Chapter-4

Data Analysis and Interpretation
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Data Analysis and Interpretation

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Chapter-4  
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4.1 Introduction

This chapter deals with analysis interpretation of data. Data analysis is a process in which collected or available data (raw data) is analyzed by following theoretical aspects related to the study and applying suitable method being used. The raw data will be edited and tabulated by the Researcher as the Requirement of the study. For the purpose of analyzing data for the study some accounting and statically tools and techniques will be adopted by the researcher.

Here in this particular chapter the researcher will go for using accounting and statically tools and techniques like trend analysis, and chi-square test. The theoretical aspect of tools and techniques is as follows, which will be useful before analyzing the data. For data analysis and interpretation the researcher has applied accounting and statistical tools. For accounting tool various profitability ratios and efficiency ratios are calculated. For hypothesis testing T-test and F-test have been applied.

4.2 Meaning of Finance

Whenever we hear the word finance, the very first thing that we think in our mind is money. But finance is not merely related to money. Finance is something much more than money terminologies. Academically “Finance is a branch of Economics, which deals with resource allocation and investment”. Finance deals with matters related not only money but also with matters related to market.

Finance is the management of money and financial management shows the management of financial activities properly to achieve firm’s goal (wealth maximization). Actually financial management shows the technique and strategies to determine the need of the fund, to identify the possible and plausible source of fund, to collect the necessary fund from the identified sources and to invest the collected fund in different profitable sectors by maintaining the principle of finance to achieve the goal of the business firm.
4.3 Definition of Financial Efficiency

Efficiency is defined as a level of performance that describes a process that uses the lowest amount of inputs to create the greatest amount of outputs. Efficiency relates to the use of all inputs in producing any given output, including personal time and energy.

Efficiency is an important attribute because all inputs are scarce. Time, money and raw materials are limited, so it makes sense to try to conserve them while maintaining an acceptable level of output or a general production level.

The comparison of what is actually produced or performed with what can be achieved with the same consumption of resources (money, time, labor, etc.). It is an important factor in determination of productivity. See also effectiveness.¹

Financial efficiency is defined as how well the dollars invested in each alternative produce revenues to the agency. Economic efficiency is defined as how well the dollars invested in each alternative produce benefits to society.²

Financial ratios defined that a financial analysis comparison in which certain financial statement items are divided by one another to reveal their logical interrelationships. Some financial ratios such as net sales to net worth ratio and net income to net sales ratio are called primary because they indicate the fundamental causes underlying a company's strengths and weaknesses. Others such as current assets to current liabilities ratio, and current liabilities to net worth ratio are called secondary because they depict the company's competitive position and financial structure as effects of the causes identified by the primary ratios. See also activity ratios, efficiency ratios, investment ratios, leverage ratios, liquidity ratios and profitability ratios.³

4.4 Concept of Financial Efficiency

Financial Performance is the snapshot of a position of concern and ability to withstand the ever changing environment. It is the blue print of the financial affairs of the concern and reveals how a business has prospered under the leadership of its management
personnel. In fact, it can said that financial performance is the medium of evaluation of management performance.

The overall objective of a business is to earn satisfactory return on the funds invested in it. Consistent with maintaining a sound financial position, an evaluation of such performance is done in order to measure the efficiency of operations of the profitability of the organization and to appraise the financial strength as compared with a similarly situated concern.

Thus, financial efficiency is generally directed towards evaluating the liquidity, stability and profitability of a concern which put together symbolizes the financial efficiency of a concern.

Financial efficiency is a measure of the organizations ability to translate to its financial resources into mission related activities. Financial efficacy is desirable in all organization of individual mission. It measures the intensity with which a business uses it assets to generate gross revenue and the effectiveness of producing, purchasing, pricing, financing, and marketing decisions. At the micro level financial efficiency refers to the efficiency with which resources are correctly allocated among competing uses at a point of time. Financial efficiency is a measure of how well an organization has managed certain trade of (risk and return, liquidity and profitability) in the use of its financial efficiency. Financial efficiency is regarded as a measure of total efficiency and a management guide to greater efficiency and the extent of the profitability liquidity, productivity and capital strength can be taken as a final proof of a financial efficiency. Financial efficiency directed towards evaluating the liquidity, stability, and profitability of a concern which put together of a concern. The word efficiency as defined by the oxford dictionary states that efficiency is the accomplishment of or the ability to accomplish a job with minimum expenditure of time and effort. As expressed by peter ducker “doing the things the right way is efficiency”. This denotes the fulfillment of the objective with minimum sacrifice of the available scarce resource. Fatless and speedy compliance of the process or system procedure is a measure of efficiency providing a specified volume and quality of services with the lowest level of resources capable meeting that specification, performance
measures and or indicators are required. These are including measures, productivity, unit of volume of service etc.

4.5 Measurement Tools of Financial Efficiency

Below are some tools to measure firm’s financial efficiency:

1. Trend analysis

Trend Analysis technique is useful to analyze the firm’s financial position and to put the absolute figures of financial statement in more understandable form over a period of years. This indicates the trend of such variable as sales cost of production, profit, assets and liability.

2. Common Size Vertical Analysis

Common Size Vertical Analysis is a figure from the same year’s statement is compared with the basic figure selected from the statement is converted into percentage to some common base.

3. Common Size Horizontal Analysis

In Common Size Horizontal Analysis A figure from the account is expressed in terms of same account figures from selected base years. It is calculation of percentage relation that each statement then bears to the same items in the base year. Common Size Horizontal Analysis can help analyze to determine how an enterprise has arrived at its current position.

4. Comparative Statement Analysis

Statement prepared in a form reflecting financial data for two or more periods are known as comparative statement. The data is to be properly set before comparison. In the preparation of comparative financial statement, uniformity is essential otherwise comparison will be vitiated. It is very useful to the analyst because they contain not only the data appearing in a single statement but also information necessary for the study of
financial and operating trends over a period of years. They indicate the direction of movement in respect of financial position and operating result.

5. Comparative Balance Sheet

Increase and decrease in various assets and liabilities as well as in proprietor’s equity or capital brought about by the conduct of a business can be observed by a comparison of balance sheet at the beginning and end of the period. Such observation often gives considerable information which is of value information of opinion regarding the progress of the enterprise and in order to facilitate comparison a simple device known as the Comparative Balance Sheet may be used.

6. Comparative Income Statement

As Income Statement shows the net profit or net loss resulting form the operations of a business for designated period of time. A Comparative Income Statement shows the operating result of a number of accounting period so that changes in absolute data from one period to another may be stated in forms of money and percentage. The Comparative Income Statement contains the same columns as the Comparative Balance Sheet and provides the same type of information. Comparative Income Statement presents the review of the operating activities of the business.

7. Fund Flow Analysis

The Balance Sheet is in the nature of a showing the position of a firm at a particular moment of time. The business process is very dynamic with transaction occurring regularly, each of which affects in some way, the immediately preceding financial position. A Balance Sheet therefore, merely provides the picture of a fleeting condition at a point of time and if Balance Sheet draws at different time are compared any different amount between closing and opening figures would be the result various transaction taking place during the interim period. The business process involves a continuous inflow and outflow of amount. This Fund Flow Analysis helps the analyst to
appraise the impact of the management's decision on the business during a given period of time.

8. Ratio Analysis

The term ratio simply means one number expressed in terms of another. It describes in mathematical terms the quantitative relationship that exists between two numbers. The term “accounting ratio” J. Batty points out, is used to describe significant relationships between figures shown on a Balance Sheet, in Profit and Loss Account, in a Budgetary Control System or in any other part of the accounting organization. Ratio Analysis, simply defined, refers to the analysis and interpretation of financial statements through ratios. Nowadays it is used by all business and industrial concerns in their financial analysis. Ratios are considered to be the best guides for the efficient execution of basic management functions like planning, forecasting and control, etc.\(^5\)

9. Other Techniques of Analysis

Several other techniques like Cash Flow Analysis and Break Even Analysis are also sometimes useful for financial analysis. The use of various Statistical Techniques are also used frequently for financial analysis, providing a more scientific analysis. The Statistical tools generally applied are Moving Average, Index Number, Range, Standard Deviation, Correlation, Regression and Analysis of Time Series.

Diagrammatic and Graph orientation are often used in financial analysis. Graphs provide a simplified way of presenting data and often give much more vivid understandable of trends and relationships.
For taking policy decision under different situations, measurement of Profitability is essential. According to Murthy V. S. “The most important measurement of Profitability of a company is ratio i.e. profitability of assets, variously referred to as earning power of the company, return on total investment or total resources committed to operations”.

Profitability ratios are calculated to measure the operating efficiency of the firm. According to Block and Hirt “The income statement is the major device for measuring the Profitability of a firm over a period of time.” Measurement of profitability is as essential as the earning of profit itself for the business concern. Some managerial decisions like rising of additional finance, further expansion, and problems of bonus and dividend payments rest upon this measurement. It can be measured for a short term and as well as for a long term. The relation to sales is the good short-term indication of successful growth while profitability in relation to investment is the successful growth while profitability in relation to investment is the healthier for long turn growth of the business. Profitability provides overall performance of a company and useful tool for forecast measurement of a company’s performance.

“The overall objective of a business is to earn a satisfactory return / Profit on the funds invested in it, while maintaining a sound financial position. Profitability measures financial success and efficiency of Management”

The importance of analysis of profitability performance can see from the reality that besides the management and owners of the company, financial institutions, creditors, and bankers also looks at its Profitability. Appraisal of performance as regards to profitability can be drawn from interpreting various ratios.
4.6 Ratio Analysis

To measure the financial efficiency of a company or industry Ratio Analysis is a very useful tool which gives the financial condition of a company or industry. Ration Analysis is a concept or technique which is as old as accounting concept. Ratio Analysis is a scientific tool to measure the financial condition/efficiency of the firm. Financial Ratio Analysis is a vital apparatus for the interpretation of financial statements. It also help to find out any cross sectional and time series linkages between various ratios.

Unlike in the past when security was considered to be sufficient consideration for banks and financial institutions to grant loans and advances. Nowadays the entire lending is need-based and the emphasis is on the financial viability of a proposal and not only on security alone. Further all business decision contains an element of risk. The risk is more in the case of decision relating to credits. Ratio Analysis and other quantitative techniques facilitate assessment of this risk.

Ratio Analysis is used as a way of analyzing the performance of a company. They are important tools for financial analysis. It covers five major areas, namely, (1) Liquidity (2) Leverage (3) Profitability (4) Efficiency (5) Market Value.

4.7 Use of Financial Ratio

Fundamental analysis and financial ratio analysis, as you can imagine, is a pretty powerful thing and is essential for successful investing. Some people may opt for quantitative or technical analysis methods when it comes to share market investing, depending upon their personalities, spare time and inclinations, but for most investors, fundamental analysis offers a sound, intellectual framework for making informed share investment decisions. Within the broad discipline of fundamental analysis, financial ratio analysis in turn offers the clearest, easiest and most logical set of indicators for a share market investor. Empirical and tested evidence suggests that fundamental and ratio analysis is a powerful ally in the hands of an active and savvy investor.
4.8 Interpretation of Ratio

Generally four different approaches are available for interpreting ratios they are as follows:

1. Interpretation of individual ratio

An individual ratio, by itself, may have significance of its own. For example, a persistent fall in the net profit to sales ratio may indicate inefficiency or waste in the organization. Normally they are to be studied with reference to some standards. However, these standards are mostly approximations the conclusions derived from deviations of actual ratios from them may be misleading. Hence, this approach is to be combined with others.

2. Interpretation by referring to a group of ratio

Sometimes, when studied individually, it may be difficult to comprehend the significance of certain ratios fully. In such cases, the analysis could be made meaningful by computing some of the additional related ratios. A change in one ratio may have significance only when viewed in relation to other ratios. For example, the significance of the Profit ratio could be made clear by calculating other ratios like return on capital employed, interest ratio, etc.

3. Interpretation of ratio by trend

Under this method an individual ratio or a group of related are computed and compared over time. The significant trends-increasing, decreasing or constant are considered for reaching conclusions. Sometimes the average of the ratios calculated for a number of years are used for carrying out the analysis.

4. Interpretation by inter-firm comparisons

In this approach, the ratios of one firm are compared with the ratios of other firms in the same industry. Such inter-firm comparisons may be significant as some of the other firms considered for comparison may be experiencing the same or similar financial problem. Generally, selected significant ratios are calculated and published by trade associations or
credit rating or financial institutions in the form of tables. Individual firms for carrying out the analysis may use such tables.

A full-fledged investigation of the financial and economic position of any business, however, needs the application of all the four approaches. This is essential for generating useful information that will make clear the intrinsic meaning of any ratio.

4.9 Significance of Ratio Analysis

Ratios are guides or shortcuts that are useful in evaluating the financial position of a company and the operations of a company from scientific facts. It helps in comparison of changes in static data from previous years to current year and with the comparison of other companies as well. In accounting and financial management ratios are regarded as the real test of earning capacity, financial soundness and operating efficiency of business concern. The following points highlight the importance of ratio analysis:

1. Simplifies Accounting Figures

The most significant objective of ratio analysis is that it simplifies the accounting figures in much easier way by which anyone can be understood it quite easily even for those who do not know the language of accounting.

2. Measures Liquidity Position

Liquidity position of a firm is said to be satisfactory if it is able to meet its current obligation as and when they mature. A firm is said to be capable of meeting its current obligation only, if it has sufficient liquid funds to pay its short-term obligations within a period of year. Hence, the liquidity ratios are used for the purpose of credit analysis by banks and other short-term lenders.

3. Measures Long-term Solvency

Ratio analysis is equally important in evaluating the long-term solvency of the firm. It is measured by capital structure or leverage ratios. These ratios are helpful to long-term
creditors, security analysts and present and prospective investors, as they reveal the financial soundness or weakness of the firm.

4. **Measures operational Efficiency**

Ratios are useful tools in the hands of management to evaluate the firm’s performance over a period of time by comparing the present ratios with the past ratios. Various activity or turnover ratios measure the operational efficiency of the firm. These ratios are used in general by the bankers, investors and other suppliers of credit.

5. **Measures Profitability**

The management as well as owners of a firm is primarily concerned with the overall profitability of the firm. Profit and loss account reveals the profit earned or loss incurring during a period, but fails to convey the capacity of the firm to earn in terms of money of sales. Profitability ratios help to analysis earning capacity of the firm. Return on investment, return on capital employed, net profit ratios etc. are the best measures of profitability.

6. **Facilities Inter-firm and Intra-firm comparisons**

Ratio analysis is the basic form of comparing the efficiency of various firms in the industry and various divisions of a firm. Absolute figures are not suitable for this purpose, but according ratios are the best tools for inter firm and inter firm comparison.

7. **Trend Analysis**

Trend analysis of ratios reveals whether financial position of the firm is improving or deteriorating over years because it enables a firm to take the time dimension into account. With the help of such analysis one can ascertain whether the trend may be increasing.
4.10 Importance of Ratio Analysis

Ratio analysis is an important tool for analyzing the company's financial performance. The following are the important advantages of the accounting ratios.

1. Analyzing Financial Statements

Ratio analysis is an important technique of financial statement analysis. Accounting ratios are useful for understanding the financial position of the company. Different users such as investors, management, Bankers and creditors use the ratio to analyze the financial situation of the company for their decision making purpose.

2. Judging Efficiency

Accounting ratios are important for judging the company's efficiency in terms of its operations and management. They help judge how well the company has been able to utilize its assets and earn profits.

3. Locating Weakness

Accounting ratios can also be used in locating weakness of the company's operations even though its overall performance may be quite good. Management can then pay attention to the weakness and take remedial measures to overcome them.

4. Formulating Plans

Although accounting ratios are used to analyze the company's past financial performance, they can also be used to establish future trends of its financial performance. As a result, they help formulate the company's future plans.

5. Comparing Performance

It is essential for a company to know how well it is performing over the years and as compared to the other firms of the similar nature. Besides, it is also important to
know how well its different divisions are performing among themselves in different years. Ratio analysis facilitates such comparison.

### 4.11 Limitations of Ratios Analysis

Ratio analysis is one of the important techniques of determining the performance of financial strength and weakness of a firm. Though ratio analysis is relevant and useful technique for the business concern, the analysis is based on the information available in the financial statements. There are some situations, where ratios are misused, it may lead the management to wrong direction. The ratio analysis suffers from the following limitations:

1. Ratio analysis is used on the basis of financial statements. Number of limitations of financial statements may affect the accuracy or quality of ratio analysis.
2. Ratio analysis heavily depends on quantitative facts and figures and it ignores qualitative data. Therefore this may limit accuracy.
3. Ratio analysis is a poor measure of a firm's performance due to lack of adequate standards laid for ideal ratios.
4. It is not a substitute for analysis of financial statements. It is merely used as a tool for measuring the performance of business activities.
5. Ratio analysis clearly has some latitude for window dressing.
6. It makes comparison of ratios between companies which is questionable due to differences in methods of accounting operation and financing.
7. Ratio analysis does not consider the change in price level, as such, these ratio will not help in drawing meaningful inferences.

### 4.12 Classification of Ratios Analysis

Accounting Ratios are classified on the basis of the different parties interested in making use of the ratios. A very large number of accounting ratios are used for the purpose of determining the financial position of a concern for different purposes. Ratios may be broadly classified in to:
• Classification of Ratios on the basis of Balance Sheet.
• Classification of Ratios on the basis of Profit and Loss Account.
• Classification of Ratios on the basis of Mixed Statement (or) Balance Sheet and Profit and Loss Account

This classification further grouped in to:

I. Liquidity Ratios
II. Profitability Ratios
III. Turnover Ratios
IV. Solvency Ratios
V. Overall Profitability Ratios

These classifications are discussed hereunder:

1. Classification of Ratios on the basis of Balance Sheet:

   Balance Sheet ratios which establish the relationship between two balance sheet items. For example, Current Ratio, Fixed Asset Ratio, Capital Gearing Ratio and Liquidity Ratio etc.

2. Classification on the basis of Income Statements:

   These ratios deal with the relationship between two items or two group of items of the income statement or profit and loss account. For example, Gross Profit Ratio, Operating Ratio, Operating Profit Ratio, and Net Profit Ratio etc.

3. Classification on the basis of Mixed Statements:

   These ratios also known as Composite or Mixed Ratios or Inter Statement Ratios. The inter statement ratios which deal with relationship between the item of profit and loss account and item of balance sheet. For example, Return on Investment Ratio, Net Profit to Total Asset Ratio, Creditor's Turnover Ratio, Earning Per Share Ratio and Price Earning Ratio etc.
A chart for classification of ratios by statement is given below showing clearly the types of ratios may be broadly classified on the basis of Income Statement and Balance Sheet.

**Chart no. 4.1 Classification of Ratios Analysis**

**Classification of Ratios by Statement**

- On the basis of Balance Sheet
  - 1. Current Ratio
  - 2. Liquid Ratio
  - 3. Absolute Liquid Ratio
  - 4. Debt Equity Ratio
  - 5. Proprietary Ratio
  - 6. Capital Gearing Ratio
  - 7. Assets-Proprietorship Ratio
  - 8. Capital Inventory to Working Capital Ratio
  - 9. Ratio of Current Assets to Fixed Assets

- On the basis of Profit and Loss Account
  - 1. Gross Profit Ratio
  - 2. Operating Ratio
  - 3. Operating Profit Ratio
  - 4. Net Profit Ratio
  - 5. Expense Ratio
  - 6. Interest Coverage Ratio

- On the basis of Profit and Loss Account and Balance Sheet
  - 1. Stock Turnover Ratio
  - 2. Debtors Turnover Ratio
  - 3. Payable Turnover Ratio
  - 4. Fixed Asset Turnover Ratio
  - 5. Return on Equity
  - 6. Return on Shareholder’s Fund
  - 7. Return on Capital Employed
  - 8. Capital Turnover Ratio
  - 9. Working Capital Turnover Ratio
  - 10. Return on Total Resources
  - 11. Total Assets Turnover

### 4.13 Analysis of Variance (ANOVA)

Professor R.A. Fisher was the first man to use the term ‘Variance’ and, in fact, it was he who developed a very elaborate theory concerning ANOVA, explaining its usefulness in practical field. Later on Professor Snedecor and many others contributed to the development of this technique. ANOVA is essentially a procedure for testing the difference among different groups of data for homogeneity. “The essence of ANOVA is that the total amount of variation in a set of data is broken down into two types, that amount which can be attributed to chance and that amount which can be attributed to specified causes.” There may be variation between samples and also within sample items. ANOVA consists in splitting the variance for analytical purposes. Hence, it is a method of analyzing the variance to which a response is subject into its various components corresponding to various sources of variation. Through this technique one can explain whether various varieties of seeds or fertilizers or soils differ significantly so that a policy decision could be taken accordingly, concerning a particular variety in the context of
agriculture researches. Similarly, the differences in various types of feed prepared for a particular class of animal or various types of drugs manufactured for curing a specific disease may be studied and judged to be significant or not through the application of ANOVA technique. Likewise, a manager of a big concern can analyse the performance of various salesmen of his concern in order to know whether their performances differ significantly. Thus, through ANOVA technique one can, in general, investigate any number of factors which are hypothesized or said to influence the dependent variable. One may as well investigate the differences amongst various categories within each of these factors which may have a large number of possible values. If we take only one factor and investigate the differences amongst its various categories having numerous possible values, we are said to use one-way ANOVA and in case we investigate two factors at the same time, then we use two-way ANOVA. In a two or more way ANOVA, the interaction (i.e., inter-relation between two independent variables and factors), if any, between two independent variables affecting a dependent variable can as well be studied for better decisions.

4.14 The Basic Principle of ANOVA

The basic principle of ANOVA is to test for differences among the means of the populations by examining the amount of variation within each of these samples, relative to the amount of variation between the samples. In terms of variation within the given population, it is assumed that the values of \((X_{ij})\) differ from the mean of this population only because of random effects i.e., there are influences on \((X_{ij})\) which are unexplainable, whereas in examining differences between populations we assume that the difference between the mean of the \(j\)th population and the grand mean is attributable to what is called a ‘specific factor’ or what is technically described as treatment effect. Thus while using ANOVA, we assume that each of the samples is drawn from a normal population and that each of these populations has the same variance. We also assume that all factors other than the one or more being tested are effectively controlled. This, in other words, means that we assume the absence of many factors that might affect our conclusions concerning the factor(s) to be studied. In short, we have to make two estimates of
population variance viz., one based on between samples variance and the other based on within samples variance. Then they said two estimates of population variance are compared with $F$-test, wherein we work out.

$$F = \frac{\text{Estimate of population variance based on between samples variance}}{\text{Estimate of population variance based on within samples variance}}$$

This value of $F$ is to be compared to the $F$-limit for given degrees of freedom. If the $F$ value we work out is equal or exceeds, the $F$-limit value we may say that there are significant differences between the sample means.

4.15 One-way (or single factor) ANOVA

Under the one-way ANOVA, we consider only one factor and then observe that the reason for said factor to be important is that several possible types of samples can occur within that factor. We then determine if there are differences within that factor.

The technique involves the following steps:
(i) Obtain the mean of each sample i.e., obtain
$$\bar{X}_1, \bar{X}_2, \bar{X}_3, ..., \bar{X}_k$$

When there are $k$ samples.

(ii) Work out the mean of the sample means as follows:
$$\bar{\bar{X}} = \frac{X_1 + X_3 + ... + X_k}{\text{No. of samples (k)}}$$

(iii) Take the deviations of the sample means from the mean of the sample means and calculate the square of such deviations which may be multiplied by the number of items in the corresponding sample, and then obtain their total. This is known as the sum of squares for variance between the samples (or SS between). Symbolically, this can be written:
$$SS \text{ between } = n_1 \left( \bar{X}_1 - \bar{\bar{X}} \right)^2 + n_2 \left( \bar{X}_2 - \bar{\bar{X}} \right)^2 + ... + n_k \left( \bar{X}_k - \bar{\bar{X}} \right)^2$$
(iv) Divide the result of the (iii) step by the degrees of freedom between the samples to obtain variance or mean square (MS) between samples. Symbolically, this can be written:

$$MS \text{ between } = \frac{SS \text{ between}}{(k - 1)}$$

Where $(k - 1)$ represents degrees of freedom (d.f.) between samples.

(v) Obtain the deviations of the values of the sample items for all the samples from corresponding means of the samples and calculate the squares of such deviations and then obtain their total. This total is known as the sum of squares for variance within samples (or $SS$ within). Symbolically this can be written:

$$SS \text{ within } = \sum \left( X_{ij} - \overline{X}_1 \right)^2 + \sum \left( X_{2j} - \overline{X}_2 \right)^2 + \ldots + \sum \left( X_{kj} - \overline{X}_k \right)^2$$

where $i = 1, 2, 3, \ldots$

(vi) Divide the result of (v) step by the degrees of freedom within samples to obtain the variance or mean square (MS) within samples. Symbolically, this can be written:

$$MS \text{ within } = \frac{SS \text{ within}}{(n - k)}$$

Where $(n - k)$ represents degrees of freedom within samples,

$n = \text{total number of items in all the samples i.e., } n_1 + n_2 + \ldots + n_k$

$k = \text{number of samples.}$

(vii) For a check, the sum of squares of deviations for total variance can also be worked out by adding the squares of deviations when the deviations for the individual items in all the samples have been taken from the mean of the sample means. Symbolically, this can be written:

$$SS \text{ for total variance } = \sum \left( X_{ij} - \overline{X} \right)^2$$

where $i = 1, 2, 3, \ldots$

$$j = 1, 2, 3, \ldots$$

This total should be equal to the total of the result of the (iii) and (v) steps explained above i.e.,

$$SS \text{ for total variance } = SS \text{ between } + SS \text{ within.}$$
The degrees of freedom for total variance will be equal to the number of items in all samples minus one i.e., \((n - 1)\). The degrees of freedom for between and within must add up to the degrees of freedom for total variance i.e.,

\[(n - 1) = (k - 1) + (n - k)\]

This fact explains the additive property of the ANOVA technique.

(viii) Finally, \(F\)-ratio may be worked out as under:

\[F\text{-ratio} = \frac{MS_{between}}{MS_{within}}\]

This ratio is used to judge whether the difference among several sample means is significant or is just a matter of sampling fluctuations. For this purpose we look into the table, giving the values of \(F\) for given degrees of freedom at different levels of Significant. If they worked out value of \(F\), as stated above, is less than the table value of \(F\), the difference is taken as insignificant i.e., due to chance and the null-hypothesis of no difference between sample means stands. In case the calculated value of \(F\) happens to be either equal or more than its table value, the difference is considered as significant (which means the samples could not have come from the same universe) and accordingly the conclusion may be drawn. The higher the calculated value of \(F\) is above the table value, the more definite and sure one can be about his conclusions.

4.16 Setting up Analysis of Variance Table

For the sake of convenience the information obtained through various steps stated above can be put as under:
4.17 Data Analysis and Interpretation

A. Profitability Ratios

This section of the tutorial discusses the different measures of corporate profitability and financial performance. These ratios, much like the operational performance ratios, give users a good understanding of how well the company utilized its resources in generating profit and shareholder value. The long-term profitability of a company is vital for both the survivability of the company as well as the benefit received by shareholders. It is these ratios that can give insight into the all important "profit". In this section, we will look at four important profit margins, which display the amount of profit a company generates on its sales at the different stages of an income statement. We'll also show you how to calculate the effective tax rate of a company. The last three ratios covered in this section - Return on Assets, Return on Equity and Return on Capital Employed - detail how effective a company is at generating income from its resources.
1. Operating Profit Margin Ratio

By subtracting selling, general and administrative (SG&A), or operating, expenses from a company's gross profit number, we get operating income. Management has much more control over operating expenses than its cost of sales outlays. Thus, investors need to scrutinize the operating profit margin carefully. Positive and negative trends in this ratio are, for the most part, directly attributable to management decisions. A company's operating income figure is often the preferred metric (deemed to be more reliable) of investment analysts, versus its net income figure, for making inter-company comparisons and financial projections.

Formula:

\[
\text{Operating Profit Margin} = \frac{\text{Operating Profit}}{\text{Net Sales (Revenue)}}
\]
### Table no. 4.1 Operating Profit Margin Ratio

<table>
<thead>
<tr>
<th>Sample Units</th>
<th>2004-05</th>
<th>2005-06</th>
<th>2006-07</th>
<th>2007-08</th>
<th>2008-09</th>
<th>2009-10</th>
<th>Mean</th>
<th>SD</th>
<th>CV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arvind Mills Ltd</td>
<td>23.24</td>
<td>25.68</td>
<td>15.94</td>
<td>10.34</td>
<td>10.96</td>
<td>13.35</td>
<td>14.41</td>
<td>16.27</td>
<td>5.95</td>
</tr>
<tr>
<td>Raymond Ltd</td>
<td>10.93</td>
<td>14.77</td>
<td>11.43</td>
<td>6.84</td>
<td>8.52</td>
<td>9.48</td>
<td>14.42</td>
<td>10.91</td>
<td>2.94</td>
</tr>
<tr>
<td>DCM Ltd</td>
<td>1.64</td>
<td>4.41</td>
<td>7.58</td>
<td>4.58</td>
<td>5.65</td>
<td>10.51</td>
<td>18.67</td>
<td>7.58</td>
<td>5.62</td>
</tr>
<tr>
<td>Jindal Cotex Ltd</td>
<td>7.58</td>
<td>6.72</td>
<td>8.35</td>
<td>8.85</td>
<td>6.92</td>
<td>8.05</td>
<td>11.50</td>
<td>8.28</td>
<td>1.61</td>
</tr>
<tr>
<td>Os.Spi. and Wea. Mills</td>
<td>7.34</td>
<td>11.57</td>
<td>9.38</td>
<td>12.09</td>
<td>14.06</td>
<td>12.72</td>
<td>5.46</td>
<td>10.37</td>
<td>3.10</td>
</tr>
<tr>
<td>Bombay Dyeing</td>
<td>4.14</td>
<td>5.57</td>
<td>14.02</td>
<td>7.04</td>
<td>4.60</td>
<td>16.86</td>
<td>11.81</td>
<td>9.15</td>
<td>5.05</td>
</tr>
<tr>
<td><strong>MEAN</strong></td>
<td><strong>9.17</strong></td>
<td><strong>12.22</strong></td>
<td><strong>12.41</strong></td>
<td><strong>10.19</strong></td>
<td><strong>9.74</strong></td>
<td><strong>13.07</strong></td>
<td><strong>14.02</strong></td>
<td>11.55</td>
<td>1.84</td>
</tr>
<tr>
<td><strong>SD</strong></td>
<td><strong>6.94</strong></td>
<td><strong>7.58</strong></td>
<td><strong>4.57</strong></td>
<td><strong>5.60</strong></td>
<td><strong>4.70</strong></td>
<td><strong>4.38</strong></td>
<td><strong>5.29</strong></td>
<td><strong>4.11</strong></td>
<td>1.60</td>
</tr>
<tr>
<td><strong>CV</strong></td>
<td><strong>75.68</strong></td>
<td>62.03</td>
<td>36.83</td>
<td>54.96</td>
<td>48.25</td>
<td><strong>33.51</strong></td>
<td>37.73</td>
<td>35.58</td>
<td>86.96</td>
</tr>
</tbody>
</table>

(Source: www.moneycontrol.com)
Graph no 4.1 Operating Profit Margin Ratio

Textile companies
On analyzing the Table no. 4.1 it is found that the highest Company wise Operating profit Margin is reported by S Kumars Nationwide (18.26) selected companies of the selected textiles units of India in India during study Period where as DCM Ltd (7.58) showed lowest Operating Profit Margin during these Periods. The data was for the seven years. Fluctuating trend in mean Operating profit margin ratios of selected textiles units of India sample units has been observed during the entire study period. The mean unit of Operating profit margin of textiles industry in highest year wise mean 14.02 in year 2010-11 and lowest 9.17 in year 2004-05 in study period.

Company wise of SD of highest Operating Profit Margin Arvind mills Ltd (5.95) and lowest Jindal Cotex Ltd (1.61) across different samples during study period. It is clearly show Year wise of SD highest Operating Profit Margin 2005-06 (7.58), and lowest 2009-2010 (4.38) is compared to other samples during the study period.

The study period may be considered as uniform as compared to selected textiles units of India, as it is evident by lowest coefficient variation year wise 33.51 in year 2009-10 and highest C.V. 75.68 in year 2004-05, and Company wise lowest coefficient variation 19.44 Jindal Cotex ltd and highest 74.14 DCM ltd all sample unit.

❖ Hypothesis Testing:

For the Testing of Hypothesis Researcher has applied F (ANOVA) Test.

- **H₀**: There is no Significant of difference in Operating Profit Margin in selected textiles units of India.

- **H₁**: There is Significant of difference in Operating Profit Margin in selected textiles units of India.
Table No. 4.2 Analysis of Variance (Anova)

<table>
<thead>
<tr>
<th>Source of variation</th>
<th>S.S.</th>
<th>d.f.</th>
<th>M.S.</th>
<th>F-Cal. Value</th>
<th>F-Table value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>142.73</td>
<td>6</td>
<td>23.79</td>
<td>0.73</td>
<td>2.32</td>
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<tr>
<td>Within Group</td>
<td>1363.20</td>
<td>42</td>
<td>32.46</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1505.93</td>
<td>48</td>
<td>32.46</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It is clear from table No.4.2 that the calculated value of ‘F’ was 0.73, which is lower than table value of ‘F’ 2.32. So, null hypothesis is accepted and alternative hypothesis is rejected. So, it can be concluded that there is no Significant of difference in Operating Profit Margin in selected textiles units of India.

2. Gross Profit Margin Ratio

A company's cost of sales, or cost of goods sold, represents the expense related to labor, raw materials and manufacturing overhead involved in its production process. This expense is deducted from the company's net sales/revenue, which results in a company's first level of profit, or gross profit. The gross profit margin is used to analyze how efficiently a company is using its raw materials, labor and manufacturing-related fixed assets to generate profits. A higher margin percentage is a favorable profit indicator. Industry characteristics of raw material costs, particularly as these relate to the stability or lack thereof, have a major effect on a company's gross margin. Generally, management cannot exercise complete control over such costs. Companies without a production process (ex., retailers and service businesses) don't have a cost of sales exactly. In these instances, the expense is recorded as a "cost of merchandise" and a "cost of services", respectively. With this type of company, the gross profit margin does not carry the same weight as a producer-type company.

Formula:

\[
\text{Gross Profit Margin} = \frac{\text{Gross Profit}}{\text{Net Sales (Revenue)}}
\]
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Arvind Mills Ltd</td>
<td>16.66</td>
<td>18.01</td>
<td>7.97</td>
<td>4.17</td>
<td>5.75</td>
<td>8.44</td>
<td>10.05</td>
<td>10.15</td>
<td>5.28</td>
<td>52.02</td>
</tr>
<tr>
<td>Raymond Ltd</td>
<td>11.99</td>
<td>14.55</td>
<td>10.59</td>
<td>0.78</td>
<td>2.18</td>
<td>1.28</td>
<td>7.51</td>
<td>6.98</td>
<td>5.62</td>
<td>80.52</td>
</tr>
<tr>
<td>DCM Ltd</td>
<td>-1.84</td>
<td>0.42</td>
<td>4.00</td>
<td>0.15</td>
<td>1.86</td>
<td>7.29</td>
<td>15.61</td>
<td>3.93</td>
<td>5.94</td>
<td>151.15</td>
</tr>
<tr>
<td>Jindal Cotex Ltd</td>
<td>2.64</td>
<td>2.64</td>
<td>4.25</td>
<td>6.33</td>
<td>5.04</td>
<td>5.94</td>
<td>8.05</td>
<td>4.98</td>
<td>1.99</td>
<td>39.96</td>
</tr>
<tr>
<td>Os.Spi. and Wea. Mills</td>
<td>-0.60</td>
<td>4.11</td>
<td>3.33</td>
<td>6.80</td>
<td>8.99</td>
<td>8.32</td>
<td>-8.98</td>
<td>3.14</td>
<td>6.28</td>
<td>200.00</td>
</tr>
<tr>
<td>Bombay Dyeing</td>
<td>4.38</td>
<td>5.48</td>
<td>11.36</td>
<td>3.25</td>
<td>0.46</td>
<td>13.28</td>
<td>8.57</td>
<td>6.68</td>
<td>4.56</td>
<td>68.26</td>
</tr>
<tr>
<td>S Kumars Nationwide</td>
<td>8.80</td>
<td>12.13</td>
<td>15.41</td>
<td>19.38</td>
<td>15.78</td>
<td>18.61</td>
<td>19.19</td>
<td>15.61</td>
<td>3.97</td>
<td>25.43</td>
</tr>
<tr>
<td><strong>MEAN</strong></td>
<td>6.00</td>
<td>8.19</td>
<td>8.13</td>
<td>5.84</td>
<td>5.72</td>
<td>9.02</td>
<td>8.57</td>
<td>7.35</td>
<td>1.43</td>
<td></td>
</tr>
<tr>
<td><strong>SD</strong></td>
<td>6.78</td>
<td>6.68</td>
<td><strong>4.56</strong></td>
<td>6.48</td>
<td>5.28</td>
<td>5.53</td>
<td><strong>8.89</strong></td>
<td>4.32</td>
<td>1.47</td>
<td></td>
</tr>
<tr>
<td><strong>CV</strong></td>
<td><strong>113.0</strong></td>
<td>81.56</td>
<td><strong>56.09</strong></td>
<td>110.96</td>
<td>92.31</td>
<td>61.31</td>
<td>103.73</td>
<td>58.78</td>
<td>102.80</td>
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</tr>
</tbody>
</table>

(Source: www.moneycontrol.com)
Graph no. 4.2 Gross Profit Margin Ratio

Textile Companies

- Arvind Mills Ltd
- Raymond Ltd
- DCM Ltd
- Jindal Cotex Ltd
- Os. Spi. and Wea. Mills
- Bombay Dyeing
- Skumars Nationwide
Above table no. 4.3 it is indicate that the highest Company wise Gross profit Margin is reported by S Kumars Nationwide (15.61) selected companies of the selected textiles units of India in India during study Period where as Oswal spinning and weaving mills Ltd (3.14) showed lowest Gross Profit Margin during these Periods. The data was for the seven years. Fluctuating trend in mean Gross profit margin ratios of selected textiles units of India sample units has been observed during the entire study period. The mean unit of Gross profit margin of textiles industry in highest year wise mean 5.72 in year 2008-09 and lowest 9.02 in year 2009-10 in study period.

It is describe Company wise of SD of highest Gross Profit Margin DCM Ltd (5.95), and lowest Jindal Cotex Ltd (1.99), across different samples during study period. It is clearly show Year wise of SD highest Gross Profit Margin 2010-11 (8.89), and lowest 2006-2007 (4.56) is compared to other samples during the study period.

The study period may be considered as uniform as compared to selected textiles units of India, as it is evident by lowest coefficient variation year wise 56.09 in year 2006-07 and highest C.V. 113.00 in year 2004-05, and Company wise lowest coefficient variation 19.44 Jindal Cotex ltd and highest 74.14 DCM ltd all sample unit.

**Hypothesis Testing:**

For the Testing of Hypothesis Researcher has applied F (ANOVA) Test.

- **H₀**: There is no Significant of difference in Gross Profit Margin in selected textiles units of India.
- **H₁**: There is Significant of difference in Gross Profit Margin in selected textiles units of India.

**Table No. 4.4 Analysis of Variance (Anova)**

<table>
<thead>
<tr>
<th>Source of variation</th>
<th>S.S.</th>
<th>d.f.</th>
<th>M.S.</th>
<th>F-Cal. Value</th>
<th>F-Table value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>86.48</td>
<td>6</td>
<td>14.41</td>
<td>0.35</td>
<td>2.32</td>
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<tr>
<td>Within Group</td>
<td>1745.22</td>
<td>42</td>
<td>41.55</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1831.70</td>
<td>48</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
It is clear from table No. 4.4 that the calculated value of ‘F’ was 0.35, which is lower than table value of ‘F’ 2.32. So, null hypothesis is accepted and alternative hypothesis is rejected. So, it can be concluded that there is no Significant of difference in Gross Profit Margin in selected textiles units of India.

3. Net Profit Margin Ratio

Often referred to simply as a company's profit margin, the so-called bottom line is the most often mentioned when discussing a company's profitability? While undeniably an important number, investors can easily see from a complete profit margin analysis that there are several income and expense operating elements in an income statement that determine a net profit margin. It behooves investors to take a comprehensive look at a company's profit margins on a systematic basis.

Formula:

\[ \text{Net Profit Margin} = \frac{\text{Net Income}}{\text{Net Sales (Revenue)}} \]
Table no. 4.5 Net Profit Margin Ratio

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Arvind Mills Ltd</td>
<td>7.58</td>
<td>7.94</td>
<td>1.36</td>
<td>1.22</td>
<td>-1.99</td>
<td>2.20</td>
<td>5.02</td>
<td>3.33</td>
<td>3.65</td>
<td>109.61</td>
</tr>
<tr>
<td>Raymond Ltd</td>
<td>6.33</td>
<td>8.91</td>
<td>15.01</td>
<td>4.71</td>
<td>-18.34</td>
<td>1.87</td>
<td>-6.71</td>
<td>1.68</td>
<td>11.05</td>
<td>657.74</td>
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<td>12.84</td>
<td>-0.89</td>
<td>2.74</td>
<td>26.75</td>
<td>8.21</td>
<td>7.51</td>
<td>9.74</td>
<td>129.69</td>
</tr>
<tr>
<td>Jindal Cotex Ltd</td>
<td>0.92</td>
<td>1.19</td>
<td>1.26</td>
<td>4.22</td>
<td>3.00</td>
<td>4.83</td>
<td>3.85</td>
<td>2.75</td>
<td>1.62</td>
<td>58.91</td>
</tr>
<tr>
<td>Os.Spi. and Wea. Mills</td>
<td>-8.66</td>
<td>1.15</td>
<td>-4.68</td>
<td>1.90</td>
<td>1.91</td>
<td>0.83</td>
<td>0.68</td>
<td>-0.98</td>
<td>4.08</td>
<td>-416.33</td>
</tr>
<tr>
<td>Bombay Dyeing</td>
<td>2.54</td>
<td>5.94</td>
<td>6.96</td>
<td>1.73</td>
<td>-14.20</td>
<td>1.09</td>
<td>1.09</td>
<td>0.74</td>
<td>6.99</td>
<td>944.59</td>
</tr>
<tr>
<td>S Kumars Nationwide</td>
<td>-58.42</td>
<td>11.15</td>
<td>8.71</td>
<td>11.06</td>
<td>3.86</td>
<td>4.92</td>
<td>6.25</td>
<td>-1.78</td>
<td>25.13</td>
<td>-1411.80</td>
</tr>
<tr>
<td>MEAN</td>
<td><strong>-7.09</strong></td>
<td>5.60</td>
<td>5.92</td>
<td>3.42</td>
<td>-3.29</td>
<td><strong>6.07</strong></td>
<td>2.63</td>
<td>1.89</td>
<td>5.13</td>
<td></td>
</tr>
<tr>
<td>SD</td>
<td><strong>23.24</strong></td>
<td>3.96</td>
<td>7.00</td>
<td><strong>3.86</strong></td>
<td>9.14</td>
<td>9.27</td>
<td>4.91</td>
<td>3.10</td>
<td>7.92</td>
<td></td>
</tr>
<tr>
<td>CV</td>
<td><strong>-327.79</strong></td>
<td>70.71</td>
<td>118.24</td>
<td>112.87</td>
<td>-277.81</td>
<td>152.72</td>
<td><strong>186.69</strong></td>
<td>164.02</td>
<td>154.39</td>
<td></td>
</tr>
</tbody>
</table>

(Source: www.moneycontrol.com)
Graph no. 4.3 Net Profit Margins Ratio
It is found the above Table no. 4.5 highest Net profit Margin is reported by DCM ltd (7.51) selected companies of the selected textiles units of India in India during study Period where as S Kumars Nationwide (-1.78) Ltd showed lowest Net Profit Margin during these Periods. The data was for the seven years. Fluctuating trend in mean Net profit margin ratios of selected textiles units of India sample units has been observed during the entire study period. The mean unit of Net profit margin of textiles industry in highest year wise mean 6.07 in year 2009-10, and lowest -7.09 in year 2004-05 in study period.

It is describe Company wise of SD of highest Net Profit Margin S Kumars Nationwide (25.13), and lowest Jindal Cotex Ltd (1.62), across different samples during study period. It is clearly show Year wise of SD highest Net Profit Margin 2004-05 (23.24), and lowest 2007-08 (3.86) is compared to other samples during the study period.

The study period may be considered as uniform as compared to selected textiles units of India, as it is evident by lowest coefficient variation year wise -327.79 in year 2004-05 and highest C.V. 186.69 in year 2010-11, and Company wise lowest coefficient variation -1411.80 S Kumars Nationwide and highest 944.59 Bombay Dyeing all sample unit.

**Hypothesis Testing:**

For the Testing of Hypothesis Researcher has applied F (ANOVA) Test.

- **H\textsubscript{0}**: There is no Significant of difference in Net Profit Margin in selected textiles units of India.

- **H\textsubscript{1}**: There is Significant of difference in Net Profit Margin in selected textiles units of India.
Table no. 4.6 Analysis of Variance (Anova)

<table>
<thead>
<tr>
<th>Source of variation</th>
<th>S.S.</th>
<th>d.f.</th>
<th>M.S.</th>
<th>F-Cal. Value</th>
<th>F-Table Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1104.71</td>
<td>6</td>
<td>184.12</td>
<td>1.58</td>
<td>2.32</td>
</tr>
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<td>Within Group</td>
<td>4879.85</td>
<td>42</td>
<td>116.19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>5984.56</td>
<td>48</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It is clear from table No. 4.6 that the calculated value of ‘F’ was 1.58, which is lower than table value of ‘F’ 2.32. So, null hypothesis is accepted and alternative hypothesis is rejected. So, it can be concluded that there is no Significant of difference in Net Profit Margin in selected textiles units of India.

4. Return on Capital Employed Ratio

The return on capital employed (ROCE) ratio, expressed as a percentage, complements the return on equity (ROE) ratio by adding a company's debt liabilities, or funded debt, to equity to reflect a company's total "capital employed". This measure narrows the focus to gain a better understanding of a company's ability to generate returns from its available capital base. By comparing net income to the sum of a company's debt and equity capital, investors can get a clear picture of how the use of leverage impacts a company's profitability. Financial analysts consider the ROCE measurement to be a more comprehensive profitability indicator because it gauges management's ability to generate earnings from a company's total pool of capital.

Formula:

\[
\text{Return on Capital Employed (ROCE)} = \frac{\text{Net Income}}{\text{Capital Employed}}
\]

\[
\text{Capital Employed} = \text{Average Debt Liabilities} + \text{Average Shareholders' Equity}
\]
### Table no. 4.7 Return on Capital Employed Ratio

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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<th></th>
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</thead>
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<td>8.66</td>
<td>6.68</td>
<td>1.90</td>
<td>28.44</td>
</tr>
<tr>
<td>Raymond Ltd</td>
<td>6.51</td>
<td>8.28</td>
<td>5.84</td>
<td>3.25</td>
<td>4.18</td>
<td>2.75</td>
<td>7.47</td>
<td>5.47</td>
<td>2.13</td>
<td>38.94</td>
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<td>DCM Ltd</td>
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<td>0.56</td>
<td>2.10</td>
<td>0.85</td>
<td>3.20</td>
<td>6.12</td>
<td>11.85</td>
<td>3.64</td>
<td>4.11</td>
<td>112.91</td>
</tr>
<tr>
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<td>8.73</td>
<td>12.03</td>
<td>10.70</td>
<td>4.30</td>
<td>5.17</td>
<td>7.66</td>
<td>2.92</td>
<td>38.12</td>
</tr>
<tr>
<td>Os.Spi. and Wea. Mills</td>
<td>0.94</td>
<td>6.95</td>
<td>4.37</td>
<td>12.97</td>
<td>12.25</td>
<td>14.32</td>
<td>22.79</td>
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<td>12.88</td>
<td>6.60</td>
<td>4.34</td>
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<td>14.95</td>
<td>8.25</td>
<td>11.26</td>
<td>12.27</td>
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<td><strong>6.59</strong></td>
<td><strong>8.33</strong></td>
<td><strong>11.58</strong></td>
<td><strong>7.16</strong></td>
<td><strong>2.34</strong></td>
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</tr>
<tr>
<td><strong>SD</strong></td>
<td>3.18</td>
<td><strong>2.63</strong></td>
<td><strong>2.95</strong></td>
<td><strong>5.82</strong></td>
<td><strong>3.95</strong></td>
<td><strong>4.35</strong></td>
<td><strong>5.69</strong></td>
<td><strong>2.36</strong></td>
<td><strong>1.83</strong></td>
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</tr>
<tr>
<td><strong>CV</strong></td>
<td>77.94</td>
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<td>48.84</td>
<td><strong>80.50</strong></td>
<td>59.94</td>
<td>52.22</td>
<td>49.14</td>
<td>32.96</td>
<td>78.21</td>
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</tr>
</tbody>
</table>

(Source: www.moneycontrol.com)
Graph no. 4.4 Return on Capital Employed Ratio

Textile Companies

Ratios

- 2004-05
- 2005-06
- 2006-07
- 2007-08
- 2008-09
- 2009-10
- 2010-11
Above Table no. 4.7 it is found that the highest Return on Capital Employed is reported by Oswal Spinning and Weaving Mills (10.66) selected companies of the selected textiles units of India in India during study Period where as DCM ltd (3.64) Ltd showed lowest Return on Capital Employed during these Periods. The data was for the seven years. Fluctuating trend in mean Return on Capital Employed ratios of selected textiles units of India sample units has been observed during the entire study period. The mean unit of Return on Capital Employed of textiles industry in highest year wise mean 5.82 in year 2007-08, and lowest 2.63 in year 2005-06 in study period.

Company wise of SD of highest Return on Capital Employed Oswal Spinning and Weaving Mills (7.26), and lowest Arvind Mills Ltd (1.90), across different samples during study period. It is clearly show Year wise of SD highest Return on Capital Employed 2004-05 (23.24), and lowest 2007-08 (3.86) is compared to other samples during the study period.

The study period may be considered as uniform as compared to selected textiles units of India, as it is evident by lowest coefficient variation year wise 42.01 in year 2005-06 and highest C.V. 80.50 in year 2007-08, and Company wise lowest coefficient variation 28.44 Arvind Mills Ltd and highest 112.DCM ltd all sample unit.

**Hypothesis Testing:**

For the Testing of Hypothesis Researcher has applied F (ANOVA) Test.

- **H₀:** There is no Significant of difference in Return on Capital Employed in selected textiles units of India.
- **H₁:** There is Significant of difference in Return on Capital Employed in selected textiles units of India.

**Table no. 4.8 Analysis of Variance (Anova)**

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<th>Source of variation</th>
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<th>d.f.</th>
<th>M.S.</th>
<th>F-Cal. Value</th>
<th>F-Table value</th>
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</thead>
<tbody>
<tr>
<td>Between Groups</td>
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<td>2.12</td>
<td>2.32</td>
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<tr>
<td>Within Group</td>
<td>759.09</td>
<td>42</td>
<td>18.07359</td>
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<td></td>
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<tr>
<td>Total</td>
<td>988.88</td>
<td>48</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
It is clear from table No. 4.8 that the calculated value of ‘F’ was 2.12, which is lower than table value of ‘F’ 2.32. So, null hypothesis is accepted and alternative hypothesis is rejected. So, it can be concluded that there is no Significant of difference in Return on Capital Employed in selected textiles units of India.

5. Return on Net worth Ratio

This Ratio measures the ability of company’s management to realize an adequate return on capital invested by the owners in the company. This is the ratio of PAT to Net worth:=

\[
\frac{\text{PAT}}{\text{Net worth}}
\]

The term “Net-worth” means money belonging to equity share holders and includes reserves net of fictitious assets awaiting write off. It measures how much income a firm generates for each rupee stockholders have invested. Higher the percentage the better it is for the company.
Table no. 4.9 Return on Net Worth Ratio

<table>
<thead>
<tr>
<th></th>
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<th></th>
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<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Arvind Mills Ltd</td>
<td>9.94</td>
<td>8.30</td>
<td>1.85</td>
<td>1.80</td>
<td>-4.38</td>
<td>3.82</td>
<td>9.04</td>
<td>4.34</td>
<td>5.13</td>
<td>118.20</td>
</tr>
<tr>
<td>Raymond Ltd</td>
<td>7.53</td>
<td>10.28</td>
<td>14.84</td>
<td>4.72</td>
<td>-23.99</td>
<td>2.24</td>
<td>-9.84</td>
<td>0.83</td>
<td>13.40</td>
<td>1614.46</td>
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<td>19.27</td>
<td>-2.28</td>
<td>8.42</td>
<td>47.68</td>
<td>16.25</td>
<td>13.85</td>
<td>16.81</td>
<td>121.37</td>
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<tr>
<td>Jindal Cotex Ltd</td>
<td>6.05</td>
<td>7.52</td>
<td>7.75</td>
<td>18.42</td>
<td>15.58</td>
<td>5.94</td>
<td>3.50</td>
<td>9.25</td>
<td>5.53</td>
<td>59.78</td>
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<tr>
<td>S Kumars Nationwide</td>
<td>-199.04</td>
<td>32.79</td>
<td>18.15</td>
<td>26.12</td>
<td>7.36</td>
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<td>11.86</td>
<td>-13.12</td>
<td>82.48</td>
<td>-628.66</td>
</tr>
<tr>
<td>SD</td>
<td>78.84</td>
<td>11.66</td>
<td>6.46</td>
<td>15.37</td>
<td>48.80</td>
<td>15.70</td>
<td>8.82</td>
<td>11.66</td>
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<td></td>
</tr>
<tr>
<td>CV</td>
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<td>106.58</td>
<td>51.43</td>
<td>116.09</td>
<td>405.32</td>
<td>116.04</td>
<td>118.55</td>
<td>328.45</td>
<td>108.11</td>
<td></td>
</tr>
</tbody>
</table>

(Source: www.moneycontrol.com)
Graph no. 4.5 Return on Net Worth Ratio
On analyzing the Table no. 4.9 it is found that the highest Return on Net Worth is reported by Oswal Spinning and Weaving Mills (18.77) selected companies of the selected textiles units of India in India during study Period where as S Kumars Nationwide (-13.12) Ltd showed lowest Return on Net Worth during these Periods. The data was for the seven years. Fluctuating trend in mean Return on Net Worth ratios of selected textiles units of India sample units has been observed during the entire study period. The mean unit of Return on Net Worth of textiles industry in highest year wise mean 13.57 in year 2009-10, and lowest -20.84 in year 2004-05 in study period.

It is describe Company wise of SD of highest Return on Net worth S Kumars Nationwide (82.48), and lowest Arvind Mills Ltd (5.13), across different samples during study period. It is clearly show Year wise of SD highest Return on Net Worth 2004-05 (78.84), and lowest 2006-07 (6.46) is compared to other samples during the study period.

The study period may be considered as uniform as compared to selected textiles units of India, as it is evident by lowest coefficient variation year wise 51.43 in year 2006-07 and highest C.V. 405.32 in year 2008-09, and Company wise lowest coefficient variation -628.66 S Kumars Nationwide and highest 1614.46 Raymond Ltd all sample unit.

**Hypothesis Testing:**

For the Testing of Hypothesis Researcher has applied F (ANOVA) Test.

- **H₀:** There is no Significant of difference in Return on Net Worth in selected textiles units of India.

- **H₁:** There is Significant of difference in Return on Net Worth in selected textiles units of India.
It is clear from table No.4.10 that the calculated value of ‘F’ was 1.03, which is lower than table value of ‘F’ 2.32. So, null hypothesis is accepted and alternative hypothesis is rejected. So, it can be concluded that there is no Significant of difference in Return on Net Worth in selected textiles units of India.

6. Gross Return on Long Term Funds Ratio

This ratio establishes the relationship between net profit and the long term funds. The term long-term funds refer to the total investment made in business for long term. It is calculated by dividing Earnings before Interest & tax (EBIT) by the total Long-term funds. Return on long-term funds is calculated on the basis of following formula:

\[
\text{Return on Long-term Funds} = \frac{\text{Operating Profit(EBIT)}}{\text{Long-term funds}} \times 100
\]
Table no. 4.11 Gross Returns on Long Term Funds Ratio

<table>
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<tr>
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<td>9.65</td>
<td>6.41</td>
<td>4.34</td>
<td>7.76</td>
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<td>11.34</td>
<td>8.49</td>
<td>2.46</td>
<td>28.98</td>
</tr>
<tr>
<td>Raymond Ltd</td>
<td>7.04</td>
<td>8.71</td>
<td>6.40</td>
<td>3.60</td>
<td>4.64</td>
<td>-2.12</td>
<td>11.21</td>
<td>5.64</td>
<td>4.25</td>
<td>75.35</td>
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<tr>
<td>DCM Ltd</td>
<td>0.79</td>
<td>0.60</td>
<td>2.33</td>
<td>1.10</td>
<td>3.83</td>
<td>9.11</td>
<td>20.83</td>
<td>5.51</td>
<td>7.38</td>
<td>133.94</td>
</tr>
<tr>
<td>Jindal Cotex Ltd</td>
<td>5.80</td>
<td>6.88</td>
<td>8.73</td>
<td>12.03</td>
<td>18.06</td>
<td>5.14</td>
<td>6.47</td>
<td>9.02</td>
<td>4.61</td>
<td>51.11</td>
</tr>
<tr>
<td>Os.Spi. and Wea. Mills</td>
<td>1.40</td>
<td>11.08</td>
<td>6.74</td>
<td>26.89</td>
<td>13.42</td>
<td>15.44</td>
<td>22.79</td>
<td>13.97</td>
<td>8.81</td>
<td>63.06</td>
</tr>
<tr>
<td>Bombay Dyeing</td>
<td>7.61</td>
<td>8.07</td>
<td>7.21</td>
<td>5.09</td>
<td>2.74</td>
<td>15.92</td>
<td>15.15</td>
<td>8.83</td>
<td>4.93</td>
<td>55.83</td>
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<tr>
<td>MEAN</td>
<td>4.89</td>
<td>8.17</td>
<td>7.46</td>
<td>10.43</td>
<td>8.68</td>
<td>10.01</td>
<td>14.89</td>
<td>9.22</td>
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<td></td>
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<tr>
<td>SD</td>
<td>3.76</td>
<td>3.79</td>
<td>3.62</td>
<td>9.69</td>
<td>5.61</td>
<td>6.89</td>
<td>5.73</td>
<td>3.28</td>
<td>2.20</td>
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</tr>
<tr>
<td>CV</td>
<td>76.89</td>
<td>46.39</td>
<td>48.53</td>
<td>92.91</td>
<td>64.63</td>
<td>68.83</td>
<td>38.48</td>
<td>35.57</td>
<td>71.20</td>
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</tbody>
</table>

(Source: www.moneycontrol.com)
Graph no. 4.6 Gross Returns on Long Term Funds Ratio

Textile Companies

Ratios:

- Units
- Raymond Ltd
- DCM Ltd
- Jindal Cotex Ltd
- Os.Spi. and Wea. Mills
- Bombay Dyeing
- S Kumars Nationwide

Colors:
- 2004-05
- 2005-06
- 2006-07
- 2007-08
- 2008-09
- 2009-10
- 2010-11
It is found the above Table no. 4.11 highest Gross Return on Long Term Funds is reported by Oswal Spinning and Weaving Mills (13.97) selected companies of the selected textiles units of India in India during study Period where as DCM Ltd (5.51) Ltd showed lowest Gross Return on Long Term Funds during these Periods. The data was for the seven years. Fluctuating trend in mean Gross Return on Long Term Funds ratios of selected textiles units of India sample units has been observed during the entire study period. The mean unit of Gross Return on Long Term Funds of textiles industry in highest year wise mean 14.89 in year 2010-11, and lowest 4.89 in year 2004-05 in study period.

It is describe Company wise of SD of highest Gross Return on Long Term Funds Oswal Spinning and Weaving Mills (8.81), and lowest Arvind Mills Ltd (2.46), across different samples during study period. It is clearly show Year wise of SD highest Gross Return on Long Term Funds 2007-08 (9.69), and lowest 2006-07 (3.62) is compared to other samples during the study period.

The study period may be considered as uniform as compared to selected textiles units of India, as it is evident by lowest coefficient variation year wise 38.48 in year 2010-11 and highest C.V. 92.91 in year 2007-08, and Company wise lowest coefficient variation 28.98 Arvind Mills Ltd and highest 133.94 DCM Ltd all sample unit.

![Hypothesis Testing:](image)

For the Testing of Hypothesis Researcher has applied F (ANOVA) Test.

- **H₀**: There is no Significant of difference in Gross Return on Long Term Funds in selected textiles units of India.
- **H₁**: There is Significant of difference in Gross Return on Long Term Funds in selected textiles units of India.
It is clear from table No. 4.12 that the calculated value of ‘F’ was 1.90, which is lower than table value of ‘F’ 2.32. So, null hypothesis is accepted and alternative hypothesis is rejected. So, it can be concluded that there is no Significant of difference in Gross Return on Long Term Funds in selected textiles units of India.

7. **Profit before Interest and Tax Margin Ratio**

This indicator gives information on a company's earnings ability. Increase in EBIT is mainly due to growth of net revenue, good cost control and strong productivity. Decrease in EBIT margin largely results from reduction in revenue and higher operating costs. EBIT margin is most useful when compared against other companies in the same industry. The higher EBIT margin reflects the more efficient cost management or the more profitable business. If no positive EBIT margin can be generated over a longer period, then the company should rethink the business model. Note: This margin can be used as relative indicator for international, cross-industry comparisons. EBIT margin, however, varies greatly between industries, as factors both net revenue and EBIT directly impact on the EBIT margin. E.g. retailers have quite a small EBIT margin as they rely on small margins accompanied with high sales volume. Other industries would have small sales volume but expect to offset that with higher EBIT margins.

Earnings before Interests and Taxes-Margin = 

\[
\frac{\text{Earnings Before Interests and Taxes (EBIT)}}{\text{Net Revenue - Earned}} \times 100 \%
\]
### Table no. 4.13 Profit before Interest and Tax Margin Ratio

<table>
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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Arvind Mills Ltd</td>
<td>14.23</td>
<td>15.76</td>
<td>7.99</td>
<td>4.12</td>
<td>5.63</td>
<td>8.30</td>
<td>9.98</td>
<td>9.43</td>
<td>4.27</td>
<td>45.28</td>
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<tr>
<td>Raymond Ltd</td>
<td>5.26</td>
<td>9.07</td>
<td>6.38</td>
<td>0.74</td>
<td>2.07</td>
<td>1.23</td>
<td>7.22</td>
<td>4.57</td>
<td>3.24</td>
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<td>0.42</td>
<td>3.92</td>
<td>0.15</td>
<td>1.82</td>
<td>7.22</td>
<td>15.53</td>
<td>3.89</td>
<td>5.90</td>
<td>151.67</td>
</tr>
<tr>
<td>Jindal Cotex Ltd</td>
<td>2.64</td>
<td>2.60</td>
<td>4.22</td>
<td>6.27</td>
<td>4.94</td>
<td>5.93</td>
<td>7.98</td>
<td>4.94</td>
<td>1.97</td>
<td>39.88</td>
</tr>
<tr>
<td>Os.Spi. and Wea. Mills</td>
<td>0.75</td>
<td>5.23</td>
<td>3.32</td>
<td>6.51</td>
<td>8.81</td>
<td>8.28</td>
<td>-7.67</td>
<td>3.60</td>
<td>5.71</td>
<td>158.61</td>
</tr>
<tr>
<td>Bombay Dyeing</td>
<td>2.23</td>
<td>3.85</td>
<td>10.10</td>
<td>3.16</td>
<td>0.45</td>
<td>13.09</td>
<td>8.39</td>
<td>5.90</td>
<td>4.66</td>
<td>78.98</td>
</tr>
<tr>
<td>S Kumars Nationwide</td>
<td>3.28</td>
<td>12.20</td>
<td>16.56</td>
<td>19.33</td>
<td>15.76</td>
<td>18.60</td>
<td>19.17</td>
<td>14.98</td>
<td>5.73</td>
<td>38.25</td>
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<tr>
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<td><strong>8.95</strong></td>
<td><strong>8.66</strong></td>
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<td><strong>1.83</strong></td>
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<tr>
<td><strong>SD</strong></td>
<td><strong>5.09</strong></td>
<td><strong>5.53</strong></td>
<td><strong>4.68</strong></td>
<td><strong>6.47</strong></td>
<td><strong>5.28</strong></td>
<td><strong>5.52</strong></td>
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<td><strong>4.12</strong></td>
<td><strong>1.27</strong></td>
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<tr>
<td><strong>CV</strong></td>
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<td><strong>77.78</strong></td>
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<td><strong>61.68</strong></td>
<td><strong>97.58</strong></td>
<td><strong>60.95</strong></td>
<td><strong>69.40</strong></td>
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</tr>
</tbody>
</table>

(Source: www.moneycontrol.com)
Graph no. 4.7 Profit before Interest and Tax Margin Ratio

Textile Companies

Ratios

2004-05
2005-06
2006-07
2007-08
2008-09
2009-10
2010-11
On analyzing the Table no. 4.13 it is found that the highest Profit before Interest and Tax Margin is reported by S Kumars Nationwide (14.98) selected companies of the selected textiles units of India in India during study Period where as Oswal Spinning and Weaving Mills (3.6) showed lowest Profit before Interest and Tax Margin during these Periods. The data was for the seven years. Fluctuating trend in mean Profit before Interest and Tax Margin ratios of selected textiles units of India sample units has been observed during the entire study period. The mean unit of Profit before Interest and Tax Margin of textiles industry in highest year wise mean 8.95 in year 2009-10, and lowest 3.80 in year 2004-05 in study period.

It is describe Company wise of SD of highest Profit before Interest and Tax Margin DCM Ltd (5.90), and lowest Jindal Cotex Ltd (1.97), across different samples during study period. It is clearly show Year wise of SD highest Profit before Interest and Tax Margin 2007-08 (6.47), and lowest 2006-07 (4.68) is compared to other samples during the study period.

The study period may be considered as uniform as compared to selected textiles units of India, as it is evident by lowest coefficient variation year wise 61.68 in year 2009-10 and highest C.V. 133.95 in year 2004-05, and Company wise lowest coefficient variation 38.25 S Kumars Nationwide Ltd and highest 158.61 Oswal Spinning and Weaving Mills all sample unit.

🌈 **Hypothesis Testing:**

For the Testing of Hypothesis Researcher has applied F (ANOVA) Test.

- **H₀**: There is no Significant of difference in Profit before Interest and Tax Margin in selected textiles units of India.
- **H₁**: There is Significant of difference in Profit before Interest and Tax Margin in selected textiles units of India.
Table no. 4.14 Analysis of Variance (Anova)

<table>
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<th>Source of variation</th>
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<th>d.f.</th>
<th>M.S.</th>
<th>F-Cal. Value</th>
<th>F-Table value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>140.19</td>
<td>6</td>
<td>23.36</td>
<td>0.65</td>
<td>2.32</td>
</tr>
<tr>
<td>Within Group</td>
<td>1500.43</td>
<td>42</td>
<td>35.72</td>
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<td></td>
</tr>
<tr>
<td>Total</td>
<td>1640.62</td>
<td>48</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It is clear from table No. 4.14 that the calculated value of ‘F’ was 0.65, which is lower than table value of ‘F’ 2.32. So, null hypothesis is accepted and alternative hypothesis is rejected. So, it can be concluded that there is no Significant of difference in Profit before Interest and Tax Margin in selected textiles units of India.

8. Cash Profit Margin Ratio

Cash ratio is the ratio of cash and cash equivalents of a company to its current liabilities. It is an extreme liquidity ratio since only cash and cash equivalents are compared with the current liabilities. It measures the ability of a business to repay its current liabilities by only using its cash and cash equivalents and nothing else. Cash profit margin ratio is used to measure operating performance.

Formula: \(\frac{(\text{Pat} + \text{Dep})}{\text{Gross Sales}}\)
### Table no. 4.15 Cash Profit Margin Ratio

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Arvind Mills Ltd</td>
<td>16.47</td>
<td>17.62</td>
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<td><strong>4.27</strong></td>
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<td><strong>SD</strong></td>
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<td>5.39</td>
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(Source: www.moneycontrol.com)
Graph no. 4.8 Cash Profit Margin Ratio
On examine the Table no. 4.15 it is found that the highest Cash Profit Margin is reported by Raymond Ltd (11.54) selected companies of the selected textiles units of India in India during study Period where as S Kumars Nationwide (1.97) showed lowest Cash Profit Margin during these Periods. The data was for the seven years. Fluctuating trend in mean Cash Profit Margin ratios of selected textiles units of India sample units has been observed during the entire study period. The mean unit of Cash Profit Margin of textiles industry in highest year wise mean 9.23 in year 2005-06, and lowest -1.81 in year 2004-05 in study period.

It is describe Company wise of SD of highest Cash Profit Margin S Kumars Nationwide (24.17), and lowest Jindal Cotex Ltd (0.73), across different samples during study period. It is clearly show Year wise of SD highest Cash Profit Margin 2004-05 (23.08), and lowest 2009-10 (0.79) is compared to other samples during the study period.

The study period may be considered as uniform as compared to selected textiles units of India, as it is evident by lowest coefficient variation year wise 13.06 in year 2009-10 and highest C.V. 1275.14 in year 2004-05, and Company wise lowest coefficient variation 11.99 Jindal Cotex Ltd and highest 1226.90 S Kumars Nationwide all sample unit.

**Hypothesis Testing:**

For the Testing of Hypothesis Researcher has applied F (ANOVA) Test.

- **H₀:** There is no Significant of difference in Cash Profit Margin in selected textiles units of India.

- **H₁:** There is Significant of difference in Cash Profit Margin in selected textiles units of India.
Table no.4.16 Analysis of Variance (Anova)

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<th>d.f.</th>
<th>M.S.</th>
<th>F-Cal. Value</th>
<th>F-Table value</th>
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<td>Within Group</td>
<td>4105.36</td>
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<tr>
<td>Total</td>
<td>4711.19</td>
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</table>

It is clear from table No. 4.16 that the calculated value of ‘F’ was 1.03, which is lower than table value of ‘F’ 2.32. So, null hypothesis is accepted and alternative hypothesis is rejected. So, it can be concluded that there is no Significant of difference in Cash Profit Margin in selected textiles units of India.

9. Return on Assets Excluding Revaluations Ratio

The return on assets formula, sometimes abbreviated as ROA, is a company's net income divided by its average of total assets. The return on assets formula looks at the ability of a company to utilize its assets to gain a net profit. Net income in the numerator of the return on assets formula can be found on a company's income statement. Net income is the amount earned by a company after subtracting out the expenses incurred, including depreciation and taxes. Average total assets in the denominator of the return on assets formula is found on a company's balance sheet. The average of total assets should be used based on the period being evaluated.
## Table no. 4.17 Return on Assets Excluding Revaluations Ratio

<table>
<thead>
<tr>
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<td>9.60</td>
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<td>191.09</td>
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<td>10.59</td>
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<td>47.75</td>
<td>66.33</td>
<td>30.12</td>
<td>19.88</td>
<td>66.00</td>
</tr>
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<td>43.36</td>
<td>54.47</td>
<td>79.56</td>
<td>78.59</td>
<td>21.82</td>
<td>27.76</td>
</tr>
<tr>
<td>S Kumars Nationwide</td>
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<td>1.81</td>
<td>20.87</td>
<td>32.46</td>
<td>36.50</td>
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<td>25.34</td>
<td>20.36</td>
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<td>54.12</td>
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<td><strong>74.24</strong></td>
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<td><strong>52.42</strong></td>
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<td>119.35</td>
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<td>110.03</td>
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<td>102.88</td>
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</table>

(Source: www.moneycontrol.com)
Graph no. 4.9 Return on Assets Excluding Revaluations Ratio

Textile Companies

Ratios

-50
0
50
100
150
200
250

Arvind Mills Ltd
Raymond Ltd
DCM Ltd
Jindal Cotex Ltd
Os Spi. and Wea. Mills
Bombay Dyeing
SKumars Nationwide
On investigate the Table no. 4.17 it is found that the highest Return on Assets Excluding Revaluations is reported by Raymond Ltd (195.82) selected companies of the selected textiles units of India in India during study Period where as Oswal Spinning and Weaving Mills (-2.55) showed lowest Return on Assets Excluding Revaluations during these Periods. The data was for the seven years. Fluctuating trend in mean Return on Assets Excluding Revaluations ratios of selected textiles units of India sample units has been observed during the entire study period. The mean unit of Return on Assets Excluding Revaluations of textiles industry in highest year wise mean 74.24 in year 2010-11, and lowest 50.23 in year 2004-05 in study period.

It is describe Company wise of SD of highest Return on Assets Excluding Revaluations DCM Ltd (24.88), and lowest Arvind Mills Ltd (5.85), across different samples during study period. It is clearly show Year wise of SD highest Return on Assets Excluding Revaluations 2007-08 (76.22), and lowest 2010-11 (52.42) is compared to other samples during the study period.

The study period may be considered as uniform as compared to selected textiles units of India, as it is evident by lowest coefficient variation year wise 70.61 in year 2010-11 and highest C.V. 135.30 in year 2004-05, and Company wise lowest coefficient variation 9.60 Arvind Mills Ltd and highest 249.41 Oswal Spinning and Weaving Mills all sample unit.

**Hypothesis Testing:**

For the Testing of Hypothesis Researcher has applied F (ANOVA) Test.

- **H₀:** There is no Significant of difference in Return on Assets Excluding Revaluations in selected textiles units of India.
- **H₁:** There is Significant of difference in Return on Assets Excluding Revaluations in selected textiles units of India.
It is clear from table No. 4.18 that the calculated value of ‘F’ was 0.12, which is lower than table value of ‘F’ 2.32. So, null hypothesis is accepted and alternative hypothesis is rejected. So, it can be concluded that there is no Significant of difference in Return on Assets Excluding Revaluations in selected textiles units of India.

B. Liquidity and Solvency Ratios

The first ratios we'll take a look at in this tutorial are the liquidity ratios. Liquidity ratios attempt to measure a company's ability to pay off its short-term debt obligations. This is done by comparing a company's most liquid assets (or, those that can be easily converted to cash), its short-term liabilities. In general, the greater the coverage of liquid assets to short-term liabilities the better as it is a clear signal that a company can pay its debts that are coming due in the near future and still fund its ongoing operations. On the other hand, a company with a low coverage rate should raise a red flag for investors as it may be a sign that the company will have difficulty meeting running its operations, as well as meeting its obligations. The biggest difference between each ratio is the type of assets used in the calculation. While each ratio includes current assets, the more conservative ratios will exclude some current assets as they aren't as easily converted to cash. The ratios that we'll look at are the current, quick and cash ratios and we will also go over the cash conversion cycle, which goes into how the company turns its inventory into cash.

10. Current Ratio

The current ratio is a popular financial ratio used to test a company's liquidity (also referred to as its current or working capital position) by deriving the proportion of current assets available to cover current liabilities. The concept behind this ratio is to ascertain whether a company's short-term assets (cash, cash equivalents, marketable securities,
receivables and inventory) are readily available to pay off its short-term liabilities (notes payable, current portion of term debt, payables, accrued expenses and taxes). In theory, the higher the current ratio, the better.

**Formula:**

\[
\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}
\]
## Table no. 4.19 Current Ratio

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<td>0.86</td>
<td>1.81</td>
<td>0.97</td>
<td>0.41</td>
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<tr>
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</table>

(Source: www.moneycontrol.com)
Graph no. 4.10 Current Ratio

Textile Companies

- Arvind Mills Ltd
- Raymond Ltd
- DCM Ltd
- Jindal Cotex Ltd
- Os. Spi. and Wea. Mills
- Bombay Dyeing
- S. Kumars Nationwide

Ratios

- 2004-05
- 2005-06
- 2006-07
- 2007-08
- 2008-09
- 2009-10
- 2010-11
On examine the Table no. 4.19 it is found that the highest Current Ratio is reported by Jindal Cotex Ltd (3.19) selected companies of the selected textiles units of India in India during study Period where as Arvind mills ltd (0.94) showed lowest Current Ratio during these Periods. The data was for the seven years. Fluctuating trend in mean Current Ratio of selected textiles units of India sample units has been observed during the entire study period. The mean unit of Current Ratio of textiles industry in highest year wise mean 2.07 in year 2004-05, and lowest 1.14 in year 2008-09 in study period.

It is describe Company wise of SD of highest Current Ratio Jindal Cotex Ltd (2.74), and lowest Raymond Ltd (0.18), across different samples during study period. It is clearly show Year wise of SD highest Current Ratio 2004-05 (2.46), and lowest 2008-09 (0.55) is compared to other samples during the study period.

The study period may be considered as uniform as compared to selected textiles units of India, as it is evident by lowest coefficient variation year wise 52.45 in year 2010-11 and highest C.V. 118.84 in year 2004-05, and Company wise lowest coefficient variation 14.06 Raymond Ltd and highest 85.89 Jindal Cotex Ltd all sample unit.

**Hypothesis Testing:**

For the Testing of Hypothesis Researcher has applied F (ANOVA) Test.

- **H₀:** There is no Significant of difference in Current Ratio in selected textiles units of India.

- **H₁:** There is Significant of difference in Current Ratio in selected textiles units of India.
It is clear from table No.4.20 that the calculated value of ‘F’ was 0.52, which is lower than table value of ‘F’ 2.32. So, null hypothesis is accepted and alternative hypothesis is rejected. So, it can be concluded that there is no Significant of difference in Current Ratio in selected textiles units of India.

11. Quick Ratio

The quick ratio - aka the quick assets ratio or the acid-test ratio - is a liquidity indicator that further refines the current ratio by measuring the amount of the most liquid current assets there are to cover current liabilities. The quick ratio is more conservative than the current ratio because it excludes inventory and other current assets, which are more difficult to turn into cash. Therefore, a higher ratio means a more liquid current position.

Formula:

\[
\text{Quick Ratio} = \frac{\text{Cash & Equivalents + Short - term Investments + Accounts Receivable}}{\text{Current Liabilities}}
\]
### Table no.4.21 Quick Ratio

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<td><strong>2.15</strong></td>
<td>2.55</td>
<td>2.54</td>
<td>2.53</td>
<td><strong>3.913</strong></td>
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<td>2.00</td>
<td>0.25</td>
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<tr>
<td><strong>SD</strong></td>
<td><strong>1.76</strong></td>
<td>1.62</td>
<td>1.41</td>
<td>1.27</td>
<td>1.19</td>
<td><strong>0.99</strong></td>
<td>1.67</td>
<td>1.42</td>
<td>0.28</td>
<td></td>
</tr>
<tr>
<td><strong>CV</strong></td>
<td>61.75</td>
<td>55.67</td>
<td><strong>65.58</strong></td>
<td>49.80</td>
<td>46.85</td>
<td><strong>39.13</strong></td>
<td>63.98</td>
<td>71</td>
<td>112</td>
<td></td>
</tr>
</tbody>
</table>

(Source: www.moneycontrol.com)
Graph no.4.11 Quick Ratio

Textile Companies

Ratios

- Arvind Mills Ltd
- Raymond Ltd
- DCM Ltd
- Jindal Cotex Ltd
- Os. Spi. and Wea. Mills
- Bombay Dyeing
- S. Kumars Nationwide

- 2004-05
- 2005-06
- 2006-07
- 2007-08
- 2008-09
- 2009-10
- 2010-11
On analyzing the Table no. 4.21 it is found that the highest Quick Ratio is reported by S Kumars Nationwide (3.73) selected companies of the selected textiles units of India in India during study Period where as Raymond Ltd (1.41) showed lowest Quick Ratio during these Periods. The data was for the seven years. Fluctuating trend in mean Quick Ratio of selected textiles units of India sample units has been observed during the entire study period. The mean unit of Quick Ratio of textiles industry in highest year wise mean 2.85 in year 2004-05, and lowest 2.15 in year 2006-07 in study period.

It is describe Company wise of SD of highest Quick Ratio Jindal Cotex Ltd (1.42), and lowest Raymond Ltd (0.12), across different samples during study period. It is clearly show Year wise of SD highest Quick Ratio 2004-05 (1.76), and lowest 2009-10 (0.99) is compared to other samples during the study period.

The study period may be considered as uniform as compared to selected textiles units of India, as it is evident by lowest coefficient variation year wise 39.13 in year 2009-10 and highest C.V. 65.58 in year 2006-07, and Company wise lowest coefficient variation 5.49 DCM Ltd and highest 47.65 Jindal Cotex Ltd all sample unit.

**Hypothesis Testing:**

For the Testing of Hypothesis Researcher has applied F (ANOVA) Test.

- H₀: There is no Significant of difference in Quick Ratio in selected textiles units of India.
- H₁: There is Significant of difference in Quick Ratio in selected textiles units of India.

**Table no. 4.22 Analysis Of Variance (Anova)**

<table>
<thead>
<tr>
<th>Source of variation</th>
<th>S.S.</th>
<th>d.f.</th>
<th>M.S.</th>
<th>F-Cal. Value</th>
<th>F-Table value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2.60</td>
<td>6</td>
<td>0.43</td>
<td>0.21</td>
<td>2.32</td>
</tr>
<tr>
<td>Within Group</td>
<td>87.22</td>
<td>42</td>
<td>2.08</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>89.82</td>
<td>48</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

204
It is clear from table No. 4.22 that the calculated value of ‘F’ was 0.21, which is lower than table value of ‘F’ 2.32. So, null hypothesis is accepted and alternative hypothesis is rejected. So, it can be concluded that there is no Significant of difference in Quick Ratio in selected textiles units of India.

12. Interest Cover Ratio

The interest coverage ratio is used to determine how easily a company can pay interest expenses on outstanding debt. The ratio is calculated by dividing a company's earnings before interest and taxes (EBIT) by the company's interest expenses for the same period. The lower the ratio, the more the company is burdened by debt expense. When a company's interest coverage ratio is only 1.5 or lower, its ability to meet interest expenses may be questionable.

Formula:

\[
\text{Interest Coverage Ratio} = \frac{\text{Earnings Before Interest and Taxes (EBIT)}}{\text{Interest Expense}}
\]
# Table no. 4.23 Interest Cover Ratio

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Arvind Mills Ltd</td>
<td>2.11</td>
<td>2.00</td>
<td>1.03</td>
<td>0.65</td>
<td>0.88</td>
<td>1.09</td>
<td>1.33</td>
<td>1.29</td>
<td>0.56</td>
<td>43.41</td>
</tr>
<tr>
<td>Raymond Ltd</td>
<td>3.97</td>
<td>4.62</td>
<td>2.70</td>
<td>1.25</td>
<td>1.27</td>
<td>0.68</td>
<td>1.71</td>
<td>2.31</td>
<td>1.49</td>
<td>64.50</td>
</tr>
<tr>
<td>DCM Ltd</td>
<td>1.15</td>
<td>0.12</td>
<td>1.74</td>
<td>0.38</td>
<td>1.13</td>
<td>2.57</td>
<td>3.66</td>
<td>1.53</td>
<td>1.24</td>
<td>81.05</td>
</tr>
<tr>
<td>Jindal Cotex Ltd</td>
<td>2.00</td>
<td>1.88</td>
<td>1.71</td>
<td>3.48</td>
<td>4.73</td>
<td>3.34</td>
<td>2.30</td>
<td>2.77</td>
<td>1.11</td>
<td>40.07</td>
</tr>
<tr>
<td>Os.Spi. and Wea. Mills</td>
<td>0.12</td>
<td>0.71</td>
<td>0.47</td>
<td>1.41</td>
<td>1.18</td>
<td>1.10</td>
<td>1.11</td>
<td>0.87</td>
<td>0.46</td>
<td>52.87</td>
</tr>
<tr>
<td>Bombay Dyeing</td>
<td>3.36</td>
<td>3.58</td>
<td>2.35</td>
<td>0.83</td>
<td>0.19</td>
<td>1.28</td>
<td>1.27</td>
<td>1.84</td>
<td>1.29</td>
<td>70.11</td>
</tr>
<tr>
<td>S Kumars Nationwide</td>
<td>4.86</td>
<td>2.25</td>
<td>3.23</td>
<td>3.67</td>
<td>1.74</td>
<td>1.64</td>
<td>1.75</td>
<td>2.73</td>
<td>1.23</td>
<td>45.05</td>
</tr>
<tr>
<td><strong>MEAN</strong></td>
<td><strong>2.51</strong></td>
<td><strong>2.17</strong></td>
<td><strong>1.89</strong></td>
<td><strong>1.67</strong></td>
<td><strong>1.59</strong></td>
<td><strong>1.67</strong></td>
<td><strong>1.88</strong></td>
<td><strong>1.91</strong></td>
<td><strong>0.33</strong></td>
<td></td>
</tr>
<tr>
<td><strong>SD</strong></td>
<td><strong>1.65</strong></td>
<td><strong>1.55</strong></td>
<td><strong>0.96</strong></td>
<td><strong>1.35</strong></td>
<td><strong>1.46</strong></td>
<td><strong>0.95</strong></td>
<td><strong>0.88</strong></td>
<td><strong>0.73</strong></td>
<td><strong>0.32</strong></td>
<td></td>
</tr>
<tr>
<td><strong>CV</strong></td>
<td>64.74</td>
<td>71.43</td>
<td>50.79</td>
<td>80.84</td>
<td><strong>91.82</strong></td>
<td>56.89</td>
<td><strong>46.81</strong></td>
<td>38.22</td>
<td>96.97</td>
<td></td>
</tr>
</tbody>
</table>

(Source: www.moneycontrol.com)
Graph no. 4.12 Interest Cover Ratio

Textile Companies

- Units
- Raymond Ltd
- DCM Ltd
- Jindal Cotex Ltd
- Os.Spt. and Wea. Mills
- Bombay Dyeing
- S.Kumars Nationwide

Ratios

- 2004-05
- 2005-06
- 2006-07
- 2007-08
- 2008-09
- 2009-10
- 2010-11
On examine the Table no. 4.23 it is found that the highest Interest Cover is reported by S Kumars Nationwide (2.73) selected companies of the selected textiles units of India in India during study Period where as Oswal Spinning and Weaving Mills (0.87) showed lowest Interest Cover during these Periods. The data was for the seven years. Fluctuating trend in mean Interest Cover of selected textiles units of India sample units has been observed during the entire study period. The mean unit of Interest Cover of textiles industry in highest year wise mean 2.51 in year 2004-05, and lowest 1.59 in year 2008-09 in study period.

It is describe Company wise of SD of highest Interest Cover Raymond Ltd (1.49), and lowest Oswal Spinning and Weaving Mills (0.46), across different samples during study period. It is clearly show Year wise of SD highest Interest Cover 2004-05 (1.65), and lowest 2010-11 (0.88) is compared to other samples during the study period.

The study period may be considered as uniform as compared to selected textiles units of India, as it is evident by lowest coefficient variation year wise 46.81 in year 2010-11 and highest C.V. 91.82 in year 2008-09, and Company wise lowest coefficient variation 40.07 Jindal Cotex Ltd and highest 81.05 DCM Ltd all sample unit.

Hypothesis Testing:

For the Testing of Hypothesis Researcher has applied F (ANOVA) Test.

- **H₀**: There is no Significant of difference in Interest Cover in selected textiles units of India.
- **H₁**: There is Significant of difference in Interest Cover in selected textiles units of India.

**Table no. 4.24 Analysis of Variance (Anova)**

<table>
<thead>
<tr>
<th>Source of variation</th>
<th>S.S.</th>
<th>d.f.</th>
<th>M.S.</th>
<th>F-Cal. Value</th>
<th>F-Table value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>4.52</td>
<td>6</td>
<td>0.75</td>
<td>0.45</td>
<td>2.32</td>
</tr>
<tr>
<td>Within Group</td>
<td>70.09</td>
<td>42</td>
<td>1.67</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>74.61</td>
<td>48</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
It is clear from table No. 4.24 that the calculated value of ‘F’ was 0.45, which is lower than table value of ‘F’ 2.32. So, null hypothesis is accepted and alternative hypothesis is rejected. So, it can be concluded that there is no Significant of difference in Interest Cover in selected textiles units of India.

13. Financial Charges Coverage Ratio

Fixed charge coverage ratio is the ratio that indicates a firm’s ability to satisfy fixed financing expenses such as interest and leases. This means that the fixed charges that a Firm is obligated to meet are met by the firm. This ratio is calculated by summing up Earnings before interest and taxes or EBIT and fixed charge which is divided by fixed charge before tax and interest. The formula used for calculating fixed charge coverage ratio is as follows.

Formula: \[
\text{EBIT + Fixed charge before tax} \\
\text{Fixed charge before tax + Interest}
\]

Where, EBIT is Earnings before interest and taxes

EBIT, taxes and the interest expenses are to be taken from the income statement of the company. The lease payments are taken the balance sheet, usually appearing as a footnote of the balance sheet. The result that is obtained by finding out the fixed charge coverage ratio the number of times the company is able to meet its fixed charges per year. The greater the number of times the company can pay its charges the better it is for the firm as the debt position of the firm is proportional to the interest earned ratio.6
### Table no. 4.25 Financial Charges Coverage Ratio

<table>
<thead>
<tr>
<th>Sample Units</th>
<th>2004-05</th>
<th>2005-06</th>
<th>2006-07</th>
<th>2007-08</th>
<th>2008-09</th>
<th>2009-10</th>
<th>Mean</th>
<th>SD</th>
<th>CV</th>
</tr>
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<tbody>
<tr>
<td>Arvind Mills Ltd</td>
<td>3.38</td>
<td>3.16</td>
<td>1.87</td>
<td>1.42</td>
<td>1.45</td>
<td>1.63</td>
<td>1.87</td>
<td>2.11</td>
<td>0.81</td>
</tr>
<tr>
<td>Raymond Ltd</td>
<td>5.79</td>
<td>6.48</td>
<td>3.88</td>
<td>2.59</td>
<td>2.27</td>
<td>1.82</td>
<td>2.72</td>
<td>3.65</td>
<td>1.82</td>
</tr>
<tr>
<td>DCM Ltd</td>
<td>3.77</td>
<td>0.65</td>
<td>2.91</td>
<td>1.50</td>
<td>2.22</td>
<td>3.59</td>
<td>4.36</td>
<td>2.71</td>
<td>1.33</td>
</tr>
<tr>
<td>Jindal Cotex Ltd</td>
<td>5.74</td>
<td>3.73</td>
<td>3.13</td>
<td>4.70</td>
<td>5.37</td>
<td>3.88</td>
<td>3.06</td>
<td>4.23</td>
<td>1.06</td>
</tr>
<tr>
<td>Os.Spi. and Wea. Mills</td>
<td>0.85</td>
<td>1.41</td>
<td>1.09</td>
<td>1.84</td>
<td>1.73</td>
<td>1.64</td>
<td>1.59</td>
<td><strong>1.45</strong></td>
<td>0.36</td>
</tr>
<tr>
<td>Bombay Dyeing</td>
<td>4.52</td>
<td>4.30</td>
<td>2.80</td>
<td>1.26</td>
<td>0.47</td>
<td>1.51</td>
<td>1.53</td>
<td>2.34</td>
<td>1.57</td>
</tr>
<tr>
<td>S Kumars Nationwide</td>
<td>11.29</td>
<td>3.23</td>
<td>3.78</td>
<td>3.87</td>
<td>1.97</td>
<td>1.82</td>
<td>1.93</td>
<td><strong>3.98</strong></td>
<td><strong>3.34</strong></td>
</tr>
<tr>
<td><strong>MEAN</strong></td>
<td><strong>5.05</strong></td>
<td><strong>3.28</strong></td>
<td><strong>2.78</strong></td>
<td><strong>2.45</strong></td>
<td><strong>2.21</strong></td>
<td><strong>2.27</strong></td>
<td><strong>2.44</strong></td>
<td><strong>2.93</strong></td>
<td><strong>1.00</strong></td>
</tr>
<tr>
<td><strong>SD</strong></td>
<td><strong>3.22</strong></td>
<td><strong>1.91</strong></td>
<td><strong>1.00</strong></td>
<td><strong>1.34</strong></td>
<td><strong>1.52</strong></td>
<td><strong>1.01</strong></td>
<td><strong>1.02</strong></td>
<td><strong>1.05</strong></td>
<td><strong>0.80</strong></td>
</tr>
<tr>
<td><strong>CV</strong></td>
<td>63.76</td>
<td>58.23</td>
<td><strong>35.97</strong></td>
<td>54.69</td>
<td><strong>68.78</strong></td>
<td>44.49</td>
<td>41.80</td>
<td>35.84</td>
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</tbody>
</table>

(Source: www.moneycontrol.com)
Graph no. 4.13 Financial Charges Coverage Ratio

Textile Companies

<table>
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<tr>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Arvind Mills Ltd</td>
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<td></td>
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<tr>
<td>Raymond Ltd</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DCM Ltd</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jindal Cotex Ltd</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Os-Spi. and Wea. Mills</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bombay Dyeing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S Kumars Nationwide</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
On examine the Table no. 4.25 it is found that the highest Financial Charges Coverage Ratio is reported by S Kumars Nationwide (3.98) selected companies of the selected textiles units of India in India during study Period where as Oswal Spinning and Weaving Mills (1.45) showed lowest Financial Charges Coverage Ratio during these Periods. The data was for the seven years. Fluctuating trend in mean Financial Charges Coverage Ratio of selected textiles units of India sample units has been observed during the entire study period. The mean unit of Financial Charges Coverage Ratio of textiles industry in highest year wise mean 5.05 in year 2004-05, and lowest 2.21 in year 2008-09 in study period.

It is describe Company wise of SD of highest Financial Charges Coverage Ratio S Kumars Nationwide (3.34), and lowest Oswal Spinning and Weaving Mills (0.36), across different samples during study period. It is clearly show Year wise of SD highest Financial Charges Coverage Ratio 2004-05 (3.22), and lowest 2006-07 (1.00) is compared to other samples during the study period.

The study period may be considered as uniform as compared to selected textiles units of India, as it is evident by lowest coefficient variation year wise 35.97 in year 2006-07 and highest C.V. 68.78 in year 2008-09, and Company wise lowest coefficient variation 24.83 Oswal Spinning and Weaving Mills and highest 83.92 S Kumars Nationwide all sample unit.

**Hypothesis Testing:**

For the Testing of Hypothesis Researcher has applied F (ANOVA) Test.

- **H₀**: There is no Significant of difference in Financial Charges Coverage Ratio in selected textiles units of India.

- **H₁**: There is Significant of difference in Financial Charges Coverage Ratio in selected textiles units of India.
It is clear from table No. 4.26 that the calculated value of ‘F’ was 2.33, which is higher than table value of ‘F’ 2.32. So, alternative hypothesis is accepted and null hypothesis is rejected. So, it can be concluded that there is Significant difference in Financial Charges Coverage Ratio in selected textiles units of India.

C. Management Efficiency Ratios

No matter what kind of business a company is in, it must invest in assets to perform its operations. Efficiency ratios measure how effectively the company utilizes these assets, as well as how well it manages its liabilities. Inventory Turnover, Accounts Receivable Turnover, Accounts Payable Turnover, and Total Asset Turnover.

14. Inventory Turnover Ratio

This is the ratio of cost of goods sold to closing inventory:=

\[
\frac{\text{Cost of goods sold}}{\text{Inventory}}
\]

It can also be expressed as the ratio of cost of goods sold to average inventory. While closing inventory is technically more correct, average inventory could be used since an external analyst is unsure whether the yearend numbers are dressed up. The numerator is “Cost of goods sold” and not sales because inventory is valued at cost. However to use “Sales” in the numerator is also a practice that many adopt. If the inventory turnover ratio is 3, it means that we sold off the entire inventory thrice. As long as we are not running out of stock and hence losing sales, the higher this ratio is, the more efficient is the management of inventory. If we turned over inventory over 3 times during the year, then
we can say that we held inventory for approximately 121 days before selling it. This is called the **average days’ sales in Inventory** and is given by the following formula: 

\[
\text{Inventory turnover ratio} = \frac{365}{\text{day}} \\
\text{average days’ sales in inventory}
\]

The ratio measures how fast we sold our products. Note that inventory turnover ratio and average days’ sales in inventory measure the same thing.
Table no. 4.27 Inventory Turnover Ratio

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Arvind Mills Ltd</td>
<td>3.28</td>
<td>3.34</td>
<td>2.88</td>
<td>4.13</td>
<td>4.22</td>
<td>5.84</td>
<td>3.99</td>
<td>3.95</td>
<td>0.97</td>
<td>24.56</td>
</tr>
<tr>
<td>Raymond Ltd</td>
<td>4.22</td>
<td>4.30</td>
<td>4.72</td>
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<td>4.39</td>
<td>5.12</td>
<td>3.79</td>
<td>4.41</td>
<td>0.42</td>
<td>9.52</td>
</tr>
<tr>
<td>DCM Ltd</td>
<td>4.99</td>
<td>5.30</td>
<td>2.00</td>
<td>2.42</td>
<td>4.16</td>
<td>2.75</td>
<td>1.92</td>
<td>3.36</td>
<td>1.43</td>
<td>42.56</td>
</tr>
<tr>
<td>Jindal Cotex Ltd</td>
<td>7.64</td>
<td>7.00</td>
<td>5.22</td>
<td>7.21</td>
<td>14.20</td>
<td>8.65</td>
<td>5.27</td>
<td>7.88</td>
<td>3.05</td>
<td>38.71</td>
</tr>
<tr>
<td>Bombay Dyeing</td>
<td>5.22</td>
<td>4.87</td>
<td>3.01</td>
<td>7.60</td>
<td>11.76</td>
<td>14.12</td>
<td>9.79</td>
<td>8.05</td>
<td>4.03</td>
<td>50.06</td>
</tr>
<tr>
<td>S Kumars Nationwide</td>
<td>1.02</td>
<td>2.35</td>
<td>2.45</td>
<td>3.34</td>
<td>2.69</td>
<td>2.97</td>
<td>2.94</td>
<td>2.54</td>
<td>0.75</td>
<td>29.53</td>
</tr>
<tr>
<td>MEAN</td>
<td>4.86</td>
<td>5.37</td>
<td>4.25</td>
<td>5.59</td>
<td>6.73</td>
<td>7.06</td>
<td>5.93</td>
<td>5.69</td>
<td>0.99</td>
<td></td>
</tr>
<tr>
<td>SD</td>
<td>2.36</td>
<td>2.67</td>
<td>2.59</td>
<td>2.76</td>
<td>4.41</td>
<td>4.11</td>
<td>4.31</td>
<td>3.32</td>
<td>0.91</td>
<td></td>
</tr>
<tr>
<td>CV</td>
<td>48.56</td>
<td>49.72</td>
<td>60.94</td>
<td>49.37</td>
<td>65.53</td>
<td>58.22</td>
<td>72.68</td>
<td>58.35</td>
<td>91.92</td>
<td></td>
</tr>
</tbody>
</table>

(Source: www.moneycontrol.com)
Graph no. 4.14 Inventory Turnover Ratio
On evaluate the Table no. 4.27 it is found that the highest Inventory Turnover Ratio is reported by Oswal Spinning and Weaving Mills (9.59) selected companies of the selected textiles units of India in India during study Period where as S Kumars Nationwide (2.54) showed lowest Inventory Turnover Ratio during these Periods. The data was for the seven years. Fluctuating trend in mean Inventory Turnover Ratio of selected textiles units of India sample units has been observed during the entire study period. The mean unit of Inventory Turnover Ratio of textiles industry in highest year wise mean 7.06 in year 2009-10, and lowest 4.25 in year 2006-07 in study period.

It is describe Company wise of SD of highest Inventory Turnover Ratio Bombay Dyeing (4.03), and lowest Raymond Ltd (0.42), across different samples during study period. It is clearly show Year wise of SD highest Inventory Turnover Ratio 2008-09 (4.41), and lowest 2004-05 (2.36) is compared to other samples during the study period.

The study period may be considered as uniform as compared to selected textiles units of India, as it is evident by lowest coefficient variation year wise 49.37 in year 2007-08 and highest C.V. 72.68 in year 2010-11, and Company wise lowest coefficient variation 9.52 Raymond Ltd and highest 50.06 Bombay Dyeing all sample unit.

**Hypothesis Testing:**

For the Testing of Hypothesis Researcher has applied F (ANOVA) Test.

- **H₀:** There is no Significant of difference in Inventory Turnover Ratio in selected textiles units of India.

- **H₁:** There is Significant of difference in Inventory Turnover Ratio in selected textiles units of India.
It is clear from table No.4.28 that the calculated value of ‘F’ was 0.59, which is lower than table value of ‘F’ 2.32. So, null hypothesis is accepted and alternative hypothesis is rejected. So, it can be concluded that there is no Significant of difference in Inventory Turnover Ratio in selected textiles units of India.

15. Debtors Turnover Ratio

This is the ratio of sales to closing debtors. Sales / Debtors While closing debtors is technically more correct, average debtors could be used since an external analyst is unsure whether the yearend numbers are dressed up. If the debtors’ turnover ratio is 8, it means that we collected our outstanding 8 times a year. As long as we do not miss out sales, the higher this ratio is, the more efficient is the management of debtors. This ratio is far easier to grasp if we converted it into number of days. If we turned over debtors 8 times a year, we can say that debtors on an average were 45 days. This is called the average days’ sales in receivable and is given by the following formula: =

\[ \frac{365}{\text{Receivable turnover ratio}} \]

The ratio is often called the Average Collection period.
Table no.4.29 Debtors Turnover Ratio

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Arvind Mills Ltd</td>
<td>6.02</td>
<td>4.62</td>
<td>6.38</td>
<td>9.49</td>
<td>7.66</td>
<td>5.98</td>
<td>5.39</td>
<td>6.51</td>
<td>1.61</td>
<td>24.73</td>
</tr>
<tr>
<td>Raymond Ltd</td>
<td>4.94</td>
<td>5.62</td>
<td>5.03</td>
<td>4.79</td>
<td>4.71</td>
<td>4.51</td>
<td>4.86</td>
<td>4.92</td>
<td>0.35</td>
<td>7.11</td>
</tr>
<tr>
<td>DCM Ltd</td>
<td>0.46</td>
<td>0.53</td>
<td>0.43</td>
<td>0.80</td>
<td>1.14</td>
<td>1.58</td>
<td>2.23</td>
<td>1.02</td>
<td>0.68</td>
<td>66.67</td>
</tr>
<tr>
<td>Jindal Cotex Ltd</td>
<td>------</td>
<td>32.96</td>
<td>18.27</td>
<td>13.55</td>
<td>16.43</td>
<td>15.78</td>
<td>11.95</td>
<td>18.16</td>
<td>7.58</td>
<td>41.74</td>
</tr>
<tr>
<td>Os.Spi. and Wea. Mills</td>
<td>3.93</td>
<td>5.21</td>
<td>4.64</td>
<td>5.59</td>
<td>4.62</td>
<td>5.17</td>
<td>7.32</td>
<td>5.21</td>
<td>1.07</td>
<td>20.54</td>
</tr>
<tr>
<td>Bombay Dyeing</td>
<td>15.09</td>
<td>8.79</td>
<td>2.42</td>
<td>3.64</td>
<td>4.02</td>
<td>3.19</td>
<td>4.57</td>
<td>5.96</td>
<td>4.52</td>
<td>75.84</td>
</tr>
<tr>
<td>S Kumars Nationwide</td>
<td>0.88</td>
<td>1.98</td>
<td>2.24</td>
<td>2.64</td>
<td>2.14</td>
<td>2.31</td>
<td>2.49</td>
<td>2.09</td>
<td>0.58</td>
<td>27.75</td>
</tr>
<tr>
<td>MEAN</td>
<td>5.22</td>
<td>8.53</td>
<td>5.63</td>
<td>5.79</td>
<td>5.82</td>
<td>5.50</td>
<td>5.54</td>
<td>6.27</td>
<td>1.13</td>
<td></td>
</tr>
<tr>
<td>SD</td>
<td>5.32</td>
<td>11.09</td>
<td>5.92</td>
<td>4.37</td>
<td>5.12</td>
<td>4.79</td>
<td>3.32</td>
<td>5.62</td>
<td>2.51</td>
<td></td>
</tr>
<tr>
<td>CV</td>
<td>101.92</td>
<td>130.01</td>
<td>105.15</td>
<td>75.47</td>
<td>87.97</td>
<td>87.09</td>
<td>59.93</td>
<td>89.63</td>
<td>222.12</td>
<td></td>
</tr>
</tbody>
</table>

(Source: www.moneycontrol.com)
Graph no. 4.15 Debtors Turnover Ratio

Textile Companies

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Arvind Mills Ltd</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raymond Ltd</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DCM Ltd</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jindal Cotex Ltd</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Os.Spi. and Wea. Mills</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bombay Dyeing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S Kumars Nationwide</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
On analyzing the Table no. 4.29 it is found that the highest Debtors Turnover Ratio is reported by Jindal Cotex Ltd (18.16) selected companies of the selected textiles units of India in India during study Period where as DCM Ltd(1.02) showed lowest Debtors Turnover Ratio during these Periods. The data was for the seven years. Fluctuating trend in mean Debtors Turnover Ratio of selected textiles units of India sample units has been observed during the entire study period. The mean unit of Debtors Turnover Ratio of textiles industry in highest year wise mean 8.53 in year 2005-06, and lowest 5.22 in year 2004-05 in study period.

It is describe Company wise of SD of highest Debtors Turnover Ratio Jindal Cotex Ltd (7.58), and lowest Raymond Ltd (0.35), across different samples during study period. It is clearly show Year wise of SD highest Debtors Turnover Ratio 2005-06 (11.09), and lowest 2010-11 (3.32) is compared to other samples during the study period.

The study period may be considered as uniform as compared to selected textiles units of India, as it is evident by lowest coefficient variation year wise 59.93 2010-11, in year and highest C.V. 130.01 in year 2005-06, and Company wise lowest coefficient variation 7.11 Raymond Ltd and highest 75.84 Bombay Dyeing all sample unit.

**: Hypothesis Testing:**

For the Testing of Hypothesis Researcher has applied F (ANOVA) Test.

- **H₀:** There is no Significant of difference in Debtors Turnover Ratio in selected textiles units of India.

- **H₁:** There is Significant of difference in Debtors Turnover Ratio in selected textiles units of India.
Table no. 4.30 Analysis of Variance (Anova)

<table>
<thead>
<tr>
<th>Source of variation</th>
<th>S.S.</th>
<th>d.f.</th>
<th>M.S.</th>
<th>F-Cal. Value</th>
<th>F-Table value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>65.29</td>
<td>6</td>
<td>10.88</td>
<td>0.29</td>
<td>2.32</td>
</tr>
<tr>
<td>Within Group</td>
<td>1589.26</td>
<td>42</td>
<td>37.84</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1654.55</td>
<td>48</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It is clear from table No. 4.30 that the calculated value of ‘F’ was 0.29, which is lower than table value of ‘F’ 2.32. So, null hypothesis is accepted and alternative hypothesis is rejected. So, it can be concluded that there is no Significant of difference in Debtors Turnover Ratio in selected textiles units of India.

16. Investments Turnover Ratio

An investment turnover ratio measures how actively a fund is managed. A high turnover ratio means the manager is buying and selling stocks on a regular basis, while a low turnover means the holds its investment for a longer period of time. Though a high investment turnover ratio might make you feel like your manager is more involved, it’s not always the best investment strategy because of the cost of each trade. According to Morningstar, managers with higher turnover rates usually have more aggressive investing strategies.
### Table no. 4.31 Investments Turnover Ratio

<table>
<thead>
<tr>
<th>Sample Units</th>
<th>2004-05</th>
<th>2005-06</th>
<th>2006-07</th>
<th>2007-08</th>
<th>2008-09</th>
<th>2009-10</th>
<th>Mean</th>
<th>SD</th>
<th>CV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arvind Mills Ltd</td>
<td>3.55</td>
<td>3.65</td>
<td>3.03</td>
<td>4.13</td>
<td>4.22</td>
<td>5.84</td>
<td>3.99</td>
<td>4.06</td>
<td>21.67</td>
</tr>
<tr>
<td>Raymond Ltd</td>
<td>4.47</td>
<td>4.63</td>
<td>4.92</td>
<td>4.35</td>
<td>4.39</td>
<td>5.12</td>
<td>3.79</td>
<td>4.52</td>
<td>9.51</td>
</tr>
<tr>
<td>DCM Ltd</td>
<td>4.99</td>
<td>5.30</td>
<td>2.00</td>
<td>2.42</td>
<td>4.16</td>
<td>2.75</td>
<td>1.92</td>
<td>3.36</td>
<td>42.56</td>
</tr>
<tr>
<td>Jindal Cotex Ltd</td>
<td>7.64</td>
<td>7.00</td>
<td>5.22</td>
<td>7.21</td>
<td>14.20</td>
<td>8.65</td>
<td>5.27</td>
<td>7.88</td>
<td>38.71</td>
</tr>
<tr>
<td>Os.Spi. and Wea. Mills</td>
<td>8.25</td>
<td>11.50</td>
<td>9.49</td>
<td>10.10</td>
<td>5.68</td>
<td>9.99</td>
<td>13.84</td>
<td>2.54</td>
<td>25.81</td>
</tr>
<tr>
<td>S Kumars Nationwide</td>
<td>1.02</td>
<td>2.36</td>
<td>2.46</td>
<td>3.34</td>
<td>2.69</td>
<td>2.97</td>
<td>2.94</td>
<td>2.54</td>
<td>29.53</td>
</tr>
<tr>
<td><strong>MEAN</strong></td>
<td><strong>5.14</strong></td>
<td><strong>6.37</strong></td>
<td><strong>4.47</strong></td>
<td><strong>5.59</strong></td>
<td><strong>6.73</strong></td>
<td><strong>7.06</strong></td>
<td><strong>5.93</strong></td>
<td><strong>5.89</strong></td>
<td><strong>0.91</strong></td>
</tr>
<tr>
<td><strong>SD</strong></td>
<td><strong>2.47</strong></td>
<td><strong>3.38</strong></td>
<td><strong>2.53</strong></td>
<td><strong>2.76</strong></td>
<td><strong>4.41</strong></td>
<td><strong>4.11</strong></td>
<td><strong>4.31</strong></td>
<td><strong>2.96</strong></td>
<td><strong>0.85</strong></td>
</tr>
<tr>
<td><strong>CV</strong></td>
<td>48.05</td>
<td>53.06</td>
<td>56.60</td>
<td><strong>39.37</strong></td>
<td>65.53</td>
<td>58.22</td>
<td><strong>72.68</strong></td>
<td>50.25</td>
<td>93.41</td>
</tr>
</tbody>
</table>

(Source: www.moneycontrol.com)
On examine the Table no. 4.31 it is found that the highest Investments Turnover Ratio is reported by Oswal Spinning and Weaving Mills (9.84) selected companies of the selected textiles units of India in India during study Period where as S Kumars Nationwide (2.54) showed lowest Investments Turnover Ratio during these Periods. The data was for the seven years. Fluctuating trend in mean Investments Turnover Ratio of selected textiles units of India sample units has been observed during the entire study period. The mean unit of Investments Turnover Ratio of textiles industry in highest year wise mean 7.06 in year 2009-10, and lowest 4.47 in year 2006-07 in study period.

It is describe Company wise of SD of highest Investments Turnover Ratio Bombay Dyeing (3.41), and lowest Raymond Ltd (0.43), across different samples during study period. It is clearly show Year wise of SD highest Investments Turnover Ratio 2008-09 (4.41), and lowest 2004-05 (2.47) is compared to other samples during the study period.

The study period may be considered as uniform as compared to selected textiles units of India, as it is evident by lowest coefficient variation year wise 39.37 in year 2007-08 and highest C.V. 72.68 in year 2010-11, and Company wise lowest coefficient variation 9.51 Raymond Ltd and highest 42.56 DCM Ltd all sample unit.

**Hypothesis Testing:**

For the Testing of Hypothesis Researcher has applied F (ANOVA) Test.

- **H₀:** There is no Significant of difference in Investments Turnover Ratio in selected textiles units of India.
- **H₁:** There is Significant of difference in Investments Turnover Ratio in selected textiles units of India.

### Table no. 4.32 Analysis of Variance (Anova)

<table>
<thead>
<tr>
<th>Source of variation</th>
<th>S.S.</th>
<th>d.f.</th>
<th>M.S.</th>
<th>F-Cal. Value</th>
<th>F-Table value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>34.92</td>
<td>6</td>
<td>5.82</td>
<td>0.47</td>
<td>2.32</td>
</tr>
<tr>
<td>Within Group</td>
<td>519.0</td>
<td>42</td>
<td>12.36</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>553.92</td>
<td>48</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
It is clear from table No. 4.32 that the calculated value of ‘F’ was 0.47, which is lower than table value of ‘F’ 2.32. So, null hypothesis is accepted and alternative hypothesis is rejected. So, it can be concluded that there is no significant difference in Investments Turnover Ratio in selected textiles units of India.

17. Fixed Assets Turnover Ratio

This ratio is a rough measure of the productivity of a company's fixed assets (property, plant and equipment or PP&E) with respect to generating sales. For most companies, their investment in fixed assets represents the single largest component of their total assets. This annual turnover ratio is designed to reflect a company's efficiency in managing these significant assets. Simply put, the higher the yearly turnover rate, the better.

**Formula:**

\[
\text{Fixed Asset Turnover Ratio} = \frac{\text{Revenue}}{\text{Property, Plant and Equipment}}
\]
## Table no. 4.33 Fixed Assets Turnover Ratio

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Arvind Mills Ltd</td>
<td>1.12</td>
<td>1.11</td>
<td>1.16</td>
<td>0.85</td>
<td>0.86</td>
<td>0.78</td>
<td>0.85</td>
<td>0.96</td>
<td>0.16</td>
<td>16.67</td>
</tr>
<tr>
<td>Raymond Ltd</td>
<td>2.35</td>
<td>1.89</td>
<td>1.63</td>
<td>1.01</td>
<td>0.83</td>
<td>0.80</td>
<td>0.88</td>
<td>1.34</td>
<td>0.62</td>
<td>46.27</td>
</tr>
<tr>
<td>DCM Ltd</td>
<td>1.64</td>
<td>1.86</td>
<td>0.95</td>
<td>1.20</td>
<td>1.57</td>
<td>1.73</td>
<td>2.07</td>
<td>1.57</td>
<td>0.38</td>
<td>24.20</td>
</tr>
<tr>
<td>Jindal Cotex Ltd</td>
<td>2.29</td>
<td>1.73</td>
<td>1.78</td>
<td>2.14</td>
<td>2.97</td>
<td>1.33</td>
<td>1.81</td>
<td>2.01</td>
<td>0.52</td>
<td>25.87</td>
</tr>
<tr>
<td>Os.Spi. and Wea. Mills</td>
<td>1.35</td>
<td>1.95</td>
<td>0.80</td>
<td>0.92</td>
<td>0.95</td>
<td>1.40</td>
<td>1.76</td>
<td>1.30</td>
<td>0.44</td>
<td>33.85</td>
</tr>
<tr>
<td>Bombay Dyeing</td>
<td>4.97</td>
<td>4.01</td>
<td>0.84</td>
<td>0.89</td>
<td>1.17</td>
<td>1.42</td>
<td>1.62</td>
<td>2.13</td>
<td>1.66</td>
<td>77.93</td>
</tr>
<tr>
<td>S Kumars Nationwide</td>
<td>0.68</td>
<td>2.35</td>
<td>2.64</td>
<td>3.33</td>
<td>2.28</td>
<td>2.45</td>
<td>2.58</td>
<td>2.33</td>
<td>0.81</td>
<td>34.76</td>
</tr>
<tr>
<td><strong>MEAN</strong></td>
<td>2.06</td>
<td>2.13</td>
<td>1.40</td>
<td>1.48</td>
<td>1.52</td>
<td><strong>1.42</strong></td>
<td>1.65</td>
<td>1.66</td>
<td>0.30</td>
<td></td>
</tr>
<tr>
<td><strong>SD</strong></td>
<td>1.42</td>
<td>0.91</td>
<td>0.67</td>
<td>0.93</td>
<td>0.82</td>
<td><strong>0.57</strong></td>
<td>0.62</td>
<td>0.50</td>
<td>0.29</td>
<td></td>
</tr>
<tr>
<td><strong>CV</strong></td>
<td><strong>68.93</strong></td>
<td>42.72</td>
<td>47.86</td>
<td>62.84</td>
<td>53.95</td>
<td>40.14</td>
<td><strong>37.58</strong></td>
<td>30.12</td>
<td>96.67</td>
<td></td>
</tr>
</tbody>
</table>

(Source: www.moneycontrol.com)
Graph no. 4.17 Fixed Assets Turnover Ratio

Textile Companies

- Arvind Mills Ltd
- Raymond Ltd
- DCM Ltd
- Jindal Cotex Ltd
- Os. Spi. and Wea. Mills
- Bombay Dyeing
- S. Kumars Nationwide

Ratios

- 2004-05
- 2005-06
- 2006-07
- 2007-08
- 2008-09
- 2009-10
- 2010-11
On evaluate the Table no. 4.33 it is found that the highest Fixed Assets Turnover Ratio is reported by S Kumars Nationwide (2.33) selected companies of the selected textiles units of India in India during study Period where as Arvind Mills Ltd (0.96) showed lowest Fixed Assets Turnover Ratio during these Periods. The data was for the seven years. Fluctuating trend in mean Fixed Assets Turnover Ratio of selected textiles units of India sample units has been observed during the entire study period. The mean unit of Fixed Assets Turnover Ratio of textiles industry in highest year wise mean 2.13 in year 2005-06, and lowest 1.32 in year 2009-10 in study period.

It is describe Company wise of SD of highest Fixed Assets Turnover Ratio Bombay Dyeing (1.66), and lowest Arvind Mills Ltd (0.16), across different samples during study period. It is clearly show Year wise of SD highest Fixed Assets Turnover Ratio 2004-05 (1.42), and lowest 2009-10 (0.57) is compared to other samples during the study period.

The study period may be considered as uniform as compared to selected textiles units of India, as it is evident by lowest coefficient variation year wise 37.58 in year 2010-11 and highest C.V. 68.93 in year 2004-05, and Company wise lowest coefficient variation 16.67 Arvind Mills Ltd and highest 77.93 Bombay Dyeing all sample unit.

**Hypothesis Testing:**

For the Testing of Hypothesis Researcher has applied F (ANOVA) Test.

- **H₀:** There is no Significant of difference in Fixed Assets Turnover Ratio in selected textiles units of India.

- **H₁:** There is Significant of difference in Fixed Assets Turnover Ratio in selected textiles units of India.
It is clear from Table No. 4.34 that the calculated value of ‘F’ was 0.82, which is lower than table value of ‘F’ 2.32. So, null hypothesis is accepted and alternative hypothesis is rejected. So, it can be concluded that there is no significant difference in Fixed Assets Turnover Ratio in selected textiles units of India.

18. Assets Turnover Ratio

Assets Turnover Ratio:

\[
\text{Turnover} = \frac{\text{Total assets or Capital Employed}}{\text{Turnover}}
\]

This shows how much sales are generated for every L1 of capital employed. A low asset turnover indicates that the business is not using its assets effectively and should either try to increase its sales or dispose of some of the assets. A company with old non-current assets that completely depreciated will show a high asset turnover, whereas a company with recently acquired ratios, for example using the cost model to or revaluation model.

The age of the non-current assets is important in understanding the ratio. Recently acquired non-current assets will not be generating revenues to their full extent. Interaction between ROCE, Operating profit margin and asset turnover.

\[
\text{ROCE} = \frac{\text{PBIT}}{\text{Turnover}} \times \frac{\text{Turnover}}{\text{CE}} = \frac{\text{PBIT}}{\text{CE}}
\]

(ROCE = Operating Profit Margin x assets t/o)
<table>
<thead>
<tr>
<th>Sample Units</th>
<th>2004-05</th>
<th>2005-06</th>
<th>2006-07</th>
<th>2007-08</th>
<th>2008-09</th>
<th>2009-10</th>
<th>Mean</th>
<th>SD</th>
<th>CV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arvind Mills Ltd</td>
<td>0.61</td>
<td>0.50</td>
<td>0.55</td>
<td>0.66</td>
<td>0.71</td>
<td>0.71</td>
<td>0.77</td>
<td><strong>0.64</strong></td>
<td>0.09</td>
</tr>
<tr>
<td>Raymond Ltd</td>
<td>0.73</td>
<td>0.73</td>
<td>0.63</td>
<td>0.60</td>
<td>0.58</td>
<td>0.55</td>
<td>0.63</td>
<td><strong>0.64</strong></td>
<td>0.07</td>
</tr>
<tr>
<td>DCM Ltd</td>
<td>0.52</td>
<td>0.58</td>
<td>0.38</td>
<td>0.57</td>
<td>0.76</td>
<td>0.83</td>
<td>0.83</td>
<td><strong>0.64</strong></td>
<td>0.17</td>
</tr>
<tr>
<td>Jindal Cotex Ltd</td>
<td>2.29</td>
<td>1.92</td>
<td>1.76</td>
<td>2.01</td>
<td>1.84</td>
<td>0.97</td>
<td>0.80</td>
<td><strong>1.66</strong></td>
<td><strong>0.55</strong></td>
</tr>
<tr>
<td>Os.Spi. and Wea. Mills</td>
<td>0.90</td>
<td>1.24</td>
<td>1.11</td>
<td>1.22</td>
<td>1.13</td>
<td>1.60</td>
<td>1.76</td>
<td>1.28</td>
<td>0.30</td>
</tr>
<tr>
<td>Bombay Dyeing</td>
<td>1.42</td>
<td>1.18</td>
<td>0.40</td>
<td>0.57</td>
<td>0.69</td>
<td>0.82</td>
<td>0.88</td>
<td>0.85</td>
<td>0.35</td>
</tr>
<tr>
<td>S Kumars Nationwide</td>
<td>0.25</td>
<td>0.67</td>
<td>0.77</td>
<td>0.83</td>
<td>0.63</td>
<td>0.68</td>
<td>0.72</td>
<td>0.65</td>
<td>0.19</td>
</tr>
<tr>
<td><strong>MEAN</strong></td>
<td><strong>0.96</strong></td>
<td><strong>0.97</strong></td>
<td><strong>0.80</strong></td>
<td><strong>0.92</strong></td>
<td><strong>0.91</strong></td>
<td><strong>0.88</strong></td>
<td><strong>0.91</strong></td>
<td><strong>0.91</strong></td>
<td><strong>0.06</strong></td>
</tr>
<tr>
<td><strong>SD</strong></td>
<td><strong>0.69</strong></td>
<td>0.51</td>
<td>0.49</td>
<td>0.53</td>
<td>0.45</td>
<td><strong>0.34</strong></td>
<td>0.38</td>
<td>0.40</td>
<td>0.11</td>
</tr>
<tr>
<td><strong>CV</strong></td>
<td><strong>71.88</strong></td>
<td>52.58</td>
<td>61.25</td>
<td>57.61</td>
<td>49.54</td>
<td><strong>38.64</strong></td>
<td>41.76</td>
<td>43.96</td>
<td>183.33</td>
</tr>
</tbody>
</table>

(Source: www.moneycontrol.com)
Graph no. 4.18 Assets Turnover Ratio

Textile Companies

Ratios

- Arvind Mills Ltd
- Raymond Ltd
- DCM Ltd
- Jindal Cotex Ltd
- OS Spi. and Wea. Mills
- Bombay Dyeing
- SKumars Nationwide

- 2004-05
- 2005-06
- 2006-07
- 2007-08
- 2008-09
- 2009-10
- 2010-11
On examine the Table no. 4.35 it is found that the highest Assets Turnover Ratio is reported by Jindal Cotex Ltd (1.66) selected companies of the selected textiles units of India in India during study Period where as Arvind Mills Ltd, Raymond Ltd and DCM Ltd (0.64) showed lowest Assets Turnover Ratio during these Periods. The data was for the seven years. Fluctuating trend in mean Assets Turnover Ratio of selected textiles units of India sample units has been observed during the entire study period. The mean unit of Assets Turnover Ratio of textiles industry in highest year wise mean 0.97 in year 2005-06, and lowest 0.88 in year 2009-10 in study period.

It is describe Company wise of SD of highest Assets Turnover Ratio Jindal Cotex Ltd (0.55), and lowest Raymond Ltd (0.07), across different samples during study period. It is clearly show Year wise of SD highest Assets Turnover Ratio 2004-05 (0.69), and lowest 2009-10 (0.34) is compared to other samples during the study period.

The study period may be considered as uniform as compared to selected textiles units of India, as it is evident by lowest coefficient variation year wise 38.64 in year 2009-10 and highest C.V. 71.88 in year 2004-05, and Company wise lowest coefficient variation 10.94 Raymond Ltd and highest 41.18 Bombay Dyeing all sample unit.

**Hypothesis Testing:**

For the Testing of Hypothesis Researcher has applied F (ANOVA) Test.

- **H₀:** There is no Significant of difference in Assets Turnover Ratio in selected textiles units of India.
- **H₁:** There is Significant of difference in Assets Turnover Ratio in selected textiles units of India.
It is clear from table No. 4.36 that the calculated value of ‘F’ was 0.09, which is lower than table value of ‘F’ 2.32. So, null hypothesis is accepted and alternative hypothesis is rejected. So, it can be concluded that there is no Significant of difference in Assets Turnover Ratio in selected textiles units of India.

19. Total Assets Turnover Ratio

This is the ratio of sales to total assets = \[ \frac{\text{Sales}}{\text{Total Assets}} \]

While “total assets” is technically more correct, average assets could also be used. Average asset is the simple average of opening and closing assets. If the total assets turnover ratio is 4, it means that for every rupee invested we have generated Rs.4 of sales. The term total assets would be the sum of fixed assets and current assets. The higher the ratio the better it is for the company. The reciprocal of the total assets turnover ratio is the “Capital Intensity ratio”. It can be interpreted as the rupee invested in assets needed to generate Re.1 of sales. High values correspond to capital intensive industries. 1 / Total assets turnover ratio the total assets turnover ratio can be split into FATO and WCTO ratio.
Table no. 4.37 Total Assets Turnover Ratio

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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<tr>
<td>Arvind Mills Ltd</td>
<td>0.56</td>
<td>0.47</td>
<td>0.62</td>
<td>0.74</td>
<td>0.82</td>
<td>0.72</td>
<td>0.81</td>
<td>0.68</td>
<td>0.13</td>
<td>19.12</td>
</tr>
<tr>
<td>Raymond Ltd</td>
<td>0.70</td>
<td>0.68</td>
<td>0.61</td>
<td>0.58</td>
<td>0.57</td>
<td>0.56</td>
<td>0.65</td>
<td>0.62</td>
<td>0.06</td>
<td>9.68</td>
</tr>
<tr>
<td>DCM Ltd</td>
<td>0.52</td>
<td>0.58</td>
<td>0.36</td>
<td>0.54</td>
<td>0.83</td>
<td>0.76</td>
<td>0.74</td>
<td>0.62</td>
<td>0.17</td>
<td>27.42</td>
</tr>
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<td>Jindal Cotex Ltd</td>
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<td>1.66</td>
<td>1.75</td>
<td>1.67</td>
<td>1.52</td>
<td>0.70</td>
<td>0.59</td>
<td>1.44</td>
<td>0.58</td>
<td>40.28</td>
</tr>
<tr>
<td>Os.Spi. and Wea. Mills</td>
<td>0.94</td>
<td>1.29</td>
<td>1.16</td>
<td>1.15</td>
<td>1.11</td>
<td>1.62</td>
<td>2.82</td>
<td>1.44</td>
<td>0.64</td>
<td>44.44</td>
</tr>
<tr>
<td>Bombay Dyeing</td>
<td>1.48</td>
<td>1.08</td>
<td>0.34</td>
<td>0.51</td>
<td>0.72</td>
<td>0.84</td>
<td>1.22</td>
<td>0.88</td>
<td>0.40</td>
<td>45.45</td>
</tr>
<tr>
<td>S Kumars Nationwide</td>
<td>0.27</td>
<td>0.65</td>
<td>0.69</td>
<td>0.79</td>
<td>0.55</td>
<td>0.63</td>
<td>0.66</td>
<td>0.61</td>
<td>0.16</td>
<td>26.23</td>
</tr>
<tr>
<td>MEAN</td>
<td>0.95</td>
<td>0.92</td>
<td>0.79</td>
<td>0.85</td>
<td>0.87</td>
<td>0.83</td>
<td>1.07</td>
<td>0.89</td>
<td>0.09</td>
<td></td>
</tr>
<tr>
<td>SD</td>
<td>0.67</td>
<td>0.44</td>
<td>0.50</td>
<td>0.42</td>
<td>0.34</td>
<td>0.36</td>
<td>0.80</td>
<td>0.38</td>
<td>0.17</td>
<td></td>
</tr>
<tr>
<td>CV</td>
<td>70.53</td>
<td>47.83</td>
<td>63.29</td>
<td>49.41</td>
<td>39.08</td>
<td>43.37</td>
<td>74.77</td>
<td>42.70</td>
<td>188.89</td>
<td></td>
</tr>
</tbody>
</table>

(Source: www.moneycontrol.com)
Graph no. 4.19 Total Assets Turnover Ratio

Textile Companies

Ratios

- Arvind Mills Ltd
- Raymond Ltd
- DCM Ltd
- Jindal Cotex Ltd
- Osaka Spi. and Wea. Mills
- Bombay Dyeing
- S Kumars Nationwide

Yearly Periods:
- 2004-05
- 2005-06
- 2006-07
- 2007-08
- 2008-09
- 2009-10
- 2010-11
On analyzing the Table no. 4.37 it is found that the highest Total Assets Turnover Ratio is reported by Jindal Cotex Ltd and Oswal Spinning and Weaving Mills (1.44) selected companies of the selected textiles units of India in India during study Period where as S Kumars Nationwide (0.61) showed lowest Total Assets Turnover Ratio during these Periods. The data was for the seven years. Fluctuating trend in mean Total Assets Turnover Ratio of selected textiles units of India sample units has been observed during the entire study period. The mean unit of Total Assets Turnover Ratio of textiles industry in highest year wise mean 1.07 in year 2010-11, and lowest 0.79 in year 2006-07 in study period.

It is describe Company wise of SD of highest Total Assets Turnover Ratio Oswal Spinning and Weaving Mills (0.64), and lowest Raymond Ltd (0.06), across different samples during study period. It is clearly show Year wise of SD highest Total Assets Turnover Ratio 2010-11 (0.80), and lowest 2008-09 (0.34) is compared to other samples during the study period.

The study period may be considered as uniform as compared to selected textiles units of India, as it is evident by lowest coefficient variation year wise 39.08 in year 2008-09 and highest C.V. 74.77 in year 2004-05, and Company wise lowest coefficient variation 9.68 Raymond Ltd and highest 45.45 Bombay Dyeing all sample unit.

**Hypothesis Testing:**

For the Testing of Hypothesis Researcher has applied F (ANOVA) Test.

- **H$_0$:** There is no Significant of difference in Total Assets Turnover Ratio in selected textiles units of India.

- **H$_1$:** There is Significant of difference in Total Assets Turnover Ratio in selected textiles units of India.
It is clear from table No. 4.38 that the calculated value of ‘F’ was 0.21, which is lower than table value of ‘F’ 2.32. So, null hypothesis is accepted and alternative hypothesis is rejected. So, it can be concluded that there is no Significant of difference in Total Assets Turnover Ratio in selected textiles units of India.

D. Other Ratios

20. Earnings per Share Ratio

The price/earnings ratio (P/E) is the best known of the investment valuation indicators. The P/E ratio has its imperfections, but it is nevertheless the most widely reported and used valuation by investment professionals and the investing public. The financial reporting of both companies and investment research services use a basic earnings per share (EPS) figure divided into the current stock price to calculate the P/E multiple (i.e. how many times a stock is trading (its price) per each dollar of EPS). It's not surprising that estimated EPS figures are often very optimistic during bull markets, while reflecting pessimism during bear markets. Also, as a matter of historical record, it's no secret that the accuracy of stock analyst earnings estimates should be looked at skeptically by investors. Nevertheless, analyst estimates and opinions based on forward-looking projections of a company's earnings do play a role in Wall Street's stock-pricing considerations. Historically, the average P/E ratio for the broad market has been around 15, although it can fluctuate significantly depending on economic and market conditions. The ratio will also vary widely among different companies and industries.

Formula:

\[
\text{Price/Earnings Ratio} = \frac{\text{Stock Price per Share}}{\text{Earnings per Share (EPS)}}
\]
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Arvind Mills Ltd</td>
<td>6.31</td>
<td>5.89</td>
<td>1.06</td>
<td>1.14</td>
<td>-2.26</td>
<td>2.21</td>
<td>5.30</td>
<td>2.81</td>
<td>3.16</td>
<td>112.46</td>
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<tr>
<td>Raymond Ltd</td>
<td>13.55</td>
<td>19.92</td>
<td>32.79</td>
<td>10.77</td>
<td>-44.05</td>
<td>4.30</td>
<td>-17.09</td>
<td>2.88</td>
<td>25.70</td>
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<td>DCM Ltd</td>
<td>0.06</td>
<td>2.31</td>
<td>7.48</td>
<td>-0.87</td>
<td>3.50</td>
<td>37.80</td>
<td>14.82</td>
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<tr>
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<td>0.84</td>
<td>1.13</td>
<td>1.26</td>
<td>5.47</td>
<td>3.39</td>
<td>2.84</td>
<td>2.32</td>
<td>2.46</td>
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<td>66.26</td>
</tr>
<tr>
<td>Os.Spi. and Wea. Mills</td>
<td>-3.62</td>
<td>0.10</td>
<td>-0.34</td>
<td>0.17</td>
<td>0.17</td>
<td>0.11</td>
<td>0.13</td>
<td>-0.47</td>
<td>1.40</td>
<td>-29.79</td>
</tr>
<tr>
<td>Bombay Dyeing</td>
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<td>15.89</td>
<td>9.31</td>
<td>4.32</td>
<td>-50.40</td>
<td>4.77</td>
<td>5.28</td>
<td>-0.56</td>
<td>22.34</td>
<td>-3989.29</td>
</tr>
<tr>
<td>S Kumars Nationwide</td>
<td>-13.08</td>
<td>6.45</td>
<td>5.58</td>
<td>8.48</td>
<td>2.69</td>
<td>4.49</td>
<td>5.87</td>
<td>2.93</td>
<td>7.28</td>
<td>248.46</td>
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<tr>
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<td>1.56</td>
<td>7.38</td>
<td><strong>8.16</strong></td>
<td>4.21</td>
<td><strong>-12.42</strong></td>
<td>8.07</td>
<td>2.38</td>
<td>2.76</td>
<td>7.22</td>
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<td>SD</td>
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<td>11.44</td>
<td><strong>4.37</strong></td>
<td><strong>23.93</strong></td>
<td>13.21</td>
<td>9.73</td>
<td>3.28</td>
<td>6.25</td>
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<td>548.08</td>
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<td>163.69</td>
<td>408.82</td>
<td>118.84</td>
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</tbody>
</table>

(Source: www.moneycontrol.com)
Graph no. 4.20 Earnings per Share Ratio
On examine the Table no. 4.39 it is found that the highest Earnings per Share is reported by Raymond Ltd (2.88) selected companies of the selected textiles units of India in India during study Period where as Bombay Dyeing (-0.56) showed lowest Earnings per Share during these Periods. The data was for the seven years. Fluctuating trend in mean Earnings per Share of selected textiles units of India sample units has been observed during the entire study period. The mean unit of Earnings per Share of textiles industry in highest year wise mean 8.16 in year 2006-07, and lowest -12.42 in year 2008-09 in study period.

It is describe Company wise of SD of highest Earnings per Share Raymond Ltd (25.70), and lowest Oswal Spinning and Weaving Mills (1.40), across different samples during study period. It is clearly show Year wise of SD highest Earnings per Share 2008-09 (23.93), and lowest 2007-08 (4.37) is compared to other samples during the study period.

The study period may be considered as uniform as compared to selected textiles units of India, as it is evident by lowest coefficient variation year wise -192.67 in year 2008-09 and highest C.V. 548.08 in year 2004-05, and Company wise lowest coefficient variation -3989.29 Bombay Dyeing and highest 892.36 Raymond Ltd all sample unit.

**Hypothesis Testing:**

For the Testing of Hypothesis Researcher has applied F (ANOVA) Test.

- **H₀:** There is no Significant of difference in Earnings per Share in selected textiles units of India.
- **H₁:** There is Significant of difference in Earnings per Share in selected textiles units of India.

**Table no. 4.40 Analysis of Variance (Anova)**

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<tr>
<th>Source of variation</th>
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<th>d.f.</th>
<th>M.S.</th>
<th>F-Cal. Value</th>
<th>F-Table value</th>
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<tbody>
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<td>Between Groups</td>
<td>2191.16</td>
<td>6</td>
<td>365.19</td>
<td>2.28</td>
<td>2.32</td>
</tr>
<tr>
<td>Within Group</td>
<td>6740.09</td>
<td>42</td>
<td>160.48</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>8931.25</td>
<td>48</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

241
It is clear from table No.4.40 that the calculated value of ‘F’ was 2.28, which is lower than table value of ‘F’ 2.32. So, null hypothesis is accepted and alternative hypothesis is rejected. So, it can be concluded that there is no Significant of difference in Earnings per Share in selected textiles units of India.

21. Book Value Ratio

A valuation ratio used by investors which compares a stock’s per-share price (market value) to its book value (shareholders’ equity). The price-to-book value ratio, expressed as a multiple (i.e. how many times a company's stock is trading per share compared to the company's book value per share), is an indication of how much shareholders are paying for the net assets of a company. The book value of a company is the value of a company's assets expressed on the balance sheet. It is the difference between the balance sheet assets and balance sheet liabilities and is an estimation of the value if it were to be liquidated. The price/book value ratio, often expressed simply as "price-to-book", provides investors a way to compare the market value, or what they are paying for each share, to a conservative measure of the value of the firm.

**Formula:**

\[
\text{Price/Book Value Ratio} = \frac{\text{Stock Price per Share}}{\text{Shareholders’ Equity per Share}}
\]
<table>
<thead>
<tr>
<th></th>
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<td>58.59</td>
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<td>195.82</td>
<td>20.73</td>
<td>10.59</td>
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<tr>
<td>DCM Ltd</td>
<td>29.22</td>
<td>31.53</td>
<td>39.02</td>
<td>37.97</td>
<td>41.47</td>
<td>79.27</td>
<td>91.19</td>
<td>49.95</td>
<td>24.71</td>
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<tr>
<td>Jindal Cotex Ltd</td>
<td>13.94</td>
<td>15.06</td>
<td>16.32</td>
<td>29.69</td>
<td>21.79</td>
<td>47.75</td>
<td>66.33</td>
<td>30.13</td>
<td>19.88</td>
<td>65.98</td>
</tr>
<tr>
<td>Os.Spi. and Wea. Mills</td>
<td>-16.71</td>
<td>-1.71</td>
<td>-2.03</td>
<td>0.42</td>
<td>0.60</td>
<td>0.70</td>
<td>0.87</td>
<td>249.41</td>
<td>6.36</td>
<td></td>
</tr>
<tr>
<td>Bombay Dyeing</td>
<td>88.63</td>
<td>98.83</td>
<td>102.31</td>
<td>102.53</td>
<td>43.73</td>
<td>54.47</td>
<td>79.56</td>
<td>81.44</td>
<td>23.76</td>
<td>29.17</td>
</tr>
<tr>
<td>S Kumars Nationwide</td>
<td>-4.50</td>
<td>1.95</td>
<td>20.91</td>
<td>32.46</td>
<td>36.50</td>
<td>41.02</td>
<td>49.51</td>
<td>25.40</td>
<td>20.26</td>
<td>79.76</td>
</tr>
<tr>
<td><strong>MEAN</strong></td>
<td><strong>50.37</strong></td>
<td><strong>58.57</strong></td>
<td><strong>65.76</strong></td>
<td><strong>70.63</strong></td>
<td><strong>54.24</strong></td>
<td><strong>67.43</strong></td>
<td><strong>74.24</strong></td>
<td><strong>63.04</strong></td>
<td><strong>8.83</strong></td>
<td></td>
</tr>
<tr>
<td><strong>SD</strong></td>
<td>67.89</td>
<td>70.15</td>
<td><strong>76.58</strong></td>
<td>76.27</td>
<td>59.53</td>
<td>59.49</td>
<td><strong>52.42</strong></td>
<td><strong>64.48</strong></td>
<td>9.19</td>
<td></td>
</tr>
<tr>
<td><strong>CV</strong></td>
<td><strong>134.78</strong></td>
<td><strong>119.77</strong></td>
<td><strong>116.45</strong></td>
<td><strong>107.99</strong></td>
<td><strong>109.75</strong></td>
<td><strong>88.22</strong></td>
<td><strong>70.61</strong></td>
<td><strong>102.28</strong></td>
<td>104.08</td>
<td></td>
</tr>
</tbody>
</table>

(Source: www.moneycontrol.com)
Graph no. 4.21 Book Value Ratio

Textile Companies

Ratios

-50  0  50  100  150  200  250

Arvind Mills Ltd  Raymond Ltd  DCM Ltd  Jindal Cotex Ltd  Os-Spi. and Wea. Mills  Bombay Dyeing  S Kumars Nationwide

Colors:
- 2004-05
- 2005-06
- 2006-07
- 2007-08
- 2008-09
- 2009-10
- 2010-11
On analyzing the Table no. 4.41 it is found that the highest Book Value is reported by Raymond Ltd (195.82) selected companies of the selected textiles units of India in India during study Period where as Oswal Spinning and Weaving Mills (-2.55) showed lowest Book Value during these Periods. The data was for the seven years. Fluctuating trend in mean Book Value of selected textiles units of India sample units has been observed during the entire study period. The mean unit of Book Value Share of textiles industry in highest year wise mean 74.24 in year 2010-11, and lowest 50.37 in year 2004-05 in study period.

It is describe Company wise of SD of highest Book Value Share DCM Ltd (24.71), and lowest Arvind Mills Ltd (5.76), across different samples during study period. It is clearly show Year wise of SD highest Earnings per Share 2006-07 (76.58), and lowest 2010-11 (52.42) is compared to other samples during the study period.

The study period may be considered as uniform as compared to selected textiles units of India, as it is evident by lowest coefficient variation year wise 70.61 in year 2010-11 and highest C.V. 134.78 in year 2004-05, and Company wise lowest coefficient variation - 249.41 Oswal Spinning and Weaving Mills and highest 79.76 S Kumars Nationwide all sample unit.

**Hypothesis Testing:**

For the Testing of Hypothesis Researcher has applied F (ANOVA) Test.

- **H₀:** There is no Significant of difference in Book Value in selected textiles units of India.

- **H₁:** There is Significant of difference in Book Value in selected textiles units of India.
Table no. 4.42 Analysis of Variance (Anova)

<table>
<thead>
<tr>
<th>Source of variation</th>
<th>S.S.</th>
<th>d.f.</th>
<th>M.S.</th>
<th>F-Cal. Value</th>
<th>F-Table value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>3271.98</td>
<td>6</td>
<td>545.33</td>
<td>0.12</td>
<td>2.32</td>
</tr>
<tr>
<td>Within Group</td>
<td>186256.4</td>
<td>42</td>
<td>4434.68</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>189528.38</td>
<td>48</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It is clear from table No. 4.42 that the calculated value of ‘F’ was 0.12, which is lower than table value of ‘F’ 2.32. So, null hypothesis is accepted and alternative hypothesis is rejected. So, it can be concluded that there is no Significant of difference in Book Value in selected textiles units of India.
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