



A Comparative Study of Financial Performance using Ratio Analysis between ABB and Rockwell

Prof. (Dr.) Kapil Khatter, Dinesh Mathur

Prof. (Dr.) Kapil Khatter, Research Supervisor, Jagannath University, Jaipur

Dinesh Mathur, Research Scholar, Jagannath University, Jaipur

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ABSTRACT:

Energy is the most basic necessity for the economic growth of any country. The power of energy is visible when just because the supply of energy stops, the entire living comes to a halt! In fact, it is practically impossible to estimate the importance and dependence of our lives on energy. Energy exists in many forms. Electrical energy is the most important form of energy. As we all know that energy can never be created or destroyed; it is transformed from one form to another. Likewise, electrical energy may be used in any form across different industries. Electricity is one of the most important blessings that science has given to humankind. Interestingly, the development of any country may also be attributed to its per capita consumption of electrical energy. In the present study researcher has taken top two electrical multinational to find out their financial position. The present study is based on comparative analysis of financial performance using Ratio Analysis between ABB and Rockwell.

KEYWORDS

Energy, Financial performance, Current ratio, Solvencyratio, Asset turnover ratio, Return on capital employed.

I. INTRODUCTION

Financial performance of any industry refers to the act of performing its financial activity. In other words, financial performance refers to the degree to which financial objectives being or has been accomplished. It is the process of measuring the results of a firm's policies and operations in monetary terms. It is used to measure firm's overall financial health over a given period and can be used to compare similar firms across the same industry or to compare industries or sectors in aggregation.

The firm itself as well as various interested groups such as managers, shareholders, creditors, tax authorities, and others seeks answers to the following important questions:

1. What is the financial position of the firm at a given point of time?
2. How is the Financial Performance of the firm over a given period?

These questions may be answered with the help of financial analysis of a firm. Financial analysis involves the use of financial statements. A financial statement is an organized collection of data according to logical and consistent accounting procedures. Its purpose is to convey an understanding of some financial aspects of a business firm. It

may show a position at a moment of time as in the case of a Balance Sheet, or may reveal a series of activities over a given period, as in the case of an Income Statement.

Electric Industry

The area chosen for the present study is electric industry, for which researcher has selected top two electrical multinationals. Following are the main features of MNCs:

- Location – MNCs have their headquarters in home countries and have their operational division spread across foreign countries to minimize the cost.
- Capital Assets – Major portion of the capital assets of the parent company is owned by the citizens of the company's home country.
- Board of Directors – Majority of the members of the Board of Directors are citizens of the home country.
- MNCs are large-sized corporation and exercise a great degree of economic dominance.

The Top 10 Industrial Automation companies as per plantautomation-technology.com (Top 10 Industrial Automation Companies of the World, n.d.) are listed below:

- Siemens
- ABB
- Emerson
- Rockwell Automation
- Schneider Electric
- Honeywell process solutions
- Mitsubishi electric
- Yokogawa electric
- Omron automation
- Danaher Industrial Ltd

II. SELECTED ELECTRICAL MULTINATIONALS FOR RESEARCH

The following two electrical multinationals companies selected for the research are:

ABB Limited

ABB is a pioneering technology leader that is writing the future of industrial digitalization. For more than four decades, company have been at the forefront, innovating digitally connected and enabled industrial equipment and systems. Every day, it attempts to drive efficiency, safety and productivity in utilities, industry, transport and infrastructure globally. With a heritage spanning more than 130 years, ABB operates in more than 100 countries and employs around 136,000 people. (About Us, n.d.)

ABB (Asea & Brown Boveri) established its local manufacturing facilities in Saudi Arabia in 1986 by the name Arabian Electrical Industries Co. Ltd. This company, over the



years, has developed in to the present ABB Electrical Industries Co. Ltd.

State-of-the-art technology is used throughout the manufacturing process, ensuring products and systems of the highest national and international standards. Computer Aided Design and Computer Aided Manufacturing (CAD/CAM) are extensively used in the manufacturing process. The first industrial robot and the laser cutting machines in a local industrial application were installed in our factory.

Rockwell Automation

Rockwell Automation is the largest company in the world that is dedicated to industrial automation and information. Company helps its customers to be more productive and the world more sustainable. Throughout the world, its flagship Allen-Bradley® and Rockwell Software® product brands are recognized for innovation and excellence.(Company Overview, n.d.)

III. REVIEW OF LITERATURE

A literature review is a body of text with aim to review the critical points of current knowledge including substantive findings as well as theoretical and methodological contributions to a particular topic. Literature periodicals do not report any new or original experimental work, as they are mainly from secondary sources. In addition, a literature review can be interpreted as a review of an abstract accomplishment.

Rao(Rao, 1993) has made a study about inter-company financial analysis of tea industry-retrospect and prospect. He wished to analyses the important variables of tea industry and projected future trends regarding sales and profit for the next 10-year periods, with a view to help the policy makers to take appropriate decisions. He have been calculated various financial ratios for analyzing the financial health of the industry. After the comparison of ratios, he has concluded that the forecast of sales and profits of tea manufacturing companies showed that the Indian tea industry has bright prospects.

Vijayakumar A.(Vijaykumar, 1996) has studied about 'Assessment of Corporate Liquidity - a discriminate analysis approach' in this research he has revealed that the growth rate of sales, leverage, current ratio, operating expenses to sales and vertical integration was the important variables which determine the profitability of companies in the sugar industry. In addition, he has studied the short-term liquidity position in twenty-eight selected sugar factories in co-operative and private sectors.

Sur(Sur, Liquidity Management: An overview of four companies in Indian Power Sector., 2001) studied in his paper about the Liquidity Management: An overview of four companies in Indian Power Sector using the data for the period of 1987-1997. He had applied accounting techniques of comparative analysis. He revealed that the overall liquidity should be managed in such a way that not only it should not hamper profitability but also its contribution towards increase in profitability should be positive.

Sur, Biswas & Ganguly(Sur, Biswas, & Ganguly, Liquidity Management in India Private Sector Enterprises - A Case Study of Indian Primary Aluminium Industry, 2001) have studied about the Liquidity Management in Indian Private Sector Enterprises - A case study of Indian Primary Aluminum industry. From the analysis, they had summarized that the overall performance regarding liquidity management at INDAL was better in terms of efficient utilization of short-term funds, whereas HINDALCO was unable to do so. They

found that a very high degree of positive correlation between liquidity and profitability in case of both the companies was a notable feature, reflecting the favorable effect of liquidity on profitability.

Keshwara(Keshwara, 2009) has studied about "A Study of Financial Performance of Aluminum Industry in India". In this research he has selected five aluminum industries and for analyzing the performance of aluminum industries, he has been made Inter-firm comparison by using ratios, cash-flow analysis, break-even analysis, trend analysis, average, index number, standard deviation, correlation, regression, and time series analysis. On the basis of findings, he has given some suggestion for improvement of performance like company should try to increase the production, control the cost of goods sold, adoption cost control techniques, and efficient use of funds as well investors, financial managers, and workers for taking decision related to their own regards of interest.

Bhunia, Mukhuti & Roy(Bhunia, Mukhuti, & Roy, 2011) have discussed about "Financial Performance Analysis-A Case Study". The main aim of study was to identify the financial strengths and weaknesses by covering two public sector drug & pharmaceutical enterprises listed on BSE. For study purpose, they have been selected twelve years from 1997-98 to 2008-09. They analyzed the data by using ratios, and statistical tools like A.M., S.D., C.V., linear multiple regression analysis and test of hypothesis t-test. They concluded that growth during last decade was noteworthy and market trend was growing at a faster rate. They suggested that the opportunities could be grabbed through the diversification of export basket in untouched foreign destinations.

IV. OBJECTIVES OF THE STUDY

To compare the liquidity of selected electrical multinationals during the period of study.

To determine that how much of total assets are financed by outsider funds.

To study if the funds have been used efficiently by the electrical multinational companies under study.

V. SCOPE OF THE STUDY

The present study "A Comparative Study of Financial Performance using Ratio Analysis between ABB and Rockwell" compares the ratios between ABB and Rockwell. The study attempts to find out the liquidity along with current ratio, solvency ratio, asset turnover ratio and return of capital employed of the selected companies.

Electricity is the basic need of present world. It has an important role in development of domestic life and industrial expansion. As a result, it is important to know the working and financial performance of the electric companies. The multinational electric companies' financial performance have great importance and relevance not only for their owners, shareholders, creditors, governments, etc. but also for worldwide development of civilization.

VI. RESEARCH METHODOLOGY

Sample Size: Population of this study are all electrical multinationals. For this research purpose, researcher has selected two Electrical multinationals.



Sampling Technique: Judgmental sampling technique was used in selecting companies and collecting data with respect to researcher's area of study.

Data Collection: The current study is majorly based on secondary data collected from the annual reports published by the sampled units on their website.

Period of Study: Period of this research is three years from 2013 to 2016 for the two selected electrical multinationals. The researcher took three financial years i.e. 2013-2014, 2014 -2015, 2015-2016 for the study.

VII. LIMITATIONS

The limitations of the present study are as follows:

1. Most of the strategies regarding boosting performance were confidential and authorities were reluctant to discuss about them.
2. Various techniques used by selected companies to utilize the funds were not mentioned in the Annual reports, as the major source of data collection was annual reports.

VIII. DATA INTERPRETATION AND ANALYSIS

Analysis is the process of breaking a topic into smaller parts in order to gain a better understanding. It is a systematic assessment and evaluation of information, by breaking it into parts to uncover their interrelationships. The principal tool of financial statement analysis is financial ratio analysis. Financial ratio analysis is a study of ratios between various items or groups of item in financial statements.

"Ratio analysis is a widely used tool of financial analysis. It is defined as the systematic use of ratio to interpret the financial statements so that the strengths and weaknesses of a firm, as well as its historical performance and current financial condition can be determined."(Khan & Jain)

Here researcher is calculating different ratios to study the financial performance, i.e., current ratio, solvency ratio, asset turnover ratio and return of capital employed.

Current Ratio

Current ratio is the ratio of total current assets to total current liabilities. A satisfactory current ratio would enable a firm to meet its obligations, even if the value of current assets declines. Current ratio compares the assets that will turn into cash within the year to the liabilities that must be paid within the year. A company with low current ratio lacks liquidity in the sense that it cannot reduce its current asset investments to supply cash to meet maturing obligations. It must rely instead on operating income and outside financing.

Using the above said ratio and other available data, the current ratio of the selected electrical multinationals for the selected years of study, is analyzed here:

ABB

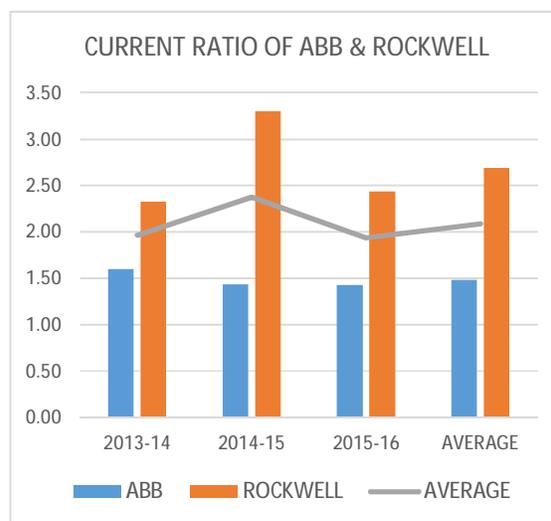
YEAR	CURRENT ASSETS	CURRENT LIABILITIES	RATIO	TREND
2013-14	24,986.00	15,580.00	1.60	100.00
2014-15	22,760.00	15,844.00	1.44	89.57
2015-16	21,940.00	15,407.00	1.42	88.80

ROCKWELL

YEAR	CURRENT ASSETS	CURRENT LIABILITIES	RATIO	TREND
2013-14	3,934.20	1,692.10	2.33	100.00
2014-15	4,391.60	1,327.70	3.31	142.26
2015-16	4,818.90	1,975.90	2.44	104.89

Comparative figures of Current Ratio of ABB & Rockwell

YEAR	ABB	ROCKWELL	AVERAGE
2013-14	1.60	2.33	1.96
2014-15	1.44	3.31	2.37
2015-16	1.42	2.44	1.93
AVERAGE	1.49	2.69	2.09



Looking at the current ratio of ABB & Rockwell, we are able to analyze that where the current ratio of ABB is always less than the ideal ratio of 2:1, the same for Rockwell is always more than the ideal. The average current ratio of ABB is 1.49 for the period of study whereas the average current ratio for Rockwell is 2.69 for the same period of study.

SolvencyRatio

Solvency is a term that refers to an enterprise's state of financial health. Solvency Ratio refers to an enterprise's capacity to meet its long-term financial commitments. It gives an insight into the ability of an organization to meet its financial obligations. It indicates how much the organization depends on its creditors and banks can use this when the organization applies for a credit facility. This ratio compares an approximation of cash flows to liabilities and is derived from the information stated in a company's income statement and balance sheet. A higher percentage indicates an increased ability to support the liabilities of a business over the long-term.



ABB

YEAR	TOTAL OUTSIDER'S FUND	TOTAL ASSETS	RATIO	TREND
2013-14	28,609.00	44,878.00	0.64	100.00
2014-15	26,875.00	41,356.00	0.65	101.94
2015-16	26,104.00	39,499.00	0.66	103.67

ROCKWELL

YEAR	TOTAL OUTSIDER'S FUND	TOTAL ASSETS	RATIO	TREND
2013-14	3,566.20	6,224.30	0.57	100.00
2014-15	4,147.90	6,404.70	0.65	113.04
2015-16	5,111.10	7,101.20	0.72	125.62

Asset turnover ratio provides a clue as to “the size of asset commitment required for a given level of sales or conversely, the sales dollars generated for each dollar of investment in assets.” (Helfert)

Using the above said ratio and other available data, the total asset turnover ratio of the selected electrical multinationals for the selected years of study, is analyzed here:

ABB

YEAR	SALES	TOTAL ASSETS	RATIO	TREND
2013-14	39,830.00	44,878.00	0.89	100.00
2014-15	35,481.00	41,356.00	0.86	96.67
2015-16	33,828.00	39,499.00	0.86	96.50

ROCKWELL

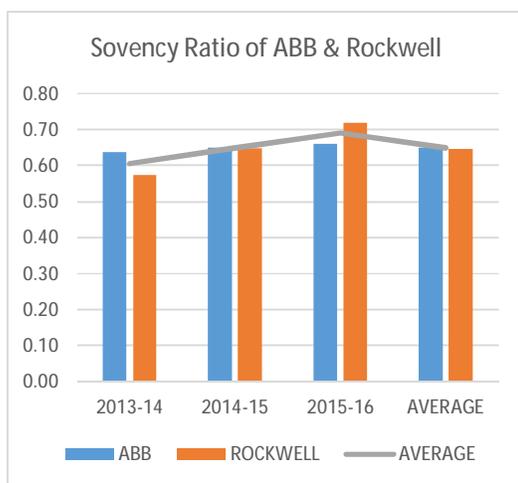
YEAR	SALES	TOTAL ASSETS	RATIO	TREND
2013-14	6,623.50	6,224.30	1.06	100.00
2014-15	6,307.90	6,404.70	0.98	92.55
2015-16	5,879.50	7,101.20	0.83	77.81

Comparative figures of Solvency Ratio of ABB & Rockwell

YEAR	ABB	ROCKWELL	AVERAGE
2013-14	0.64	0.57	0.61
2014-15	0.65	0.65	0.65
2015-16	0.66	0.72	0.69
AVERAGE	0.65	0.65	0.65

Comparative figures of asset turn-over ratio of ABB & Rockwell

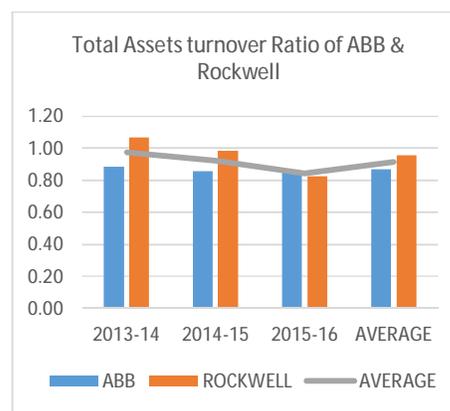
YEAR	ABB	ROCKWELL	AVERAGE
2013-14	0.89	1.06	0.98
2014-15	0.86	0.98	0.92
2015-16	0.86	0.83	0.84
AVERAGE	0.87	0.96	0.91



Looking at the solvency ratio of ABB & Rockwell, we are able to analyze both the companies have a solvency ratio less than 1.0. The average solvency ratios of both ABB and Rockwell is 0.65 for the period of study.

Asset Turnover Ratio

The assets turnover ratio is a good measure to test the effectiveness of investment to generate sales revenue. Asset turnover is the sales generated per dollar of asset. The ratio is a measure of capital intensity, with a low asset turnover signifying a capital-intensive business and a high turnover the reverse. The nature of a company's products and its competitive strategy contribute significantly to the asset turnover it achieves. Management diligence and creativity in controlling assets is also vital. When technology is similar among competitors, control of assets is often the margin between success and failure.



Looking at the Asset Turnover Ratio of both ABB and Rockwell, we analyze that for both the companies the asset turnover ratio is less than one. It is also observed that the asset turnover ratio for Rockwell is decreasing every year, which is not satisfactory. The average asset turnover ratio for ABB for the period of study is 0.87 and that for Rockwell is 0.96.

Return on Capital Employed

“Return on capital employed or ROCE is a profitability ratio that measures how efficiently a company can generate profits from its capital employed by comparing net operating profit to capital employed. In other words, return on capital



employed shows investors how many dollars in profits each dollar of capital employed generates.

This ratio is based on two important calculations: operating profit and capital employed. Net operating profit is often called EBIT or earnings before interest and taxes. EBIT is often reported on the income statement because it shows the company profits generated from operations. EBIT can be calculated by adding interest and taxes back into net income if need be.

Capital employed is a convoluted term because it can be used to refer to many different financial ratios. Most often capital employed refers to the total assets of a company less all current liabilities. This could also be looked at as stockholders' equity less long-term liabilities. Both equal the same figure."

ABB

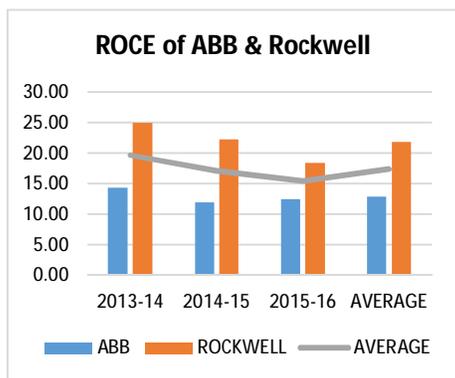
YEAR	NET EBITA	Net Capital Employed	ROCE
2013-14	4,178.00	29298.00	14.26
2014-15	3,049.00	25512.00	11.95
2015-16	2,987.00	24092.00	12.40

ROCKWELL

YEAR	NET EBITA	Net Capital Employed	ROCE
2013-14	1,134.20	4532.20	25.03
2014-15	1,127.50	5077.00	22.21
2015-16	943.10	5125.30	18.40

Comparative figures of Return on Capital Employed of ABB & Rockwell

YEAR	ABB	ROCKWELL	AVERAGE
2013-14	14.26	25.03	19.64
2014-15	11.95	22.21	17.08
2015-16	12.40	18.40	15.40
AVERAGE	12.87	21.88	17.37



Looking at the return on capital employed for ABB & Rockwell, we are able to analyze the ROCE for ABB falls between 11.95 to 14.26 with an average of 12.87 for the period of study. The same for Rockwell falls between 18.40 to 25.03 with an average of 21.88.

XI. FINDINGS

From the analysis done and the objectives undertaken, we make the following findings:

Current Ratios: A current ratio less than 2 indicates that the company is over trading and under capitalizing, whereas higher current ratio indicates under trading and over capitalizing. ABB's low current ratio for the period of study indicates that it lacks liquidity and hence it is difficult for ABB to control its current asset investments in order to meet its financial requirements. Likewise, Rockwell's high current ratio refers to bad financial planning or presence of idle assets or over-capitalization.

Solvency Ratios: Low solvency ratio happens when the market value of assets bought with debt depreciate. This can happen to not only shares and mutual funds, but also to safe assets like bonds - which depreciate when interest rates rise. Low solvency ratio of ABB and Rockwell (which is less than one) clearly shows that the companies are in danger zone, and if it continues to move down, it could head into a debt trap.

Asset Turnover Ratio: Firms, which have large asset bases, will have lower asset turnover. It is clear from analysis that asset turnover ratio of Rockwell is more than ABB, which indicates that it has better sales in comparison to its assets.

Return On Capital Employed: A higher ratio would be more favorable because it means that more dollars of profits are generated by each dollar of capital employed. Investors are interested in the ratio to see how efficiently a company uses its capital employed as well as its long-term financing strategies. Companies' returns should always be high than the rate at which they are borrowing to fund the assets. Thus, it clear that the investors will find Rockwell more financially stable.

X. SUGGESTIONS

On the basis of above findings, the researcher recommends the following suggestions:

Current Ratios: Both ABB and Rockwell should work towards increasing its current ratio. This is possible by making sure that the current assets are almost double the current liabilities. Thus, both companies should focus on increasing their current assets. Other measures could be paying off current liabilities, rising shareholder's funds, etc.

Solvency Ratios: Both ABB and Rockwell should work towards increasing its solvency ratio. This is possible by controlling total assets and by increasing outsider's funds. Both ABB and Rockwell should take benefit of trading on equity properly. In this case, the companies should borrow long-term funds from the market and increase earnings per share.

Asset Turnover Ratio: Firms, which have large asset bases, will have lower asset turnover. It is clear from analysis that asset turnover ratio of Rockwell is more than ABB, which indicates that it has better sales in comparison to its assets. However, there is a decline in the asset turnover ratio of Rockwell, which can be controlled by increasing sale, selling assets, accelerating collections, etc.

Return On Capital Employed: ABB should consider improving its ROCE. The most obvious way to achieve this is by reducing costs or increasing sales. Selling unwanted or unprofitable assets, paying off debts, etc. are other ways to achieve this.



XI. CONCLUSION

The researcher has attempted through the research to study and understand the financial performance of two major players in the electrical multinationals, i.e. ABB and Rockwell. The researcher also made an effort to understand and evaluate the liquidity position, efficient usage of funds, and study the finance by outsider's funds.

The study has highlighted that Current ratio of Rockwell is more than ABB, solvency ratio of both the companies are less than one, asset turnover ratio of ABB is less than Rockwell and ROCE of Rockwell is more than ABB.

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