CHAPTER 3:

RESEARCH METHODOLOGY

3.1 Rationale of the Study

The developing economies are generally faced with the problems of inefficient utilization of resources available to them. Capital is the scare productive resource in such economies and proper utilization of resource promotes the rate of growth, cuts down the cost of production, and above all beefs up the efficiency of the productive system. Hence, the purposeful harnessing of capital is of paramount importance in any development of economies.

The total capital of a company comprises of fixed capital and working capital. The emphasis has ever been on the growth and efficiency of fixed capital. The liquidity management is often been neglected, resulting in sub-optimal utilization of not only working capital but also fixed capital.

Liquidity Management in a given enterprise has profitability and liquidity implications. Working capital represented by current assets, constitutes a dominant and controllable segment of investment, particularly in manufacturing enterprises, where efforts are made to the optimum utilization of liquid resources so that profitability can be enhanced. These efforts would simultaneously activate the flow of funds through the enterprise by focusing on dormant inventories and overdue outstanding and by curbing the long established tendency of funds to stagnate at different stages in the enterprise operations. Thus working capital offers a common front for profitability and liquidity management. The focus of the study is to know that whether a finance manager can maximize profitability by optimizing the investment for liquidity purposes?

Corporate funds inflows and outflows vary over time; a deficiency of funds may develop from time to time regardless of whether profits are realized or not; and, those charged with maintaining a balance between inflows and outflows have imperfect advance knowledge of the nature, magnitude and timing of the need. In this context, one research question is formulated:
"How does ... a business respond to the knowledge that future fund flows are not precisely known and that from time to time major needs will arise that have not been fully anticipated?"

Information collected from the sample of companies indicated a wide range of practices regarding the extent to which expectations of funds flows were systematically recorded and analysed. The evidence suggested that several factors might explain this diversity, such as the size and maturity of the company, the size of the firm's financial reserves, the size of the company's finance department, the age and background of the chief finance officer, and the experience of the firm in funds flow forecasting.

3.2 Nature of the Study

Research can be broadly classified as:

(i) **Exploratory Studies**

Studies carried out with the purpose of developing familiarity with the phenomenon under consideration or more structured investigation or to conceive new ideas and achieve new insights into it with an aim to give shape to most precise research problems are, generally, called ‘exploratory research’. Such studies may also serve as a basis for clarifying concepts, and establishing priorities for further research. So the research design for these studies should be flexible enough to allow consideration of various aspects of phenomenon.

(ii) **Descriptive and Diagnostic Studies**

The purpose of this kind of studies is to describe accurately the characteristics of an individual, or group, or a particular situation. Accuracy is the main concern in these types of studies and most of the social research comes under this category. Therefore, research design for these studies should not provide any bias and must maximize reliability.

Diagnostic research studies determine the frequencies or proportion with which something takes place or its association with something else. A specific initial hypothesis is useful but it is not necessary. Requirements of a research design are similar as in case of descriptive studies.
(iii) **Experimental Studies**

These studies are to be done for testing the hypothesis of casual relationship between variables of a specific research problem. Since accuracy is required, such studies require procedures that will not only reduce bias and increase reliability, but will permit drawing inferences about causality.

The nature of the research is experimental type to find out the cause and effect relationship between various variables like corporate liquidity, profitability, solvency, capital structure etc. Empirical research is appropriate when proof is sought that certain variables affect other variables in some way. Evidence gathered through experiments on empirical studies considered to be the most powerful support possible for a given hypothesis.

The study is analytical in nature, the information is already available and a critical evaluation of the material is required. The solution to the immediate problem of inefficient liquidity management in most of the companies is sought and therefore all the knowledge is applied for the required purpose.

### 3.3 Research Methodology

Research methodology is a way to systematically solve the research problem. It may be understood as a science of studying how research is done scientifically. It explains various steps that are generally adopted by a researcher to study the research problem and describes the logic behind them. Research methodology is wider in scope as compared to research methods. A researcher has to develop or design a specific methodology because the same may be different for different problems. It requires great deal of care, caution and consideration as the success and accuracy of the results totally depend on this approach. Research methodology used in the present study is summarized below:

#### (i) Research Design

Research design is a ‘blue print’ that can be understood as a plan, structure and strategy of investigation conceived, so as to obtain answers to research questions and to control the variance. The decisions in respect to the data collection, the sample to
be selected and the manner in which the collected data is to be organized and analysed, generally constitute the body of research design. As it is a part of research-methodology, it has a great bearing on the reliability of the result of research. Basically research design has two purposes:

1. To provide answers to the research questions.
2. To control variance.

The following research design is being adopted:

The research design is made in which first the selection of the companies is done which is the companies listed in NIFTY 50 after that the secondary data from audited
annual published reports of Nifty 50 companies is collected then after the ratios are calculated and compared to reach up to a conclusion.

(ii) Sample design

Basically there is no sample in the study because the whole universe is selected which is Nifty 50 companies.

(iii) Sample unit

The sample unit is only 1 company from the sample size of 50 companies of Nifty.

3.4 Database

The Study under reference is based on secondary data i.e. Annual Reports/ Published Accounts. Secondary data is taken from published annual reports of the companies listed in NIFTY 50. The reason we chose this market is primarily due to the reliability of the financial statements. Companies listed in the stock market have an incentive to present profits if those exist in order to make their shares more attractive. Contrary to listed firms, non-listed firms in India have less of an incentive to present true operational results and usually their financial statements do not reflect real operational and financial activity. Hiding profits in order to avoid corporate tax is a common tactic for non-listed firms in India which makes them less of a suitable sample for analysis where one can draw inference, based on financial data, for working capital practices.

3.5 Analysis & Interpretation of Data

Analysis implies the computation of certain measures so that the relationship among various variables can be established. On the basis of these relationships, conclusions of the research can be made. Analysis of the data can be done by employing certain statistical tools as per the requirement of the objectives of the study. After having completed the analysis, it is necessary to interpret the results drawn through the application of statistical tools. Interpretation refers to the task of drawing inferences from the results of analysis. In fact, it is a search for broader meaning of research finding. So, this is extremely important step of research process.
3.6 Financial and Statistical Techniques

In the course of analysis, use of various accounting and statistical techniques have been made.

- **Accounting techniques**
  
  This includes ratio, trend analysis and common size statements and Motaal’s test of ultimate ranking.

  (i) **Ratio Analysis:**

  According to Moyer et al. (2007), financial ratios analysis is used to address three main purposes. First, it is used as an analytical tool in identifying the strengths and weaknesses of the firm as well as to assess its viability as an ongoing enterprise or to determine whether a satisfactory return can be earned for the risk taken. Second, financial ratios are useful as monitoring tools for ensuring the company objectives are compatible with its resources. Third, financial ratios play a very effective role in planning to achieve the company’s goals. Financial ratios enable an analyst to make a comparison of a firm’s financial condition over time or in relation to other firms.

  McNamee (1985) pointed out that information not clearly identifiable from the raw data can be readily revealed by expressing several figures from financial statements in the form of ratios.

  Therefore, financial ratio analysis is generally applied for various corporate appraisals.

  According to Lasher (2003), the best competitive information for ratio analysis generally is a comparison of traditional ratios with an industry average. As stated by Edum-Fotwe et al. (1995) traditional ratio analysis involves calculating single ratio values by employing any two financial figures. As highlighted by Singh and Tiong (2005), a number of researchers have developed financial ratio models for predicting financial soundness or bankruptcy of firms.

  There are various **ways of comparing** the ratios

  a) **Comparison of the ratio value with a fixed standard**

  The earliest recommendation on how to judge the adequacy of the current ratio value proposed its comparison with a fixed standard. This recommendation, which enjoyed a widespread acceptance for a long time, defended the arbitrary requirement that the ratio value should not fall below two to one, this relationship being regarded as the safety limit of technical solvency.
Ratio primarily viewed as a measure of thumb is open to criticism on several grounds. First, is the pure subjectivity of the standard nothing intrinsically significant in a two-to-one the rule is one-sided. The current ratio is an index of financial strength and stability, not sufficient utilization of resources. Third, the rule does not allow the specific financial conditions inherent in companies operating in distinct lines of business activity to be reflected.

b) Comparison of the ratio value with a flexible standard

With the purpose of meeting the above criticisms, it subsequently became the practice to recommend the comparison of the current ratio value with a flexible standard. This rule recognized that the nature of firms' operations makes different balance-sheet structures appropriate. It accepted, therefore, that some types of business may require a current ratio higher or lower than two to one. It advocated, however, that any departure from this standard, either upward or downward, should be analysed. Management should then be able to demonstrate either the need for the increased margin or, that an undue risk was not being incurred.

c) Comparison of the ratio value with a theoretical standard - The industry average

This approach was based on the early works by Bliss [1923] and Boulding [1950]. It argued that the industry average should serve as target for a firm's current ratio. The central point of the argument was that certain factors - and among these, industry classification in particular - tend to increase the inter-firm dispersion of financial ratios, thereby making it difficult to differentiate between firms on the basis of ratios.

The industry average approach is still often applied nowadays [e. g. Weston and Brigham, 1985]. "Unfortunately, the validity of [its] arguments has not withstood the test of time and today the industry averages serve as target levels more as a rule of thumb than a theoretically grounded proposition" [Peles and Schneller, 1979, p. 131.] Two reasons contributed to this development. The first was the recognition that the industry average is not in, itself an index of optimal performance. The second reason was the realization that companies within industry groupings are not homogeneous, which affects the meaning of the industry average figures [Van Horne, 1986]. Some empirical research attempted to confirm this last point.
d) Analysis of the ratio value trend

Another current approach regarding the adequacy of the current ratio value claims that it is not so much the ratio value of the moment that is important but the trend the ratio value follows over a period of time. A falling trend in the ratio value will be interpreted as deterioration in liquidity, whereas an increasing trend will be indicative of an improvement [Wright, 1956; Chisholm, 1977]. Although this approach takes a new dimension - time – into account, it is no less ambiguous than the preceding ones. Not only an upward or downward trend in the ratio value can be due to a variety of causes (see 3.2.), but also the implications of the trend cannot be clearly visualized unless the state of the liquidity situation at the beginning of the trend period is known.

The major criticism regards the ease with which the current ratio can be manipulated (Sorter and Benston, 1960; Glautier, 1971; Fadel and Parkinson, 1978; Siegel, 1980]. It is widely recognized that certain events at year end may have a "window dressing" effect, leading the ratio to imply a better or worse liquidity situation than the one obtained on average through the year. "Window dressing" occurs whenever, through purposeful or chance manipulation of the timing of exchanges of assets and liabilities.

In analysis and interpretation of data the help of various accounting ratios is been taken which are as under:

1. **Current Ratio**- This ratio measures the short term solvency of the company. Current assets are those assets which can be converted into cash within a year. Current liabilities and provisions are those liabilities that are payable within a year. A current ratio of 2:1 indicates a highly solvent position. A current ratio of 1.33:1 is considered by banks as the minimum acceptable level for providing working capital finance. The constituents of the current assets are as important as the current assets themselves for evaluation of the company’s solvency position. A very high current ratio will have adverse impact on the profitability of the organization. A high current ratio may be due to the piling up of inventory, inefficiency in collection of debtors, high balances in cash and bank accounts without proper investments etc.

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2. **Quick Ratio**- Quick ratio is used as a measure of the company’s ability to meet its current obligations. A quick ratio of 1:1 indicates highly solvent position. This ratio serves as a supplement to the current ratio in analyzing liquidity.

\[
\text{quick ratio} = \frac{\text{current assets} - (\text{stock} + \text{prepaid expenses})}{\text{current liabilities}}
\]

3. **Super Quick Ratio**- Absolute liquid assets include cash in hand, cash at bank and short-term or temporary investments. The ideal absolute liquid ratio is taken as 1:2.

\[
\text{super quick ratio} = \frac{\text{cash in hand} + \text{cash at bank} + \text{Marketable securities}}{\text{current liabilities} - \text{Bank overdraft}}
\]

4. **Inventories to Current Assets Ratio**: In this ratio the proportion of inventories in total current assets is computed.

\[
\text{inventory to current asset ratio} = \frac{\text{inventory}}{\text{current assets}}
\]

5. **Receivable to Current Assets Ratio**: In this ratio the proportion of receivables in total current assets is computed.

\[
\text{receivable to current asset ratio} = \frac{\text{receivable}}{\text{current asset}}
\]

6. **Cash and Bank to Current Assets Ratio**: In this ratio the proportion of cash & bank balances in total current assets is computed.

\[
\text{cash and bank to current asset ratio} = \frac{\text{cash and bank}}{\text{current asset}}
\]

7. **Return on Capital Employed** – The strategic aim of a business enterprise is to earn a return on capital. If in any particular case, the return In the long run is not satisfactory, then the deficiency should be corrected or the activity be abandoned for a more favorable one. Measuring the historical performance of an investment centre calls for a comparison of the profit that has been earned with capital employed.

\[
\text{Return on capital employed} = \frac{\text{Net profit (before interest and tax)}}{\text{total assets}} \times 100
\]

8. **Liquid Assets to Total Assets Ratio**- Liquid assets such as investment securities, enable a bank to respond quickly to unexpected demands for cash and typically reflect relatively conservative financial strategies, whereas
volatile liabilities, such as large certificates of deposits, often reflect relatively aggressive financial strategies impose high interest expenses, and are subject to quick withdrawal. This ratio represents the proportion of liquid assets to total assets.

\[
\text{Liquid assets to total assets} = \frac{\text{liquid assets}}{\text{total assets}}
\]

9. **Govt. & Other Securities (Investments) Assets to Total Assets Ratio**: The investment in Govt. and other securities held by the bank viz a viz to total assets are clear indicators of banks liquidity position.

\[
\text{Govt. & other securities (Investments) Assets to Total Assets Ratio} = \frac{\text{Govt. & other securities (Investments) Assets}}{\text{Total Assets}}
\]

10. **Current Assets to Total Assets Ratio**: It measures the overall liquidity position of the bank. The current asset includes cash in hand, balance with institutions, money at call and short notice, deposits etc. The total assets include the revaluation of all the assets.

\[
\text{current assets to total assets ratio} = \frac{\text{current assets}}{\text{total assets}}
\]

11. **Liquid Assets to Deposits Ratio**: This ratio measures the liquidity available to the total deposits of the bank. This ratio measures the ability of bank to meet the demand from depositors in a particular year. To offer higher liquidity for them, bank has to invest these funds in highly liquid form.

\[
\text{Liquid assets to deposits ratio} = \frac{\text{liquid assets}}{\text{deposits}}
\]

12. **Investment to Deposits Ratio**: This ratio measures the ability of bank to meet the demand from depositors in a particular year. It is assumed that lower is the ratio better is the condition of bank.

\[
\text{Investments to deposits ratio} = \frac{\text{Investments}}{\text{deposits}}
\]
(ii) Common Size Statements

Common-size financial statement facilitates both type of analysis, i.e., horizontal as well as vertical. This statement indicates the relationship of various items in terms of percentage with some common or basic item. In present study common item is gross working capital and all other components are calculated as a percentage of gross working capital.

(iii) Motaal's Comprehensive Test of Liquidity

Motaal prescribes a comprehensive test for determining the soundness of a firm as regards liquidity position. According to him, a process of ranking is used to arrive at a more comprehensive measure of liquidity in which the following three ratios are combined in a point score:

I. Working Capital (WC) to Current Asset Ratio =

\[
\left( \frac{\text{Current Assets} - \text{Current Liabilities}}{\text{Current Assets}} \right) \times 100
\]

II. Stock to Current Asset Ratio in percentage =

\[
\frac{\text{Average Stock}}{\text{Current Assets}} \times 100
\]

III. Liquid Resources (LR) to Current Asset Ratio in percentage =

\[
\frac{\text{Liquid Resources}}{\text{Current Assets}} \times 100
\]

The higher the value of both working capital to current asset ratio and liquid resources to current asset ratio, relatively the more favorable will be the liquidity position of a firm and vice-versa. On the other hand, lower the value of stock to current assets ratio, relatively the more favorable will be the liquidity position of the firm. The ranking of the above three ratios of a firm over a period of time is done in their order of preferences. Finally, the ultimate ranking is done on the basis of the principle that the lower the points score, the more favorable will be the liquidity position and vice-versa.53

To reach up to a concrete conclusion this test is used.

- Statistical Techniques

Various statistical measures have been used i.e., Mean, Standard Deviation, Coefficient of variation, Karl Pearson’s coefficient of correlation analysis and student

t test. In this context an attempt has been made to analyse the financial performance of companies to understand how management of finance plays a crucial role in the growth.

(i) **Mean**- is the most popular and commonly used measure of central tendency.

In a set of observation, it is equal to the sum of all the observations divided by the total number of observations.

\[
\bar{x} = \frac{\sum x}{N} \quad \bar{y} = \frac{\sum y}{N}
\]

(ii) **Standard deviation**- the concept of standard deviation was first introduced by Karl Pearson in 1893. It is by far the most important and widely used measure of studying dispersion.

The standard deviation, abbreviated as S.D., of a given set of observations is defined as the positive square root of the arithmetic mean of the squares of deviations of the observations from their arithmetic mean. It is denoted by the Greek small letter \( \sigma \) (read as sigma).

\[
\sigma_x = \sqrt{\frac{\sum d^2 x}{N}} \quad \sigma_y = \sqrt{\frac{\sum d^2 y}{N}}
\]

The variance of a given set of observations is defined as the square of its standard deviation and is denoted by \( \sigma^2 \).

\[
\text{Variance} = \sigma^2
\]

(iii) **Coefficient of Variation**- the standard deviation is an absolute measure of dispersion, depending upon the units of measurement. It does not tell us much about the variability of a single set of data. The coefficient of standard deviation, based on standard deviation, is a relative measure of dispersion and is given by

\[
\text{Coefficient of Standard Deviation} = \frac{S.D.}{\text{Mean}}
\]

This is a pure number independent of the units of measurement and hence can be used to compare the variability of two distributions expressed in different units. Perhaps more appropriate measure is the coefficient of variation (C.V.) defined by

\[
\text{Coefficient of Variation} = \frac{S.D.}{\text{Mean}} \times 100
\]

which expresses the standard deviation as a percentage of the mean. Since C.V. is a measure of relative variation expressed as a percent, the coefficient
of variation can be used to compare the variability of two or two more sets of data even when the observations are expressed in different units of measurement.

A distribution for which the coefficient of variation is smaller is said to be less variable or more consistent, more uniform, more stable or more homogenous. On the other hand, the distribution for which the coefficient of variation is greater is said to be more variable or less consistent, less uniform, less stable or less homogeneous.

(iv) Karl Pearson’s Correlation Analysis - is a statistical procedure by which we determine the degree of association or relationship between two or more variables. That is, in correlation analysis, the purpose is to measure the strength, or closeness of the relationship between two variables.

1. If two or more quantities vary in sympathy so that movements in one trend to be accompanied by corresponding movements in the other(s), then they are said to be correlated.

   – L.R. Connor

2. Correlation analysis attempts to determine the degree of relationship between variables.

   - Ya lun chou

There could be positive or negative correlation.

The correlation between two variables is said to be positive or direct if an increase (or a decrease) in one variable corresponds to an increase (or a decrease) in the other.

The correlation between two variables is said to be negative or inverse if an increase (or a decrease) in one variable corresponds to a decrease (or an increase) in the other.

The correlation coefficient and Probable error

The quantitative measure of strength in the linear relationship between two variables is called the correlation coefficient. It is denoted by r.

Thus the correlation coefficient r measures the extent to which the points cluster about a straight line. The correlation coefficient ranges from +1 to -1. If two variables have no linear relationship, the correlation between them is zero. Consequently, the more correlation differs from zero, the stronger the linear relationship between the two variables.
\[ r = \frac{\sum dxdy}{\sqrt{\sum (dx)^2 \cdot \sum (dy)^2}} \]

**Probable Error** – Probable error (P.E.) is an important measure to determine the limits of coefficient of correlation and to assess the reliability of the value of coefficient. The formula for calculating probable error of Karl Pearson’s coefficient of correlation is as follows:

\[ P.E. = \frac{0.6745(1-r^2)}{\sqrt{N}} \]

Probable error of coefficient of correlation can determine such minimum and maximum limits, within which coefficient of correlation of the total universe or of other groups selected from the same universe at random will fall with a probability of 50%.

(v) **Coefficient of Determination**

The concept of coefficient of determination is very useful and readily comprehensible in interpretation of coefficient of correlation or in comparison of two or more coefficients of correlation. In simple words, coefficient of determination means square of correlation coefficient (or \( r^2 \)).

“Coefficient of determination (\( r^2 \)) explains the percentage variation in the dependent variable \( Y \), that can be expressed in terms of the independent variable \( X \).”

- John I. Griffin

If coefficient of correlation is 0 or 1, coefficient of determination will also be 0 or 1. It means \( r = r^2 \) when \( r=0 \) or 1.

(vi) **Student t-test**

There has been difference of opinion with regard to meaning of small sample. Some people consider a sample of 50 or less units as small, while in other case a sample of less than 30 units is considered as a small sample. In this study the second view has been accepted and on this basis a sample is said to be a small if, the size of sample is less than 30, i.e., \( n<30 \)

**Test of Significance of Coefficient of Correlation in small samples**

William Sealy Gosset has contributed significantly in developing the tests of significance for small samples, who, under the pen name ‘student’ gave an
idea of t-statistic in the year 1908 and published a theoretical sampling
distribution commonly known as student’s t-distribution.

The t-test can also be applied to test the significance of coefficient of a
randomly selected sample of n number of pairs of observations drawn from a
bivariate normal distribution. This test is administered with the hypothesis that
there is no correlation between the variables in population or correlation of
coefficient of the population is zero. The value of t, in such a test, is calculated
as follows:

\[ t = \frac{|r| \sqrt{n-2}}{\sqrt{1-r^2}} \]

It is important that in such a test the value of t is observed at a certain level of
significance for n-2 degrees of freedom. If the calculated value of t is less than
its table value, the null hypothesis is accepted and correlation is not considered
significant. On the contrary if the calculated if the calculated value of t is
greater, the null hypothesis is rejected and r is considered significant\(^6\).

(vii) Column Chart

Compare the contribution of each value to a total across categories by using
vertical rectangles. It is used to emphasize the total across series for one
category.

(viii) Pie Diagram

Display the contribution of each value to a total. It is used when the values can
be added together or when you have only one data series and all the values are
positive.

3.7 Description of the Variables

1. The very first variables in the study are liquidity ratio which includes
current ratio, quick ratio, and super quick ratio, inventories to current
asset ratio, receivable to current asset ratio, cash & bank to current
asset ratio.

Since the annual accounts of the banking companies totally differs
from the annual accounts of manufacturing and service companies
separate set of liquidity ratios are calculated for it which are Liquid

assets to total assets, Gov. & other securities (Investments) Assets to total assets ratio, Current assets to total assets ratio, liquid assets to total deposits ratio and investments to deposits ratio.

The next significant variable is profitability which is measured by return on capital employed.

Then the attempt is been made to establish a relationship between the two variables through Karl Pearson’s coefficient of correlation and Student t-test.

2. The other variables are inventories, sundry debtors, Cash & bank balances, other current assets and loans & advances. The analysis is been done to study how these variables vary as a percentage of Gross working capital of the company.

However the variables in case of Banking companies are cash & banks, balance with banks & money at call & short notice, investments and other current assets.

3. Other significant variables are sales and working capital. Karl Pearson’s coefficient of correlation and student t test is being used to know the relationship between these two variables. Inspite of sales, income is taken as a variable in case of banking and service organisations.

3.8 Objectives of the Study:

a) To know the overall quantum of liquid assets maintained by the selected companies.

b) To study the components of working capital and to find the major component responsible for major change in it.

c) To study the liquidity position of the companies under study.

d) To compare the liquidity position of the selected companies.

e) To examine the relationship between liquidity and profitability.

3.9 Hypotheses of the Study

1. **H0A**: there is no positive relationship between sales and working capital requirements of the selected companies.

2. **H0B**: liquidity position of companies is independent to various components of current assets.
3. **H0C**: Liquidity is not competing with profitability, i.e., change in liquidity does not lead to any effect on profitability.

### 3.10 Chapter Scheme

The study is divided into six chapters:

1. Chapter One, is an introductory chapter giving details about the fundamental concepts relating liquidity management, various factors affecting liquidity, profitability and the tradeoff between liquidity and profitability, operating cycle and all the necessary details relating to liquidity management.
2. Second chapter includes review of existing literature in an organized pattern.
3. In the third chapter, research methodology used to carry out the present study is explained, which includes rationale of study, research design, sampling, data collection and financial and statistical techniques used for analysis of the collected data.
4. Fourth chapter consist profile of the selected companies, which are divided into 12 sectors. The 50 companies of Nifty are divided into these twelve sectors and the basic description of these companies is given.
5. The fifth chapter consists of analysis and interpretation of the collected data through the application of various financial and statistical techniques so that meaningful information can be derived out of it.
6. The sixth chapter gives the findings of the study it also gives suggestion.

### 3.11 Limitation of the Study

1. The study period is limited to five years only (from 2006-07 to 2012-13). Therefore, a detailed trend analysis covering a lengthy period has not been carried out.
2. The study is based on secondary data collected from Annual reports of the companies. Therefore, the quality of study depends purely upon the accuracy, reliability and quality of secondary data source.