

Financial Performance Analysis of Selected Industrial Automation Companies in India - A Comparative Study

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Abstract: *In the present era of technology, Automation is the need of the hour as it minimizes human intervention in various industrial operations and improves efficiency. Automation involves the use of control systems in various industrial operations in different industries like automobile, cement, pharmaceuticals, etc. Automation not only reduces human intervention but also saves time and energy in performing various industrial operations. Also, automation replaces humans in tasks performed in high temperatures or toxic environment. There are many automation companies operating in the country that offer great automation products for different domains. The main purpose of this paper is to study and analyse Financial Performance of Selected Industrial Automation Companies in India (like ABB Ltd., Honeywell Automation India Limited and Rockwell Automation). This study was done based on secondary data collected from multiple sources of evidence, in addition to books, journals, websites, and newspapers.*

Keywords: Asset Turn-Over Ratio, Automation, CurrentRatio, Financial performance, Return on Capital Employed and Solvency Ratio

1. Introduction

Industrial Automation companies use control systems, to operate machinery, which help to finish a particular process. In the present era of technology, Automation is the need of the hour as it minimizes human intervention in various industrial operations and improves efficiency. Automation involves the use of control systems in various industrial operations in different industries like automobile, cement, pharmaceuticals, etc.

Using automation machines, which leads to reduction in manpower (labour usage). On the other hand, it also helps to enhance the quality, precision and accuracy of systems. Industries such as mechanical, airplanes, hydraulics, computers and many others have been using the automation.

Industrial Automation machines assist to simplify the tasks and they (robots) can be operated in the most dangerous situations where a man cannot be capable to do. This is the reason why they have gained a prominent place in the industries. Automation not only reduces human intervention but also saves time and energy in performing various industrial operations. Also, automation replaces humans in tasks performed in high temperatures or toxic environment.

There are many automation companies operating in the country that offer great automation products for different domains. The Top 10 automation companies in India are listed below:

- 1) Siemens
- 2) ABB Ltd.
- 3) Honeywell Automation India Limited
- 4) Rockwell Automation
- 5) Titan Automation Solutions
- 6) Cadillac Automation & Controls
- 7) B & R Industrial Automation Pvt Ltd
- 8) SMEC Automation
- 9) Godrej Efacec Automation & Robotics Ltd

10) Adage Automation Private Limited

Selected industrial automation companies (electrical multinationals) for research

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

ABB Ltd



Corporate Office – Bangalore, Karnataka
Establishment – 1893

Business – Power, Distribution and Automation
Website – www.abb.com

ABB is a Swizz multinational company and ranked second in the list of top 10 automation companies in India. ABB made debut in India in the year 1949 and operates in automation, robotics and power. ABB is a global company, which excels in the fields of Power and automation technologies that have been one of the most important companies in India throughout the decades. ABB is the leading technological and Automation Company that provides innovating digitally connected and enabled industrial equipment and systems. It is popular for manufacturing robotics. ABB is operated in more than 100 countries and employs around 132,000 people. ABB are utilized by industries such as Aluminium, Automotive, Buildings and Infrastructure, Cement, Chemical, Data Centres, Energy Efficiency, Food and Beverage, OEM and Panel Builders, Oil and Gas. The product range of ABB includes: Control Room Solutions, Drives, High Voltage Products, Low Voltage Products and Systems, Measurement and Analytics, Mechanical Power Transmission Products and Medium Voltage Products.

Honeywell India



Corporate Office – Pune, Maharashtra

Volume 10 Issue 2, February 2021

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Establishment – 1906
Business – Automation and process solution
website – www.honeywell.com

Honeywell is an American multinational company, which started its operation in India through its subsidiary, Honeywell Automation India Limited and ranked third in the list of top 10 automation companies in India. Honeywell Automation India Limited offers a complete range of automation products for various industries like Healthcare, Chemical, Automotive, Manufacturing, Energy, etc. Honeywell Automation India Limited has a manufacturing facility in Pune, which is equipped with the state of the art technology. Honeywell process solutions produces a variety of commercial and consumer products. This American based company offers services in the field of aerospace engineering. It has pioneered process automation control for more than 40 years with a continuous evolution from legacy process control systems to today's leading innovations such as Experion® PKS, protecting our customers' investments in automation assets. The products of Honeywell process solutions include: Advanced Software, Control, Monitoring and Safety Systems, Energy & Emissions Management, Gas Measurement & Regulation, Industrial Security, Instrumentation, Marine, Terminal Operations and Wireless.

Rockwell Automation



Corporate Office – Noida, Uttar Pradesh
Establishment – 1903
Business – automation, Instrumentation and Process control
Website – www.rockwellautomation.com

Rockwell Automation stands among front runners in this segment and offers a complete solution for industrial automation and ranked fourth in the list of top 10 automation companies in India. The company offer its efficient automation products under different brand names like Allen-Bradley, Rockwell Software, Anorad, ICS Triplex, etc. Rockwell Automation is one of the top industrial automation companies across the globe. It is situated in Milwaukee with offices in more than 80 countries worldwide. This company focuses on architecture and software segments. Products of Rockwell Automation include: Advanced Process Control, Condition Monitoring & I/O, Design & Operations Software, Distributed Control Systems, Drive Systems, Drives, Human Machine Interface, Industrial Control Products, Industrial Network Products, Industrial Sensors, Manufacturing Execution System and Motion Control.

Objective of the study

The present study made an attempt to examine the financial soundness and performance of Selected Industrial Automation Companies in India. The main objectives are:

- To evaluate the financial statement analysis of Selected Industrial Automation Companies in India- namely ABB Ltd., Honeywell Automation India Limited and Rockwell Automation using the different statistical tools.

- To make comparative analyze of their financial soundness and performance under the study period (i.e. for a period of 6 Years - between 1st April 2015 and 31st March 2020).

2. Research Methodology

This research follows the analytical research methodology which is based on the quantitative data. The main source of data used for the study is secondary data derived from the published Annual Reports of the Selected Industrial Automation Companies in India. The information related with theoretical background has been collected from websites, journals, magazines, newspapers and books. Present study covers the financial statement analysis of Selected Industrial Automation Companies in India- namely ABB Ltd., Honeywell Automation India Limited and Rockwell Automation for Five consecutive years. The year of the study is between 2015 and 2020. The Rationale behind selecting is based on the availability of data. For this purpose, exploratory method has been adopted as it helps to investigate any problem with suitable hypothesis, and it is also important for the clarification of the concept.

Limitations of the study

- The financial statements and annual report were used; hence the data collected is secondary in nature.
- False Results: In case the data upon which the ratios are computed are incorrect, then the ratios calculated would also be incorrect.
- Limited Comparability: The different accounting policies followed by firms will not make some of the accounting ratios strictly comparable.
- Ratio analysis is only a quantitative method of performance analysis and hence ignores qualitative factors.
- Ratio analysis is only to measure profitability, efficiency and financial soundness but they aren't the solution to real time problem.
- The scope of study analysis is only for 6 years (between 2015 and 2020).

Tools and techniques of analysis

The collected data have been suitably re-arranged, classified and tabulated as per the requirement of the study and the following techniques have been applied:

Accounting Ratios: Accounting ratios like Current Ratio, Quick Ratio, Debt/Equity Ratio, PE Ratio, ROE - Return on Equity, ROA - Return on Assets, ROI - Return on Investment, Solvency Ratio, Asset Turn-Over Ratio, Return on Capital Employed – ROCE and Annual Worldwide Employee Count for Six financial years have been calculated. Comparison of current to past performance using ratios enables analyst to assess a firm's progress.

3. Data Analysis and Interpretation

Table 1 to 11 (Source: Secondary Data through Audited Annual Report)

Table 1: Current Ratio

Year	ABB Ltd.				Rockwell Automation				Honeywell Automation India Limited			
	Current Assets	Current Liabilities	Ratio	Trend	Current Assets	Current Liabilities	Ratio	Trend	Current Assets	Current Liabilities	Ratio	Trend
2015	\$24.00B	\$14.66B	1.64	100.00	\$4.05B	\$1.28B	3.16	100.00	\$22.27B	\$15.43B	1.44	100.00
2016	\$23.08B	\$15.77B	1.46	89.02	\$4.06B	\$1.51B	2.70	85.44	\$19.53B	\$15.66B	1.25	86.81
2017	\$22.21B	\$15.15B	1.47	89.63	\$4.32B	\$2.03B	2.13	67.41	\$23.58B	\$17.28B	1.37	95.14
2018	\$22.31B	\$19.37B	1.15	70.12	\$3.94B	\$1.88B	2.10	66.46	\$25.59B	\$18.76B	1.36	94.44
2019	\$21.81B	\$17.78B	1.23	75.00	\$2.98B	\$1.87B	1.59	50.32	\$24.33B	\$19.59B	1.24	86.11
2020	\$29.03B	\$24.55B	1.18	71.95	\$2.76B	\$1.76B	1.57	49.68	\$22.61B	\$17.38B	1.30	90.28
Mean			1.36				2.21				1.33	

Interpretation: The above Table 1 describes that the Mean Current Ratio of Rockwell Automation is 2.21 which is maximum compared to minimum of 1.33 for Honeywell Automation India Limited between 2015 and 2020. Honeywell Automation India Limited and ABB Ltd has a Mean Current Ratio of 1.33 and 1.36 respectively between 2015 and 2020; this indicates that the company may have problems meeting its short-term obligations (Current Liabilities). Since the current ratio is less than the ideal ratio of 2:1 indicates the poor quality and the debt repayment

capacity of the firm is not satisfactory. Also, it doesn't ensure the safety of the investments made by the creditors. Whereas for Rockwell Automation the Mean Current Ratio is 2.21 between 2015 and 2020 which is above the ideal ratio of 2:1, thus a satisfactory Current Ratio that 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.

Table 2: Quick Ratio

Year	ABB Ltd.				Rockwell Automation				Honeywell Automation India Limited			
	Current Assets - Inventory	Current Liabilities	Ratio	Trend	Current Assets - Inventory	Current Liabilities	Ratio	Trend	Current Assets - Inventory	Current Liabilities	Ratio	Trend
2015	\$18.65B	\$14.66B	1.27	100.00	\$3.45B	\$1.28B	2.70	100.00	\$17.77B	\$15.43B	1.15	100.00
2016	\$17.98B	\$15.77B	1.14	89.76	\$3.49B	\$1.51B	2.32	85.93	\$14.79B	\$15.66B	0.94	81.74
2017	\$17.48B	\$15.15B	1.15	90.55	\$3.77B	\$2.03B	1.86	68.89	\$18.93B	\$17.28B	1.10	95.65
2018	\$16.70B	\$19.37B	0.86	67.72	\$3.37B	\$1.88B	1.80	66.67	\$20.82B	\$18.76B	1.11	96.52
2019	\$17.35B	\$17.78B	0.98	77.17	\$2.31B	\$1.87B	1.24	45.93	\$19.79B	\$19.59B	1.01	87.83
2020	\$24.67B	\$24.55B	1.01	79.53	\$2.13B	\$1.76B	1.21	44.81	\$18.03B	\$17.38B	1.04	90.43
Mean			1.07				1.86				1.06	

Interpretation: The above Table 2 describes that the Mean Quick ratio of Rockwell Automation is 1.86 which is maximum compared to minimum of 1.06 for Honeywell Automation India Limited between 2015 and 2020. Rockwell Automation, Honeywell Automation India Limited and ABB Ltd has a Mean Quick Ratio of 1.86, 1.06 and 1.07 respectively between 2015 and 2020; Quick ratio (also known as "acid test ratio" and "liquid ratio") is used to test the ability of a business to pay its short-term debts. It measures the relationship between liquid assets and current liabilities. Liquid assets are equal to total current assets minus inventories and prepaid expenses. Quick ratio is more reliable test of short-term solvency than current ratio because it shows the ability of the business to pay short term

debts immediately. Inventories and prepaid expenses are excluded from current assets for the purpose of computing quick ratio because inventories may take long period of time to be converted into cash and prepaid expenses cannot be used to pay current liabilities. Generally, a quick ratio of 1:1 is considered satisfactory. Like current ratio, this ratio should also be interpreted carefully. Having a quick ratio of 1:1 or higher does not mean that the company has a strong liquidity position because a company may have high quick ratio but slow paying debtors. On the other hand, a company with low quick ratio may have fast moving inventories. The analyst, therefore, must have a hard look on the nature of individual assets.

Table 3: Debt/Equity Ratio

Year	ABB Ltd.				Rockwell Automation				Honeywell Automation India Limited			
	Long Term Debt	Shareholder's Equity	Ratio	Trend	Long Term Debt	Shareholder's Equity	Ratio	Trend	Long Term Debt	Shareholder's Equity	Ratio	Trend
2015	\$26.85B	\$16.28B	1.65	100.00	\$3.71B	\$2.57B	1.45	100.00	\$27.68B	\$17.68B	1.57	100.00
2016	\$26.45B	\$15.37B	1.72	104.24	\$4.32B	\$2.22B	1.95	134.48	\$31.99B	\$18.37B	1.74	110.83
2017	\$25.37B	\$14.94B	1.70	103.03	\$4.87B	\$2.20B	2.22	153.10	\$34.30B	\$20.48B	1.68	107.01
2018	\$29.63B	\$13.94B	2.13	129.09	\$4.57B	\$1.95B	2.35	162.07	\$43.17B	\$17.77B	2.43	154.78
2019	\$30.50B	\$15.10B	2.02	122.42	\$4.92B	\$1.34B	3.68	253.79	\$39.60B	\$18.96B	2.09	133.12
2020	\$36.07B	\$12.03B	3.00	181.82	\$5.73B	\$0.94B	6.11	421.38	\$39.56B	\$17.87B	2.21	140.76
Mean			2.04				2.96				1.95	

Interpretation: The above Table 3 describes that the Mean Debt Equity Ratio of Rockwell Automation is 2.96 which is maximum compared to minimum of 1.95 for Honeywell Automation India Limited between 2015 and 2020. Rockwell Automation, Honeywell Automation India Limited and ABB Ltd has a Mean Debt Equity Ratio of 2.96, 1.95 and 2.04 respectively between 2015 and 2020. Rockwell

Automation has higher debt to equity ratio between 2015 and 2020, which is considered riskier to both creditors and investors. A high debt-to-equity ratio also indicates that a company may not be able to generate enough cash to satisfy its debt obligations. Lower the debt to equity ratio, means that investors and creditors have an equal stake in the business assets.

Table 4: PE Ratio

Year	ABB Ltd.				Rockwell Automation				Honeywell Automation India Limited			
	Stock Price	Net EPS	Ratio	Trend	Stock Price	Net EPS	Ratio	Trend	Stock Price	Net EPS	Ratio	Trend
2015	18.18	\$1.15	15.81	100.00	102.77	\$6.29	16.34	100.00	89.87	\$5.46	16.46	100.00
2016	16.68	\$0.84	19.85	125.55	103.37	\$5.70	18.14	111.02	98.62	\$6.17	15.98	97.08
2017	20.09	\$1.03	19.51	123.40	144.85	\$5.99	24.18	147.98	112.93	\$6.31	17.90	108.75
2018	21.09	\$0.96	21.96	138.90	165.05	\$3.17	52.07	318.67	133.31	\$2.26	58.99	358.38
2019	17.37	\$1.00	17.37	109.87	169.86	\$7.92	21.45	131.27	154.49	\$9.02	17.13	104.07
2020	17.26	\$0.60	28.77	181.97	149.48	\$6.06	24.67	150.98	132.10	\$8.70	15.18	92.22
Mean			20.55				26.14				23.61	

Interpretation: The above Table 4 describes that the Mean PE Ratio of Rockwell Automation is 26.14 which is maximum compared to minimum of 20.55 for ABB Ltd. between 2015 and 2020. Rockwell Automation, Honeywell Automation India Limited and ABB Ltd has a Mean PE Ratio of 26.14, 23.61 and 20.55 respectively between 2015 and 2020 which is higher than the average P/E for the S&P 500 Index (Standard & Poor's 500 Index) that historically ranged from 13 to 15. The price to earnings ratio is calculated by taking the latest closing price and dividing it by the most recent earnings per share (EPS) number. The PE

ratio is a simple way to assess whether a stock is over or under valued and is the most widely used valuation measure. The Price Earnings Ratio (P/E Ratio) is the relationship between a company's stock price and earnings per share (EPS). It is a popular ratio that gives investors a better sense of the value of the company. The P/E ratio shows the expectations of the market and is the price you must pay per unit of current earnings (or future earnings, as the case may be). A higher P/E ratio shows that investors are willing to pay a higher share price today because of growth expectations in the future.

Table 5: ROE - Return on Equity

Year	ABB Ltd.				Rockwell Automation				Honeywell Automation India Limited			
	Net Income	Shareholder's Equity	Return on Equity	Trend	Net Income	Shareholder's Equity	Return on Equity	Trend	Net Income	Shareholder's Equity	Return on Equity	Trend
2015	\$2.61B	\$16.28B	15.17%	100.00	\$0.87B	\$2.57B	33.02%	100.00	\$4.34B	\$17.68B	23.66%	100.00
2016	\$1.87B	\$15.37B	12.34%	81.34	\$0.76B	\$2.22B	32.85%	99.49	\$4.87B	\$18.37B	26.57%	112.30
2017	\$2.12B	\$14.94B	15.19%	100.13	\$0.78B	\$2.20B	37.37%	113.17	\$4.92B	\$20.48B	25.13%	106.21
2018	\$2.06B	\$13.94B	14.23%	93.80	\$0.41B	\$1.95B	18.47%	55.94	\$1.66B	\$17.77B	8.70%	36.77
2019	\$2.14B	\$15.10B	14.61%	96.31	\$0.97B	\$1.34B	68.48%	207.39	\$6.74B	\$18.96B	36.69%	155.07
2020	\$1.28B	\$12.03B	9.64%	63.55	\$0.71B	\$0.94B	80.54%	243.91	\$6.31B	\$17.87B	34.59%	146.20
Mean			13.53%				45.12%				25.89%	

Interpretation: The above Table 5 describes that the Mean ROE - Return on Equity of Rockwell Automation is 45.12% which is maximum compared to minimum of 13.53% for ABB Ltd. between 2015 and 2020. Rockwell Automation, Honeywell Automation India Limited and ABB Ltd has a Mean ROE - Return on Equity of 45.12%, 25.89% and 13.53% respectively between 2015 and 2020. ROE of Rockwell Automation and Honeywell Automation India Limited are considered to be above satisfactory because ROEs between 15–20% are generally considered good. Whereas ROE of ABB Ltd is below the considered value between 15-20%, hence the company has to improve its ROE. Return on equity can be defined as the amount of net income returned as a percentage of shareholder's equity.

Return on equity measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested. The higher the ROE, the more easily, the company will be able to raise money for growth. ROE is especially used for comparing the performance of companies in the same industry. As with return on capital, a ROE is a measure of management's ability to generate income from the equity available to it. ROEs of 15–20% are generally considered good. ROE is also a factor in stock valuation, in association with other financial ratios. While higher ROE ought intuitively to imply higher stock prices, in reality, predicting the stock value of a company based on its ROE is dependent on too many other factors to be of use by itself.

Table 6: ROA - Return on Assets

Year	ABB Ltd.				Rockwell Automation				Honeywell Automation India Limited			
	Net Income	Total Assets	Return on Assets	Trend	Net Income	Total Assets	Return on Assets	Trend	Net Income	Total Assets	Return on Assets	Trend
2015	\$2.61B	\$43.14B	5.78%	100.00	\$0.87B	\$6.28B	13.97%	100.00	\$4.34B	\$45.36B	9.45%	100.00
2016	\$1.87B	\$41.81B	4.46%	77.16	\$0.76B	\$6.54B	11.81%	84.54	\$4.87B	\$50.37B	10.10%	106.88
2017	\$2.12B	\$40.31B	5.23%	90.48	\$0.78B	\$7.07B	11.11%	79.53	\$4.92B	\$54.78B	9.21%	97.46
2018	\$2.06B	\$43.57B	4.85%	83.91	\$0.41B	\$6.51B	5.89%	42.16	\$1.66B	\$60.95B	2.85%	30.16
2019	\$2.14B	\$45.60B	4.75%	82.18	\$0.97B	\$6.25B	15.99%	114.46	\$6.74B	\$58.56B	11.33%	119.89
2020	\$1.28B	\$48.10B	2.78%	48.10	\$0.71B	\$6.67B	10.93%	78.24	\$6.31B	\$57.42B	10.78%	114.07
Mean			4.64%				11.62%				8.95%	

Interpretation: The above Table 6 describes that the Mean ROA - Return on Assets of Rockwell Automation is 11.62% which is maximum compared to minimum of 4.64% for ABB Ltd. between 2015 and 2020. Rockwell Automation, Honeywell Automation India Limited and ABB Ltd has a Mean ROA - Return on Assets of 11.62%, 8.95% and 4.64% respectively between 2015 and 2020. ROA of Rockwell Automation and Honeywell Automation India Limited are considered to be above satisfactory because ROAs over 5% are generally considered good. Whereas ROA of ABB Ltd is below the considered value over 5%, hence the company has to improve its ROA. Return on assets can be defined as an

indicator of how profitable a company is relative to its total assets. Return on assets is calculated by dividing a company's operating earnings by its total assets. Return on assets (ROA) is an indicator of how profitable a company is relative to its total assets. ROA gives a manager, investor, or analyst an idea as to how efficient a company's management is at using its assets to generate earnings. Return on assets is displayed as a percentage. Return on assets gives an indication of the capital intensity of the company, which will depend on the industry; companies that require large initial investments will generally have lower return on assets.

Table 7: ROI - Return on Investment

Year	ABB Ltd.				Rockwell Automation				Honeywell Automation India Limited			
	Net Income	LT Investments & Debt	Return on Investment	Trend	Net Income	LT Investments & Debt	Return on Investment	Trend	Net Income	LT Investments & Debt	Return on Investment	Trend
2015	\$4.18B	\$23.49B	17.00%	100.00	\$1.18B	\$4.07B	31.98%	100.00	\$6.08B	\$23.34B	24.65%	100.00
2016	\$2.97B	\$21.49B	13.85%	81.47	\$1.02B	\$3.73B	26.68%	83.43	\$6.90B	\$28.07B	27.69%	112.33
2017	\$3.23B	\$20.82B	16.11%	94.76	\$0.98B	\$3.44B	28.16%	88.06	\$5.90B	\$31.66B	19.51%	79.15
2018	\$1.83B	\$19.23B	8.71%	51.24	\$1.15B	\$3.18B	33.00%	103.19	\$6.49B	\$30.51B	20.88%	84.71
2019	\$2.19B	\$22.15B	10.26%	60.35	\$1.26B	\$3.27B	44.52%	139.21	\$6.62B	\$27.55B	22.36%	90.71
2020	\$1.72B	\$18.86B	8.35%	49.12	\$0.88B	\$2.91B	30.96%	96.81	\$6.90B	\$29.41B	23.94%	97.12
Mean			12.38%				32.55%				23.17%	

Interpretation: The above Table 7 describes that the Mean ROI - Return on Investment of Rockwell Automation is 32.55% which is maximum compared to minimum of 12.38% for ABB Ltd. between 2015 and 2020. Rockwell Automation, Honeywell Automation India Limited and ABB Ltd has a Mean ROI - Return on Investment of 32.52%, 23.17% and 12.38% respectively between 2015 and 2020. ROI of Rockwell Automation, ABB Ltd. and Honeywell Automation India Limited are below the considered value 5:1, hence the companies have to improve its ROI. Return on Investment (ROI) is a performance measure used to

evaluate the efficiency of an investment or compare the efficiency of a number of different investments. ROI tries to directly measure the amount of return on a particular investment, relative to the investment's cost. A good marketing ROI is 5:1. A ratio over 5:1 is considered strong for most businesses, and a 10:1 ratio is exceptional. Achieving a ratio higher than 10:1 ratio is possible, but it shouldn't be the expectation. Your target ratio is largely dependent on your cost structure and will vary depending on your industry.

Table 8: Solvency Ratio

Year	ABB Ltd.				Rockwell Automation				Honeywell Automation India Limited			
	Total Liabilities (Millions of US \$)	Total Assets (Millions of US \$)	Ratio	Trend	Total Liabilities (Millions of US \$)	Total Assets (Millions of US \$)	Ratio	Trend	Total Liabilities (Millions of US \$)	Total Assets (Millions of US \$)	Ratio	Trend
2015	\$26,368	\$41,356	0.64	100.00	\$4,148	\$6,405	0.65	100.00	\$30,898	\$49,316	0.63	100.00
2016	\$25,305	\$39,202	0.65	101.56	\$5,111	\$7,101	0.72	110.77	\$34,599	\$54,146	0.64	101.59
2017	\$28,109	\$43,458	0.65	101.56	\$4,498	\$7,162	0.63	96.92	\$42,805	\$59,470	0.72	114.29
2018	\$29,907	\$44,441	0.67	104.69	\$4,645	\$6,262	0.74	113.85	\$39,415	\$57,773	0.68	107.94
2019	\$32,128	\$46,108	0.70	109.38	\$5,709	\$6,113	0.93	143.08	\$39,973	\$58,679	0.68	107.94
2020	\$36,071	\$48,103	0.75	117.19	\$5,918	\$7,265	0.81	124.62	\$39,557	\$57,422	0.69	109.52
Mean			0.68				0.75				0.67	

Interpretation: The above Table 8 describes that the Mean Solvency Ratio of Rockwell Automation is 0.75 which is maximum compared to minimum of 0.67 for Honeywell Automation India Limited between 2015 and 2020. Rockwell Automation, Honeywell Automation India Limited and ABB Ltd has a Mean Solvency Ratio of 0.75, 0.67 and 0.68 respectively between 2015 and 2020; 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 Rockwell Automation, Honeywell Automation India Limited and ABB Ltd (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.

Table 9: Asset Turn-Over Ratio

Year	ABB Ltd.				Rockwell Automation				Honeywell Automation India Limited			
	Sales (Millions of US \$)	Total Assets (Millions of US \$)	Ratio	Trend	Sales (Millions of US \$)	Total Assets (Millions of US \$)	Ratio	Trend	Sales (Millions of US \$)	Total Assets (Millions of US \$)	Ratio	Trend
2015	\$35,481	\$41,356	0.86	100.00	\$6,308	\$6,405	0.98	100.00	\$38,581	\$49,316	0.78	100.00
2016	\$33,828	\$39,202	0.86	100.00	\$5,880	\$7,101	0.83	84.69	\$39,302	\$54,146	0.73	93.59
2017	\$25,196	\$43,458	0.58	67.44	\$6,311	\$7,162	0.88	89.80	\$40,534	\$59,470	0.68	87.18
2018	\$27,662	\$44,441	0.62	72.09	\$6,666	\$6,262	1.06	108.16	\$41,802	\$57,773	0.72	92.31
2019	\$27,978	\$46,108	0.61	70.56	\$6,695	\$6,113	1.10	112.24	\$36,709	\$58,679	0.63	80.77
2020	\$26,020	\$48,103	0.54	62.90	\$6,330	\$7,265	0.87	88.78	\$33,233	\$57,422	0.58	
Mean			0.68				0.95				0.69	

Interpretation: The above Table 9 describes that the Mean Asset Turn-Over Ratio of Rockwell Automation is 0.95 which is maximum compared to minimum of 0.68 for ABB Ltd between 2015 and 2020. Rockwell Automation, Honeywell Automation India Limited and ABB Ltd has a Mean Asset Turn-Over Ratio of 0.95, 0.69 and 0.68 respectively between 2015 and 2020; which is less than one. It is also observed that the asset turnover ratio for Rockwell Automation, Honeywell Automation India Limited and ABB Ltd are decreasing every year, which is not satisfactory. Assets turnover ratio is a 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. 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)

Table 10: Return on Capital Employed - ROCE

Year	ABB Ltd.				Rockwell Automation				Honeywell Automation India Limited			
	Total Assets (Millions of US \$)	Current Liabilities (Millions of US \$)	Net Capital Employed = Total Assets - Current Liabilities (Millions of US \$)	Trend	Total Assets (Millions of US \$)	Current Liabilities (Millions of US \$)	Net Capital Employed = Total Assets - Current Liabilities (Millions of US \$)	Trend	Total Assets (Millions of US \$)	Current Liabilities (Millions of US \$)	Net Capital Employed = Total Assets - Current Liabilities (Millions of US \$)	Trend
2015	\$41,256	\$14,660	\$26,596		\$6,405	\$1,280	\$5,125		\$49,316	\$15,430	\$33,886	
2016	\$39,202	\$15,770	\$23,432		\$7,101	\$1,510	\$5,591		\$54,146	\$15,660	\$38,486	
2017	\$43,458	\$15,150	\$28,308		\$7,162	\$2,030	\$5,132		\$59,470	\$17,280	\$42,190	
2018	\$44,441	\$19,370	\$25,071		\$6,262	\$1,880	\$4,382		\$57,773	\$18,760	\$39,013	
2019	\$46,108	\$17,780	\$28,328		\$6,113	\$1,870	\$4,243		\$58,679	\$19,590	\$39,089	
2020	\$48,103	\$24,550	\$23,553		\$7,265	\$1,760	\$5,505		\$57,422	\$17,380	\$40,042	
Year	Net EBITA (Millions of US \$)	Net Capital Employed (Millions of US \$)	Ratio	Trend	Net EBITA (Millions of US \$)	Net Capital Employed (Millions of US \$)	Ratio	Trend	Net EBITA (Millions of US \$)	Net Capital Employed (Millions of US \$)	Ratio	Trend
2015	\$3,049	\$26,596	11.46	100	\$1,128	\$5,125	22.01	100	\$6,828	\$33,886	20.15	100
2016	\$2,987	\$23,432	12.75	111.20	\$943	\$5,591	16.87	76.63	\$6,051	\$38,486	15.72	78.03
2017	\$2,230	\$28,308	7.88	68.70	\$1,037	\$5,132	20.21	91.81	\$6,303	\$42,190	14.94	74.14
2018	\$2,226	\$25,071	8.88	77.44	\$1,331	\$4,382	30.37	146.20	\$6,705	\$39,013	17.19	85.29
2019	\$1,938	\$28,328	6.84	59.66	\$901	\$4,243	21.23	58.48	\$6,851	\$39,089	17.53	86.98
2020	\$1,974	\$23,553	8.38	73.10	\$1136	\$5,505	20.64	97.28	\$5,715	\$40,042	14.27	70.83
Mean			9.37				21.89				16.63	

Interpretation: The above Table 10 describes that the Mean Return on Capital Employed - ROCE of Rockwell Automation is 21.89 which is maximum compared to

minimum of 9.37 for ABB Ltd between 2015 and 2020. Return on Capital Employed is a financial ratio that determines a company's profitability and the efficiency the

capital is applied. A higher ROCE implies a more economical use of capital; the ROCE should be higher than the capital cost. A higher ROCE shows a higher percentage of the company's value can ultimately be returned as profit to stockholders. As a general rule, to indicate a company makes reasonably efficient use of capital, the ROCE should be equal to at least twice current interest rates. 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. Looking at the return on capital employed for Rockwell Automation, Honeywell Automation India Limited and ABB Ltd, the ROCE for ABB falls between 6.84 and 12.75 with an average of 9.37, Rockwell falls between 16.87 and 30.37 with an average of 21.89 and Honeywell Automation India Limited falls between 14.27 and 20.15 with an average of 16.63 for the period of study.

Table 11: Annual Worldwide Employee Count

Year	ABB Ltd.		Rockwell Automation		Honeywell Automation India Limited	
	Annual Number of Employees	Trend	Annual Number of Employees	Trend	Annual Number of Employees	Trend
2015	1,35,800	100.00	22,500	100.00	1,29,000	100.00
2016	1,32,000	97.20	22,000	97.78	1,31,000	101.55
2017	1,34,800	99.26	22,000	97.78	1,31,000	101.55
2018	1,46,600	107.95	23,000	102.22	1,14,000	88.37
2019	1,44,400	106.33	23,000	102.22	1,13,000	87.60
2020	1,44,000	106.04	23,500	104.44	1,10,000	85.27
Mean	1,39,600		22,667		1,21,333	

Interpretation: The above Table 11 describes that the Annual Worldwide Employee Count of Rockwell Automation and ABB Ltd. are in inclining trend between 2015 and 2020; whereas the Annual Worldwide Employee Count of Honeywell Automation India Limited is in declining trend between 2015 and 2020.

4. Findings

ABB Ltd. Financial Analysis:

- ABB annual revenue for 2020 was \$26.020B, an 8.07% decline year-over-year (2019 & 2020).
- ABB annual operating income for 2020 was \$1.974B, a 26.13% increase year-over-year (2019 & 2020).
- ABB annual net income for 2020 was \$5.550B, a 287.84% increase year-over-year (2019 & 2020).
- ABB annual EPS for 2020 was \$2.62, a 291.04% increase year-over-year (2019 & 2020).
- ABB annual total assets for 2020 were \$44.267B, a 0.65% decline year-over-year (2019 & 2020).
- ABB annual long term debt for 2020 was \$6.319B, a 18.99% decline year-over-year (2019 & 2020).
- ABB annual total liabilities for 2020 were \$27.237B, a 11.7% decline year-over-year (2019 & 2020).
- ABB annual shareholder equity for 2020 was \$17.030B, a 24.22% increase year-over-year (2019 & 2020).
- ABB total number of employees in 2020 was 1,44,000, a 0.28% decrease from 2019.

Rockwell Automation Financial Analysis:

- Rockwell Automation annual revenue for 2020 was \$6.33B, a 5.45% decline from 2019.
- Rockwell Automation annual operating income for 2020 was \$1.136B, a 26.09% increase from 2019.
- Rockwell Automation annual net income for 2020 was \$1.023B, a 47.08% increase from 2019.
- Rockwell Automation 2020 annual EPS was \$8.77, a 50.43% increase from 2019.
- Rockwell Automation total assets for 2020 were \$7.265B, a 18.84% increase from 2019.

- Rockwell Automation long term debt for 2020 was \$1.975B, a 0.94% increase from 2019.
- Rockwell Automation total liabilities for 2020 were \$5.918B, a 3.66% increase from 2019.
- Rockwell Automation shareholder equity for 2020 was \$1.347B, a 233.2% increase from 2019.
- Rockwell Automation total number of employees in 2020 was 23,500, a 2.17% increase from 2019.

Honeywell Automation India Limited Financial Analysis:

- Honeywell annual revenue for 2020 was \$33.233B, a 10.04% decline year-over-year (2019 & 2020).
- Honeywell annual operating income for 2020 was \$5.715B, a 14.39% decline year-over-year (2019 & 2020).
- Honeywell annual net income for 2020 was \$4.982B, a 20.95% decline year-over-year (2019 & 2020).
- Honeywell annual EPS for 2020 was \$6.97, a 18.48% decline year-over-year (2019 & 2020).
- Honeywell annual total assets for 2020 were \$63.459B, a 5.58% increase year-over-year (2019 & 2020).
- Honeywell annual long term debt for 2020 was \$17.687B, a 59.33% increase year-over-year (2019 & 2020).
- Honeywell annual total liabilities for 2020 were \$45.146B, an 8.01% increase year-over-year (2019 & 2020).
- Honeywell annual shareholder equity for 2020 was \$18.313B, a 0.04% increase year-over-year (2019 & 2020).
- Honeywell total number of employees in 2020 was 1,10,000, a 2.65% decrease from 2019.

5. Conclusion

- Automation in the present world of technology is the need of the hour as it minimizes human intervention in various industrial operations and improves efficiency. Automation involves the use of control systems in various industrial operations in different industries like

automobile, cement, pharmaceuticals, etc. Automation not only reduces human intervention but also saves time and energy in performing various industrial operations. Also, automation replaces humans in tasks performed in high temperatures or toxic environment.

- There are many automation companies operating in the country that offer great automation products for different domains. The author has attempted through her research to study and understand the financial performance of three major players in the electrical multinationals in the fields of Power and automation technologies, i.e. ABB, Honeywell Automation India and Rockwell Automation.
- The present study on “Financial Performance Analysis of Selected Industrial Automation Companies in India” using the ratios and leverage helps to have a better insight about the financial background and financial performance of the company.
- ABB is a Swizz multinational company and ranked second in the list of top 10 automation companies in India. ABB made debut in India in the year 1949 and operates in automation, robotics and power. It offers a complete solution for automation and some of its automation products include substation automation and power automation products. These automation products deliver high performance every time as it uses the best technology. ABB Ltd delivered a resilient performance between Year 2015 and Year 2020 while undertaking a very extensive transformation, slightly improving revenues and operating margins, against a backdrop of more challenging markets.
- Honeywell is an American multinational company, which started its operation in India through its subsidiary, Honeywell Automation India Limited and ranked third in the list of top 10 automation companies in India. Honeywell Automation India Limited offers a complete range of automation products for various industries like Healthcare, Chemical, Automotive, Manufacturing, Energy, etc. Honeywell outperformed between Year 2015 and Year 2020 with excellent growth in Sales, operating margins, earnings per share (EPS) and free cash flow, against a backdrop of more challenging markets.
- Rockwell Automation is a global leader in industrial automation and digital transformation. Rockwell Automation stands among front runners that offers a complete solution for industrial automation and ranked fourth in the list of top 10 automation companies in India. Control Systems, Sensing Devices, Motor Control Devices, Security Technology and Information Software are some of the products and technologies offered by Rockwell Automation. Rockwell Automation between Year 2015 and Year 2020 was progressive, with strong operating performance and strategic investments setting the stage for their continued success, against the backdrop of a challenging macroeconomic environment.

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