ABSTRACT

The present study entitled “Performance Appraisal of Paper Industry in India- A Case Study of Some Selected Paper Mills” has been undertaken with the object of analyzing and evaluating the financial performance of the paper industry in India. The study obtains an insight into the financial position of the four companies of paper industry, namely, Ballarpur Industries Limited, Tamil Nadu Newsprint and Papers Limited, Andhra Pradesh Paper Mills Limited, and West Coast Paper Mills Limited. The financial performance of these companies during the years from 2000-2001 to 2009-2010 has been thoroughly examined. In order to analysis the financial performance of paper industry in India, the researcher has collected data from published accounting annual reports and some other publications. Most useful information has been gathered from the various journals reports, periodicals and daily newspapers. It is hoped that the thesis will be of immense help and use to practicing financial managers, management, government officials, employees, shareholders, academicians and research scholars.

The first chapter gives an insight into the entire research project. It has been found that the present study covers only the large paper mills of India. The main objective of the study is to know the position of paper industry, profitability position, liquidity position, activity position and cash flow position of selected paper mills. The study is based primarily on the secondary data published by selected Indian paper mills for the financial years from 2000-2001 to 2009-2010. Data relating to general economic conditions was collected from the leading newspapers, government publications and journals. The data collected has been analyzed and presented using tables, schedules, pie charts, bar diagrams and graphs. In order to analyze financial performance in terms of liquidity, solvency, profitability, and financial efficiency, various accounting ratios have been calculated to make a comparison of the performance of different mills.

The chapter also covers the problems related to paper industry, relevance of the study, review of the literature, statement of problem, objectives of study,
hypothesis of the study, universe of the study, period of the study, sampling design, data collection method, tools and techniques which included various statistical measures like mean, standard deviation, co-efficient of variation have been used and have been fitted, One way-analysis of variance test has been applied to test the validity of two hypotheses namely (1) Null hypothesis (2) Alternative hypothesis., plan of study, finally the limitations of present study have been shown.

Chapter second gives a deeper insight into concept of performance appraisal so as to prepare a background for the study of performance appraisal of paper industry in India. It has been analyzed that performance is the execution or accomplishment of work feats etc. or a particular, action, deed or proceeding is refers as performance. However, the manner in which or the efficiency with which something reacts or fulfils its intended purpose is defined as performance. Performance may thus, mean different things to different businesses. Success or failure in the economic sense is judged in relation to expectations, return on invested capital and the objective of the business concern.

Performance is evaluated both on financial and non-financial achievements of business. Financial performance is understood in terms of various financial ratios, which are divided as profit performance measures and investment performance measures. Non-financial measures include a range of indicators with orientation of customers, growth, and value to the community and societies. In the present work, the term performance appraisal is concerned with the analysis of financial statements only. The main purpose of this analysis is to evaluate past performance, financial position, liquidity position, future prospects for earnings, ability to pay interest and debt on maturity and profitability of a concern. The primary objectives of appraisal of financial statements are to determine the measure of efficiency of operations or the profitability from its income statement and to appraise financial strength as compared with similarly situated concern.

"Performance Appraisal as a concept is purely a developmental tool for a company. As a developmental tool, it is not merely the end product or the final assessment. It is important as the whole process of appraisal. The learning opportunity for the appraiser and the apprise starts with setting of the tasks and targets. It
manifests in the whole gamut of appraisal procedure such as self appraisal, appraisal interviews final appraisal, grading and developmental planning etc.” Performance appraisal is composed of two words “performance and appraisal. Performance indicates how the management of an enterprise has been accomplishing the goals, which they had set for the enterprise. Performance is a measure of the degree to which an organization fulfills its purpose. And the purpose is to achieve its objectives. To quote E.A. Helfert, “The measurement of business performance is more complex and difficult, since it must deal with the effectiveness with which capital is employed, the efficiency and profitability of operations, and the value and safety of the various claims against the business.” Appraisal refers to critical review with a view to improving performance. It includes the act to examine, to measure, to interpret and to draw conclusions.

Thus, performance appraisal is generally directed towards evaluating the liquidity, stability and profitability of a concern which put together symbolizes the financial efficiency of a concern. Performance appraisal of companies is done through financial analysis. Financial analysis is the evaluation and interpretation of a firm’s financial positions and operations and involves a comparison and interpretation of accounting data.

Financial Performance is the blueprint of the financial affairs of a concern and reveals how a business has prospered under the leadership of its management personnel performance of any organization can always be judged in the lights of light of its objectives and the main objective of a bank is to earn profit and to enlarge profit by making the most efficient use of the resources available to them. The Indian Public Sector did run with the object of maximizing profits. They were making due contribution towards the fulfillment of socio-economic objectives lay down by the government and SEBI. Financial Appraisal is a scientific evaluation of profitability and Financial Strength of any Business Concern”. According to Kennedy and Macmillan financial statement analysis attempt to unveil the meaning and significance of the items composed in Profit and Loss account and balance sheet So as to assist the Management in the formation of sound operating Financial Policies.
Ratio analysis

In order to evaluate financial condition and performance of a firm, the financial analyst needs certain tools to be applied on various financial aspects. One of the widely used and powerful tools is ratio or index. Ratios analysis is the process of determining and presenting in arithmetical terms the relationships figures and groups of figures drawn from these statements. A ratio expresses the results on the basis of comparison of two figures in numerical terms.

A ratio is a statistical yardstick that provides a measure of relationship between two accounting figures. It describes the significant relationship which exists between figures shows on a balance sheet in a profit and loss account in a budgetary control system or in any of the part of accounting organization.” The ratio is customarily expressed in following ways:

1. It may be obtained by dividing one value by other. This expression is known as “Times”.
2. If hundred then the unit of multiply the above expression becomes percentage.
3. It may be expressed in the form of “proportion” between the two figures or known as pure ratio.
4. It may also be depicted in the form of graphs like ratio graph.

A ratio is known as symptom like blood pressure. The pulse rate of the temperature of an individual often ratio analysis is used as a devices to diagnose the financial position of an enterprise. It shall point out if the financial condition is very strong, good, partly good, and poor. As such the ratio analysis is a powerful tool of financial analysis through it economic and financial position of a business unit can be fully x-rayed.

Ratio analysis becomes meaningful to judge the financial condition and profitability. Performance of a firm only when there is comparison of present in fact analysis involves two types of comparison. First a comparison of present ratio with
past and expected future ratios for the same firm, the second method of comparison
involves comparing the ratio of the firm with those of similar firms of with industry
average at the same point of time. Ratio tells the entire story of the ‘Financial
adventures of the enterprise as heap of financial date are buried them. They simplify
the comprehensive of financial statistics. On the basis of above it may be concluded
that ratios are very important for interpretation as they give valuable and very useful
information about business.

Though ratio analysis is an important tool for analyzing the financial
statements of the company and has many advantages, however it has certain
limitations. Following are the some of the limitations of the ratio analysis:

1. While ratio analysis can be great for comparison between companies, however
   if there is only one company then ratio analysis can be misleading.

2. Ratios are calculated on the basis of past data. Therefore, they do not provide
   complete information for future forecasting.

3. Ratio analysis does not take into account the qualitative factors; it only
   presents the figures as they are. So for example it may possible that company
   may have higher current ratio indicating that liquidity position of the company
   is good, however if large portion of those current asset includes inventory then
   it does not mean a sound liquidity position.

4. Ratio ignores non-monetary factors like general economic climate,
   government and management policies, which vitally affect the financial health
   of the enterprises.

5. Since Ratios are easy to manipulate they are misused by managers for window
   dressing; window dressing refers to presenting of better picture of the
   company than what it is.

As Ratios are simple to calculate, there is a tendency to over employ them,
which lead to accumulation of mass data. However significant the ratio may they
cannot replace business efficiency and decision - marking. They do not provide
mechanical solution to business problems. There are four aspects of operating performance and financial condition we can evaluate from financial ratios:

**Profitability 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".

The following profitability ratios have been calculated in the present study in order to analyze the profitability position of paper mills:

Profitability ratios in relation to sales:
- Gross Profit Ratio
- Operating Profit Ratio
- Net Profit Ratio

Profitability Ratios in Relation to Investment:
- Return on Net worth Ratio
- Earnings per Share

**Liquidity and Solvency Ratio**- it provides information on a company’s ability to meet its short term, immediate 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. Solvency means the ability of the business to repay its outside liabilities. These liabilities may be categorized as short term liabilities and long term liabilities. Ratios concerning the short term solvency (financial soundness) of the business have been discussed under liquidity ratios. In the present study the term solvency ratios has been used to mean long term financial position of the business.
The following liquidity and solvency ratios have been calculated in the present study in order to judge the liquidity and solvency position of the paper mills:

**Liquidity Ratios**

- Current Ratio
- Quick Ratio

**Solvency Ratios**

- Debt Equity Ratio
- Long Term Debt Equity Ratio

**Activity Ratios** - Activity ratio relates information on a company’s ability to manage its resources efficiently. Companies will typically try to turn their production into cash or sales as fast as possible because this will generally lead to higher revenues. Such ratios are frequently used when performing fundamental analysis on different companies. These ratios look at how well a company turns its assets into revenue as well as how efficiently a company converts its sales into cash. Basically, these ratios look at how efficiently and effectively a company is using its resources to generate sales and increase shareholder value. In general, the better these ratios are, the better it is for shareholders. Activity ratio also show, whether the total capital, working capital, fixed assets and stock of the business are profitably used. The following activity ratios are calculated in the present study in order to analyze the activity position of the paper mills:

- Inventory Turnover Ratio
- Fixed Assets Turnover Ratio

**Cash Flow Indicator Ratio** - Cash Flow Indicator ratio focuses on the cash being generated in terms of how much is being generated and the safety net that it provides to the company. These ratios can give users another look at the financial health and performance of a company. As we know that profits are very important for a company. However, through the magic of accounting and non-cash-based transactions, companies that appear very profitable can actually be at a financial risk

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if they are generating little cash from these profits. For example, if a company makes a tonne of sales on credit, they will look profitable but haven't actually received cash for the sales, which can hurt their financial health since they have obligations to pay. The following cash flow indicator ratios have been calculated in the present study in order to analyze the cash flow position of the paper mills:

- Dividend Payout Ratio (Net Profit)
- Cash Earnings Retention Ratio

The concept of performance appraisal clearly reveals that the performance appraisal is concerned with the analysis of financial statements of the companies. The main purpose of this appraisal is to evaluate past performance, financial position, liquidity position, future prospects for earnings, ability to pay interest and debt on maturity and profitability of a concern. Financial analysts often assess companies’ production and productivity performance, profitability performance, liquidity performance, working capital performance, fixed assets performance, fund flow performance and social performance. Interest of various related groups is affected by the financial performance of a firm. The performance appraisal identifies the financial strengths and weaknesses of the companies by properly establishing relationships between the items of the profit and loss account and balance sheet.

The third chapter captioned, “Growth and Development of Paper industry in India”, attempts to analyze the trends in the growth and development of paper industry in India. It has been observed that the Indian paper industry is more than 140 years old with the first mill having been commissioned in 1867. Over the years, in line with the improvement in the well-being of people and rising literacy and aspiration levels, paper usage has increased. Today almost every person uses paper in one form or the other. In 1951, there were 17 paper mills, and today there are over 600 units engaged in the manufacture of paper and paperboards and newsprint in India.

The pulp and paper industries in India have been categorized into large-scale and small-scale. The Indian paper industry comprises of both the organized as well as unorganized units. The large integrated wood based companies share 32% pie of the
total production capacity levels with the remaining share being equally divided between the medium sized agro based companies and the small unorganized units. The industry has responded to the growth in demand and the installed capacity in India has risen from 0.137 million MT per annum in 1951 to 10 million MT. This includes capacity expansion of approximately 0.7 million MT during the past year. Domestic production of paper and paperboards is estimated to be around 10 million MT as per industry estimates. Overall paper consumption (including newsprint) has also touched 10 million MT and per capita consumption stands at approximately 9 kgs.

However, the momentum in paper usage has neither kept pace with the growth in population, nor does it match the global per capita consumption of 55 kgs. While India has 15% of the world population, it consumes only 1.6% of the world paper production. The low consumption pattern remains both a challenge in the short term as well as an opportunity in the long term to tap the future aspiration requirements of the Indian society. Paper industry in India is highly fragmented. The sector is dominated by small and medium sized units and the number of mills with capacity of more than 50,000 MTPA is not more than 30. In products such as newsprint, less than half a dozen mills account for almost 90% production in the country.

In recent times, the industry is striving to modernize its manufacturing locations, improve productivity and build new production capacities with the induction of pulp and paper machines with capabilities of producing more than 50,000 MTPA. The Union Government has completely delicensed the paper industry with effect from 17th July, 1997. The Indian Paper Industry accounts for more than 2% of the world’s production of paper and paperboard. The industry with an estimated turnover of over Rs.35,000 crore contributes nearly Rs.3000 crore to the exchequer. The industry provides employment to more than 1,20,000 people directly and to 3,40,000 indirectly. Demand for paper and paperboard closely follow the economic growth of a country and have a positive correlation to the prevailing economic trends. Moving forward, India's GDP is set to quadruple over the next ten years and the country is likely to be a USD 4 trillion economy by 2020. According to the Economist Intelligence Unit (EIU), the research arm of London-based Economist magazine, India is expected to overtake China to become the world's fastest growing economy.
by 2018. In India, the demand drivers and growth triggers have come from a combination of factors:

- The rising level of national income;
- The growing per capita disposable income;
- Rising aspiration levels of the people;
- Increasing size of the population;
- Increasing size of the service industry;
- Spread of education and literacy throughout the country;
- Government’s several initiatives that focus on education; and
- Higher level of industrial activity and corporate spending.

**Increasing Literacy and Government Thrust on Education**

The literacy rate in the country has increased from 18.33% in 1951 to 65.38 per cent in 2001. Thus, in five decades, the literacy percentage had grown by 47.05% or by an average of 9.41% per decade. The implementation of the Right of Children to Free and Compulsory Education Act, 2009, which assures free school facilities from Class I to VIII for children between 6 and 14, translates into a huge demand potential for the paper industry. The estimated numbers are bound to be huge as the law will bring on school rolls over one crore students who do not go to school now. Going by the thumb rule that each student uses about 10 kg of paper a year, enrolment of over one crore students will mean an additional demand for about one lakh tonnes of paper. The academic segment demand is growing by about 10% annually as the student population and paper usage increase. The Government’s existing Sarva Shiksha Abhiyan programme for education for all seeking compulsory education would contribute significantly to increasing the per capita consumption of paper. The Government has increased the budget allocation for school education by 16% from Rs. 26,800 crore in 2009-10 to Rs. 31,036 crore in 2010-11. Further, the additional fund allocation to states amounting to Rs.3,675 crore for elementary education under
the Thirteenth Finance Commission grants for 2010-11 will provide more fillip to the demand of printing and writing paper.

The paper industry's challenges would offer opportunities for the best integrated mills with the ability to produce high quality products at the most competitive prices. Vertically integrated producers with the latest technology would be able to offer the best quality products while containing their costs. Improved processes and cost controls would facilitate margins and manage competitive pressures.

Indian paper industry is a booming industry and is expected to grow in the years to come. The usage of paper cannot be ignored and this awareness is bound to bring about changes in the paper industry for the better. To face future challenges, the Indian Paper Industry has been focusing on repositioning of product lines, improving internal efficiencies and making investments in expansion and building production capacities and to further penetrate in the global market.

In chapter fourth “Paper Industry in India – A Profile of Some Selected Paper Mills” A brief profile of sample paper mills in India has been reviewed. In this chapter a background is prepared to appraise thoroughly the performance of paper industry in India. An attempt was made to study the overall profile of sample paper mills in India. In order to assess performance appraisal of paper industry in India, one of the best ways would have been to analyze the trends in financial analysis of all paper mills of India.

The assessment of performance of four sample companies brought into light that Ballarpur Industries Limited (BILT) is an India based company. Another mill surveyed for performance appraisal is Tamil Nadu Newsprint and Papers Limited (TNPL) which was formed by the government of Tamil Nadu in April 1979 as a public limited company under the provisions of the Companies’ Act 1956 and it is one of the most environmentally compliant paper mills in the world. The third company chosen for performance appraisal is the Andhra Pradesh Paper Mills Limited (APPM). It is an integrated pulp and paper manufactures in India. The fourth sample unit has been the West Coast Paper Mills Limited. This company has also made tremendous contribution in the national exchequer in a number of ways.
It has been observed through analysis that Indian paper mills are currently in the midst of a transformation with major capital expenditure underway and improving operating efficiencies is the major concern of the all players. All players are committing a large amount of investment, focusing on:—Improving the operational efficiencies through rightsizing pulping capacities—Brown-field capacity expansions—Backward integration into captive power—Adherence to pollution norms by chemical recovery. The paper industry would witness an investment worth INR100.0 billion capital expenditure in next 2-3 years.

In the fifth chapter “Performance Appraisal of Some Selected Paper Mills in India” an overall assessment of the profile of the sample units was made to prepare a background for the appraisal of performance of these companies to draw some important conclusions. This chapter is aimed at measuring the financial performance of the sample companies, namely, Ballarpur Industries Limited (BILT), Tamil Nadu Newsprint and Papers Limited (TNPL), West Coast Paper Mills Limited (WCPM) and the Andhra Pradesh Paper Mills Limited (APPM). The important ratios which have been computed to make a through appraisal of these companies are profitability ratios, liquidity ratios, activity ratios and cash flow indicators ratios. In order to understand the necessity of such ratios, an attempt has been made to explain the relative concept of profitability, liquidity, activity and cash flow indicators before their computation. Following ratio were calculated in order to analyze the profitability, liquidity, activity and cash flow position of the selected paper mills, these were gross profit ratio, operating profit ratio, net profit ratio, return on net worth ratio, current ratio, quick ratio, debt equity ratio, long term debt equity ratio, inventory turnover ratio, fixed assets turnover ratio, dividend payout ratio (net profit), cash earnings retention ratio, and earnings per share. One way ANOVA test is used to test the various hypotheses. All the null hypotheses are rejected except debt equity ratio and long term debt equity ratio. The findings of this study have a special relevance for the management, investors, bankers, creditors, government and others like economist, trader, employee etc.

Chapter sixth captioned, “Findings and Suggestions” presents the summary of entire research project. An endeavor has also been made to put forth some suggestions depending upon the study, research and conclusion. As already pointed out in earlier
the biggest limitation of the study had been that a large number of companies had to be left out due to constraints of time and funds. Further, beyond data published in annual accounts no further data were made available by any company. Therefore, detailed probe could not be made on many aspects which have been pointed out at relevant places. Subject to these limitations following conclusions can be drawn from the study:

1. The gross profit in relative terms as per cent of net sales. As regard the paper mills the average gross profit ratio of BILT was highest among all the paper mills. The average ratio of BILT (16.13 per cent) followed by TNPL (14.29) WCPM (13.10) and APPM (9.13). In this ratio, the management was very much interested. The average ratio of APPM indicated a very low profitability. It suggests that the APPM should reduce the cost of goods sold.

2. ANOVA test indicates that the calculated value of is greater than critical value thus the alternative hypothesis is accepted and null hypothesis is rejected and hence it is concluded that gross profit does differ significantly.

3. The operating profit ratio of paper mills of India showed fluctuated trend during the study period. The operating profit ratio was the highest in TNPL. The average ratio of TNPL (26.29 per cent) followed by BILT (23.30) WCPM (14.87) and APPM (12.99). Among all the mills, the lowest ratio is seen in the APPM. A higher operating profit ratio is favorable for the company. Further it can be said that TNPL has achieved good remarks in the case of operating profit ratio.

4. ANOVA (F) test indicates that there is significant difference in operating profit ratio of paper mills under study. Hence it can be concluded that there is no high deviation in the operating profit ratio of paper mills under study.

5. The net profit ratio in paper mills was not much satisfactory. The average ratio of TNPL was highest among all the paper mills. The average ratio of TNPL (9.33 percent) followed by WCPM (8.97), BILT (8.45) and APPM (5.81). The average ratio of APPM indicated a very low profitability.
6. ANOVA test indicates that the calculated value of is greater than critical value so, null hypothesis is rejected and the alternative hypothesis is accepted and hence it is concluded that net profit does differ significantly.

7. Return on net worth indicates how well the company has used the resources of the owners. The analysis of the return on net worth ratio in individual paper mills of the study period reveals that it was the highest return on net worth ratio in WCPM (21.37 per cent) Followed by TNPL (13.73 per cent), BILT (9.83 per cent) and APPM (9.60 per cent). In WCPM and TNPL return on net worth ratio of the company was satisfactory during the study period.

8. ANOVA test indicates that the calculated value is greater than critical value null hypothesis is rejected and the alternative hypothesis is accepted and hence it is concluded that return on net worth does differ significantly. ANOVA Test analysis indicates that there were no similarities in return on net worth ratio of paper mills under study.

9. The current ratio in paper mills was satisfactory. The average ratio of BILT was highest among all the paper mills. The average ratio of BILT (2.60) followed by WCPM (2.28), TNPL (1.70) and APPM (1.62). The average current ratio of APPM is low than BILT, WCPM and TNPL. BILT and WCPM made excessive investment in current assets particularly in the form of inventory and sundry debtor. The ratio was always more than two times in BILT and WCPM indicated efficient utilization of current assets.

10. Since F (ANOVA) calculated value is greater than F critical value (at 5 per cent level of significance) null hypothesis is rejected and the alternative hypothesis is accepted and hence it is concluded that current ratio does differ significantly.

11. The quick ratio of paper mills of India showed fluctuated trend during the study period. The quick ratio was the highest in BILT. The average ratio of BILT (1.51) followed by WCPM (0.96) TNPL (0.67) and APPM (0.60). Among all the mills, the lowest ratio is seen in the APPM. As a convention
quick ratio of 1:1 is considered satisfactory. Hence BILT and WCPM are in much better position to meet its short term obligations.

12. Since F (ANOVA) calculated value is greater than F critical value (at 5 per cent level of significance) thus, null hypothesis is rejected and the alternative hypothesis is accepted and hence it is concluded that quick ratio does differ significantly.

13. The debt equity ratio of paper mills was satisfactory. A ratio of 1:1 may be usually considered to be satisfactory ratio. The average ratio of WCPM was highest among all the paper mills. The average ratio of WCPM (1.34) followed by APPM (0.94), BILT (0.92) and TNPL (0.87). The average debt equity ratio of TNPL is low than WCPM, APPM, and BILT. As every paper mill is nearer to 1:1 ratio, hence it can be conclude that all the paper mills have satisfactory debt equity ratio.

14. ANOVA test analysis indicates that there were similarities in debt equity ratio of paper mills under study. As F critical value is greater than F calculated null hypothesis is accepted and the alternative hypothesis is rejected and hence it is concluded that debt equity does not differ significantly.

15. On the basis of analysis it can be concluded that the highest average long term debt equity ratio was of 1.10 times of WCPM, followed by BILT, APPM, and TNPL. Most of the companies under the study did not maintain the standard norm of 1:1. The average ratio of TNPL was 0.63 times which was lowest among all the mills under the study and the company was more relied on owner's funds.

16. Since F critical value is greater than F calculated null hypothesis is accepted and the alternative hypothesis is rejected and hence it is concluded that long term debt equity does not differ significantly. Thus ANOVA test analysis indicates that there were similarities in long term debt equity ratio of paper mills under study.
17. Inventory turnover ratio registered a fluctuating trend during the period under study. Inventory turnover ratio measures the velocity of conversion of stock into sales. Usually, a high inventory turnover indicates efficient management of inventory because more frequently the stocks are sold; the lesser amount of money is required to finance the inventory. The average ratio of BILT was the highest 11.20 times while it was the lowest 8.56 and 8.63 times in APPM and WCPM respectively.

18. Since F calculated value is greater than F critical value null hypothesis is rejected and the alternative hypothesis is accepted and hence it is concluded that there were no similarities in inventory turnover ratio of paper mills under study.

19. The average fixed assets turnover ratio of WCPM was highest 1.28 during the study period. The ratio showed fluctuating and mixed trend in almost all the selected paper mills under study during the period under review. The ratio was less than one times in APPM (0.82), BILT (0.71), and TNPL (0.50). Thus, the ratio suggests that the WCPM, were able to utilize its fixed assets properly in generating sales whereas rest of the three paper mills failed to maintain the rate on increase in sales.

20. The calculated value of ANOVA is greater than critical value null hypothesis is rejected and the alternative hypothesis is accepted and hence it is concluded that fixed assets turnover ratio does differ significantly.

21. Dividend payout ratio measures the relationship between the earnings belonging to the ordinary shareholders and the dividend paid to them. It is an important ratio because ploughing back of profit enables a company to grow and pay more dividends in future. It can be generalized that the average dividend payout ratio of TNPL was the highest followed by BILT, WCPM, and APPM. TNPL has (37.45 per cent) followed by BILT (34.27 per cent), WCPM (28.85 per cent) and APPM (14.92 per cent).
22. Since F calculated value is greater than F critical value null hypothesis is rejected and the alternative hypothesis is accepted and hence it is concluded that dividend payout ratio does differ significantly.

23. If the trend of cash earnings retention ratio is declining, it is paying more shareholders. If the trend is growing, it is using more of the earnings for company expansion/expenses. A value of 100% means the company is not paying any dividends while a value of 0% (which is impossible) would mean the company is paying every cent earned to the shareholders. The highest cash earnings retention ratio was in APPM (92.30) followed by BILT (82.40), TNPL (81.24), and WCPM (80.45).

24. Since F (ANOVA) calculated value is greater than F critical value thus, null hypothesis is rejected and the alternative hypothesis is accepted and hence it is concluded that cash earnings retention ratio does differ significantly.

25. The earnings per share registered a fluctuated trend during the period under study. The highest average earning per share was in WCPM (9.8) followed by APPM (3), TNPL (2.3) and BILT (2.1). The earnings per share are a good measure of profitability and when compared with E.P.S of similar other companies, it gives a view of the comparative earnings or earning power of firm. Thus it is concluded that WCPM has highest earnings per share.

26. ANOVA Test indicates that the calculated value is greater than critical value thus null hypothesis is rejected and the alternative hypothesis is accepted and hence it is concluded that earning per share does differ significantly.

After having analyzed the overall performance of paper industry on the basis of a sample of four mills, now it is felt worthwhile to offer some specific suggestions to further improve the performance of paper industry in India in general and selected paper mills in particulars. At the very outset, the paper mills should try to increase the production so as to get economies of large-scale production. In order to increase the profitability of the companies, it is suggested to control the cost of goods sold and operating expenses. The management should try to adopt cost reduction techniques in their companies to get over this critical situation.
The selected paper mills are highly capital intensive in nature but the policy of purchase of fixed assets should be carefully planned and reviewed so that the funds may be properly utilized. The selected paper mills should try to match the amount of working with the sales trends. Where there is a deficit of working capital, they should try to build on adequate amount of working capital. Where, there is an excessive working capital, it should be invested either in trade securities or should be used to repay borrowings.

The management should try to utilize their production capacity fully in order to reduce factory overheads and to utilize their fixed assets properly. The burden of interest has produced a deteriorating effect and reduced the percentage of net profit. It is suggested that the companies should try to reduce the interest burden gradually by increasing the owner's fund. The few paper mills, which did not follow a definite policy of financing fixed assets, should follow such policy. To strengthen the financial efficiency, long-term funds have to be used to finance core current assets and a part of temporary current assets. It is better if the companies can reduce the over sized short-term loans and advances eliminates the risk arranging finance regularly.

The policy of borrowed financing in selected paper mills under study was not proper. So the companies should use widely the borrowed funds and should try to reduce the fixed charges burden gradually by decreasing borrowed funds and by enhancing the owner's fund. For this purpose companies should enlarge their equity share capital by issuing new equity shares. For regular supply of raw materials and the final product infrastructure facilities are required further improvement.

Cost accounting and cost audit should be made mandatory and cost sheet along with annual financing statement should be prepared. There has been too much of government interference in policy and day-to-day working and decisions. This leads to delays in decision-making. This should be abolished. There is no incentive to the employees to perform better. Also there is no accountability because no one is held responsible for a failure in achieving targets for this kind of problem responsibility centre should be created. Improper planning and delays in implementation of projects lead to rise in their cost. So properly planning should be made. The paper mills should reduce power and fuel consumption by using low as content coal (imported coal), lignite, agro waste product especially ground nut husk,
and beggars should be used as coal substitute. To regularize and optimize the use of cash balance proper techniques may be adopted for planning and control of cash. The investments in inventories should be reduced and need to introduce a system of prompt collection of debts. Selected paper mills should try to use properly their operating assets and should try to minimize their non-operating expenses.

The government should minimize the subsidy and encourage the capital market for the paper industries. Since the paper mills could not pay regular and fair dividend, the shareholders are disguised and disinterested about the performance of the companies. This particular trend is not conductive for future expansion of industry in India. Therefore, the managements should put in sincere and committed efforts to improve the profitability of the companies in order to restore their financial health. Paper industry provides a great employment opportunity mainly for the backward classes and tribal, therefore government should develop the paper industry for generating employment opportunities particularly in rural areas and for the backward classes and tribal and improve economic condition.