"A Study on Financial Analysis of Mysore Electricals Ltd Using Du Pont Analysis"

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ABSTRACT

The Financial performance analysis is very important to determine the financial position. Ineffective financial analyses of the company fail to give the accurate results which can be utilized to assess the financial performance of the organization. This will result in the loss for the business to develop tactics and procedures to improve or maintain the sustainability of the business. DuPont Analysis is potentially helpful tool for analysis that investors can use to make more informed choices regarding their equity holdings. The primary advantage of DuPont analysis is it gives entire picture of a company's overall financial health and performance compared to other equity valuation tools. The key objective of this study is to know the profitability, efficiency and risk factors associated with 'Mysore Electricals Ltd' Bangalore. The data is collected from secondary source and analytical research methodology is used for this study. By using various criteria like efficiency, profitability and risk factors attempt was made to find out the reasons behind the various ratios. To achieve this, ROE of the company is found out by breaking it down into- Net Profit Margin, Asset Turnover and Equity Multiplier and these ratios are further divided into different components. The study found that the Mysore Electricals Ltd depended on equity capital and trying its best in utilizing the available total assets so that it contributes for the higher sales and their by profits.

Key words: DuPont Analysis, Profitability, Efficiency, Equity Multiplier

INTRODUCTION

DuPont Analysis is an equity evaluation approach that uses financial and leverage ratios that expand the profitability ratio of Return on Equity (ROE) into a more detailed and comprehensive measure. In addition to indicating the Return on Investment (ROI) for shareholders, DuPont analysis is categorized into three important performance elements: profitability measured by profit margin, operational efficiency measured by asset utilization (specifically asset turnover) and financial leverage measured by the assets/equity multiplier. If ROE is higher due to improved operational efficiency or utilization of assets, this is commonly interpreted favorably by analysts. However, if the ROE for investors only improves due to a company using increased financial leverage, then the increased equity returns are not actually a result of increased profits, and the company may be overextending itself financially, making it a riskier investment.

The DuPont Analysis model provides a more accurate assessment of the significance of changes in a company's ROE by focusing on the various means that a company has to increase the ROE figures. The means include the profit margin, asset utilization and financial leverage (also known as financial gearing). A company can improve any or all of these elements to increase value and returns to shareholders through its management of costs, choices of financing and usage of assets. DuPont analysis helps investors pinpoint the source of increased or decreased equity returns.

LITERATURE REVIEW

- **Srinivas K T (2012), An Analysis of Financial Statements of Karnataka Power Corporation Limited, Bangalore -**The Karnataka Power Corporation Limited (KPCL) is mainly involved in the generation of power and is the sole administrator for the power generation in the state. It was formed on 20th July 1970 as a sister concern to Karnataka Electricity Board (KEB) in order to eradicate the power famine of the state. This study was conducted to analyze the financial performance of Karnataka Power Corporation Limited with the help of various ratios. From this study it is found that company financial performance is seeing to be sound, because the company trying to increase its production and also net profit

- **Lin Chen1 Shuangyuan Wang1 and Zhilin Qiao (2014), DuPont Model and Product Profitability Analysis based on Activity-Based Costing and Economic Value Added** -Although DuPont analysis is widely used it is not easy to provide accurate performance information based on DuPont profitability analysis, which is established on the basis of traditional accounting earnings. Since Activity based Costing (ABC) and Economic Value Added (EVA) are advanced approaches to costing activities and estimating economic profit of a firm, DuPont analysis using

ABC and EVA information can be more appropriate in understanding Return on Equity (ROE). In this paper, the author set up an improved EVA-ABC based DuPont analysis system as well as its relative indices. Then it is applied to traditional profitability analysis to get a better performance measurement. The results show that the improved system can reduce the negative impacts of accounting principles and objectively reflect the operating performance of the enterprise. It also provides more accurate information for decision makers.

- **Md Aminul Islam (2014) An Analysis of the Financial Performance of National Bank Limited Using Financial Ratio-**This study attempts primarily to measure the financial performance of National Bank Limited which is one of the largest and prominent private commercial bank in Bangladesh for the period 2oo8-2o13. To identify whether any difference exists between a Banks' years of operation and its performance were classified into two periods (2oo8-1o & 2o11-13). The performance of bank is dependent more on the management's ability in formulating strategic plans and the efficient implementation of its strategies. The study findings can be helpful for management of National bank ltd. to improve their financial performance and formulate policies that will improve their performance. The study also identified specific areas for bank to work on which can ensure sustainable growth for these banks

- **A Kijewska (2015), Determinants of the Return on Equity Ratio (ROE) on the example of companies from Metallurgy and Mining Sector in Poland**- The paper shows the possibility of a broader look at the issue and use of the five factors affecting the ROE. This approach reveals that, using various financial and operational strategies, one can influence ROE. The analysis was conducted on the example of two Polish companies from mining and metallurgy sector in Poland.

NEED FOR THE STUDY

The success or failure of the company is judged by the financial position of the company. The Financial performance analysis is very important to determine the financial position. The financial statement analysis is important for providing meaningful information to its users. A business organization always needs to evaluate its performance and effectiveness of their action for taking decisions and formulating plans and policies for the future. As a result, financial statement analysis is important to the company's management. However, many business organizations maintaining financial statements do not carry out effective financial analysis. They focus only on qualitative success factors to judge the performance of the company. As a result there is lack of financial control that leads to business failure. On the other side, Investors also fail to get accurate financial status of the organization due to lack of effective financial analysis techniques in the organizations. One such tool not considered is DuPont analysis. DuPont analysis not only helps the company in assessing the success but also to develop strategies to increase the net earnings and to reduce its costs. Therefore we can see that there is a need for the business organizations to use the DuPont model effectively for the purpose of arriving at desired conclusions

STATEMENT OF THE PROBLEM

Financial Statement analysis helps the company in determining the financial status and weak points of the company. The analysis of financial statement will help in establishing a inter relationship between the different items of Balance Sheet and Profit and Loss Statement. It also enables the company in conducting short term and long term planning and the improvement can be evaluated with the support of financial analysis. Further, the analysis is carried to obtain a better understanding of the organizations financial position and performance.

The analysis of the financial statements will be carried out by both the internal as well as external parties. Management of the company conducts the analysis mainly to take the future decisions based on the past data. The external users (owners, creditors and investors) carry out the analysis of financial statements mainly to take the investment decisions.

However ineffective financial analyses of the company fail to give the accurate results which can be utilized to assess the financial performance of the organization. The efficiency, profitability and risks are missed out by not adopting relevant financial performance examination techniques. This will result in the loss for the business to develop tactics and procedures to improve or maintain the sustainability of the business. This is why DuPont technique is adopted to overcome these drawbacks.

DuPont model will solve this problem by giving the company a clear idea of the profitability of the business. Therefore by adopting the DuPont tool in the proper manner, we can ascertain the various aspects of the business' success over different periods of time. DuPont analysis takes into consideration the major elements of the firm's profitability such as efficiency, Asset usage, and Debt leverage. It is a popularly used method of evaluating financial status which can be adopted in calculating company's ratios and in comparing past performance. In this study an attempt is made to evaluate the financial performance of Mysore Electricals Ltd, Bangalore using the DuPont technique.

OBJECTIVES OF THE STUDY

- To analyze the Financial Performance of 'Mysore Electricals Ltd', Banaglore with the help of Du Pont Analysis model.
- To find out the financial position of 'Mysore Electricals Ltd', Bangalore using DuPont analysis.
- To determine the profitability, efficiency and risk factors associated with 'Mysore Electricals Ltd' Bangalore.

SCOPE OF THE STUDY

The data for previous 3 years was collected and analyzed with help of Du Pont analysis of Mysore Electricals Ltd, Bangalore. The Du Pont model was developed as a tool for analyzing methods of increasing return on asset and return on equity. Using the modified equation of Return on Equity, one can make a more informed decision and understand the company position better.

Financial Analysis evaluates the relationship between component parts of financial statement to obtain a better understanding of firm's financial position. Financial statement is thus helpful in assessing the financial position and profitability of the concern. This study will include financial performance analysis by using Du Pont Model.

RESEARCH METHODOLOGY

This study is an analytical research; analytical research is non-interactive document research. It describes and interprets the data obtained from the sources, where published data of Mysore Electricals Ltd is be used for the study.

SOURCE OF DATA

The present study is largely depended on secondary data. The required data was collected from the annual report of Mysore Electricals Ltd, published records and journals.

DATA ANALYSIS

The study enables the Mysore Electricals Ltd to understand the impact of Profit and Loss Account and Balance sheet on financial performance. Tools planned for this study includes DuPont Analysis breaks ROE into its constituent components to determine which of these components is most responsible for changes in ROE are:

ROE = (Net Profit Margin) * (Asset Turnover) * (Equity Multiplier)

- **Net Profit Margin = Net Income / Net Sales**
- **Asset Turnover Ratio = Net sales / Total Assets**
- **Equity multiplier**

LIMITATIONS OF THE STUDY

- Many large firms operate a number of different activities in quite different industries, and in such cases it is difficult to develop a meaningful set of Industry average for comparative purposes. This tends to make ratio analysis more useful for small, narrowly focused firms than for large, multidivisional Firms.
- It is difficult to generalize about whether a particular ratio is good or bad. For examples, a high current ratio many indicate a strong liquidity position, which is good, but excessive cash is bad, because excess cash in the bank is nonearning asset. Similarly, a high fixed assets turnover ratio may be indicate either a firm that uses assets efficiently or a firm that is undercapitalized and simply cannot to buy enough assets.

DATA ANALYSIS AND INTERPRETATION

Ratio calculation for period of 2015 to 2017

Table no - 1.1

Ratio In Times From 2015 – '16 to 2017 – '18

Ratio	2017	2016	2015
Net Profit Ratio	0.9645	1.6511	1.4932
Operating Expense Ratio	0.7383	0.7354	0.7492
Material Turnover Ratio	0.4995	0.5616	0.5076
Labor Turnover Ratio	0.2380	0.1631	0.1843
Depreciation Expenses Rtio	0.004	0.002	0.009
Total Asset Turnover Ratio	0.3191	0.5361	0.4365
ırrent Asset Turnover Ratio	0.5471	0.9113	0.7554
ROA	3.0222	3.0798	3.4208
ROE	0.3929	0.0883	0.0581
Net Profit Margin Ratio	1.0972	1.0643	1.1091
Equity Multiplier	1.1406	0.1548	0.1202

Inference

- **Net Profit Ratio:**

$$Net\ Profit\ Ratio = Net\ Profit/Net\ Sales$$

From the above table it is found that during the financial year 2016 the net profit ratio is 1.65, which is the highest during the period. It is mainly due to high net profit margin and more sales made during the year. During the year 2015 and 2017 the net profit is less as compared to 2016, it is mainly due to decrease in sales and company was not able to cover their sales into profit. From the overall analysis it can be say that Mysore Electrical Industries Limited (MEIL) not faced any losses during these three financial years. It produces and offers quality product and services to their customers.

- **Operating Expenses Turnover Ratio**

$$Operating\ Expenses\ Turnover\ Ratio = Operating\ EXpenses/Revenue$$

This ratio reveals to what extend operating cost like, selling administrative expenses covers sales. The above operating expenses turnover ratio shows Mysore Electrical Industries Limited management as made an effort to bring down the expenses and company expenses was under control. This lead to increase in the profit and it is a very good sign for MEIL.

- **Material Turnover Ratio**

$$Material\ Turnover\ Ratio = Material/Revenue$$

From the above analysis material turnover ratio can be interpreted that Mysore Electrical Industries Limited invested more in materials, which made an impact on company's revenue and the company properly used its materials to carry out the production activities in order to earn more revenue during 2015 to 2017.

- **Labor Turnover Ratio**

$$Labor\ Turnover\ Ratio = Labor\ cost/Revenue$$

The labor turnover ratio of Mysore Electric Industry Limited is fluctuated during 2015 to 2017. The company should try to keep the labor turnover ratio under control. If not the labor turnover ratio will adversely affect the revenue of the company. In 2017, the ratio is increased which is not a good sign to the company. Therefore the management should take initiative steps to retain the labors and reduce the turnover ratio.

- **Depreciation Expenses Ratio**

$$Depreciation\ Expenses\ Ratio = Depreciation/Revenue$$

From the above analysis Depreciation Expenses ratio can be interpreted that the company incurred less depreciation charges in the year 2016, probably because the company sold off the assets. In the succeeding years, there was an increase in the amount of revenues that was spent on depreciating the assets of the company. Therefore we can notice that as revenues kept on increasing the depreciation expenses also increased. This was because the company increased its investments in fixed assets of the company.

- **Total Asset Turnover Ratio:**

$$Total\ Asset\ Turnover\ Ratio = Depreciation/Revenue$$

The Total Asset Turnover ratio for a period of 2015 to 2017 tells that MEIL is able to generate income out of the assets. But the income generated is not sufficient for the investment made on asset. In the year 2016, the Total Asset Turnover ratio is good but in the succeeding year, the ratio decreased. The company should try its best to utilize the available total assets so that it contributes for the higher sales and their by profits also.

- **Current Asset Turnover Ratio:**

$$Current\ Asset\ Turnover\ Ratio = Revenue/Current\ Asset$$

The current asset turnover ratio for a period of 2015 to 2017 shows that MEIL failed in utilization of its current asset properly during the year 2017. Earlier (i.e., in 2016) the company was made an attempt to make better utilization of current asset. This kind of effort should be needed. So that investment in current assets is going to contribute for the sales. The management is suggested to take case of the same.

- **Return on Asset:**

$$Current\ Asset\ Turnover\ Ratio = Net\ Profit\ Ratio/Total\ Asset\ Turnover\ Ratio$$

ROA is highest in the year 2015. In the year 2016 and 2017 the Return on Asset is 3.07 and 3.08 respectively. This shows that Return on Asset ratio of the company is positive. A positive ROA ratio usually indicates an upward profit trend as well. The company made effective utilization of the capital invested in the asset.

- **Return on Equity:**

*Return on Equity =Net Profit Margin*Total Asset Turnover*Equity Multiplier*

From the above analysis it can be inferred that the company had an increase in Financial leverage during the year 2017 compared to previous year which shows that the company is financing its asset through the debt in order to boost its return. In the previous year ratio was less, it's because MEIL already had sufficient leverage and wanted to reduce its risk on additional debt.

- **Net Profit Margin:**

$$Net\ Profit\ Margin = Net\ Income/Net\ sale$$

The above table shows net profit margin ratio of the company for a period of 3 years (i.e., 2015-2017). The Net Profit Margin of Mysore Electric Industry Limited is higher than the standard. It depicts company is more effective in converting their revenue into actual profit.

- **Equity Multiplier:**

$$Equity\ Multiplier = Total\ Assets/Total\ Equity$$

From the above table it can be inferred that the company had an increase in Financial leverage during the year 2017 compared to previous year which shows that the company is financing its asset through the debt in order to boost its return.

FINDINGS

- Net Profit Margin is increased in the year 2015 & 2017 which shows that the higher margin is more effective to the company in converting revenue into actual profit.
- The operating expenditure of the firm was high in the year 2015. The organization's expenditure was more than the revenues earned.
- The depreciation turnover indicated an upward trend over the years. There was an increase in the amount of revenues that was spent on depreciating the assets of the company.
- The material turnover ratio shows that the firm is using the material efficiency which is reflected in the revenue generated.
- Labor expenses turnover ratio was found to be fluctuating due to change in labour quantity.
- The company is able to generate income out of the asset. But the income generated is not sufficient for the investment made on asset. The Asset Turnover ratio gradually decreased which is not a good sign. The total assets turnover ratio was found to be decreasing which indicated the inefficient use of assets.
- The company failed to utilize the current assets properly in the year 2015.
- The ROA value of the company showed there is no high movement and not recorded very during the study period. Overall it is found that company is making use of assets.
- From the study it is found that the MEIL is dependent on equity rather than on the debt.
- The analysis showed that the return on equity is decreased during 2015 & 2016 last.
- The company showed high leverage in the study period, which is substantiated by the equity multiplier value.
- The overall performance of MEIL is good in terms of service provided, area of operation and efficiency.

CONCLUSION

In this study, we understand how important and needful DuPont analysis for an organization. Unlike other financial ratios, DuPont model helps in identifying the key areas or components that needs to be improved in the organization. It enables us to find out the sources of weakness or strength of the organizations financial position. By using various criteria like efficiency, profitability and risk factors attempt was made to find out the reasons behind the various ratios. To achieve this, ROE of the company is found out by breaking it down into- Net Profit Margin, Asset Turnover and Equity Multiplier and these ratios are further divided into different components. The degree of various components and changes in them in different years was found out. DuPont model was effectively used to find out the financial performance of the organization over different periods by using the financial information of past three years. From the analysis it is found out that the company is not incurring huge expenses & losses. The MEIL depended on equity capital due to which it does not face a high risk of fixed interest, repayment obligations.

In terms of efficiency, it is seen MEIL is able to maintain its total asset turnover, which has not been highly fluctuated over years, the company is trying its best in utilizing the available total assets so that it contributes for the higher sales and their by profits also. The organization needs to emphasize on reducing expenses in order to increase profits. Some of the components like material, labor and depreciation are well managed.

In terms of profitability the total Assets turnover, the company should try its best to utilize the available total assets so that it contributes for the higher sales and their by profit also.

SUGGESTIONS

- ➢ The imperative technique is to build value capital into the business. This should be possible by putting more cash in the business for raw materials, investments and inventories.
- ➢ Increase the ROA is to reduce or minimize the costs associated with the assets of the organization. As inventory is a part of ROA calculation, the management must try to reduce inventory costs because excessive inventory can increase the asset costs without contributing much to the income.
- ➢ The organization must expand profits by controlling costs (until costs stay focused), including extra gainful products and services and discovering efficiencies in production or administrations of the business and diminishing costs.
- ➢ The organization can reduce equipment's costs by leasing or renting the tools and equipment's. This permits the organization' to utilize the equipment's only as and when it is required as opposed to keeping it unmoving when it is not required.

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