CHAPTER – 2 METHODOLOGY

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2.1 Selection of the Research Problem:

The company can satisfy their financial needs by issuing shares into the market. In the previous time, the shareholders invest their money by seeing only the profit of the company but now recent trend for people in investment area is short term gain. For that purpose they must take risk on their investment, it has only unique identity i.e. stock market, speculation, commodity market, mutual fund etc. In past before at least two decades, the investment concept is there but it was in restricted area with fix return like Fixed Deposit in Banks, Gold, Silver etc.

Now, stock market is touched by more or less even from smallest individual investor to largest institutions level. Because of in this era of technology, the shares and also commodities are exists in electronic form. In past, the existence of shares was in physical paper certificate and which is in fix denominations like 50s and 100s. So, if any one wants to invest in any company, they must have range starting from ₹500 and ₹ 1000 respectively as the face value was ₹10/- per each share. So that in each companies number of share holders are less in compare with recent. Now, in electronic form of shares, one can invest minimum a single share of the same face value of ₹10/-. Thus number of share holders has been increased. The company cannot ignore share holders any how today, which is considered as share holders’ value. And thus share holder’s value creation is leading financial decision factor for the company. So, it’s very important research topic in good faith of investor as well as company. To be steady in the corporate competition across global level, the company has to think over at micro level about share holders’ value creation. In today’s Globalized world characterized by accelerated competition companies must stimulate profitable growth, measure value creation and continually learn from success and setbacks. The only companies that can acquire new capital, grow and remain profitable are those that create value. Active shareholders are putting more pressure on corporate management to measure and communicate how they are creating value and shareholders find anything other than value-creating companies unacceptable (Anelda, 2000).
Scott (1998) expressed that there is no doubt that now a days the principal goal of management is the enhancement of shareholder value and this means. i.e. 17th December, 2008 is memorable day for stock market as the leading company in IT sector; Satyam Computers Ltd had announced its big deal of around 7000 crores to invest in promoter’s shares of two loss making companies Maytas Properties Ltd and Maytas Infra Ltd. The shareholders of the company got surprised about this decision taken by management and they had taken acute objection against this deal. The result was that market value of this shares fall down to 30% in a single day, which proves that shareholders had been lost trust from the company and they had sold the shares. This resulted that the company has to compulsion to cancel this deal immediate to get trust back from shareholders. No doubt, its goodwill has been become question mark. After few days, the chairman (own) had announced about fraud in company's balance sheet in huge amount during working hours of BSE. The market value of a share of Satyam Computers Ltd falls down from ₹159/- to just ₹40/- in six hours. This proves the impact of share holders’ value for the company.

As we know the capital is base of business, we need huge of capital and there are so many ways to create capital. One of them is to create by way of public issue. The people will invest their money by analyzing on different factors of the company. These analysis are based on either personally or by group and after that they are decided the value of the company which is beneficial to them. Thus, for the company, shareholders are valuable and for shareholders companies are valuable.

The basic objective of any organization is maximization of profit. Gradually this goal was replaced by wealth maximization. At the same time there are two types of investors. One group is in favour of regular income and another group is in favour of wealth creation but broadly thinking apart from these two objectives, the value creation for shareholders is very significant. In the world of corporate, to attract the investors the emphasis should be given on shareholders value creation. In this study, an attempt is made to measure and analyze shareholders value creation by 50 Indian companies specially listed ‘A’ group from BOMBAY
STOCK EXCHANGE (BSE) with ten different kinds of Industries and five companies under each industry.

There are many companies listed in the BOMBAY STOCK EXCHANGE, they are distributed in A, B, T, Z group. From the viewpoint of shareholders, they invest mostly in A group companies. The criteria belong to the turnover only, because the turnover is highest in A group companies. But now the problem is not only related to the turnover or profit but now it deals with wealth creation also and wealth creation is nothing but value creation.

Value creation is the difference between paid up value and intrinsic value and market value of the shares. If the net asset is more than the paid up value then it is called positive value creation. On the other hand, the difference between market value and net asset value is also called value creation.

For value creation analysis purpose, 10 different industries are selected and in each industry, there are five companies to be selected. The data of the company is taken from 2001-2002 to 2006-2007. The study is based on the secondary data, which will be obtained from the annual reports of the respective companies.

### 2.2 Objectives of the study:

1. To undertake measurement of share holder value creation created by the selected company through different methods.
2. To investigate degree of share holder value creation by the selected companies over a period of time.
3. To undertake comparative study of shareholder value creation of selected companies within the industries.
4. To undertake measurement and analysis of share holder value creation by selected industries.
5. To undertake comparative analysis of share holder value creation amongst the selected Indian companies.
6. To evaluate share holder value creation for selected companies of different selected industries.
7. To investing differences (variations) in shareholder value creation of selected Indian companies.
8. To suggest the investors about real share holder value creation to make their investments.
9. To examine the effect of dividend decision on shareholder value creation.

2.3 Hypothesis:
The null hypothesis method was used to maintain objectivity and avoid ambiguity in results. This is the hypothesis of no differences. The hypothesis can be accepted or rejected only at certain probability levels. In order to achieve objectives of this study the following hypothesis were framed.

1. The share holder value creation done by the selected Indian companies are identical.
2. There is no change in share holder value creation of the selected Indian company during the period of the study.
3. The share holder value creation is not found similar in the companies of respective industries.
4. The measurement of share holder value creation of selected industries are found to be non similar.
5. There is no impact of dividend decision on shareholder value creation.

2.4 Scope of the Study:
The study of share holder value creation is not affecting to the existing investors only but having an influence on potential investors also. Hence, the determination of scope of the study also plays a vital role. Now a day the literacy level of investors significantly increased in the context of capital market. So to cover interest of different stake holders the scope of the study has the following details:

1. This study is based on published annual corporate reports of selected Indian companies.
2. The time period of the study is 6 years only from 2001-2002 to 2006-2007.
3. In the study, total 10 industries are randomly selected and in each industry 5 ‘A’ group companies are randomly selected.
The details of selected industries and companies are given below.

**NAME OF SELECTED INDUSTRIES AND INDIAN COMPANIES UNDER ‘A’ GROUP LISTED IN BOMBAY STOCK EXCHANGE**

<table>
<thead>
<tr>
<th>SR. NO.</th>
<th>NAME OF THE INDUSTRY</th>
<th>NAME OF THE COMPANY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Automobiles</td>
<td>Ashok Leyland Ltd</td>
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<tr>
<td></td>
<td></td>
<td>Bharat Forge Ltd</td>
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<tr>
<td></td>
<td></td>
<td>Hero Honda Motors Ltd</td>
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<tr>
<td></td>
<td></td>
<td>Mahindra &amp; Mahindra Ltd</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tata Motors Ltd</td>
</tr>
<tr>
<td>2</td>
<td>Banking</td>
<td>Bank of Baroda</td>
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<tr>
<td></td>
<td></td>
<td>Bank of India</td>
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<tr>
<td></td>
<td></td>
<td>Canara Bank</td>
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<tr>
<td></td>
<td></td>
<td>State Bank of India</td>
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<tr>
<td></td>
<td></td>
<td>Union Bank Of India</td>
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<tr>
<td>3</td>
<td>Capital Goods</td>
<td>EleconEngg. Ltd</td>
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<td></td>
<td></td>
<td>Gammon India Ltd</td>
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<td></td>
<td></td>
<td>Larsen &amp; Toubro Ltd</td>
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<td></td>
<td></td>
<td>Reliance Ind. Infrastructure Ltd</td>
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<td></td>
<td></td>
<td>Walchandnagar Industries Ltd</td>
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<td>4</td>
<td>FMCG</td>
<td>Colgate Palmolive India Ltd</td>
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<td></td>
<td></td>
<td>Godrej Consumer Products Ltd</td>
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<td></td>
<td></td>
<td>Hindustan Unilever Ltd</td>
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<td></td>
<td></td>
<td>ITC Ltd</td>
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<tr>
<td></td>
<td></td>
<td>Nestle India Ltd</td>
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<tr>
<td>5</td>
<td>Healthcare</td>
<td>Apollo Hospitals Enterprises Ltd.</td>
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<td></td>
<td></td>
<td>Cipla Ltd</td>
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<td></td>
<td></td>
<td>Dr. Reddy’s Laboratories Ltd</td>
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<tr>
<td></td>
<td></td>
<td>Lupin Ltd</td>
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<tr>
<td></td>
<td></td>
<td>Ranbaxy laboratories Ltd.</td>
</tr>
<tr>
<td>6</td>
<td>IT</td>
<td>Financial Technologies Ltd</td>
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<td></td>
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<td>HCL Technologies Ltd</td>
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<td>Infosys Technologies Ltd</td>
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<td>Moser Baer Ltd</td>
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<td>Wipro Ltd</td>
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<td>7</td>
<td>Metal</td>
<td>Hindalco Industries Ltd</td>
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<td>Ispat Industries Ltd</td>
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<td>National Aluminium Co. Ltd.</td>
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<td>Steel Authority of India Ltd.</td>
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<td></td>
<td></td>
<td>Tata Steel Ltd</td>
</tr>
</tbody>
</table>
2.5 Selection of the Sample:

For the purpose of analysis, 50 companies of 10 industries which are registered in BSE are randomly selected.

2.6 Sample Size:

For the analysis of the data, 10 industries are selected. In each industry, 5 companies of ‘A’ group which are registered in BSE are selected. The data of 50 companies of 6 years starting from 2001-2002 to 2006-2007 is applied for the analysis purpose.

2.7 Data collection:

2.7.1 Primary source

The data is not used from primary source.

2.7.2 Secondary Source:

The data is used from secondary source.
2.8 Tabulation of the data:

- For the purpose of study, 50 tables are prepared. In these tables, shareholder value creation I, II, total value creation, intrinsic value, market capitalized value, high market price and low market price are disclosed.

- For inter company comparison, the other 10 tables are prepared. In these tables, paid up value of each company of the industry and shareholder value creation in percentage are presented.

- The other 10 tables are prepared for disclosure of mean, standard deviation, co-efficient of variations.

- For inter industry comparison, 10 tables which are showing rank as per co-efficient of variations are prepared.

- For analysis purpose, multiple regression analysis method is used. In this method, 5 models are selected. In each model 3 tables are prepared. The analysis of MRA is done by total 15 tables.

- For the analysis of relation between dividend payment and shareholder value creation I table is prepared which shows dividend payment of 30 companies out of total 50 companies.

2.9 Techniques of Measurement:

[A] Measurement Techniques of Shareholder Value Creation:

The measurement of shareholder value creation is done through two different methods and the calculation of shareholder value creation is divided into two parts shareholder value creation – 1 and shareholder value creation – 2.

The computation of shareholder value creation is a difference between Market Capitalization and Paid up Value of Shares that is known as total shareholder value creation. This is further divided into two categories.

(1) Shareholder value creation 1 = Intrinsic Value of Equity Shares – Paid up value of equity shares.

\[
\text{Intrinsic Value} = \frac{\text{Total Net Assets}}{\text{Total Number of Equity Shares}}
\]

\[
\text{Total Net Assets} = \text{Net Worth} - \text{Fictitious Assets}
\]
The computation of shareholder value creation 1 is related with internal financial soundness of the company. The improvement of the internal financial soundness is a result of economic efficiency of the company and accumulated reserves of the company. There is a positive relationship between reserves and surplus and shareholder value creation 1.

(2) Shareholder value creation 2 = Market Capitalization – Intrinsic value of Shares.

Shareholder value creation 2 is the excess of market capitalization over intrinsic value of equity shares. It discloses the impact of external factors like national and international economical factors, perception of investors, role of speculators and others.

(3) Total shareholder value creation = Shareholder value creation 1 + Shareholder value creation 2

The determination of intrinsic value of equity shares for all industries and companies for a given period of time is calculated respectively. The total market capitalization of shares of all companies is obtained from the reports of CMIE. The market capitalization of each year to arrive at market capitalized value of shares of each company, for the period of the study.

Market capitalized Value per share = \( \frac{\text{Total Market Capitalization of respective Year}}{\text{Number of equity shares of that respective year}} \)

For example:

In the case of the Automobile industry, shareholder value creation is calculated for the year 2001—2002 of Ashok Leyland Ltd. The calculation is given below:

(1) Net Asset = Net Worth – Fictitious Assets
   = 1036.95 - 4.91
   = ₹ 1032.04 (crore)
(2) No. of Shares = \( \frac{\text{Share capital}}{\text{Face value}} \)
= \( \frac{118.93}{1} \)
= 118.93

(3) Intrinsic value per share = \( \frac{\text{NAV}}{\text{No. of shares}} \)
= \( \frac{1032.04}{118.93} \)
= \( \text{₹} \ 8.68 \)

(4) Market capitalized Value per share = \( \frac{\text{Total Market Capitalization of respective Year}}{\text{Number of equity shares of that respective year}} \)
= \( \frac{791.41}{118.93} \)
= \( \text{₹} \ 6.65 \)

(5) Share holder value creation 1 = Intrinsic Value of Equity Shares – Paid up value of equity shares.
= 8.68 – 1
= \( \text{₹} \ 7.68 \)

(6) Share holder value creation 2 = Market Capitalization – Intrinsic value of Shares.
= 6.25 – 8.68
= \( \text{₹} \ -2.03 \)

(7) Total share holder value creation = Share holder value creation 1 + Share holder value creation 2
= 7.68 + (-2.03)
= \( \text{₹} \ 5.65 \)

[B] The conversion of shareholder value creation in percentage

To know the growth of share holder value creation, the value creation is converted in the form of percentage. The reason behind this is non identical paid up value of equity shares of selected companies. The formula for the conversion is given below.

\[
\text{Shareholder value creation in %} = \frac{\text{Total share holder VC}}{\text{Paid up value of Eq. Sh.}} \times 100
\]
[C] **Statistical analysis by Mean, S.D. and C.O.V.**

For the purpose of comparison between the selected companies in each industry the statistical measures like mean, standard deviation and co-efficient of variations are used. The ranks of companies are given on these three bases. Mean shows comparison, S.D. shows variation while Co-efficient of variations shows comparison of variations between the data. The formulas are given below.

\[
\text{Mean (} \overline{X} \text{): } \frac{X_1 + X_2 + \ldots + X_n}{n} = \frac{\sum x_i}{n}
\]

\[
\text{Standard Deviation (SD): } \sqrt{\frac{\sum (x_i - \overline{x})^2}{n}}
\]

\[
\text{Co-efficient of Variation (COV): } \frac{\text{SD}}{\overline{X}} \times 100
\]

[D] **Multiple Regression Analysis**

For the statistical analysis purpose, the Multiple Regression Analysis method is used. For that computerized SPSS software is applied. In this analysis 5 dependent and 15 independent variables are selected.

\[
Y = a + b_1x_1 + b_2x_2 + \ldots + b_nx_n
\]

Total five models are used. In these models, in model no.1 the impact of independent variables on shareholder value creation 1 is examined. In model no.2, the impact of independent variables on shareholder value creation 2 is examined. In model no. 3, the impact of independent variables on total shareholder value creation is examined. In model no. 4, the impact of independent variables on high market price is examined. In model no. 5 the impact of independent variables on low market price is examined.

(E) **Dividend payment and shareholder value creation**

To know the impact of dividend on shareholder value creation, the data of 30 companies out of 50 companies which are paying dividend in the year 04-05, 05-06 and 06-07 are selected. The year 04-05 is taken as the base year. In this
analysis positive, negative impact as well as no change are examined. These data are presented in the form of percentage.

\[
\% \text{ of Impact} = \frac{\text{Numbers of years}}{\text{Total Years}} \times 100
\]

2.10 Limitations of the study:

- For the study, only 10 industries are selected.
- In each industry only 5 companies are selected.
- Total 50 companies of only ‘A’ group are selected.
- The data of only 6 years from 2001-2002 to 2006-2007 are selected.
- There are many techniques for value creation but only market capitalized value technique is used.

2.11 Organization (Chapter Plan) Of the Study:

The division of this thesis is done in six chapters. In this study, the measurement and analysis of selected Indian companies were done. This study commenced with the introduction, definition, methodology and history. It is summed up with findings and suggestions of the study. The chapterization of this work is in the following manner.

- Chapter 1 deals with the introduction, concept of shareholder value creation and basics of stock markets.
- Chapter 2 provides the details of methodology used for research work.
- Chapter 3 shows the review of literature on the subject and the related topics.
- Chapter 4 represents the history of Indian Corporate and all selected industries and companies in each industry.
- Chapter 5 shows data collection and analysis.
- Chapter 6 represents conclusion, findings and suggestions of the study.
Chapter -2 explains the fundamentals components and the process of research undertaken. This helps to render to know the way of study undertaken and justification to the work.

The subsequent chapter is of Literature Review, which has great importance from the view point of study which is to be undertaken. This helps the researcher to decide the path of research work. Total thirty studies are reviewed to know the various issues of share holder value creation and their measurement.