A STUDY ON A FINANCIAL STRATEGIES AND TECHNIQUES IN RATIO ANALYSIS IN SRI VIJAI ELECTRICALS. LTD., AT CHENNAI

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Abstract

Ratio analysis is a powerful tool of financial analysis.A ratio is defined as "the indicated quotient of two mathematical expressions" and "the relationship between two or more things". In financial analysis, a ratio is used as a benchmark for evaluation the financial position and performance of a firm.objectives of the studyTo study the growth and development of the company, To study the behavior of liquidity and profitability of the companies, To analyze the factors determining the liquidity and profitability,limitations The study is based on only secondary data, The period of study was 2012-2016 financial years only, Primary data will be through regular interaction with the officials of Vijai Electricals Ltd, Secondary data collected from annual reports and also existing manuals and like company records balance sheet and necessary records, The company financial position is very secure, It is observed that most of the ratios are as per the industry standard, Company adopts proper inventory control techniques to properly management inventory.

Introduction of the Study

Ratio analysis is a powerful tool of financial analysis. A ratio is defined as "the indicated quotient of two mathematical expressions" and "the relationship between two or more things". In financial analysis, a ratio is used as a benchmark for evaluation the financial position and performance of a firm. The absolute accounting figures reported in the financial statements do not provide a meaningful understanding of the performance and financial position of a firm.

An accounting figure conveys meaning when it is related to some other relevant information. For example, an Rs.5 core net profit may look impressive, but the firm's performance can be said to be good or bad only when the net profit figure is related to the firm's Investment.

The relationship between two accounting figures expressed mathematically, is known as a financial ratio (or simply as a ratio). Ratios help to summarize large

quantities of financial data and to make qualitative judgment about the firm's financial performance. For example, consider current ratio. It is calculated by dividing current assets by current liabilities; the ratio indicates a relationship- a quantified relationship between current assets and current liabilities.

This relationship is an index or yardstick, which permits a quantitative judgment to be formed about the firm's liquidity and vice versa. The point to note is that a ratio reflecting a quantitative relationship helps to form a qualitative judgment. Such is the nature of all financial ratios.

Classification of Ratio

Several ratios, calculated from the accounting data can be grouped into various classes according to financial activity or function to be evaluated. Management is interested in evaluating every aspect of the firm's performance. They have to protect the interests of all parties and see that the firm grows profitably. In view of thee requirement of the various users of ratios, ratios are classified into following four important categories

*   **Liquidity ratios** - short-term financial strength
*   **Leverage ratios** - long-term financial strength
*   **Activity ratios** - term of investment utilization
*   **Profitability ratios** - long term earning power

Liquidity Ratios

*   Current ratio
*   Quick ratio
*   Cash ratio
*   Networking capital ratio

Current Ratio

Current ratio is calculated by dividing current assets by current liabilities.

$$\text{Current Ratio} = \frac{\text{Current assets}}{\text{Current Liabilities}}$$

Current assets include cash and other assets that can be converted into cash within in a year, such as marketable securities, debtors and inventories. Prepaid expenses are also included in the current assets as they represent the payments that will not be made by the firm in the future. All obligations maturing within a year are included in the current liabilities. Current liabilities include creditors, bills payable, accrued expenses, short-term bank loan, income tax, liability and long-term debt maturing in the current year.

The current ratio is a measure of firm's **short-term solvency.** It indicates the availability of current assets in rupees for every one rupee of current liability. A ratio of

greater than one means that the firm has more current assets than current claims against them Current liabilities.

Quick Ratio

Quick ratio also called **Acid-test ratio**, establishes a relationship between quick, or liquid, assets and current liabilities. An asset is a liquid if it can be converted into cash immediately or reasonably soon without a loss of value. Cash is the most liquid asset. Other assets that are considered to be relatively liquid and included in quick assets are debtors and bills receivables and marketable securities (temporary quoted investments). Inventories are considered to be less liquid. Inventories normally require some time for realizing into cash; their value also has a tendency to fluctuate. The quick ratio is found out by dividing quick assets by current liabilities.

Cash Ratio

Since cash is the most liquid asset, it may be examined cash ratio and its equivalent to current liabilities. Trade investment or marketable securities are equivalent of cash; therefore, they may be included in the computation of cash ratio.

Net Working Capital Ratio

The difference between current assets and current liabilities excluding short – term bank borrowings in called net working capital (NWC) or net current assets (NCA). NWC is sometimes used as a measure of firm's liquidity. It is considered that between two firm's the one having larger NWC as the greater ability to meet its current obligations. This is not necessarily so; the measure of liquidity is a relationship, rather than the difference between current assets and current liabilities. NWC, however, measures the firm's potential reservoir of funds. It can be related to net assets (or capital employed):

$$\text{NWC ratio} = \frac{\text{Net working capital (NWC)}}{\text{(Net assets (or) Capital Employed)}}$$

Leverage Ratio

The short-term creditors, like bankers and suppliers of raw materials, are more concerned with the firm's current debt-paying ability. On other hand, ling-term creditors like debenture holders, financial institutions etc are more concerned with the firm's long-term financial strength. In fact a firm should have a strong short as well as long-term financial strength. In fact a firm should have a strong short-as well as long-term financial position. To judge the long-term financial position of the firm, **financial leverage**, or **capital structureratios** are calculated. These ratios indicate mix of funds provided by owners and lenders. As a general rule there should be an appropriate mix of debt and owners equity in financing the firm's assets.

Activity Ratio

Funds of creditors and owners are interested in various assets to generate sales and profits. The better the management of assets, the larger the amount of sales. Activity ratios are employed to evaluate the efficiency with which the firm manages and utilizes its assets. These ratios are also called turnover ratios because they indicate the speed with which assets are being converted or turned over into sales. Activity ratios, thus, involves a relationship between sales and assets. A proper balance between sales and assets generally reflects that assets are managed well. Several activity ratios are calculated to judge the effectiveness of asset utilization.

- Inventory Turnover Ratio
- Inventory Conversion Period
- Debtors (Accounts Receivable) Turnover Ratio
- Average Collection Period
- Net Assets Turnover Ratio
- Total Assets Turnover
- Current Assets Turnover
- Fixed Assets Turnover
- Working Capital Turnover Ratio

Inventory Turnover Ratio

Inventory turnover indicates the efficiency of the firm in producing and selling its product. It is calculated by dividing the cost of goods sold by the average inventory:

$$\text{Inventory turnover Ratio} = \frac{\text{Cost of goods sold}}{\text{Average inventory}}$$

(OR)

$$\text{Inventory turnover Ratio} = \frac{\text{Net sales}}{\text{Inventory}}$$

The average inventory is the average of opening and closing balances of inventory. The cost of goods sold may not be available so we can compute inventory turnover as sales divided by inventory in a manufacturing company inventory of finished goods is used to calculate inventory turnover. This inventory turnover ratio indicates whether investment in inventory is efficiently utilized or not. It, therefore, explains whether investment in inventory in within proper limits or not. It is calculated by dividing the cost of goods sales by the average inventory. The inventory turnover shows how rapidly the inventory in turning into receivable through sales. A high inventory turnover is indicative of good inventory management. A low inventory turnover implies excessive inventory levels than warranted by production and sales activities or a slow moving or obsolete inventory.

Inventory Conversion Period

It may also be of interest to see the average time taken for clearing the stock. This can be possible by calculating the inventory conversion period. This period is calculated by dividing the no. of days by inventory turnover ratio:

$$\text{Inventory turnover ratio} = \frac{\text{No. of days in the year}}{\text{Inventory turnover ratio}}$$

Debtors (Accounts Receivable) Turnover Ratio

A firm sells goods for cash and credit. Credit is used as a marketing tool by number of companies. When the firm extends credits to its customers, debtors (accounts receivable) are created in the firm's accounts. Debtors are convertible into cash over a short period and, therefore, are included in current assets. The liquidity position of the firm depends on the quality of debtors to a great extent. Financial analyst applies these ratios to judge the quality or liquidity of debtors (a) Debtors Turnover Ratio (b) Debtors Collection Period Debtors' turnover is found out by dividing credit sales by average debtors:

$$\text{Debtors turnover } = \frac{\text{Credit sales}}{\text{Debtors}}$$

Debtors' turnover indicates the number of times debtors' turnover each year generally, the higher the value of debtors' turnover, the more efficient is the management of credit. To outside analyst, information about credit sales and opening and closing balances of debtors may not be available. Therefore, debtors' turnover can be calculated by dividing Total sales by the year-end balances of debtors

$$\text{Debtors turnover} = \frac{\text{Sales}}{\text{Debtors}}$$

Average Collection Period

Average Collection Period is used in determining the collectibles of debtors and the efficiency of collection efforts. In ascertaining the firms comparative strength and advantage relative to its credit policy and performance. The average number of days for which the debtors remain outstanding is called the Average Collection Period. The Average Collection Period measures the quality of the debtors since it is indicated the speed of their collection.

$$\text{Average Collection Period} = \frac{360}{\text{Debtors Turnover Ratio}}$$

[Or]

$$\text{Average Collection Period} = X\ 360 \quad \frac{\text{Debtors}}{\text{Sales}}$$

Net Assets Turnover Ratio

Net assets turnover can be computed simply by dividing sales by net sales (NA)

$$\text{Net Assets Turnover} = \frac{\text{Sales}}{\text{Net assets}}$$

It may be recalled that net assets (NA) include net fixed assets (NFA) and net current assets (NCA), that is, current assets (CA) minus current liabilities (CL). Since net assets equal capital employed, net assets turnover may also be called capital employed, net assets turnover may also be called capital employed turnover

Total Assets Turnover

Some analysts like to compute the **total assets turnover** in addition to or instead of the net assets turnover. This ratio shows the firms ability in generating sales from all financial resources committed to total assets.

$$\text{Total Assets Turnover} = \frac{\text{Sales}}{\text{Total assets}}$$

Total Assets (TA) include net fixed Assets (NFA) and current assets (CA) (TA=NFA+CA)

Current Assets Turnover

A firm may also like to relate current assets (or networking gap) to sales. It may thus complete networking capital turnover by dividing sales by net working capital.

$$\text{Current assets turnover} = \frac{\text{Sales}}{\text{Current assets}}$$

Fixed Assets Turnover

The firm to know its efficiency of utilizing fixed assets separately. This ratio measures sales in rupee of investment in fixed assets. A high ratio indicates a high degree of utilization in assets and low ratio reflects the inefficient use of assets.

$$\text{Fixed Assets Turnover} = \frac{\text{Sales}}{\text{Fixed Assets}}$$

Need for the Study

- The Annual turnover statement.
- The company Balance sheet.
- The Employee salary details.
- The company financial statement.

Objectives of the Study
Primary Objective
- To know about the a financial strategy and techniques using Ratio Analysis at Vijay Electricals ltd in Chennai.

Secondary Objective
- To study on existing financial position of Vijay Electricals Ltd.
- To compare the balance sheet last five years
- To identify the strength and weakness of Vijay Electricals Ltd.
- To study the overall financial position of the company.
- To measure the profitability of the company.
- To determine operational efficiency of the company.

Scope of the Study
Ratio analysis is one of the techniques of financial analysis where ratios are used as a yardstick for evaluating the financial condition and performance of a firm.Analysis and interpretation of various accounting ratios gives skilled and experienced analyst a better understanding of the financial condition and performance of the firm than what he could have obtained by through a perusal of financial statements.The analysis is done to suggest the possible solutions.That strategy is used to analyze organization financial position.

Limitations
- The study is based on only secondary data.
- The period of study was 2003-07 financial years only.
- Limited use of a single data.
- Ratio may be misleading in the absence of absolute data.

Company Profile
The company was promoted by Shri D J Ramesh, a first generation entrepreneur and its present Chairman & Managing Director, in the year 1973 for the manufacture of Distribution and Power Transformers. Shri D J Ramesh holds a Master degree in Electrical Engineering specializing in Transformer design. His professional approach to organizational issues, remarkable business acumen coupled with ability to forecast business scenario ahead, the strong determination to pursue the excellence have all been his chief characteristics of his personality that were instrumental in bringing the organization to a stature of a global player.

Company History

1739	Establishment of the Organization
1983	Introduction of CSP Transformers in the country
1987	Technical Collaboration with M/s Westinghouse Corporation, USA for Single Phase Wound Core Transformers

1988	Commencement of Cast Resin Transformers Production.
1989	Commencement of Exports. Technical Collaboration with M/s Daihen Corporation, Japan for manufacture of AMDT's.
1994	Recognition by Government of India as "Export House". Manufacture of Earthquake Resistant Transformers for the first time in India. ISO 9001 Certification
1995	Secured an export order worth US $ 9.12 Million from Philippines, the largest ever-single export order of Transformer in the country.
1996	Commencement of Production for Amorphous Metal Distribution Transformers in the exclusive AMDT Plant
1997	Recognition by Government of India as "Trading House"
1998	Successful Type testing of 1000 KVA Amorphous Metal Distribution Transformers.
1999	Secured 'World Bank' order worth about US $ 12 Million.
2000	Obtained US patent for 'Continuous Annealing Furnace' in Amorphous Metal Transformer Plant
2001	Exported a consignment of Rs 1.1 Million to Germany Successful Type Testing for vendor registration in Japan
2002	Exports cross US $ 100 million Entry into turnkey electrification & substation projects. Successful completion of Arc Proof Test on 30 kVA Single-Phase Transformers as per JIS (Japanese Standards) for the first time in India.
2003	ISO 9001 – 2000 series Certification. Commissioning of exclusive and complete Corrugation Line.
2004	Records highest ever turnover of Rs.294 cores in the FY 2003-04. Technical Collaboration with Daihen Corp. Japan for Large Power Transformers up to 500 MVA, 500 KV Class. Commissioning of Porcelain Plant. Commissioning of Radiator Plant. Commissioning of Robotic Welding.
2005	Commissioning of Plasma Arc Cutting facilities. Accreditation to all Testing laboratories viz., Transformer Testing Laboratories Units- 02 & 03, Conductor Testing Laboratory – Unit-04 and Transformer Oil Testing laboratory in Unit -2, from **National Accreditation Board for Testing and Calibration Laboratories (NABL).**
2006	Incorporation of Brazilian Subsidiary of Vijai Electricals Ltd. India.
2007	Incorporation of the Mexican wing of Vijai Electricals Ltd. India. Successful SC testing of the first 50 MVA Transformers produced by the EHV wing in the first attempt.

Customer Service

The Organization has an exclusive Customer Service Wing manned by a complement of highly skilled Engineers and Technicians to provide prompt and efficient service to the customers.Periodic analysis of the feedback is made and appropriate corrective and preventive measures are taken to ensure not only quality but also reliability, downtime reduction and life cycle extension. The staff remains in

constant touch with the customers and assures Total Customer Service through interaction, prompt service and effective feedback system.

Industry Profile

Electricity generation is the process of converting non-electrical energy to electricity. For electric utilities, it is the first process in the delivery of electricity to consumers. The other processes, electric power transmission and electricity distribution, are normally carried out by the electrical power industry. Electricity is most often generated at a power station by electromechanical generators, primarily driven by heat engines fueled by chemical combustion or nuclear fission but also by other means such as the kinetic energy of flowing water and wind. There are many other technologies that can be and are used to generate electricity such as solar photovoltaic's and geothermal power.

History of Electricity

900bc Greek shepherd Magnus Magnus, a Greek shepherd, walked across a field of black stones which pulled the iron nails out of his sandals and the iron tip from his shepherd's staff (authenticity not guaranteed). This region became known as Magnesia.

- 1600A.D.. William Gilbert discussed static electricity and invented an electric fluid which was liberated by rubbing.
- 1638 A.D. Rahe Descartes invented modem notion of aether.
- 1717 A.D. Newton showed that the "two-ness" of double refraction clearly rules out light being aether waves.
- 1733 A.D. Charles Franco is-du-Fay discovered that electricity comes in two kinds which he called resinous (-) and vitreous (+).
- 1733 A.D. Abbe Jean Antoine nullet invented the two-fluid theory of electricity.
- 1747 A.D. Benjamin Franklin invented the theory of one fluid electricity in which one of Nullef s fluids exists and the other is just the absence of the first.
- 1748 A.D. Sir William Watson used an electronic machine and a vacuum pump to make the first glow discharge, the first fluorescent light bulb.
- 1775 A.D. Henry Cavendish invented the idea of capacitance and resistance
- 1785 A.D. Charles Augustine Coulombused a torsion balance to verify that the electric force law is inverse square.
- 1793 A.D. Alessandro Volta Made the first batteries and argued that animal electricity is just ordinary electricity flowing through the frog legs under impetus of the force produced by the contact of dissimilar metals.
- 1807 A.D. Humphrey Davy Showed that the essential element of Volta's pie is chemical action since pure water gives no effect.

- 1812 A.D. Poisson Showed that the potential within a distribution of electricity satisfies the equation A2v=-p/co.
- 1821 A.D. Faraday Began electrical work by repeating Oersted's experiments.
- 1850 A.D. Stokes Stokes assigned the proof of this.

Top 10 Electrical Company in India
1. Bharat Heavy Ltd (BHEL)
2. Siemens
3. ABB India Ltd
4. Havells India Ltd
5. Cromption Greaves
6. Bajaj Electricals Ltd
7. Alstom India Ltd
8. Emco Ltd
9. Power Systems Ltd
10. Kirloskar Electric Company Ltd

Top 10 Electrical Company in the world
1. EDF,France
2. ENEL,Italy
3. E.ON,Germany
4. Iberdrola,Spain
5. Duke Energy,Usa
6. Exelon,Usa
7. Southern Company,Usa
8. Next Era Energy,Usa
9. Dominion Resources,Usa
10. SSE,Uk

Literature Review
The review of literature guides the researchers for getting better understanding of methodology used, limitations of various available estimation procedures and data base and lucid interpretation and reconciliation of the conflicting results. Besides this, the review of empirical studies explores the avenues for future and present research efforts related with the subject matter. In case of conflicting and unexpected results, the researcher can take the advantage of knowledge of other researchers simply through the medium of their published works. A review of these analyses is important in order to develop an approach that can be employed in the context of the study of selected manufacturing enterprises viz. Paper, cement, sugar, steel, minerals and metals, coal and lignite, power, petroleum and chemicals and pharmaceuticals.

Therefore, the present chapter reviews the various approaches to the study on financial analysis and performance.

Feroz& et al. (2003) Ratio analysis is a commonly used analytical tool for verifying the performance of a firm. While ratios are easy to compute, which in part explains their wide appeal, their interpretation is problematic, especially when two or more ratios provide conflicting signals. Indeed, ratio analysis is often criticized on the grounds of subjectivity that is the analyst must pick and choose ratios in order to assess the overall performance of a firm. In this paper they demonstrate that Data Envelopment Analysis can augment the traditional ratio analysis. DEA can provide a consistent and reliable measure of managerial or operational efficiency of a firm. They test the null hypothesis that there is no relationship between DEA and traditional accounting ratios as measures of performance of a firm. Their results reject the null hypothesis indicating that DEA can provide information to analysts that is additional to that provided by traditional ratio analysis. They also apply DEA to the oil and gas industry to demonstrate.

Sudarsana Reddy (2003) under took a study on 'Financial Performance of Paper Industry in Andhra Pradesh' for the period from 1989-90 to 1998-99. The primary objective of the study was to analyse the investment pattern and utilization of fixed assets, ascertaining the working capital condition, reviewing the profitability performance and suggesting measures to improve the profitability. The authors have observed that more than three thousand people have got employment in ten paper and paper board mills with proportion of thousand eight hundred skilled workers and thousand two hundred unskilled labours. The authors have found out that the major problem faced by the industry is frequent breakdown of paper production especially during the summer season due to scarcity of power supply.

Alovsat Muslumov (2005) 'The financial and operating performance of privatization companies in Turkish cement industry'. This paper examines the post-privatization performance of privatized companies in the Turkish cement industry. The findings indicate that, when performance criteria for both the state and private enterprises are considered, privatization in the cement industry results in significant performance deterioration. Total value added and the return on investment declines significant after privatization. This decrease mainly stems from deterioration in asset productivity. The decline in asset productivity, however, is not caused by an increase significantly. Significant contraction in total employment and an increase in financial leverage after privatization are among the key research findings. Privatization through public offering, gradual privatization and domestic ownership are found to stimulate the financial and operating performance of firms.