.70	0.02	0.09	0.98
		2000	113.83	32.85	15.30	95.47	67.23	1.65	1.63	1.08	108.29	0.13	0.13	0.95
		1999	67.42	21.70	15.46	42.69	51.14	1.34	1.60	1.38	59.95	0.23	0.16	0.89
		1998	89.37	13.90	7.15	26.01	26.96	1.13	1.67	2.06	78.15	0.08	0.16	0.87
8	**Dharamsi Morarji Chemicals Co Ltd**	2004	178.09	-4.10	-16.00	-1.82	-80.23	1.92	1.00	-0.34	176.08	-0.09	-0.03	0.99
		2003	223.92	14.62	0.45	-3.34	54.77	1.71	1.08	0.75	202.99	0.00	0.08	0.91
		2002	198.73	8.87	-8.49	0.26	-42.45	1.68	1.42	0.42	180.29	-0.04	0.05	0.91
		2001	246.18	18.38	1.88	-6.43	-5.24	1.51	1.72	0.63	224.98	0.01	0.08	0.91
		2000	276.35	20.31	6.35	24.57	17.38	1.27	1.48	1.45	260.32	0.02	0.10	0.94
		1999	263.62	17.52	6.78	9.17	-8.85	1.03	1.38	1.63	234.79	0.03	0.12	0.89
		1998	229.61	20.42	9.68	7.78	-31.72	1.01	1.42	1.90	212.01	0.04	0.15	0.92

Sr. No.	Name of Company	Year	Net Sale	PBIT	PBT	ROG-Total Assets	ROG-PBIDT	D/E	CA/CL	Gearing Ratio	Operating Exps.	Profit Margin	ROCE	Expense Ratio
9	**Khaitan Chemicals & Fertilizers Ltd**	2004	192.84	16.87	11.94	12.26	95.52	0.77	1.15	3.42	181.45	0.06	0.20	0.94
		2003	125.79	6.77	0.52	-7.45	57.50	0.85	1.21	1.08	116.50	0.00	0.09	0.93
		2002	162.43	2.63	-4.55	-5.02	-16.67	0.94	1.32	0.52	141.03	-0.03	0.03	0.87
		2001	116.29	4.42	-3.36	-8.71	-34.35	0.96	1.38	0.57	113.25	-0.03	0.04	0.97
		2000	108.39	9.19	2.41	57.61	-16.58	1.14	1.42	1.36	94.91	0.02	0.09	0.88
		1999	90.16	12.84	7.11	47.15	69.90	1.82	1.43	2.24	80.96	0.08	0.21	0.90
		1998	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10	**Zenith Infotech Ltd**	2004	285.49	1.14	1.07	NA	75.28	0.00	6.46	16.29	17.21	0.00	0.04	0.06
		2003	212.85	0.42	0.39	NA	-113.51	0.00	8.25	14.00	6.13	0.00	0.01	0.03
		2002	191.84	-7.00	-7.01	NA	-309.87	0.00	10.47	-221.00	19.29	-0.04	-0.18	0.10
		2001	233.64	2.13	1.88	NA	-40.19	0.01	8.33	8.52	17.61	0.01	0.04	0.08
		2000	17.74	4.21	4.18	NA	95.90	0.02	5.42	140.33	10.55	0.24	0.08	0.59
		1999	204.00	2.56	2.55	NA	0.00	0.00	2.33	256.00	8.45	0.01	0.55	0.04
		1998	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
11	**Tata Infotech Ltd(merged)**	2004	596.80	61.29	60.98	-2.07	111.00	0.02	1.91	197.71	521.01	0.10	0.25	0.87
		2003	457.63	22.61	21.72	0.22	22.65	0.08	1.88	25.40	431.95	0.05	0.11	0.94
		2002	478.58	13.30	12.06	5.40	-46.46	0.12	1.83	10.73	442.14	0.03	0.06	0.92
		2001	511.47	37.14	34.14	17.50	67.09	0.11	2.00	12.38	472.86	0.07	0.19	0.92
		2000	421.77	15.18	12.21	13.02	-52.95	0.12	2.02	4.67	406.46	0.03	0.09	0.96
		1999	390.51	55.91	53.57	25.37	29.67	0.16	1.88	23.89	329.17	0.14	0.31	0.84
		1998	324.95	44.67	43.08	40.25	50.93	0.11	2.04	28.09	277.91	0.13	0.32	0.86
														0.00
12	**B & A Ltd**	2004	12.33	-0.88	-4.61	1.14	-92.49	2.24	0.71	-0.24	44.81	-0.37	-0.02	3.63
		2003	10.87	2.49	-1.48	14.94	-17.81	1.56	0.80	0.63	39.97	-0.14	0.06	3.68
		2002	9.56	3.43	0.19	12.56	7.95	1.16	1.09	1.05	32.07	0.02	0.08	3.35
		2001	10.52	3.20	0.58	-1.27	-18.41	0.93	1.26	1.25	27.46	0.06	0.08	2.61
		2000	26.07	4.09	1.01	6.04	36.57	0.85	1.28	1.33	22.20	0.04	0.11	0.85
		1999	8.58	2.83	0.20	6.11	-45.48	0.74	1.22	1.10	19.98	0.02	0.08	2.33
		1998	8.27	5.79	2.15	-15.88	47.93	0.73	1.08	1.59	17.39	0.26	0.18	2.10

Sr. No.	Name of Company	Year	Net Sale	PBIT	PBT	ROG-Total Assets	ROG-PBIDT	D/E	CA/CL	Gearing Ratio	Operating Exps.	Profit Margin	ROCE	Expense Ratio
13	**Max India Ltd**	2004	115.22	39.26	21.43	7.98	-257.03	0.34	1.03	0.99	121.04	0.19	0.06	1.05
		2003	145.55	-36.03	-62.31	-14.76	-187.67	0.35	0.99	-1.37	190.39	-0.43	-0.06	1.31
		2002	150.80	20.18	3.38	8.65	17.40	0.31	1.51	-0.08	154.42	0.02	0.03	1.02
		2001	102.58	19.18	7.38	5.60	-49.08	0.21	3.63	-0.74	130.01	0.07	0.03	1.27
		2000	70.24	49.66	42.19	152.92	-72.29	0.20	4.73	1.34	77.10	0.60	0.08	1.10
		1999	93.96	190.57	178.94	4.46	427.33	0.48	2.30	1.99	79.69	1.90	0.80	0.85
		1998	87.77	30.13	10.61	-4.71	57.14	0.80	1.26	0.84	73.52	0.12	0.13	0.84
14	**Emami Paper Mills Ltd**	2004	121.31	4.35	3.59	-1.38	0.22	1.31	1.37	5.72	5463.90	0.03	0.05	45.04
		2003	114.28	3.59	0.74	7.00	-12.25	1.33	1.66	1.19	5946.18	0.01	0.04	52.03
		2002	121.09	5.47	0.25	-2.78	-22.88	1.25	2.28	1.05	5784.31	0.00	0.06	47.77
		2001	114.51	4.93	-0.74	599.32	1509.76	1.26	2.58	0.78	5496.81	-0.01	0.05	48.00
		2000	23.19	0.75	0.75	-1.76	-6.82	2.60	2.94	1.09	4763.91	0.03	0.06	205.43
		1999	20.57	0.85	0.05	0.00	0.00	2.73	3.06	1.08	3802.00	0.00	0.07	184.83
		1998	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15	**Bayer CropScience Ltd**	2004	661.48	63.56	52.40	6.02	-7.16	0.61	1.37	5.70	640.00	0.08	0.19	0.97
		2003	873.56	66.94	47.21	80.24	64.01	1.13	1.35	4.96	761.25	0.05	0.14	0.87
		2002	577.06	46.32	27.78	4.58	8.14	1.85	1.31	3.10	568.56	0.05	0.20	0.99
		2001	650.97	42.51	16.24	-6.93	9.63	2.27	1.42	1.88	590.79	0.02	0.18	0.91
		2000	549.59	38.66	9.56	5.81	4.97	2.40	1.42	1.14	939.34	0.02	0.13	1.71
		1999	545.58	36.77	8.54	11.98	-13.65	2.28	1.36	1.35	514.33	0.02	0.14	0.94
		1998	479.26	43.76	16.15	13.20	3.24	2.10	1.30	1.58	450.35	0.03	0.17	0.94
16	**PSL Ltd**	2004	824.26	79.69	38.50	24.61	43.25	1.22	1.30	1.93	766.94	0.05	0.21	0.93
		2003	365.51	51.06	17.22	22.33	-23.00	1.20	1.45	1.51	331.66	0.05	0.14	0.91
		2002	623.75	70.21	37.14	30.41	70.72	0.95	2.08	2.12	550.88	0.06	0.20	0.88
		2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		2000	258.06	39.99	20.02	9.86	18.73	0.68	3.37	2.00	231.25	0.08	0.16	0.90
		1999	147.85	30.50	16.02	143.43	81.92	0.52	2.94	2.11	129.89	0.11	0.13	0.88
		1998	83.95	16.42	13.90	0.96	7.22	0.32	1.94	6.52	58.17	0.17	0.16	0.69

Sr. No.	Name of Company	Year	Net Sale	PBIT	PBT	ROG-Total Assets	ROG-PBIDT	D/E	CA/CL	Gearing Ratio	Operating Exps.	Profit Margin	ROCE	Expense Ratio
17	**Ratnamani Metals & Tubes Ltd**	2004	118.71	9.22	6.27	20.14	46.56	0.35	1.03	3.13	100.02	0.05	0.18	0.84
		2003	84.72	5.54	3.24	13.56	2.95	0.41	1.07	2.41	80.92	0.04	0.13	0.96
		2002	71.02	5.33	3.02	7.28	-3.42	0.44	1.32	2.31	61.66	0.04	0.12	0.87
		2001	76.75	5.88	3.07	4.74	13.45	0.41	1.65	2.09	68.99	0.04	0.12	0.90
		2000	49.64	5.15	2.62	11.30	-9.70	0.45	1.66	2.04	44.92	0.05	0.11	0.90
		1999	53.61	6.21	2.84	-11.88	-7.86	0.59	1.53	1.84	42.23	0.05	0.13	0.79
		1998	59.60	6.95	3.79	57.67	56.66	0.72	1.56	2.20	53.04	0.06	0.14	0.89
18	**Balrampur Chini Mills Ltd**	2004	693.15	99.36	79.36	35.41	78.67	1.69	1.11	4.97	685.67	0.11	0.12	0.99
		2003	565.02	51.25	37.42	16.66	-23.00	1.22	0.95	3.71	503.49	0.07	0.09	0.89
		2002	485.47	74.20	56.51	6.74	-9.67	1.03	1.00	4.19	411.45	0.12	0.17	0.85
		2001	555.54	83.43	52.41	1.41	48.41	1.13	1.31	2.69	438.51	0.09	0.16	0.79
		2000	367.71	53.34	23.63	31.90	-18.39	1.19	1.45	1.80	349.88	0.06	0.10	0.95
		1999	277.91	72.37	46.26	8.80	-2.81	1.24	1.46	2.77	217.66	0.17	0.18	0.78
		1998	299.34	75.75	45.75	11.02	55.13	1.43	1.35	2.53	265.88	0.15	0.20	0.89
19	**NHN Corporation Ltd**	2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		2003	3.75	-16.61	-17.43	-68.62	373.86	1.51	0.99	-20.26	17.99	-4.65	-1.98	4.80
		2002	41.43	-5.85	-7.03	-15.70	169.67	0.47	1.24	-4.96	41.22	-0.17	-0.25	0.99
		2001	22.90	-3.12	-3.78	-25.88	-167.78	0.40	1.21	-4.73	17.13	-0.17	-0.11	0.75
		2000	21.69	0.53	0.22	12.48	190.32	0.40	1.14	1.52	19.74	0.01	0.02	0.91
		1999	4.70	0.03	0.01	36.02	12.73	0.31	0.90	1.50	11.13	0.00	0.00	2.37
		1998	27.16	0.12	0.06	0.00	0.00	0.04	0.76	2.00	33.27	0.00	0.01	1.22
20	**Sical Logistics Ltd**	2004	1084.83	71.19	5.91	-8.56	-3.86	2.83	1.26	1.08	1000.99	0.01	0.13	0.92
		2003	1119.26	76.25	2.79	0.60	-5.41	3.15	1.23	1.10	1024.22	0.00	0.13	0.92
		2002	1220.12	83.82	5.73	-10.91	-24.50	3.03	1.22	0.53	1140.22	0.00	0.15	0.93
		2001	2060.11	113.49	32.88	14.05	3.67	2.77	1.27	1.27	1952.41	0.02	0.16	0.95
		2000	1840.20	108.29	35.45	10.52	16.89	2.75	1.28	1.49	1745.20	0.02	0.17	0.95
		1999	1699.82	93.31	30.76	67.25	66.65	2.68	1.29	1.49	1636.97	0.02	0.16	0.96
		1998	776.06	52.95	23.29	43.17	28.11	1.84	1.30	1.79	732.54	0.03	0.14	0.94

Sr. No.	Name of Company	Year	Net Sale	PBIT	PBT	ROG-Total Assets	ROG-PBIDT	D/E	CA/CL	Gearing Ratio	Operating Exps.	Profit Margin	ROCE	Expense Ratio
21	**Arvind Products Ltd**	2004	351.67	26.79	-2.07	1.68	-8.09	2.68	0.91	0.94	304.53	-0.01	0.07	0.87
		2003	381.59	32.13	0.45	-8.27	229.91	2.92	0.93	1.03	317.68	0.00	0.08	0.83
		2002	163.17	0.04	-24.11	-6.17	-68.28	2.62	0.93	0.00	154.62	-0.15	0.00	0.95
		2001	538.80	-6.84	-88.29	-16.45	343450.00	1.75	0.93	-0.08	490.55	-0.16	-0.01	0.91
		2000	442.10	25.10	-27.50	59492.44	343450.00	1.42	0.92	0.48	395.59	-0.06	0.04	0.89
		1999	0.02	0.02	0.02	-15.60	0.00	7.86	6.17	0.00	0.00	1.00	0.02	0.00
		1998	0.02	0.02	0.02	0.00	0.00	7.67	3.00	0.00	NA	1.00	0.02	NA
22	**Bhilwara Spinners Ltd**	2004	102.86	2.76	-4.20	-6.36	-23.09	18.42	0.86	0.40	94.01	-0.04	0.05	0.91
		2003	91.34	4.63	-3.14	16.79	-11.05	21.93	0.78	0.60	93.97	-0.03	0.08	1.03
		2002	89.12	5.64	-2.77	-13.19	8.21	8.84	0.82	0.67	86.45	-0.03	0.11	0.97
		2001	98.50	5.01	-4.25	1.44	11.14	4.11	1.01	0.54	91.13	-0.04	0.08	0.93
		2000	83.11	4.13	-5.32	-8.96	63.02	3.27	1.16	0.44	76.03	-0.06	0.06	0.91
		1999	71.65	1.85	-4.38	-4.53	-54.16	2.59	1.42	0.30	67.09	-0.06	0.02	0.94
		1998	90.60	7.42	2.91	18.81	3.42	2.06	1.56	1.65	80.85	0.03	0.09	0.89
23	**RSWM Ltd**	2004	633.41	35.43	18.38	7.76	7.30	1.26	1.31	2.08	544.01	0.03	0.09	0.86
		2003	448.99	30.70	5.64	-0.91	3.13	1.23	1.19	1.20	401.87	0.01	0.08	0.90
		2002	437.78	30.92	2.23	-5.63	-16.03	1.12	1.33	1.08	360.05	0.01	0.08	0.82
		2001	457.97	45.46	10.32	-1.94	-10.67	1.11	1.57	1.29	395.24	0.02	0.11	0.86
		2000	423.67	54.83	14.96	-10.21	12.07	1.35	1.58	1.38	364.23	0.04	0.13	0.86
		1999	401.15	49.58	10.89	16.19	3.04	1.50	1.56	1.28	333.87	0.03	0.10	0.83
		1998	403.29	53.63	22.45	8.72	12.13	1.47	1.64	1.72	327.40	0.06	0.13	0.81
24	**Shyam Telecom Ltd**	2004	14.57	2.81	0.84	34.49	-34.65	0.06	0.03	1.48	11.76	0.06	0.01	0.81
		2003	24.11	4.30	0.72	-11.70	-82.11	0.14	0.42	1.20	19.94	0.03	0.02	0.83
		2002	207.48	21.54	15.17	15.97	-15.02	0.24	0.99	3.38	194.97	0.07	0.09	0.94
		2001	208.29	26.54	18.62	20.86	48.12	0.31	1.94	3.35	188.33	0.09	0.11	0.90
		2000	103.57	16.75	4.95	176.57	46.70	0.52	2.21	1.42	83.61	0.05	0.07	0.81
		1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		1998	106.66	10.83	2.71	-3.45	-19.23	1.18	1.52	1.33	104.01	0.03	0.14	0.98

Sr. No.	Name of Company	Year	Net Sale	PBIT	PBT	ROG-Total Assets	ROG-PBIDT	D/E	CA/CL	Gearing Ratio	Operating Exps.	Profit Margin	ROCE	Expense Ratio
25	**DPIL Ltd**	2004	21.37	0.26	-0.23	-24.52	-73.13	0.60	0.44	0.53	22.15	-0.01	0.01	1.04
		2003	32.37	1.33	0.45	-36.32	136.47	0.80	0.62	1.51	32.68	0.01	0.04	1.01
		2002	39.80	-0.53	-1.18	-3.81	-72.49	0.85	0.91	-1.25	43.00	-0.03	-0.01	1.08
		2001	34.42	2.13	1.93	6.20	-60.98	1.09	0.93	10.65	35.01	0.06	0.03	1.02
		2000	60.58	6.85	5.95	117.17	431.54	1.09	0.82	6.57	58.77	0.10	0.10	0.97
		1999	30.36	1.02	0.05	310.44	-651.85	1.02	0.91	1.04	29.99	0.00	0.03	0.99
		1998	12.01	-0.72	-1.08	-0.10	-181.82	2.59	0.45	-2.00	12.75	-0.09	-0.12	1.06
26	**Rossell Tea Ltd**	2004	36.23	-3.50	-7.24	2.93	228.00	1.19	1.02	-0.94	40.06	-0.20	-0.05	1.11
		2003	31.16	-1.76	-5.78	28.54	-70.70	0.90	1.10	-0.44	32.24	-0.19	-0.03	1.03
		2002	19.36	-3.10	-4.64	0.98	-164.32	0.58	1.88	-2.01	18.99	-0.24	-0.06	0.98
		2001	35.30	3.12	1.37	10.66	15.03	0.41	2.61	1.78	32.02	0.04	0.07	0.91
		2000	29.06	2.81	2.03	34.70	-20.09	0.19	2.88	3.60	27.48	0.07	0.07	0.95
		1999	28.73	3.90	3.77	-0.51	-50.12	0.05	3.60	30.00	25.83	0.13	0.13	0.90
		1998	28.86	8.31	8.23	50.34	195.24	0.05	3.06	103.88	22.71	0.29	0.28	0.79
27	**Matrix Laboratories Ltd**	2004	534.75	168.31	147.94	69.59	36.91	1.21	1.16	8.26	410.66	0.28	0.44	0.77
		2003	399.03	124.23	95.47	373.53	1057.97	1.22	1.39	4.32	266.60	0.24	0.53	0.67
		2002	91.50	9.82	7.64	75.16	59.86	1.00	1.31	4.50	89.48	0.08	0.24	0.98
		2001	53.77	6.24	4.36	15.06	-242.00	1.46	1.34	3.32	56.23	0.08	0.23	1.05
		2000	39.43	-5.73	-8.38	-7.75	-257.73	1.14	1.45	-2.16	45.56	-0.21	-0.25	1.16
		1999	36.27	2.58	0.47	56.38	69.52	0.66	1.85	1.22	34.13	0.01	0.09	0.94
		1998	27.51	1.57	0.17	0.47	29.86	0.43	2.06	1.12	26.12	0.01	0.07	0.95
28	**Twilight Li-Taka Pharma Ltd**	2004	54.75	4.71	0.42	24.84	60.33	0.00	0.75	1.10	54.81	0.01	0.16	1.00
		2003	56.56	2.55	-1.92	-7.66	65.00	0.00	0.72	0.57	51.83	-0.03	0.09	0.92
		2002	48.45	1.16	-3.38	10.28	29.41	0.00	0.75	0.42	49.46	-0.07	0.04	1.02
		2001	43.12	0.73	-3.31	-4.79	84.78	7.51	0.78	0.18	40.65	-0.08	0.03	0.94
		2000	28.95	0.49	-1.22	5.75	-73.71	4.00	0.86	0.15	29.35	-0.04	0.02	1.01
		1999	82.39	2.42	-0.27	44.16	-480.43	2.59	0.96	0.90	89.88	0.00	0.09	1.09
		1998	26.43	-1.18	-2.49	27.98	-159.74	1.12	1.13	-0.71	32.75	-0.09	-0.07	1.24

Sr. No.	Name of Company	Year	Net Sale	PBIT	PBT	ROG-Total Assets	ROG-PBIDT	D/E	CA/CL	Gearing Ratio	Operating Exps.	Profit Margin	ROCE	Expense Ratio
29	**Sun Pharmaceuticals Industries Ltd**	2004	944.63	297.63	294.01	64.83	17.69	0.21	1.92	82.22	655.46	0.31	0.25	0.69
		2003	793.32	253.77	252.83	33.18	31.04	0.01	2.76	269.97	535.80	0.32	0.36	0.68
		2002	696.37	190.89	187.28	11.56	23.61	0.04	2.73	52.88	475.54	0.27	0.36	0.68
		2001	560.84	152.28	144.63	21.91	48.25	0.10	2.53	19.91	438.61	0.26	0.30	0.78
		2000	441.89	100.71	90.30	7.89	39.26	0.17	2.21	9.67	343.72	0.20	0.24	0.78
		1999	336.17	72.94	60.99	43.35	10.03	0.20	2.31	6.10	267.31	0.18	0.19	0.80
		1998	257.31	68.19	57.12	44.93	23.70	0.15	2.89	6.16	192.11	0.22	0.26	0.75
30	**SRHHL Industries Ltd**	2004	64.26	4.05	2.18	4.63	3.71	0.44	1.20	2.17	60.87	0.03	0.04	0.95
		2003	58.23	4.07	2.17	2.38	9.97	0.34	1.27	2.14	52.55	0.04	0.04	0.90
		2002	44.55	3.58	2.13	1.66	3.55	0.27	1.41	2.47	41.11	0.05	0.04	0.92
		2001	44.10	3.37	2.00	25.02	-3.43	0.41	1.32	2.46	40.20	0.05	0.04	0.91
		2000	38.11	3.80	1.97	30.08	0.16	0.71	1.12	1.79	33.67	0.05	0.05	0.88
		1999	39.06	4.16	1.82	5.29	-10.15	0.74	1.31	1.78	33.74	0.05	0.07	0.86
		1998	38.69	4.93	1.65	4.98	36.82	0.66	1.57	1.50	32.30	0.04	0.09	0.83
31	**NLC Nalco India Ltd**	2004	82.79	17.62	15.89	-6.38	38.25	1.01	1.51	10.18	64.95	0.19	0.36	0.78
		2003	64.54	11.79	9.01	0.71	32.71	0.86	1.22	4.24	50.60	0.14	0.22	0.78
		2002	56.44	8.18	6.80	5.79	98.06	0.60	1.10	5.93	45.55	0.12	0.13	0.81
		2001	58.66	3.17	0.49	-6.37	-62.41	0.62	1.04	1.18	53.53	0.01	0.05	0.91
		2000	56.89	13.02	12.55	55.36	17.22	0.33	1.41	27.70	41.88	0.22	0.22	0.74
		1999	49.11	11.05	10.78	20.54	52.73	0.04	2.41	40.93	37.84	0.22	0.34	0.77
		1998	35.72	7.06	6.83	11.20	-32.64	0.08	2.53	30.70	27.94	0.19	0.24	0.78
32	**Dr Reddys Laboratories Ltd**	2004	1661.22	307.58	303.35	16.30	-23.84	0.02	3.73	72.71	1367.32	0.18	0.15	0.82
		2003	1513.61	437.21	431.16	26.00	-6.44	0.01	4.86	72.27	1085.66	0.28	0.24	0.72
		2002	1486.77	484.92	470.77	76.89	103.63	0.19	3.09	34.27	1051.34	0.32	0.33	0.71
		2001	912.76	218.93	175.55	55.75	171.64	0.56	1.69	5.05	697.31	0.19	0.24	0.76
		2000	437.90	83.17	66.82	17.30	16.29	0.35	2.03	5.09	346.28	0.15	0.14	0.79
		1999	379.42	72.60	59.76	27.88	17.77	0.24	2.63	5.65	311.05	0.16	0.15	0.82
		1998	298.54	63.72	53.34	9.58	38.49	0.19	2.62	6.80	227.08	0.18	0.16	0.76

Sr. No.	Name of Company	Year	Net Sale	PBIT	PBT	ROG-Total Assets	ROG-PBIDT	D/E	CA/CL	Gearing Ratio	Operating Exps.	Profit Margin	ROCE	Expense Ratio
33	**Roto Pumps Ltd**	2004	13.94	0.69	0.21	0.97	143.14	0.40	1.54	1.33	12.65	0.02	0.05	0.91
		2003	12.24	-0.12	-0.64	-4.25	18.60	0.43	1.41	-0.23	12.11	-0.05	-0.01	0.99
		2002	9.59	-0.25	-0.85	-2.00	-162.32	0.42	1.41	-0.42	9.74	-0.09	-0.02	1.02
		2001	10.34	-1.43	-1.87	-5.14	-155.20	0.33	1.60	-3.25	11.59	-0.18	-0.10	1.12
		2000	11.02	0.48	0.01	-1.70	-12.59	0.32	1.71	1.02	10.13	0.00	0.03	0.92
		1999	12.40	0.60	0.01	-1.83	-21.86	0.36	1.69	1.02	10.99	0.00	0.04	0.89
		1998	12.81	0.92	0.18	-13.96	-26.51	0.44	1.57	1.24	11.29	0.01	0.06	0.88
34	**GHCL Ltd**	2004	460.45	56.94	41.28	7.68	-10.87	0.61	0.81	3.64	483.27	0.09	0.15	1.05
		2003	430.68	71.33	50.18	-1.60	-7.51	0.60	0.78	3.37	440.36	0.12	0.21	1.02
		2002	401.96	79.83	50.07	6.25	10.29	0.62	1.27	2.68	415.71	0.12	0.23	1.03
		2001	363.18	71.94	30.11	-7.25	15.98	0.70	2.32	1.72	378.36	0.08	0.16	1.04
		2000	332.83	59.48	25.18	19.67	-14.62	0.72	2.33	1.73	364.28	0.08	0.12	1.09
		1999	343.82	77.55	46.59	4.79	-3.25	0.66	2.07	2.50	356.84	0.14	0.19	1.04
		1998	299.63	78.93	53.21	13.56	2.05	0.68	2.06	3.07	301.93	0.18	0.21	1.01
35	**DLF Ltd**	2004	481.77	57.48	48.07	46.78	32.28	0.97	1.31	6.11	435.57	0.10	0.07	0.90
		2003	244.95	43.01	37.62	4.84	-25.90	0.13	1.09	7.98	256.99	0.15	0.14	1.05
		2002	280.03	57.19	37.18	-1.25	-18.09	0.30	1.10	2.86	294.82	0.13	0.19	1.05
		2001	129.61	68.22	31.34	0.97	-50.19	0.91	1.22	1.85	161.44	0.24	0.20	1.25
		2000	110.09	144.86	60.31	17.51	14.34	2.45	1.47	1.16	105.78	0.55	0.28	0.96
		1999	187.16	129.34	32.11	31.40	93.44	4.59	1.58	1.33	94.05	0.17	0.25	0.50
		1998	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
36	**Repro India Ltd**	2004	81.21	6.76	4.93	27.23	-17.56	1.20	1.14	3.69	71.55	0.06	0.11	0.88
		2003	74.05	9.08	6.38	2.41	16.67	0.96	2.47	3.36	61.79	0.09	0.17	0.83
		2002	63.59	7.50	3.89	-3.18	-30.89	0.92	4.16	2.08	52.48	0.06	0.12	0.83
		2001	60.06	12.16	7.30	4.16	4.76	1.11	3.24	2.50	47.79	0.12	0.19	0.80
		2000	45.54	11.77	6.22	9.52	39.37	1.34	3.12	2.12	31.62	0.14	0.20	0.69
		1999	35.62	8.27	3.92	14.75	28.79	1.50	3.93	1.90	26.62	0.11	0.15	0.75
		1998	33.74	6.17	1.46	0.00	0.00	1.56	4.26	1.31	32.28	0.04	0.12	0.96

Sr. No.	Name of Company	Year	Net Sale	PBIT	PBT	ROG-Total Assets	ROG-PBIDT	D/E	CA/CL	Gearing Ratio	Operating Exps.	Profit Margin	ROCE	Expense Ratio
37	**Finolex Cables Ltd**	2004	450.97	50.35	32.56	4.52	0.51	0.37	1.28	1.55	467.54	0.07	0.07	1.04
		2003	445.66	52.79	28.23	0.04	-31.25	0.29	1.46	2.03	380.45	0.06	0.07	0.85
		2002	574.57	88.80	72.44	29.14	-15.38	0.19	2.08	5.43	477.47	0.13	0.13	0.83
		2001	524.56	112.21	92.61	3.45	2.70	0.20	2.95	5.73	434.96	0.18	0.16	0.83
		2000	482.11	112.76	94.65	-17.34	7.79	0.21	2.33	6.23	393.91	0.20	0.17	0.82
		1999	383.01	109.73	86.02	0.60	-0.35	0.29	2.27	4.63	287.13	0.22	0.16	0.75
		1998	381.55	105.75	69.92	2.42	7.62	0.42	2.43	2.95	279.41	0.18	0.15	0.73
38	**Hindustan Organic Chemicals Ltd**	2004	413.05	-78.39	-116.29	-32.32	-258.00	22.18	1.12	-2.07	489.10	-0.28	-0.21	1.18
		2003	399.27	3.67	-41.52	16.18	-285.60	3.17	1.45	0.08	378.91	-0.10	0.01	0.95
		2002	259.25	-45.43	-91.45	-2.11	-142.68	2.15	1.39	-0.99	273.31	-0.35	-0.08	1.05
		2001	349.20	11.73	-37.48	-7.99	-307.65	1.52	1.15	0.24	326.54	-0.11	0.02	0.94
		2000	359.66	-47.77	-94.70	-7.54	-149.22	1.02	1.15	-0.80	368.31	-0.26	-0.08	1.02
		1999	349.96	12.14	-20.00	-1.65	-18.33	0.78	1.30	0.38	331.77	-0.06	0.02	0.95
		1998	404.35	23.73	-5.09	4.12	32.37	0.68	1.40	0.82	381.22	-0.01	0.04	0.94
39	**Tata Coffee Ltd**	2004	176.30	26.92	21.99	15.24	1.24	0.45	1.23	5.46	164.94	0.12	0.12	0.94
		2003	165.14	26.30	20.26	2.76	15.96	0.45	1.08	3.26	139.10	0.12	0.13	0.84
		2002	174.20	21.50	13.17	8.34	-4.17	0.49	1.12	2.29	155.78	0.08	0.11	0.89
		2001	208.41	22.75	14.63	15.56	-43.08	0.31	1.46	2.48	186.51	0.07	0.12	0.89
		2000	213.94	45.37	39.67	69.41	49.34	0.21	1.52	7.96	166.94	0.19	0.32	0.78
		1999	110.09	30.78	26.48	3.79	-0.18	0.35	1.18	7.16	83.41	0.24	0.41	0.76
		1998	106.55	31.11	25.53	1.04	28.75	0.59	1.05	5.58	77.92	0.24	0.44	0.73
40	**Gulf Oil Corporation Ltd**	2004	372.04	38.64	27.99	-5.70	30.06	0.71	1.37	1.24	360.73	0.08	0.19	0.97
		2003	359.28	27.82	11.33	-11.88	32.77	0.87	1.44	1.41	342.81	0.03	0.13	0.95
		2002	223.45	21.89	9.79	87.93	-63.84	0.76	1.59	1.66	206.15	0.04	0.08	0.92
		2001	172.11	71.56	60.84	42.53	355.98	0.76	2.04	-0.33	179.45	0.35	0.46	1.04
		2000	151.91	13.46	5.68	9.40	8.98	1.14	1.90	1.73	141.65	0.04	0.12	0.93
		1999	142.57	12.85	5.57	5.57	-31.74	1.00	1.56	2.11	133.38	0.04	0.13	0.94
		1998	146.83	20.04	12.04	14.06	23.43	0.92	1.48	2.51	129.09	0.08	0.22	0.88

Sr. No.	Name of Company	Year	Net Sale	PBIT	PBT	ROG-Total Assets	ROG-PBIDT	D/E	CA/CL	Gearing Ratio	Operating Exps.	Profit Margin	ROCE	Expense Ratio
41	**Pidilite Industries Ltd**	2004	651.99	95.29	91.58	12.63	2.77	0.17	1.64	25.68	553.22	0.14	0.26	0.85
		2003	573.71	95.00	90.17	9.53	15.91	0.16	1.76	19.67	462.83	0.16	0.30	0.81
		2002	493.28	82.43	76.65	18.62	11.42	0.19	1.70	14.26	405.28	0.16	0.27	0.82
		2001	452.39	74.49	66.11	1.47	3.33	0.31	1.41	8.89	364.72	0.15	0.28	0.81
		2000	387.56	76.46	70.14	33.50	22.95	0.42	1.25	12.10	314.93	0.18	0.29	0.81
		1999	330.07	62.05	53.23	7.11	25.20	0.55	1.28	7.04	265.01	0.16	0.33	0.80
		1998	293.70	48.62	38.41	6.34	25.54	0.85	1.50	4.76	242.36	0.13	0.26	0.83
42	**TTK Healthcare Ltd**	2004	148.58	4.31	1.06	-8.87	-9.60	0.77	1.36	1.39	140.03	0.01	0.07	0.94
		2003	142.38	4.94	0.61	-5.30	525.00	0.82	1.44	1.14	137.91	0.00	0.08	0.97
		2002	119.63	-0.73	-8.84	-14.70	-81.60	1.08	1.44	-2.61	132.23	-0.07	-0.01	1.11
		2001	137.57	4.96	-4.44	15.84	-23.11	1.52	1.55	0.71	138.29	-0.03	0.05	1.01
		2000	106.43	7.56	2.62	8.54	-21.63	1.61	1.58	1.40		0.02	0.09	0.00
		1999	129.68	9.57	3.00	7.36	-15.47	1.35	1.35	1.46	118.42	0.02	0.14	0.91
		1998	119.92	11.49	6.04	15.30	24.03	1.29	1.58	2.11	113.94	0.05	0.18	0.95
43	**HBL Power Systems Ltd**	2004	174.74	19.23	12.46	2.20	-10.27	0.66	1.53	2.84	149.29	0.07	0.12	0.85
		2003	182.55	22.71	13.82	10.39	3.33	0.69	1.66	2.33	160.55	0.08	0.14	0.88
		2002	156.72	22.50	13.69	10.44	-6.89	0.70	1.79	2.55	134.39	0.09	0.15	0.86
		2001	157.71	24.91	15.90	8.68	20.98	0.78	1.77	2.76	132.22	0.10	0.18	0.84
		2000	129.17	20.97	13.99	213.43	60.17	0.76	1.71	3.00	111.80	0.11	0.17	0.87
		1999	57.97	13.84	11.62	94.87	135.50	0.49	1.73	6.23	45.63	0.20	0.39	0.79
		1998	27.67	5.71	4.70	41.35	120.86	0.46	1.56	5.65	23.00	0.17	0.37	0.83
44	**Carol Info Services Ltd**	2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		2003	33.78	-1.93	-9.05	-32.95	-87.18	0.31	2.13	0.77	51.12	-0.27	-0.01	1.51
		2002	140.38	30.69	3.54	-10.54	182.17	0.64	1.49	-0.01	224.80	0.03	0.06	1.60
		2001	188.15	-0.77	-27.31	1.24	-55.08	0.58	1.63	-0.03	175.29	-0.15	0.00	0.93
		2000	199.75	15.61	-14.60	-45.27	-79.50	0.46	1.71	0.31	186.44	-0.07	0.03	0.93
		1999	823.45	142.99	109.94	18.22	93.81	0.43	2.23	4.33	680.23	0.13	0.14	0.83
		1998	387.75	73.58	73.58	30.34	10.35	0.29	3.44	0.00	316.71	0.19	0.09	0.82

Sr. No.	Name of Company	Year	Net Sale	PBIT	PBT	ROG-Total Assets	ROG-PBIDT	D/E	CA/CL	Gearing Ratio	Operating Exps.	Profit Margin	ROCE	Expense Ratio
45	**Todays Writing Products Ltd**	2004	82.07	8.95	6.19	-2.82	48.57	0.53	1.52	3.24	73.29	0.08	0.15	0.89
		2003	72.25	5.66	2.91	8.58	-17.42	0.61	1.37	2.06	66.24	0.04	0.10	0.92
		2002	78.31	7.66	5.53	21.95	2.18	0.56	1.31	3.60	74.58	0.07	0.16	0.95
		2001	77.91	7.87	6.82	104.55	75.96	0.39	1.27	7.50	70.92	0.09	0.21	0.91
		2000	50.40	4.36	3.96	41.50	68.37	0.16	1.22	10.90	45.66	0.08	0.28	0.91
		1999	26.57	2.49	2.43	52.67	6.91	0.06	1.45	41.50	26.50	0.09	0.22	1.00
		1998	25.95	2.43	2.41	12.95	95.04	0.00	1.90	121.50	23.54	0.09	0.27	0.91
46	**Jindal Poly Films Ltd**	2004	542.39	92.35	80.14	38.92	53.20	0.41	0.70	7.56	425.47	0.15	0.15	0.78
		2003	395.98	52.66	40.85	15.43	-2.96	0.32	0.83	4.46	337.88	0.10	0.11	0.85
		2002	368.60	56.24	40.78	-2.07	45.55	0.40	1.23	3.64	287.13	0.11	0.13	0.78
		2001	348.22	31.85	13.44	4.57	25.69	0.77	1.61	1.73	298.24	0.04	0.06	0.86
		2000	307.84	28.35	8.56	21.44	-11.37	1.31	1.53	1.43	271.15	0.03	0.06	0.88
		1999	241.30	36.61	15.28	9.23	25.50	1.67	1.55	1.72	191.15	0.06	0.09	0.79
		1998	233.46	27.06	8.77	3.87	18.51	1.68	1.76	1.48	196.99	0.04	0.07	0.84
47	**Gujarat Perstorp Electronics Ltd**	2004	4.27	-5.24	-6.37	-32.84	-3663.64	0.00	0.72	-4.64	6.78	-1.49	-0.37	1.59
		2003	12.35	-1.18	-2.44	-15.62	-116.92	0.00	1.06	-0.94	11.51	-0.20	-0.06	0.93
		2002	14.57	-1.94	-3.44	-15.16	-128.51	0.00	1.15	-1.29	15.45	-0.24	-0.08	1.06
		2001	24.74	0.99	-0.71	5.96	456.10	0.00	1.04	0.58	24.22	-0.03	0.04	0.98
		2000	16.38	-0.85	-3.30	2.65	-327.78	0.00	0.97	-0.35	14.74	-0.20	-0.03	0.90
		1999	4.77	-0.81	-2.81	0.96	-70.00	0.00	0.92	-0.41	4.77	-0.59	-0.03	1.00
		1998	4.90	-1.85	-5.79	20.32	-233.33	0.00	0.62	-0.47	8.15	-1.18	-0.07	1.66
48	**Berger Paints (India) Ltd**	2004	670.61	64.55	61.42	13.04	22.38	0.22	1.85	20.62	611.12	0.09	0.29	0.91
		2003	582.28	51.01	45.23	1.25	17.50	0.36	1.69	8.83	523.71	0.08	0.25	0.90
		2002	524.95	43.19	34.62	-1.85	8.57	0.57	1.56	5.04	478.51	0.07	0.19	0.91
		2001	490.38	41.84	32.92	15.58	19.98	0.61	1.60	4.69	449.68	0.07	0.18	0.92
		2000	437.99	35.48	27.03	5.20	6.70	0.62	1.67	4.20	402.97	0.06	0.18	0.92
		1999	365.67	34.36	24.56	46.13	13.01	0.60	1.57	3.51	355.93	0.07	0.18	0.97
		1998	299.84	31.42	24.41	17.28	8.15	0.63	1.47	4.48	324.19	0.08	0.26	1.08

Sr. No.	Name of Company	Year	Net Sale	PBIT	PBT	ROG-Total Assets	ROG-PBIDT	D/E	CA/CL	Gearing Ratio	Operating Exps.	Profit Margin	ROCE	Expense Ratio
49	**Hindustan Unilever Ltd**	2004	9931.51	1614.98	1485.00	-5.18	-26.43	0.75	0.90	12.42	8763.67	0.15	0.45	0.88
		2003	10108.37	2234.74	2167.98	4.24	1.07	0.30	0.94	33.47	8492.54	0.21	0.58	0.84
		2002	9952.18	2200.37	2191.19	11.48	10.18	0.02	1.02	239.69	8180.41	0.22	0.59	0.82
		2001	10633.70	1974.13	1966.39	17.40	17.11	0.04	0.96	255.06	9092.04	0.18	0.63	0.86
		2000	10584.27	1678.24	1665.09	12.35	17.55	0.06	0.94	127.62	9056.17	0.16	0.65	0.86
		1999	10133.51	1410.33	1387.94	17.08	25.94	0.12	1.04	62.99	9055.78	0.14	0.62	0.89
		1998	9461.83	1120.99	1091.71	23.61	30.95	0.15	1.05	38.29	8497.57	0.12	0.57	0.90
50	**Jubilant Organosys Ltd**	2004	858.52	135.22	97.89	15.56	24.28	2.38	1.08	3.62	706.20	0.11	0.22	0.82
		2003	696.94	110.96	64.13	24.06	40.05	2.87	1.16	2.37	588.17	0.09	0.20	0.84
		2002	585.37	70.76	21.61	7.51	17.59	2.61	1.26	1.44	504.98	0.04	0.16	0.86
		2001	544.07	61.16	12.98	5.53	17.65	2.38	1.30	1.31	479.62	0.02	0.12	0.88
		2000	406.70	51.96	10.53	21.63	-6.98	2.20	1.42	1.25	348.94	0.03	0.11	0.86
		1999	319.19	58.17	23.05	2.97	2.68	2.12	1.54	1.66	247.19	0.07	0.15	0.77
		1998	286.50	58.14	31.00	35.05	14.83	1.75	1.40	2.14	229.97	0.11	0.17	0.80
51	**Bright Brothers Ltd**	2004	122.56	5.44	-3.19	-7.81	-3.82	2.29	1.47	0.63	109.75	-0.03	0.07	0.90
		2003	124.35	4.76	-4.97	-6.68	2.21	2.18	1.34	0.49	109.94	-0.04	0.06	0.88
		2002	116.57	4.35	-6.10	-2.36	-33.33	2.09	1.26	0.33	105.78	-0.05	0.05	0.91
		2001	114.23	11.28	-0.47	-6.12	-16.09	2.21	1.25	0.95	93.53	0.00	0.13	0.82
		2000	130.23	14.52	0.93	26.81	48.26	2.44	1.28	1.04	106.95	0.01	0.15	0.82
		1999	77.06	9.82	2.06	5.44	15.79	2.49	1.28	0.34	69.16	0.03	0.13	0.90
		1998	87.55	9.25	1.96	18.76	68.10	2.33	1.23	1.27	75.64	0.02	0.13	0.86
52	**Ion Exchange (India) Ltd**	2004	197.13	15.41	2.64	-3.22	0.70	0.77	1.73	1.24	178.48	0.01	0.09	0.91
		2003	177.69	15.47	2.92	5.66	-11.56	0.74	1.61	1.23	161.82	0.02	0.09	0.91
		2002	166.59	18.27	5.75	2.18	49.08	0.73	1.59	0.91	149.20	0.03	0.11	0.90
		2001	153.36	9.98	-4.69	-6.80	4.02	0.78	1.76	0.68	146.96	-0.03	0.06	0.96
		2000	165.40	10.09	-3.95	-2.98	-30.44	0.67	2.02	0.76	156.03	-0.02	0.05	0.94
		1999	158.92	16.35	5.55	6.07	-28.92	0.53	2.05	0.82	151.89	0.03	0.08	0.96
		1998	164.79	25.11	15.40	18.78	9.00	0.47	2.07	2.59	146.00	0.09	0.14	0.89

Sr. No.	Name of Company	Year	Net Sale	PBIT	PBT	ROG-Total Assets	ROG-PBIDT	D/E	CA/CL	Gearing Ratio	Operating Exps.	Profit Margin	ROCE	Expense Ratio
53	**Hindustan Fluoro Carbons Ltd**	2004	21.21	-6.24	-10.13	-14.90	-426.81	0.00	0.54	-1.60	33.44	-0.48	-0.29	1.58
		2003	22.37	-0.35	-4.59	3.79	-50.00	0.00	0.59	-0.08	31.06	-0.21	-0.01	1.39
		2002	29.52	1.05	-2.60	1.83	-16.62	0.00	0.53	0.29	35.92	-0.09	0.04	1.22
		2001	29.29	1.60	-2.08	-6.22	359.72	0.00	0.48	0.43	35.17	-0.07	0.06	1.20
		2000	21.83	-0.98	-5.25	-9.13	-73.91	0.00	0.49	-0.23	33.78	-0.24	-0.04	1.55
		1999	20.62	1.08	-3.19	-1.51	-263.31	0.00	0.81	0.25	23.81	-0.15	0.04	1.15
		1998	18.70	-3.37	-12.28	-9.62	-153.31	0.00	2.35	-0.38	30.98	-0.66	-0.11	1.66
54	**IFGL Refractories Ltd**	2004	93.05	14.17	13.57	20.73	40.97	0.23	1.73	23.62	75.70	0.15	0.28	0.81
		2003	74.14	6.57	6.03	18.81	225.25	0.27	2.12	12.17	62.39	0.08	0.15	0.84
		2002	45.38	1.79	0.86	0.64	-4.76	0.31	2.37	2.77	40.53	0.02	0.04	0.89
		2001	44.80	1.89	0.26	-9.09	-28.08	0.37	2.06	1.33	42.97	0.01	0.04	0.96
		2000	44.22	3.23	1.02	68.88	102.78	0.48	2.03	1.46	40.80	0.02	0.06	0.92
		1999	19.52	1.44	0.04	-2.79	-27.64	0.55	2.38	1.04	17.61	0.00	0.05	0.90
		1998	25.21	2.40	0.08	-11.73	-20.08	0.62	2.10	1.01	21.45	0.00	0.07	0.85
55	**Pix Transmission Ltd**	2004	72.81	7.72	1.80	5.68	15.09	1.72	1.41	1.30	60.70	0.02	0.11	0.83
		2003	60.54	6.68	0.92	6.34	15.43	1.65	1.47	1.16	50.22	0.02	0.10	0.83
		2002	50.07	6.12	0.77	11.98	-4.10	1.34	1.74	1.14	41.67	0.02	0.10	0.83
		2001	49.19	7.17	1.94	-0.93	-13.19	1.16	1.45	1.37	39.87	0.04	0.12	0.81
		2000	44.70	8.93	3.83	16.85	4.35	1.44	1.04	1.75	34.58	0.09	0.15	0.77
		1999	59.65	8.92	2.19	13.03	245.00	1.74	1.39	1.33	51.31	0.04	0.17	0.86
		1998	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
56	**Zenith Computers Ltd**	2004	285.49	6.38	3.37	17.91	113.30	0.82	1.49	2.12	250.83	0.01	0.08	0.88
		2003	212.85	3.21	1.11	59.65	-27.11	0.89	1.59	1.53	184.41	0.01	0.04	0.87
		2002	191.84	4.97	0.63	21.08	-43.68	0.97	1.64	1.15	168.33	0.00	0.06	0.88
		2001	233.64	9.33	2.35	-36.03	-32.17	1.00	1.52	1.34	200.53	0.01	0.11	0.86
		2000	221.56	12.84	5.30	1.99	16.08	0.99	1.40	1.70	189.20	0.02	0.14	0.85
		1999	204.00	11.60	3.53	31.63	15.34	0.95	1.39	1.51	175.41	0.02	0.14	0.86
		1998	175.94	9.89	3.03	30.21	50.83	0.86	1.52	1.50	156.35	0.02	0.13	0.89

ANNEXURE – B

EMPIRICAL RESULTS – RONW, MVA AND EVA ANALYSIS

			Net		Mkt.	Total	Cap.	Tax		
sr.no.	Name of company	Year	worth	PAT	Cap.	Debt	Empl.	Rate	COCE	NOPAT
1	Ultramarine & Pigments Ltd	2004	42.46	9.16	38.33	5.70	48.16	0.22	9.74	9.71
		2003	37.27	3.19	20.86	14.83	52.10	0.37	8.96	4.09
		2002	36.36	4.15	21.22	18.99	55.35	0.24	9.65	5.94
		2001	38.97	2.14	21.17	21.97	60.94	0.39	10.19	3.90
		2000	38.11	5.50	90.00	12.44	50.60	0.25	9.67	6.92
		1999	34.36	5.51	19.80	15.17	49.54	0.23	9.22	7.30
		1998	30.62	5.02	22.50	12.44	43.06	0.16	8.55	6.95
2	Crompton Greaves Ltd	2004	324.49	70.83	806.76	333.65	658.14	0.08	110.21	107.39
		2003	424.62	28.17	269.18	459.22	883.84	0.01	161.51	94.07
		2002	399.35	4.13	240.90	570.71	970.06	0.00	168.39	82.26
		2001	302.78	-73.16	125.43	591.16	893.94	0.00	161.14	17.72
		2000	377.92	-146.57	200.58	809.56	1187.48	0.00	211.29	-21.92
		1999	551.08	23.12	187.52	691.19	1242.27	0.04	215.20	114.13
		1998	547.31	21.52	217.25	614.73	1162.04	-0.04	216.22	114.27
3	Areva T&D India Ltd	2004	174.60	16.88	137.42	13.79	188.39	0.10	43.92	21.11
		2003	163.35	6.54	91.55	15.15	178.50	0.09	43.49	12.48
		2002	156.81	-2.07	76.19	37.14	193.95	0.00	44.29	6.01
		2001	147.79	-2.75	65.82	23.73	171.52	0.00	42.08	4.95
		2000	150.45	1.73	115.42	48.08	198.53	0.12	42.02	8.64
		1999	142.47	-9.51	202.38	32.32	174.79	0.00	42.35	-0.72
		1998	151.97	3.84	204.97	50.28	202.25	0.50	37.85	8.60
4	BPL Ltd	2004	338.69	-74.04	97.47	857.01	1224.04	0.00	84.49	-68.94
		2003	428.43	-214.58	110.21	1240.21	1716.98	0.00	324.88	7.17
		2002	644.93	37.90	155.40	951.14	1644.41	0.10	259.08	147.03
		2001	613.14	81.15	190.58	752.91	1447.72	0.10	206.25	137.11
		2000	547.33	107.13	595.55	486.47	1083.80	0.10	184.02	161.95
		1999	462.79	103.73	1092.77	414.32	927.11	0.09	157.31	150.13
		1998	368.95	85.57	492.23	406.55	775.50	0.07	128.75	134.21

sr.no.	Name of company	Year	Net worth	PAT	Mkt. Cap.	Total Debt	Cap. Empl.	Tax Rate	COCE	NOPAT
5	Samtel Color Ltd	2004	193.31	12.50	170.96	251.31	444.62	0.07	82.82	53.50
		2003	187.65	19.99	73.21	359.82	547.47	0.04	85.29	64.69
		2002	174.49	25.64	93.17	367.33	541.82	0.09	69.26	57.16
		2001	212.93	41.57	96.21	247.09	460.02	0.09	78.00	73.52
		2000	162.03	37.31	151.04	203.32	365.35	0.07	72.74	75.00
		1999	90.42	-9.81	33.66	232.01	322.43	0.00	62.22	32.85
		1998	100.23	-8.47	23.87	228.45	328.68	0.00	46.97	16.82
6	TRF Ltd	2004	39.17	3.32	28.60	43.53	82.70	0.52	9.82	4.66
		2003	37.47	-0.43	11.58	30.19	67.66	0.00	11.48	2.95
		2002	38.63	9.34	12.65	18.70	57.33	0.10	10.09	11.08
		2001	33.39	3.15	10.59	2.08	35.47	0.37	9.07	4.99
		2000	31.82	4.94	10.45	15.67	47.49	0.22	10.26	8.31
		1999	26.92	1.28	18.81	27.48	54.40	0.57	8.61	4.06
		1998	26.68	9.28	18.02	29.56	56.24	0.21	11.85	15.36
7	GMR	2004	106.64	11.10	61.88	187.36	327.44	0.06	43.26	24.06
		2003	101.29	8.14	24.32	117.11	258.09	0.15	51.34	28.99
		2002	75.29	3.51	24.59	158.56	251.40	0.04	43.26	26.69
		2001	84.53	2.66	26.75	177.64	271.42	0.00	41.21	23.59
		2000	81.87	14.45	53.90	162.39	253.51	0.06	36.28	31.03
		1999	51.70	14.62	16.60	77.90	132.60	0.13	17.26	20.05
		1998	38.95	7.05	11.76	47.85	86.80	0.01	15.08	13.71
8	Dharamsi Morarji Chemicals Co Ltd	2004	34.81	-5.74	12.15	97.99	138.80	0.00	20.73	6.16
		2003	58.76	0.41	11.16	112.44	181.20	0.09	27.78	13.32
		2002	59.85	1.75	11.57	125.20	195.05	0.00	32.47	19.11
		2001	74.34	1.59	11.64	134.23	218.57	0.15	32.20	15.54
		2000			22.32	121.40	206.31	0.12	30.70	17.94
		1999	70.65	6.06	23.48	75.76	146.41	0.11	24.88	15.66
		1998	68.06	8.55	31.30	66.85	134.91	0.12	24.21	18.04

sr.no.	Name of company	Year	Net worth	PAT	Mkt. Cap.	Total Debt	Cap. Empl.	Tax Rate	COCE	NOPAT
9	Khaitan Chemicals & Fertilizers Ltd	2004	47.33	6.45	12.66	35.67	83.00	0.09	14.72	10.93
		2003	42.51	-0.93	2.67	33.69	76.20	0.02	15.32	5.20
		2002	43.46	-2.83	11.79	39.08	82.54	0.01	16.50	4.27
		2001	50.40	-3.36	11.74	49.55	99.95	0.00	18.68	4.42
		2000	53.76	2.12	0.00	50.74	104.50	0.12	17.59	8.08
		1999	23.43	6.35	8.22	36.88	60.31	0.11	10.19	11.47
		1998	11.98	4.11	NA	NA	NA	NA	NA	NA
10	Zenith Infotech Ltd	2004	32.30	0.91	15.10	0.00	32.30	0.08	12.95	5.89
		2003	37.88	0.19	11.50	0.00	37.88	0.08	11.43	2.95
		2002	37.89	-7.24	23.11	0.00	37.89	0.11	13.11	4.42
		2001	47.61	1.63	26.53	0.00	47.61	0.08	15.58	8.62
		2000	50.44	4.00	180.21	1.25	51.69	0.05	17.68	12.26
		1999	4.63	2.42	0.00	0.00	4.63	0.10	15.93	10.38
		1998	NA	NA	NA	NA	NA	0.10	14.88	8.91
11	Tata Infotech Ltd(merged)	2004	244.27	59.48	746.60	0.29	244.56	0.08	53.12	59.77
		2003	205.53	30.46	280.66	9.02	214.55	-0.27	45.59	31.59
		2002	190.62	20.50	385.70	21.00	211.62	-0.44	43.01	22.28
		2001	175.86	26.54	249.14	24.54	200.40	0.22	40.37	28.87
		2000			740.07	12.32	173.79	0.01	37.87	15.07
		1999	156.41	46.06	2065.66	24.37	180.78	0.14	35.84	48.07
		1998	118.72	34.33	1107.40	19.74	138.46	0.20	26.95	35.60
12	B & A Ltd	2004	11.31	-0.58	2.49	31.79	43.10	0.00	11.83	3.15
		2003	15.82	-2.39	1.86	29.06	44.88	0.00	13.12	1.58
		2002	18.39	0.14	1.73	24.30	42.69	0.26	12.16	2.53
		2001	19.12	0.42	3.44	19.31	38.43	0.28	11.91	2.32
		2000	20.35	0.85	3.65	17.48	37.83	0.16	12.95	3.44
		1999	20.02	0.18	6.53	16.84	36.86	0.10	12.78	2.55

sr.no.	Name of company	Year	Net worth	PAT	Mkt. Cap.	Total Debt	Cap. Empl.	Tax Rate	COCE	NOPAT
13	Max India Ltd	2004	472.48	18.61	303.94	173.15	645.63	0.07	118.75	35.17
		2003	450.94	-53.26	150.47	144.02	594.96	0.00	123.82	-26.98
		2002	504.20	9.46	282.49	186.72	690.92	1.86	94.54	-5.05
		2001	522.46	5.13	224.03	129.16	651.62	0.30	121.21	13.33
		2000	526.23	37.20	689.49	93.11	619.34	0.12	120.41	43.79
		1999	190.28	176.47	175.49	46.88	237.16	0.01	52.63	187.94
		1998	126.03	8.57	271.50	106.35	232.38	0.19	43.03	24.34
14	Emami Paper Mills Ltd	2004	40.80	1.46	0.00	53.24	94.04	0.09	1236.95	294.77
		2003	40.70	0.75	0.00	53.66	94.36	0.16	1213.66	369.00
		2002	39.67	0.23	0.00	53.01	92.68	0.07	1309.76	463.01
		2001	45.16	-0.74	0.00	52.89	98.05	0.13	1302.28	462.44
		2000	3.34	0.06	0.00	8.23	11.57	0.18	1194.57	401.72
		1999	3.28	0.05	0.00	8.96	12.24	-0.45	1234.64	567.13
		1998	NA	NA	NA	NA	NA	NA	NA	NA
15	Bayer CropScience Ltd	2004	258.43	26.36	1027.40	77.61	336.04	0.44	62.14	32.60
		2003	241.97	35.26	1149.06	226.38	468.35	0.71	58.15	41.07
		2002	88.10	15.48	183.07	147.57	235.67	0.48	28.61	25.04
		2001	76.65	9.17	150.52	156.65	233.30	0.58	27.69	20.28
		2000	85.27	7.27	96.22	211.37	296.64	0.24	40.57	29.40
		1999	81.58	5.04	237.57	189.51	271.09	0.41	34.31	21.70
		1998	80.10	10.03	324.40	178.87	258.97	0.38	34.47	27.18
16	PSL Ltd	2004	167.53	28.00	205.45	204.74	372.27	0.27	66.34	58.11
		2003	161.96	14.72	111.23	197.82	359.78	0.07	66.53	46.22
		2002	160.36	30.97	90.15	189.09	349.45	0.17	62.26	58.55
		2001	NA	NA	NA	NA	NA	NA	NA	NA
		2000	150.01	17.37	58.16	106.91	256.92	0.13	48.52	34.70
		1999	144.20	14.74	115.16	92.96	237.16	0.08	30.41	28.06
		1998	79.01	10.29	21.21	22.80	101.81	0.26	17.52	12.16

sr.no.	Name of company	Year	Net worth	PAT	Mkt. Cap.	Total Debt	Cap. Empl.	Tax Rate	COCE	NOPAT
17	Ratnamani Metals & Tubes Ltd	2004	39.48	4.06	20.57	13.04	52.52	0.11	11.17	6.69
		2003	31.91	2.17	6.20	11.66	43.57	0.19	8.75	4.02
		2002	30.50	1.99	8.43	13.65	44.15	0.21	8.43	3.83
		2001	34.93	2.35	8.76	15.11	50.04	0.23	9.71	4.50
		2000	33.32	2.11	7.65	13.10	46.42	0.19	9.24	4.15
		1999	31.96	2.84	5.39	16.08	48.04	0.23	9.52	5.45
		1998	28.49	3.33	9.89	19.54	48.04	0.12	8.94	6.11
18	Balrampur Chini Mills Ltd	2004	275.33	60.48	577.92	533.81	809.14	0.08	78.07	78.95
		2003	236.31	29.51	209.52	329.10	565.41	0.08	63.88	42.23
		2002	218.48	47.41	229.92	224.20	442.68	0.08	63.68	63.72
		2001	249.37	47.91	164.09	262.73	517.10	0.09	83.57	76.27
		2000	218.05	23.18	157.74	298.01	541.06	0.02	81.92	52.32
		1999	191.33	43.26	161.24	218.64	409.97	0.06	66.01	67.68
		1998	159.60	43.05	220.24	214.96	374.56	0.06	63.38	71.28
19	NHN Corporation Ltd	2004	NA	NA	NA	NA	NA	NA	NA	NA
		2003	-2.84	-17.47	18.05	11.22	8.38	0.00	0.21	-16.65
		2002	15.45	-5.07	27.94	7.83	23.28	0.00	4.52	-3.89
		2001	19.69	-3.80	42.24	8.54	28.23	-0.01	4.92	-3.14
		2000	23.51	0.20	0.00	8.82	32.33	0.09	5.37	0.48
		1999	23.33	0.01	0.00	9.95	33.28	0.00	5.07	0.03
		1998	10.66	0.06	0.00	0.47	11.13	0.00	2.37	0.12
20	Sical Logistics Ltd	2004	127.38	9.66	48.66	384.55	535.93	0.12	54.11	29.20
		2003	118.01	3.56	15.58	450.41	593.87	0.05	49.47	20.13
		2002	112.26	2.09	30.33	438.70	577.41	0.83	35.83	5.17
		2001	151.06	21.52	40.39	526.77	706.83	0.35	72.33	52.07
		2000	142.86	26.01	55.14	462.53	639.39	0.27	77.81	62.65
		1999	130.66	24.02	57.50	438.80	589.46	0.22	68.76	57.20
		1998	94.63	15.20	35.60	272.57	387.20	0.35	49.53	36.98

sr.no.	Name of company	Year	Net worth	PAT	Mkt. Cap.	Total Debt	Cap. Empl.	Tax Rate	COCE	NOPAT
21	Arvind Products Ltd	2004	45.59	-2.07	70.03	13.04	375.51	0.00	38.72	26.79
		2003	47.66	0.45	14.57	11.66	410.19	0.00	41.99	32.13
		2002	47.21	-24.11	0.00	13.65	433.82	0.00	34.36	0.04
		2001	83.31	-88.29	0.00	15.11	473.87	0.00	99.47	-6.84
		2000	171.59	-27.50	0.00	13.10	559.09	0.00	89.71	25.10
		1999	0.13	0.02	0.00	16.08	1.18	2.00	0.03	0.02
		1998	0.15	0.02	0.00	19.54	1.30	0.00	0.03	0.02
22	Bhilwara Spinners Ltd	2004	1.36	-2.98	2.82	52.46	53.82	0.00	7.25	3.98
		2003	4.34	-4.10	2.42	52.51	56.85	0.00	8.71	3.67
		2002	0.33	-2.91	0.82	49.92	50.25	0.00	8.48	5.50
		2001	11.51	-4.25	1.64	54.70	66.21	0.00	11.75	5.01
		2000	15.78	-5.32	2.42	57.58	73.36	0.00	12.86	4.13
		1999	21.10	-4.38	4.09	62.94	84.04	0.00	10.79	1.85
		1998	26.57	2.60	4.43	60.57	87.14	0.11	9.78	6.63
23	RSWM Ltd	2004	177.50	18.45	68.59	224.01	404.01	0.06	54.90	34.41
		2003	164.19	8.74	30.91	209.41	373.60	0.04	59.69	32.91
		2002	158.16	5.20	18.99	204.02	376.68	-0.12	69.38	37.24
		2001	188.95	10.01	29.12	218.69	424.64	0.03	78.63	44.09
		2000	184.60	14.56	50.40	234.82	436.42	0.03	82.41	53.36
		1999	176.59	9.76	36.78	297.82	491.41	0.10	76.55	44.44
		1998	171.88	20.54	60.34	251.13	423.01	0.09	65.70	49.07
24	Shyam Telecom Ltd	2004	195.70	0.47	207.85	7.18	202.88	0.37	43.57	1.71
		2003	195.24	0.27	89.36	15.35	210.59	0.40	44.37	2.41
		2002	195.44	9.59	175.81	40.33	235.77	0.18	47.51	14.83
		2001	194.83	16.37	313.47	52.73	247.56	0.12	49.10	23.33
		2000	164.97	4.45	2349.92	59.02	223.99	0.10	46.29	15.06
		1999	NA	NA	NA	NA	NA	0.10	46.29	15.06
		1998	33.01	2.14	21.74	44.19	77.20	NA	NA	NA

			Net		Mkt.	Total	Cap.	Tax		
sr.no.	**Name of company**	**Year**	**worth**	**PAT**	**Cap.**	**Debt**	**Empl.**	**Rate**	**COCE**	**NOPAT**
25	DPIL Ltd	2004	16.16	-2.04	23.97	3.88	20.04	2.17	2.92	-2.62
		2003	19.03	0.24	32.17	17.31	36.34	0.00	5.00	1.12
		2002	42.03	1.33	0.00	31.47	73.50	0.00	9.74	1.98
		2001	42.54	1.93	0.00	40.30	82.84	0.00	9.40	2.13
		2000	28.16	4.60	0.00	39.81	70.56	0.23	7.44	5.30
		1999	19.78	0.04	0.00	15.42	35.20	0.20	5.05	0.82
		1998	0.53	-1.08	0.00	5.33	5.86	0.00	0.47	-0.72
26	Rossell Tea Ltd	2004	24.57	-2.60	0.00	37.23	65.80	-0.01	9.94	1.16
		2003	27.17	-2.58	0.00	33.78	64.95	0.00	10.76	1.44
		2002	29.59	-1.97	0.00	20.75	50.34	0.00	7.94	-0.43
		2001	32.25	1.19	0.00	15.27	47.52	0.13	8.50	2.71
		2000	31.06	1.61	0.00	10.65	41.71	0.21	7.34	2.23
		1999	29.94	2.85	0.00	0.65	30.59	0.24	6.57	2.95
		1998	28.02	5.83	0.00	2.04	30.06	0.29	6.12	5.89
27	Matrix Laboratories Ltd	2004	177.76	124.61	1741.56	207.51	385.69	0.08	57.30	143.36
		2003	98.98	75.05	255.70	130.68	232.24	0.06	49.01	102.09
		2002	21.51	4.48	23.04	18.98	40.49	0.21	6.38	6.21
		2001	12.30	4.20	5.95	14.77	27.07	0.04	4.47	6.01
		2000	7.95	-8.59	4.42	14.82	22.77	-0.03	4.44	-5.87
		1999	15.99	0.42	6.15	13.07	29.61	0.11	5.46	2.31
		1998	14.34	0.15	2.95	7.19	21.53	0.12	4.34	1.39
28	Twilight Li-Taka Pharma Ltd	2004	-3.07	0.57	8.30	31.70	28.63	-0.36	6.39	6.39
		2003	-3.64	-1.92	1.74	31.76	28.12	0.00	4.92	2.55
		2002	-1.72	-3.38	2.86	28.68	26.96	0.00	5.41	1.16
		2001	1.71	-3.31	4.25	26.45	28.16	0.00	5.65	0.73
		2000	4.54	-1.22	6.56	20.46	25.00	0.00	2.69	0.49
		1999	5.79	-0.28	4.80	20.82	26.61	-0.04	4.04	2.51
		1998	6.43	-2.49	3.60	10.77	17.20	0.00	2.90	-0.98

sr.no.	Name of company	Year	Net worth	PAT	Mkt. Cap.	Total Debt	Cap. Empl.	Tax Rate	COCE	NOPAT
29	Sun Pharmaceuticals Industries Ltd	2004	844.11	240.60	6027.17	312.25	1171.82	0.03	189.44	244.11
		2003	680.52	231.41	2521.60	9.24	705.46	0.06	151.47	232.29
		2002	535.62	171.28	3131.55	0.17	535.79	0.07	119.23	174.65
		2001	432.61	135.18	2530.11	35.71	501.04	0.07	107.80	142.33
		2000	315.16	83.66	2960.64	48.62	412.86	0.07	88.43	93.30
		1999	266.17	59.04	755.97	67.03	383.38	0.03	79.99	70.61
		1998	222.32	56.12	366.87	40.80	263.12	0.02	58.96	67.00
30	SRHHL Industries Ltd	2004	66.48	1.82	8.60	29.88	96.36	0.08	16.10	3.54
		2003	64.66	1.99	4.54	27.36	92.02	0.06	15.76	3.77
		2002	68.73	1.86	5.63	18.35	87.08	0.08	16.21	3.20
		2001	66.78	1.83	2.62	19.82	94.03	0.09	17.31	3.08
		2000	44.28	1.74	7.65	30.91	79.43	0.12	12.11	3.36
		1999	33.44	1.67	4.51	27.39	60.83	0.08	9.38	3.82
		1998	31.76	1.44	5.10	21.00	52.76	0.13	9.73	4.30
31	NLC Nalco India Ltd	2004	28.70	10.25	136.00	20.04	48.74	0.31	7.41	11.45
		2003	22.21	8.13	165.00	31.27	53.48	0.35	6.61	9.94
		2002	39.45	4.31	80.00	21.74	61.19	0.49	9.24	5.02
		2001	35.61	-1.16	124.20	23.22	58.83	3.37	1.36	-7.50
		2000	37.25	7.55	200.00	21.95	59.20	0.40	8.34	7.83
		1999	31.92	6.68	212.50	0.97	32.89	0.38	7.07	6.85
		1998	27.46	4.26	142.50	1.58	29.04	0.38	6.08	4.40
32	Dr Reddys Laboratories Ltd	2004	2047.02	283.20	7452.67	58.22	2105.24	0.07	446.72	287.15
		2003	1806.92	392.09	7014.59	28.76	1835.68	0.09	396.32	397.58
		2002	1457.99	459.65	8400.75	13.82	1471.81	0.08	328.33	472.61
		2001	553.20	144.47	3940.06	375.43	928.63	0.18	155.36	180.17
		2000	435.17	60.32	4269.13	174.65	609.82	0.10	108.89	75.08
		1999	383.89	51.76	2283.44	110.97	494.86	0.13	94.16	62.88
		1998	340.87	48.84	1081.45	60.87	401.74	0.08	83.23	58.34

			Net		Mkt.	Total	Cap.	Tax		
sr.no.	Name of company	Year	worth	PAT	Cap.	Debt	Empl.	Rate	COCE	NOPAT
33	Roto Pumps Ltd	2004	9.04	0.28	1.58	3.58	12.62	-0.10	2.56	0.81
		2003	8.58	-0.73	0.78	3.48	12.06	-0.13	2.63	-0.15
		2002	9.01	-0.85	0.00	4.13	13.14	0.00	2.75	-0.25
		2001	9.86	-1.88	1.71	3.78	13.64	-0.01	2.80	-1.44
		2000	11.73	0.00	1.71	3.35	15.08	1.00	2.78	0.00
		1999	11.73	0.01	1.71	4.23	15.96	0.00	3.39	0.60
		1998	11.73	0.17	2.09	4.29	16.02	0.06	3.52	0.87
34	GHCL Ltd	2004	230.04	30.09	222.99	153.14	383.18	0.27	61.17	41.50
		2003	218.97	46.31	173.54	118.64	337.61	0.08	66.88	65.83
		2002	212.30	45.71	114.23	139.20	351.50	0.09	73.09	72.88
		2001	263.15	27.11	80.66	163.53	436.68	0.10	96.74	64.77
		2000	255.81	22.28	86.26	212.00	477.81	0.12	87.84	52.63
		1999	246.66	41.85	117.96	157.59	404.25	0.10	81.16	69.66
		1998	225.51	47.66	178.11	153.93	379.44	0.10	71.82	70.70
35	DLF Ltd	2004	317.82	35.48	0.00	561.10	878.92	0.25	75.81	42.54
		2003	283.91	26.30	0.00	22.42	306.33	0.33	65.04	29.93
		2002	260.31	33.39	0.00	46.08	306.39	0.14	73.60	50.68
		2001	233.00	27.09	0.00	99.92	332.92	0.14	82.28	58.97
		2000	208.88	51.81	0.00	303.37	512.25	0.14	117.81	124.44
		1999	88.75	25.42	0.00	425.74	514.49	0.21	96.17	102.39
		1998	NA	NA	NA	NA	NA	NA	NA	NA
36	Repro India Ltd	2004	28.00	3.62	0.00	35.96	63.96	0.20	7.51	5.08
		2003	25.27	4.58	0.00	28.04	53.31	0.23	7.55	6.67
		2002	34.03	3.19	0.00	28.70	62.73	0.18	10.32	6.15
		2001	32.14	6.61	0.00	32.12	64.26	0.09	11.35	11.01
		2000	26.40	5.48	0.00	32.84	59.24	0.12	10.60	10.37
		1999	23.07	3.50	0.00	33.22	56.29	0.11	8.87	7.38
		1998	NA	NA	NA	NA	NA	NA	NA	NA

sr.no.	Name of company	Year	Net worth	PAT	Mkt. Cap.	Total Debt	Cap. Empl.	Tax Rate	COCE	NOPAT
37	Finolex Cables Ltd	2004	538.62	29.56	359.59	187.99	726.61	0.06	133.20	46.26
		2003	522.87	24.72	241.05	203.57	726.44	0.09	135.53	47.15
		2002	586.86	65.94	479.73	122.37	709.23	0.07	142.18	81.18
		2001	588.77	72.51	527.46	104.76	693.53	0.22	142.70	87.86
		2000	544.64	70.65	892.84	118.96	663.60	0.25	131.32	84.17
		1999	568.94	62.02	681.84	112.56	681.50	0.28	140.16	79.11
		1998	520.95	48.62	330.13	198.19	719.14	0.30	0.00	73.53
38	Hindustan Organic Chemicals Ltd	2004	-72.46	-148.47	124.97	445.33	372.87	0.00	22.23	-110.57
		2003	112.20	-41.52	86.23	436.15	548.35	0.00	69.46	3.67
		2002	155.58	-59.27	82.19	413.38	568.96	0.00	79.67	-13.25
		2001	202.12	-37.48	45.81	355.01	557.13	0.00	92.93	11.73
		2000	243.23	-94.70	54.23	322.44	565.67	0.00	99.54	-47.77
		1999	349.17	-20.00	91.96	282.20	631.37	0.00	107.67	12.14
		1998	375.58	-5.09	94.32	281.34	656.92	0.00	110.06	23.73
39	Tata Coffee Ltd	2004	153.77	17.10	152.38	78.41	232.18	0.19	37.25	21.09
		2003	143.68	20.20	85.17	54.50	198.18	0.11	36.47	25.59
		2002	130.51	9.14	101.01	69.40	199.91	0.17	35.16	16.07
		2001	129.87	13.58	142.16	58.02	187.89	0.07	35.63	21.12
		2000	121.80	26.12	183.62	20.63	142.43	0.34	30.10	29.87
		1999	57.75	14.28	95.10	16.76	74.51	0.46	14.81	16.60
		1998	49.80	11.87	171.18	21.01	70.81	0.54	13.37	14.46
40	Gulf Oil Corporation Ltd	2004	126.34	22.91	126.56	78.13	204.47	0.14	36.50	32.08
		2003	118.41	15.32	54.09	96.80	215.21	0.09	40.63	30.34
		2002	137.43	7.70	49.60	130.79	274.09	0.08	42.16	18.86
		2001	101.17	54.64	26.00	55.31	156.48	0.10	31.51	64.27
		2000	50.94	5.08	16.40	59.88	110.82	0.11	17.98	12.04
		1999	48.08	5.02	26.88	52.51	100.59	0.10	16.96	11.58
		1998	48.08	9.79	19.64	43.52	91.60	0.19	16.90	16.29

sr.no.	Name of company	Year	Net worth	PAT	Mkt. Cap.	Total Debt	Cap. Empl.	Tax Rate	COCE	NOPAT
41	Pidilite Industries Ltd	2004	25.24	61.40	749.12	56.23	365.93	0.32	69.51	63.92
		2003	25.24	59.31	550.23	41.64	312.72	0.33	61.88	62.56
		2002	25.24	52.13	446.75	43.50	304.58	0.22	61.01	56.67
		2001	25.24	47.96	499.25	45.09	261.81	0.27	52.96	54.04
		2000	12.62	47.57	808.27	78.97	292.41	0.32	50.45	51.86
		1999	12.24	37.33	543.15	53.83	221.63	0.30	42.48	43.52
		1998	12.24	27.28	232.56	77.96	218.94	0.29	37.75	34.53
42	TTK Healthcare Ltd	2004	6.61	0.41	12.49	24.94	59.49	0.08	8.56	3.41
		2003	6.61	3.06	8.59	29.13	64.57	0.31	11.75	6.04
		2002	6.38	1.92	8.87	34.04	75.24	0.00	18.14	10.03
		2001	6.38	-4.47	0.00	55.31	96.82	-0.01	19.57	4.99
		2000	5.03	2.07	20.67	51.75	80.73	0.21	11.57	5.97
		1999	5.03	2.05	16.57	40.93	69.37	0.32	12.05	6.54
		1998	5.03	3.91	14.74	35.22	63.00	0.35	10.97	7.44
43	HBL Power Systems Ltd	2004	101.81	8.66	20.07	62.92	164.73	0.17	27.62	14.26
		2003	97.39	10.29	20.07	69.49	166.88	0.20	28.14	17.36
		2002	90.04	11.54	20.07	60.33	150.37	0.17	26.75	18.82
		2001	81.17	14.11	20.07	59.93	141.10	0.11	25.55	22.11
		2000	67.06	13.27	20.07	55.55	122.61	0.05	21.13	19.89
		1999	22.73	9.58	9.17	12.51	35.24	0.18	6.75	11.41
		1998	11.18	3.25	6.42	4.15	15.33	0.31	3.12	3.95
44	Carol Info Services Ltd	2004	NA	NA	NA	NA	NA	NA	NA	NA
		2003	321.40	8.00	139.81	14.96	336.36	0.00	76.64	15.12
		2002	311.26	15.78	87.18	183.20	494.46	0.00	94.94	42.93
		2001	330.87	-27.96	93.56	227.90	558.77	-0.02	99.23	-0.79
		2000	372.95	-18.19	112.19	181.39	559.34	-0.25	119.90	19.45
		1999	630.65	105.69	3366.11	312.22	1002.37	0.04	181.58	137.46
		1998	574.52	70.79	712.77	247.94	862.46	0.04	133.48	70.79

			Net		Mkt.	Total	Cap.	Tax		
sr.no.	**Name of company**	**Year**	**worth**	**PAT**	**Cap.**	**Debt**	**Empl.**	**Rate**	**COCE**	**NOPAT**
45	Todays Writing Products Ltd	2004	39.63	5.32	59.95	18.32	57.95	0.11	11.04	7.79
		2003	35.13	2.38	14.15	21.28	56.41	0.11	10.05	4.83
		2002	29.85	4.77	26.60	18.39	48.24	0.08	8.41	6.73
		2001	25.71	6.24	35.98	12.60	38.31	0.09	6.52	7.20
		2000	13.07	3.92	29.45	2.62	15.69	0.01	3.22	4.32
		1999	10.44	2.39	10.21	1.11	11.55	0.02	2.32	2.45
		1998	9.10	2.36	7.25	0.00	9.10	0.01	1.97	2.66
46	Jindal Poly Films Ltd	2004	288.89	55.86	430.23	194.20	627.57	0.08	105.02	67.14
		2003	241.98	30.73	122.17	129.13	480.59	0.07	86.96	41.67
		2002	237.26	32.91	62.81	94.34	441.08	0.07	89.36	47.27
		2001	249.30	12.34	33.38	179.02	517.80	0.08	90.18	29.24
		2000	208.92	8.18	42.08	259.25	491.65	0.04	69.18	27.09
		1999	137.76	13.73	39.80	239.76	388.55	0.10	51.35	32.90
		1998	128.20	7.88	60.47	241.23	380.46	0.10	46.55	24.31
47	Gujarat Perstorp Electronics Ltd	2004	-27.17	-6.37	0.00	41.51	14.34	0.00	-4.75	-5.24
		2003	-20.80	-2.44	0.00	41.10	20.30	0.00	-3.24	-1.18
		2002	-18.36	-3.44	0.00	43.41	25.05	0.00	-2.47	-1.94
		2001	-15.77	-0.71	0.00	42.01	26.24	0.00	-1.71	0.99
		2000	-28.09	-3.30	22.13	54.63	26.54	0.00	-3.63	-0.85
		1999	-24.78	-2.81	20.75	52.13	27.35	0.00	-3.36	-0.81
		1998	-21.97	-5.79	0.00	48.02	26.05	0.00	-0.81	-1.85
48	Berger Paints (India) Ltd	2004	185.97	44.03	408.17	38.72	224.69	0.29	42.83	46.24
		2003	165.92	33.42	188.51	38.50	204.42	0.27	40.53	37.64
		2002	150.48	31.39	190.91	76.25	226.73	0.08	40.92	39.31
		2001	141.35	28.49	233.82	90.14	231.49	0.13	38.78	36.21
		2000	127.50	23.70	265.04	73.33	200.83	0.12	35.50	31.11
		1999	112.50	23.63	174.82	76.03	188.53	0.04	34.31	33.06
		1998	NA	NA	NA	NA	NA	NA	NA	NA

sr.no.	Name of company	Year	Net worth	PAT	Mkt. Cap.	Total Debt	Cap. Empl.	Tax Rate	COCE	NOPAT
49	Hindustan Unilever Ltd	2004	2092.04	1197.34	31587.22	1471.12	3563.16	0.17	561.08	1305.77
		2003	2138.05	1771.79	45058.56	1704.31	3842.36	0.18	517.24	1826.43
		2002	3658.20	1769.74	40006.81	58.30	3716.50	0.20	798.73	1777.06
		2001	3043.02	1641.31	49229.84	83.74	3126.76	0.19	664.64	1647.60
		2000	2487.55	1310.09	45409.38	111.61	2599.16	0.21	548.55	1320.44
		1999	2102.10	1069.94	49403.25	177.27	2279.37	0.23	472.09	1087.20
		1998	1691.96	805.71	33131.93	264.31	1956.27	0.26	387.73	827.32
50	Jubilant Organosys Ltd	2004	207.67	80.21	1722.20	421.00	628.67	0.06	80.67	115.16
		2003	143.27	48.11	220.93	412.91	556.18	0.08	75.19	91.31
		2002	117.03	23.62	68.60	334.67	451.70	-0.03	76.91	74.02
		2001	141.28	13.36	39.13	351.31	497.59	-0.03	82.64	62.95
		2000	132.76	10.31	49.42	325.05	462.81	0.02	72.03	50.87
		1999	124.73	23.01	75.88	262.47	392.20	0.00	65.19	58.07
		1998	105.21	29.04	86.72	236.26	341.47	0.06	50.65	54.46
51	Bright Brothers Ltd	2004	19.33	-2.20	4.07	51.32	73.50	0.00	13.61	6.43
		2003	21.54	-2.50	4.44	54.10	77.99	0.00	15.08	7.23
		2002	24.03	-5.54	9.61	55.73	82.11	0.00	16.34	4.91
		2001	26.23	-0.47	0.00	59.16	87.71	0.00	19.81	11.28
		2000	26.86	0.93	0.00	68.18	97.36	0.00	21.81	14.52
		1999	20.44	1.76	11.27	55.13	76.57	0.15	13.28	8.39
		1998	19.66	1.75	10.46	49.61	70.27	0.11	13.26	8.26
52	Ion Exchange (India) Ltd	2004	98.68	1.96	30.28	71.84	170.52	0.04	33.89	14.20
		2003	97.61	1.80	20.69	79.51	177.12	0.08	32.94	13.32
		2002	96.82	4.67	21.61	63.70	160.52	0.09	32.73	16.12
		2001	91.56	-4.69	15.70	74.49	166.05	0.00	34.82	9.98
		2000	110.07	-3.95	33.78	83.55	193.63	0.00	38.19	10.09
		1999	128.00	5.45	48.33	76.45	204.87	-0.05	40.78	18.19
		1998	124.93	12.44	67.93	57.31	182.24	0.19	35.22	20.28

			Net	PAT	Mkt.	Total	Cap.	Tax		
sr.no.	Name of company	Year	worth		Cap.	Debt	Empl.	Rate	COCE	NOPAT
53	Hindustan Fluoro Carbons Ltd	2004	-45.44	-10.13	0.00	66.69	21.25	0.00	-5.94	-6.24
		2003	-35.31	-4.59	0.00	62.34	27.03	0.00	-3.40	-0.35
		2002	-30.72	-2.60	0.00	57.86	27.14	0.00	-2.54	1.50
		2001	-27.97	-2.08	0.00	54.31	26.34	0.00	-2.37	1.60
		2000	-25.89	-5.25	0.00	52.17	26.28	0.00	-1.33	-0.98
		1999	-20.61	-3.19	0.00	50.02	29.41	0.00	-0.19	1.08
		1998	-17.41	-12.28	1.96	47.60	30.18	0.00	5.14	-3.37
54	IFGL Refractories Ltd	2004	40.83	8.61	50.88	9.79	50.62	0.27	9.27	9.05
		2003	37.10	2.98	16.09	7.84	44.94	0.05	8.54	3.49
		2002	36.72	0.82	8.48	11.94	48.66	0.05	8.83	1.71
		2001	35.90	0.24	8.48	10.40	46.30	0.08	9.27	1.74
		2000	19.06	0.82	8.10	16.35	52.01	0.20	9.49	2.60
		1999	20.43	0.04	9.91	10.76	31.19	0.00	5.82	1.44
		1998	20.39	0.07	8.28	11.74	32.13	0.13	6.42	2.08
55	Pix Transmission Ltd	2004	26.09	1.17	4.90	45.23	71.32	0.08	11.10	6.63
		2003	24.92	0.37	5.49	42.41	67.33	0.09	10.65	5.63
		2002	24.54	0.18	5.29	39.29	63.83	0.08	10.24	5.11
		2001	26.90	1.89	5.43	32.37	61.15	0.03	11.32	6.99
		2000	25.01	3.34	4.44	32.12	59.01	0.13	10.29	7.79
		1999	18.38	1.79	6.30	32.93	51.31	0.18	9.54	7.29
		1998	NA	NA	NA	NA	NA	NA	NA	NA
56	Zenith Computers Ltd	2004	47.02	3.11	32.20	33.78	80.80	0.89	10.49	3.43
		2003	43.90	1.02	9.37	40.46	84.36	1.89	7.62	-0.85
		2002	42.77	0.56	31.04	36.71	79.48	6.89	-16.31	-25.00
		2001	42.22	2.17	25.62	45.96	88.18	2.97	-4.62	-11.58
		2000	48.48	5.06	111.46	45.10	93.58	1.42	7.30	1.87
		1999	40.24	3.16	63.31	42.87	83.11	2.29	-1.68	-7.22
		1998	40.23	2.73	14.71	33.57	73.80	2.26	0.03	-5.94