

A Synopsis of PhD Thesis
On
“A Critical Study on Mergers & Acquisitions
In Indian Petroleum Industry”

Submitted by

Shelendra Chandil

Research Scholar
Faculty of Management Studies

FOMS/18

Under the Guidance of

Dr. Bhargav H Pandya

Assistant Professor

Faculty of Management

The Maharaja Sayajirao University of Baroda.
Vadodara-390002, Gujarat (India)



सत्यं शिवं सुन्दरम्

M.S. Patel Institute of Management Studies
Faculty of Management Studies
The Maharaja Sayajirao University of Baroda
Vadodara-390002

March 2024

1.1 Introduction :

Business organizations are not islands in themselves. They are part of the society in which they operate and they are affected by the internal and external environment. In the modern world, business of any type and size is affected by the government policies, programs, rules and regulations etc. Business policy and strategy decisions are designed in the realm of overall government policy and system environment.

With increasing industrialization and frequent entry of new players, markets become more and more competitive and dynamic and the changing economic environment creates its own compulsions. As a result pressure builds up on the existing players to maintain their market share and profit margins. This leads us to the fact that growth is vital for a business firm's survival. Growth can be achieved in either of the two ways: internal or external expansion. While internal expansion takes place by building new capacities or utilizing the existing ones within the organization, external expansion takes place through Mergers and Acquisitions (M&A).

Mergers and acquisitions provide a shortcut to corporate growth. M&As may be critical to the healthy expansion of business firms as they evolve through successive stages of growth and development. Successful entry into new geographical markets by a firm may require M&A at some stages of firm's growth. Even though the strategy of M&A provides some quick benefits, if not implemented properly it can create some problems as well.

1.2 M&A (Definitions)

When different companies combine together into new corporate organizations with the objective of wealth maximization, such a process is known with varying names such as mergers, acquisitions, takeovers, amalgamations etc.

Strictly speaking mergers take place when two or more companies of equal size and strength formally submerge their corporate identity into a single one in a friendly atmosphere.

Acquisitions (take-overs) take place when a company offers cash or securities in exchange for the majority shares of another company with management control.

Broadly, there are following types of mergers found in the Indian scenario.

1. Horizontal mergers: this involves two firms both acquiring firm and the target firm belonging to the same industry which are at the same stage of industrial process. These mergers are carried out to obtain economies of scale in production, broadening the product line, reducing working capital requirements increasing market shares etc.
2. Vertical mergers: this involves two or more firms involved at different stages of production in order to ensure backward or forward integration wherein one of the firms becomes part of supply chain towards market outlets. The acquirer firm gains a strong position due to reduction working capital and inventories.
3. Conglomerate mergers: this involves two or more firms involved in diversified business merge to reduce risks by diversification and utilization of financial resources.
4. Reverse mergers: this involves sick firms merging with their parent firm usually for tax savings advantage to avail benefits of carrying forward losses of sick company.

1.3 Theories and motives of M&A

Following three theories can be attributed as the theories of M&A:

1. When M&As are driven by the quest for synergies in operational, financial, distributional and R&D activities, it's called the efficiency theory of mergers
2. When M&As are driven by the quest for sharing organizational resources, it's called the resource dependence theory of mergers to reduce competition in Horizontal mergers, to reduce interdependence between the buyers and sellers in vertical mergers and to address dependence on other's organizational resources in conglomerate mergers.
3. When M&As are driven by the managerial desire for power and higher salary, it's called the agency theory.

Following categories can be attributed to motives of M&As:

- Improved efficiency of operations
- Increased market share
- Operating synergy
- Financial synergy
- Tax saving motives
- Risk reduction by diversification
- Enhancing promoter's stake, Gaining managerial expertise acquiring a new product or brand name etc. are some other motives of M&As.

1.4 Importance of Petroleum industry in Indian economy:

The Indian petroleum industry is one of the oldest ones in the world with oil being discovered in Assam in 1867. With a demand for 120 million tons per annum India is the fourth largest oil consumption zone in Asia and oil consumption is expected to grow to 250 million tons per annum by 2024-25. Significance of the petroleum industry in India springs from the fact that it accounts for about 10% of GDP and oil sector contributes approximately 30% of revenues collected by the Govt. from excise and customs duties.

India's targeted economic growth rate of 7-8% would generate an increase in energy demand of an equal magnitude and oil and energy sector will be the single biggest beneficiary. According to CLSA Asia Pacific, with more than a billion people, full deregulation of a 100 million ton market growing at twice the world averages India represents one of the most exciting oil sectors in the world today.

Over the last few years, the sector has been opened up. The Petroleum Regulatory Bill envisages the institution of regulator, which will oversee the downstream aspects of the sector. A major trend in the oil and gas regulation in India is the opening up of this sector to private and foreign investments. 100% FDI is allowed in exploration, pipeline infrastructure, refining and in downstream retailing.

1.5 Policy Changes Introduced by Govt. of India in Petroleum Sector in the past:

In view of the widening gap between the demand and supply of oil & gas in the country, Govt. of India has taken several policy initiatives to facilitate the increase of production of petroleum products in the country.

Several policy changes in the upstream oil sector have been introduced such as:

- (i) Encouragement of participation of private sector Indian and foreign companies in oil exploration and production through New Exploration Licensing Policy.
- (ii) Opening of coal bed methane sector to private sector.
- (iii) Encouraging Indian oil companies to acquire equity oil abroad.

Policy changes brought about in downstream oil sector of oil refining and marketing:

- (i) Oil refining sector has been de-licensed.
- (ii) Pricing mechanism of petroleum products has been changed from Administered Pricing Mechanism (APM) to Market Driven Pricing Mechanism.
- (iii) Parallel marketing of petroleum products by private sector companies has been introduced.
- (iv) Promotion of CNG and LPG as auto fuels
- (v) Import of LNG etc.

Thus along with the economic liberalization in Indian economy in general, Govt. of India has completely liberalized the petroleum sector for competition and this has unleashed a great amount of driving forces and causing a lot of churning in this sector. Consequently petroleum sector in India is undergoing massive corporate restructuring parallel to other sectors in Indian economy during the past few years. The present study is an attempt to understand this process of change.

2. Research Gap:

There is enough scope of research to examine whether the concerned Merger or Acquisition has actually added to shareholder's wealth.

Shareholder's returns essentially comprises of dividends plus capital appreciation in the form of an increase in the market value of equity share of the company held by the investor and increasing shareholder's wealth means increasing the market value of equity shares .

While conventional shareholder's wealth look at market values, a new set of matrices has been developed which, apart from looking at market value, also look at economic value, which takes into account the cost of capital in terms of the expected returns of the providers of the capital, both debt as well as equity. Economic value will be created only if the returns, be it operating profits or the market values exceed the cost of capital. Based on these premises, Stern Stewart has suggested the use of two matrices to measure shareholder's wealth addition, namely, 1. Wealth Added Index (WAI) and 2. Economic Value Added (EVA).

The primary advantage of economic value measures is that they take cognizance of opportunity cost of capital and thus recognize wealth addition only if it exceeds the imputed cost. The second advantage is that they take into account both market values as well as accounting figures such as Net operating profit after tax (NOPAT) and provide a link between market values and the operating performance of the companies. Finally the biggest advantage of these measures is that they enable an analysis of the expectational and operational components of corporate performance which is of particular relevance in M&A evaluations.

3. Scope and Objectives of The Present Study:

Present study has been carried out using the technique of case by case analysis and then generalizing the results.

Initially the selected cases of M&A deals in Indian petroleum industry have been analyzed and evaluated against certain set parameters of operational and financial performance. Based on the results of the analysis of the individual cases certain key findings and observations are made. At last an attempt has been made to generalize these findings across all the selected cases and some conclusions are drawn.

4.1. Scope of the Study:

Scope of the present study has been limited to the analysis of the performance of the selected Indian Petroleum companies immediately before and after the concerned M&A deals. The analysis has been carried out from the operational performance and the financial performance view point only and will be based on the published accounts of the companies which are in the public domain. No attempt has been made to look into issues like employee rationalization, business culture integration after M&A deals etc.

4.2. Coverage:

The M&A deals executed in Indian petroleum industry during last few years have been considered for the purpose of this study. Care has been taken to include both upstream and downstream segments of the industry. Further cases of M&A deals have been chosen in such away that they represent all types of ownership and management control patterns such as public sector units, private sector companies, joint ventures etc. The cases have been selected taking into consideration the importance of the companies involved in the deal, their size and scale of operations, financial size and value of the deal, issues of management control after the deal etc.

4.3. Sample Size:

The basket of cases of M&A deals for analysis has been arrived at after careful consideration of all the factors mentioned above. The sample size consists of 4 cases of M&A deals executed in Indian petroleum industry in the last few years as listed below:

- (i) Acquisition of Indo Burma Petroleum Ltd. (IBP) by Indian Oil Corporation Ltd. (IOCL) through competitive bidding process (Acquisition of one PSU by another PSU)
- (ii) Acquisition of Mangalore Refinery and Petrochemicals (MRPL) by Oil and Natural Gas Corporation Ltd. (ONGC) in by a negotiated deal. (Acquisition of a sick joint venture company by a PSU)

- (iii) Acquisition of Indian Petro Chemicals Ltd. (IPCL) by RIL through competitive bidding process (Acquisition of a PSU by a private sector company)
- (iv) Acquisition of Kochi Refineries Ltd. (KRL) by Bharat Petroleum Corporation Ltd. (BPCL) on a nomination basis by Govt. of India (Acquisition of a PSU by another PSU)

4.4 Objectives of the study:

1. The main objective of the present study is to assess the basis and motives behind the selected M&A deals in the Indian petroleum industry.
2. This study further aims to examine whether there is any significant change of synergies in operational and financial management can be achieved.
3. This study also tries to examine whether there is any significant change in the share-holders return & wealth after the deal and the degree to which the change if any is attributable to the concerned M&A deal.
4. At last an attempt has been made to generalize these findings across all the selected cases and some conclusions are drawn. The paired t-test is also applied to test the significance of the formulated statistical hypotheses to offer findings and implications of this research study.

5. Research Methodology and Sources of Data:

5.1 Data collection:

The required data for this study have been collected from different sources. The data regarding the operational and financial performance of the concerned companies for each year have been collected from the consolidated annual financial statements of the companies like Balance Sheet, Profit and Loss Account (Income statement) etc. published in the Annual Reports of the company for relevant years. The stock market performance data and market capitalization data of these companies for relevant years have been collected from the publications of Bombay Stock Exchange (BSE).

Other sources of data are: the publications of Reserve Bank of India (RBI), and the websites of the concerned companies. Information has been also collected from the

periodicals like Business World, Business Today etc. and financial news papers like Economic Times, Financial Express etc.

5.2 Data Analysis:

All the collected data regarding the individual cases have been analyzed and studied in two parts.

Part-I The first part of the data analysis consists of 2 steps (steps 1 & 2) to look into the increase or decrease in the operational and financial synergy of the company's operations in the years immediately after the Merger or Acquisition deal has been executed.

Step-1: The first step in the first part of the data analysis which looks into the operational synergy aspect has been done by studying the increase or decrease in Gross Profit Margin (GPM), Net Profit Margin (NPM) and Return on Capital Employed (ROCE) post M&A deal. The cost savings are reflected in the Cost of Production as a percentage of Sales (COP/Sales) pre and post deal. The definitions of the terms used here are as follows:

(i) $GPM = \text{Gross Profit} / \text{Net Sales}$

$= (\text{Profit before Depreciation Interest \& taxes i.e. PBDIT}) / \text{Net Sales}$

(ii) $NPM = \text{Net Profit (Profit after Taxes i.e. PAT)} / \text{Net Sales}$

(iii) $ROCE = (\text{Profit before Interest \& taxes i.e. PBIT} / \text{Capital Employed})$
 $= \text{PBIT} / (\text{Net Worth} + \text{Total Debt})$

(iv) $COP/Sales = \text{Cost of Production} / \text{Sales}$ (To measure Cost savings)

Step 2. The second step in the first part of the data analysis which looks into the financial synergy aspect has been studied through looking into the changes in Operating Cash Flows (OCF) and Debt –Equity ratios.

OCF is defined as Profit after Tax adjusted for non cash expenditures like depreciation.

Part II. The second part of the data analysis consists of 4 steps (steps 3, 4, 5 and 6) looking into the changes in shareholder's return and shareholder's wealth after the Merger or Acquisition deal. This would help us to find out whether the

expected synergies of M&A have actually translated into shareholder's return & wealth.

Step 3: In step no. 3, which is the first step in the second part of data analysis we try to find out the changes in shareholder's return. The parameter used for this purpose is Return on Equity (ROE). The model adopted is the basic Du Pont model as modified by Weston and Brigham linking Return on Investment (ROI) to ROE. While Du Pont's ROI is a function of Asset Turnover (ATO) and Net Profit Margin (NPM), Weston and Brigham have incorporated Equity Multiplier (EQM) into the model to compute the ROE. The equation used is

$$\text{ROE} = (\text{NPM}) \times (\text{ATO}) \times (\text{EQM})$$

$$\text{Where, ATO} = \text{Sales} / \text{Assets}$$

$$\text{EQM} = \text{Assets} / \text{Net worth}$$

Using this model, ROE has been computed for pre and post M&A deal years and pre and post acquisition averages have been compared to see whether shareholder's returns have been improved or not.

In step no.4 and step no. 5, we try to examine whether the concerned Merger or Acquisition has actually added to share holder's wealth.

Step 4: The Wealth Added Index (WAI): It is a period measure built on the intuitive understanding that wealth is created for shareholders only when their returns exceed the cost of equity. Cost of equity is the minimum rate of return that investors would expect for investing their funds in a company's shares rather than elsewhere. Ideally speaking, it is the risk adjusted rate of return as given by the Capital Asset Pricing Model (CAPM). The WAI measures the increase in share prices over the period minus the required return. It adds the benefits accumulated over the period of the index in terms of dividends pay outs from the company. It also incorporates the expectations of the investors who have purchased new shares in calculating the required return.

Therefore, $\text{WAI} = \text{Growth in Market Capitalization} + \text{Dividends} -$
 $\text{Required returns} - \text{New shares issued}$

Steps in calculating WAI :

- a. At first the Market Capitalization figures of the concerned company for each year is collected from the publications of the BSE.
- b. Then the change or growth in Market Cap is arrived at by deducting the previous year's market cap from that of the current year. (i.e.; $MV_t - MV_{t-1}$)
- c. Equity capital figures were extracted for all the years in order to ascertain the issue of new shares. Any increase in equity capital has been taken at face value for the purpose of ascertaining the value of new shares.
- d. To determine the cost of equity the market adjusted return method is used. This method basically holds that the predicted or expected rate of return on a stock is just the return on the market index for the period. Using the weekly Sensex data for the years under consideration, market rate of return were computed. However the results are seen to be highly volatile. Hence on a conservative basis, the average rate of Prime Lending Rates (PLR) of 5 top Public Sector Banks for the relevant years (sourced from RBI Reports) have been taken as the expected market return, since, in the real life actual practice the cost of equity is always at a risk premium to the cost of debt and can never be negative.
- e. Computation of required return for each year has been calculated as (MV_{t-1}) multiplied by the cost of equity in the previous year plus new shares if any multiplied by the cost of equity in the current year.
- f. Dividend data for each year has been taken from the income statements of the companies concerned.
- g. All the components of the WAI equation thus arrived at, have been plugged into the equation and WAI for each year is calculated and the cumulative figure is found out.

Step 5: Economic Value added (EVA): According to Stern – Stewart & Co., EVA is basically Net Operating Profit after Tax minus the Capital charge. The company defines Nopat as profits derived from the company's operations after taxes but before financing costs and noncash book keeping entries (except

depreciation as depreciation is considered a true economic expense). The company suggests conversion of accounting profits to economic profits through adjustments.

$$\begin{aligned}\text{Therefore EVA} &= \text{Nopat} - \text{Capital charge} \\ &= \text{Nopat} - k * C\end{aligned}$$

Where k = weighted average cost of capital

C = invested capital (i.e. interest bearing debt plus net worth)

$\text{Nopat} = \text{PBIT} * (1-t)$, where t = effective tax rate

$\text{Nopat} = \text{PAT} + \text{Interest}$

$t = \text{Provision for tax} / \text{PBT}$

Alternatively $\text{EVA} = (r-k) * \text{Invested capital}$

Where $r = \text{Nopat} / \text{Invested capital}$

Here $(r-k)$ represents the spread between the return earned by the company and cost of capital which shows whether the company has earned a return from its operations that is more than the cost of capital.

Step 6: Future Growth Value (FGV):

Steps in FGV analysis:

- a. The market value of the company in the year just prior to the Merger or Acquisition being affected is taken as MV_0 .
- b. Then the Current Operations Value COV is determined. For this purpose $Capo$ (Book capital) is taken as net worth plus interest bearing debt in the year 0 i.e.; in the year prior to the merger or acquisition. Then EVA for the year 0 is determined, capitalized at the weighted average cost of capital of that year and the resulting figure is then added to $Capo$ to get COV

$$\text{Therefore COV} = \text{Capo} + (\text{EVA}_0 / k)$$

- c. Then the Future Growth Value FGV of the company, i.e.; expectational component (or the expectations of the investors) is calculated as $\text{FGV} = (MV_0 - \text{COV})$

- d. The actual EVA is then calculated for each year post M&A for which data is available. The year to year improvement in EVA (or ΔEVA) are calculated and the Present Value of these improvements is determined using the weighted cost of capital. The present value of EVA improvements is then capitalized to perpetuity by multiplying with a factor of $(1+k) / k$ and this is equal to the Actual FGV achieved post deal.
- e. The last step is to compare the Actual FGV obtained in step d with the expected FGV calculated in step c. If the actual FGV is greater than the expected FGV it can be concluded that the Merger or Acquisition has resulted in an addition to shareholder's wealth.

Definition of the terms used:

Post tax cost of debt $k_d = \text{Interest} / \text{debt} (1-t)$

Weighted Average Cost of Capital = $k_d * (\text{debt} / \text{capital}) + k_e * (\text{net worth} / \text{capital})$

$k_e = \text{Cost of equity}$ (k_e has been arrived at similar to WAI computations)

Actual FGV = $(1+k) / k * \sum [(\Delta \text{EVA} / (1+k/100) t]$

6. Hypothesis of the Study:

Two hypotheses has been formulated for the present study, null hypothesis and alternate hypothesis. Paired “t” test has been applied as statistical tool to test the hypotheses. Accordingly the following null and alternate Hypotheses have been tested:

A. Ho Null Hypothesis

- (i) **Ho:-** M&A do not result significant difference between Pre and Post merger Operational Synergy Parameters of the companies in Indian Petroleum Industry.

(ii) **H₀**:- M&A do not result significant difference between Pre and Post merger Financial Synergy Parameters of the companies in Indian Petroleum Industry.

(iii) **H₀**:- M&A do not result significant difference between Pre and Post merger shareholder's return and share-holder's wealth parameters of the companies in Indian Petroleum Industry.

B. H₁ Alternate Hypothesis

(i) **H₁**: - M&A result significant difference between Pre and Post merger Operational Synergy Parameters of the companies in Indian Petroleum Industry.

(ii) **H₁**: - M&A result significant difference between Pre and Post merger Financial Synergy Parameters of the companies in Indian Petroleum Industry

(iii) **H₁**: - M&A result significant difference between Pre and Post merger shareholder's return and share-holder's wealth parameters of the companies in Indian Petroleum Industry.

7. Key findings and observations:

The paired t-test is also applied to test the significance of the formulated statistical hypotheses to offer findings and implications of this research study as brought out below:

7.1 Operational Synergy Pre and Post M&A:

Comparative mean pre-merger and post-merger Operational Synergy Parameters and results from t-tests for statistical significance have been summarized in Table-7.1.

Table-7.1

Mean pre-merger and post-merger Operational Synergy Parameters

Operational Synergy Parameters	Pre-merger	Post-merger	t (0.05 significance)	t-critical (two tail)
Gross Profit	16.84	18.2	2.156	2.447

Margin (GPM)				
Net Profit Margin (NPM)	4.92	7.25	2.148	-do-
Return on Capital Employed (ROCE)	14.97	24.43	2.302	-do-
COP-Sales Ratio	90.26	85.50	-1.810	-do-

The comparison of the pre-merger and post-merger Operational Synergy Parameters for the sample set of M&A showed that there was a slight decline in the cost savings as reflected in the Cost of Production to Sales ratio (COP/ Sales) pre and post deal (90.26 % to 85.50%) from the pre-merger period to the post-merger period. The declines are however, not statistically significant (t-statistic values of -1.810 is less than t-critical value of 2.447). However, there was a marginal increase in other Operational Synergy Parameters like GPM, NPM and ROCE which were also found statistically insignificant as indicated by t-value (t-statistic values is less than t-critical value).

Based on the above results, the Null Hypothesis H_0 : “M&A do not result significant difference between Pre and Post merger Operational Synergy Parameters of the companies in Indian Petroleum Industry” cannot be rejected.

7.2 Financial Synergy Pre and Post M&A:

Comparative mean pre-merger and post-merger Financial Synergy Parameters and results from tests for statistical significance have been summarized in Table-7.2.

Table-7.2

Mean pre-merger and post-merger Financial Synergy Parameters

Financial Synergy Parameters	Pre-merger	Post-merger	t (0.05 significance)	t-critical (two tail)
Operating Cash	3004.77	4731.21	2.341	2.447

Flows (OCF)				
Debt –Equity ratio (D/E)	2.51	1.12	-1.244	2.447

The comparison of the pre-merger and post-merger Financial Synergy Parameters for the sample set of M&A showed a marginal increase in the OCF (3004.77 to 4731.21). But the increases are not statistically significant, as indicated by the corresponding t-value of 2.341.

However, there seemed to be a marginal leverage effect, as seen from the debt-equity ratios before and after the mergers (1.12 vs. 2.51), but not statistically significant, as indicated by the t-value of -1.244.

Based on the above results, the Null Hypothesis H_0 : “M&A do not result significant difference between Pre and Post merger Financial Synergy Parameters of the companies in Indian Petroleum Industry” cannot be rejected.

7.3 Shareholder’s return and shareholder’s wealth Pre and Post M&A:

Comparative mean pre-merger and post-merger Shareholder’s return and shareholder’s wealth Parameters and results from tests for statistical significance have been summarized in Table-7.3.

Table-7.3

Mean pre-merger and post-merger Shareholder’s return and shareholder’s wealth Parameters

Shareholder’s return and shareholder’s wealth Parameters	Pre-merger	Post-merger	t (0.05 significance)	t-critical (two tail)
Wealth Added Index (WAI)	-1570.93	4740.95	1.512	2.447
Economic Value Added (EVA)	335.57	1831.23	1.882	2.447

Future Growth Value (FGV)	-13373.7	24300	1.734	2.447
----------------------------------	-----------------	--------------	-------	-------

The comparison of the pre-merger and post-merger Shareholder's return and shareholder's wealth Parameters for the sample set of M&A showed a significant increase in the WAI, EVA as well as FGV but the increases are not statistically significant, as indicated by the corresponding low t-values of 1.512, 1.882 and 1.734 respectively in comparison to t-critical value of 2.447.

Based on the above results, the Null Hypothesis H_0 : "M&A do not result significant difference between Pre and Post merger shareholder's return and share-holder's wealth parameters of the companies in Indian Petroleum Industry" cannot be rejected.

8. Conclusions:

The analysis of the selected cases bring out the following conclusions:

- 8.1.** There are two winning cases (IOCL+IBP), (BPCL+ KRL). The remaining two cases showed mixed results. However a comprehensive reading of all the cases together brings out a common underlying theme in all these cases. These M&As are the strategic responses of these companies to the changes in the economic environment brought about by the policy changes introduced by the Govt. of India in recent times. The behavior of these firms is similar to the behavior of other companies in different sectors in Indian economy and in line with the international trends.
- 8.2.** In general the driving forces and motives which pushed these companies for the M&A deals are: enlarging their scale of operations into global levels, desire to realize the economies of scale and cost efficiencies, improve the market share etc. All the M&A deals studied here are the results of the effort of these companies for integration, both forward as well as backward. Now a days petroleum companies world over aim to be present in every stage of the value addition of hydrocarbon business. It is observed that , even though strategic motives drive most M&A

deals, they are not always achieved .Even in cases where synergies are realized to a good extent they do not necessarily translate into improved shareholder's return and wealth.

8.3. In this context a pre-merger due diligence study taking into consideration technical, financial, legal and cultural aspects is very important to accurately assess the possible synergies as well as the risks involved.

8.4. Traditional accounting methods does not provide the full picture and are inadequate to analyze the impact of M&A deals on the performance of the companies. New tools like WAI and EVA analysis are being developed for this purpose.

8.5. It is also observed that corporate restructuring decisions being strategic in nature, timing and speed of implementation are very important for achieving the possible synergies.

8.6. Applying paired “t” test shows that statistically there is no significant difference between the operational synergy, financial synergy, shareholder's return and share-holder's wealth parameters of the Pre and Post merger and acquisition of companies in Indian Petroleum Industry.

8.7. Scope for improvement of the study and research in allied fields: This study focused mainly on the operational & financial synergies of the M&A deals and the shareholder's returns thereafter. However the subject matter of mergers and acquisitions is wide and new issues are cropping up. Large scale corporate restructuring in India is a recent phenomenon and there are several specific to Indian context. Some of the issues on which future researchers on this field can concentrate are listed below:

8.7.1. Comparison of company's performance versus industry performance after the M&A deal to know whether the company has outperformed the industry.

8.7.2. Evaluation of the pricing of the deal for the justification about the amount of premium paid by the acquirer for the shares of the target company in relation to the prevailing market prices of the share and the percentage of the stake acquired.

8.7.3. The quality and the adequacy of disclosures in the financial statements arising from corporate restructuring is another vital issue connected with corporate governance.

8.7.4. There are finer issues of integration of business systems & technologies and cultures of the two entities which have come together because of M&A deal and the impact of these deals on the employee morale and behavior.