Proceedings of the 3rd International Conference on Financial Technology and Business Analysis
DOI: 10.54254/2754-1169/108/20242037

Analysis of Financial Performances for Honeywell Based on Comparison with 3M, Emerson, and Johnson Controls

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Abstract: Contemporarily, the advanced techniques of Iot has been widely implemented. Hence, this paper presents a comparative financial analysis for relevant industry of Honeywell International Inc., 3M Company, Emerson Electric Co., and Johnson Controls Inc., focusing on key financial metrics such as TTM P/E ratio, NTM P/E ratio, revenue growth rate, EPS growth rate, PEG, GP/A, gross profit margin, and net profit margin. The analysis reveals that Honeywell exhibits strong financial health with high profitability, stable growth, and efficient asset utilization, making it a favorable investment option. Johnson Controls, despite lower margins, shows potential for high returns, particularly due to its lower PEG ratio. Conversely, 3M and Emerson face financial challenges, with 3M showing negative growth rates and Emerson displaying a higher PEG ratio, indicating overvaluation relative to earnings growth. The study highlights the importance of leveraging IoT, AI, and machine learning technologies to drive future growth and efficiency in industrial automation. By providing a nuanced understanding of the financial health and growth prospects of these companies, these results offer valuable insights for investors and stakeholders in the industrial automation sector.

Keywords: Financial analysis, Honeywell international Inc., investment insights, comparative study.

1. Introduction

Early developments in industrial automation can be traced back to the early twentieth century, beginning with simple automated processes through mechanical controls and relays. With the further development of electronics, automation systems were significantly enhanced in the 1950s [1]. The introduction of the Programmable Logic Controller (PLC) in the 1960s marked an important turning point in industrial automation, as Dick Morley and his team developed the first PLC, which greatly improved the flexibility of programming as well as the efficiency of plant operations [2]. In the 1970s, the emergence of the Distributed Control System (DCS) gave further impetus to industrial automation, particularly in complex industrial processes such as chemical and pharmaceutical industries. in complex industries such as chemicals and pharmaceuticals [3]. These systems provided finer process control and higher reliability and became standard for large-scale industrial applications.

Entering the 21st century, industrial automation has experienced a revolution in digitalization and intelligence, with the integration of Internet of Things (IoT), Artificial Intelligence (AI), and Machine Learning technologies enabling automation systems not only to perform tasks, but also to anticipate

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maintenance needs and optimize operations [1]. Typical applications of this intelligent automation include the use of AI for troubleshooting and the remote monitoring and control of equipment via IoT [4]. The transition from automation to digitalization and then to intelligence involves not only upgrades at the technical level, but also innovations in communication technologies. For example, the reference of Ethernet has become the mainstream technology for industrial automation communication and supports real-time, secure, and efficient data transport [5]. Overall, industrial automation has become an indispensable part of modern manufacturing and production from the early mechanical and electrical control to today's intelligent and network integration.

The research company selected for this paper is Honeywell International, Inc. Honeywell has been a key player in a variety of high-tech and industrial markets, demonstrating adaptability and leadership in areas such as aerospace, building technology and high-performance materials. This versatility has been driven by strategic mergers, innovation, and global market expansion, particularly in regions such as China, which has been identified as a key market in Honeywell's growth and innovation strategy [6]. Honeywell's investment in research and development and technology integration reflects its market dominance, especially in the highly competitive field of industrial automation. This focus on technology supports the company's long-term strategic goals and improves productivity and operational efficiency [7].

Financial analyses show that Honeywell maintains a solid growth profile supported by effective management strategies that are in the interest of shareholders. The use of advanced financial models, such as the Hanke-Guttridge discounted cash flow model, helps to forecast future earnings and assess the financial position, enhancing potential for growth and investment. Honeywell's dynamic market management strategy and strong financial foundation suggest that Honeywell is an attractive investment option with a positive outlook [8]. 3M Company is a multinational conglomerate that excels in innovation and technology commercialization across a wide range of industries. 3M is known for its creativity-promoting "15 per cent rule", which requires 30 per cent of revenues to come from new products, ensuring steady growth [9]. Its decentralized structure enhances flexibility and responsiveness in a rapidly evolving market. Its innovative advantages have attracted significant investor investment. Emerson Electric Co specializes in advanced control systems for complex industrial processes. Their Delta VDCS systems play a key role in polyvinyl chloride production, ensuring safe and efficient operation. Emerson continually upgrades its systems to maintain high performance and reliability in demanding industrial environments [10]. Johnson Controls, Inc. specializes in creating intelligent building solutions that emphasize safety, efficiency, and sustainability. Their innovations include OpenBlue, a platform that integrates existing IT systems with artificial intelligence to enhance building operations and ensure a dynamic and adaptive environment for occupants [11].

Companies such as Honeywell, 3M, Emerson, and Johnson Controls are leaders in diversified technology and manufacturing, with unique strengths in different industrial sectors such as aerospace, building technology and automation systems. A financial comparison of these giants provides a greater understanding of how they leverage innovation, manage operational efficiencies, and address financial challenges. The purpose of this paper is to take a closer look at the financial analysis of Honeywell compared to the other three companies, analyzing the financials, and providing investment insights by examining and analyzing financial data in terms of profitability, P/E ratio, PEG and more. In the following article, this study will firstly explain the source of data and the scope selected, the reason for selecting the comparison companies and the timeframe of selection, and explain the formulae of the metrics used in the comparison and their meanings, followed by the comparative analysis of the data and the analysis of the financial position, explain the results and the investment insights, and explain the limitations and outlook of this article.

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2. Data and Method

The anchor company selected for this paper is Honeywell International Inc. The comparison companies selected are 3M Company, Emerson Electric Co, and Johnson Controls, Inc. The reason for conducting a comparative financial analysis of Honeywell, 3M, Emerson, and Johnson Controls is that each of these companies operates in different, yet overlapping, business segments. Each company has carved out large market segments in industries such as industrial automation and specialty materials, which provides a unique opportunity to uncover unique financial models and strategic outcomes from their operating methods. The data selected for this paper are stock price as well as annual and quarterly total revenue, annual and quarterly cost of revenue, annual and quarterly gross profit, annual and quarterly total assets, and annual and quarterly net income for each company found on the Nasdaq website, and TTM EPS, NTM EPS and Revenue for each company found on the Estimize website. The stock price data selected is the US closing price of each company on 16 July 2024. Honeywell and 3M have selected annual total revenue, annual cost of revenue, annual gross profit, annual total assets and annual net income for the period from 31 December 2020 to 31 December 2023. Emerson and Johnson Controls have selected annual total revenue, annual cost of revenue, annual gross profit, annual total assets and annual net income for the period from 30 September 2020 to 30 September 2023. The selected quarterly total revenue, quarterly cost of revenue, quarterly gross profit, quarterly total assets and quarterly net income data are for the period from 30 June 2023 to 31 March 2024. The selected TTM EPS and NTM EPS data are for the most recent four quarters, with Honeywell, 3M, and Emerson selected for a timeframe from the second quarter of 2023 to the first quarter of 2024, and Johnson Controls selected for a timeframe from the third quarter of 2023 to the second quarter of 2024.

The comparison metrics selected for this paper are TTM P/E ratio, NTM P/E ratio, revenue growth rate, EPS growth rate, PEG, GP/A, gross profit margin, net profit margin. The following are their calculation formulae:

$$\text{TTM P/E ratio} = \frac{\text{Current Stock Price}}{\text{TTM EPS}} \tag{1}$$

$$\text{NTM P/E ratio} = \frac{\text{Current Stock Price}}{\text{NTM EPS}} \tag{2}$$

$$\text{Revenue growth rate} = \frac{\text{NTM Revenue}}{\text{TTM Revenue}} - 1 \tag{3}$$

$$\text{EPS growth rate} = \frac{\text{NTM EPS}}{\text{TTM EPS}} - 1 \tag{4}$$

$$\text{PEG} = \frac{\text{TTM P/E}}{100 * \text{EPS growth rate}} \tag{5}$$

$$\text{GP/A} = \frac{\text{Gross Profit}}{\text{Total Assets}} \tag{6}$$

$$\text{Gross profit margin} = \frac{\text{Gross Profit}}{\text{Total Revenue}} \tag{7}$$

$$\text{Net profit margin} = \frac{\text{Net Income}}{\text{Total Revenue}} \tag{8}$$

Each of these metrics has its own meaning. Both TTM P/E ratio and NTM P/E ratio help investors assess whether a stock is overvalued or undervalued relative to its earnings. A higher P/E ratio might indicate that the stock is overvalued, or investors expect high growth in the future. A lower P/E ratio could suggest that the stock is undervalued or that the company is facing challenges. TTM P/E is more useful for analyzing companies with stable earnings and established track records. By contrast, NTM P/E is more relevant for growth companies where future earnings potential is a key driver of stock price. Revenue growth rate is an important financial indicator that reflects the percentage increase in a company's sales over a specific period. It is an indicator of the health of a business that helps investors make informed decisions, aids in company valuation, and facilitates benchmarking against competitors and industry trends. EPS growth rate measures the percentage increase in a

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company's earnings per share over a specific period. Like revenue growth rate, it also shows earnings trends, guides investment decisions, helps with company valuation, and provides benchmarking against competitors and industry standards. PEG ratios round out the P/E ratio by factoring in earnings growth, providing a more nuanced view of valuation. A low PEG indicates that a stock may be undervalued relative to its growth. In contrast, GP/A measures how efficiently a company uses its assets to generate gross profit. A higher GP/A indicates that a company is better able to utilize its assets to generate profits, reflecting the efficiency of its operations. Together, these metrics provide insight into valuation, growth prospects and asset efficiency, helping investors make more informed investment decisions and comparative analyses. Gross profit margin measures the percentage of revenue remaining after deducting cost of goods sold (COGS) and reflects the efficiency of production and pricing strategies. The higher the gross profit margin, the better the company's cost control and profitability. On the other hand, net profit margin reflects the percentage of revenue remaining after deducting all expenses, taxes, and interest and reflects overall profitability. Comparing these margins helps investors assess a company's financial health, operational efficiency, and profitability.

3. Results and Discussion

3.1. Comparison Analysis

Firstly, this paper compiles the calculations of each financial data of each company for subsequent analysis. The calculation results are all displayed in the Table 1. The datas show that Honeywell's financial position is more prominent among these four companies, with a high stock price, TTM EPS, NTM EPS and P/E ratio, and its revenue and EPS growth rates are also very good. 3M's TTM EPS, NTM EPS and GP/A are relatively high, but its revenue growth rate and EPS growth rate are low, and its revenue growth rate, in particular, is negative, which shows that its company. Emerson has higher revenue and EPS growth rates, but its PEG is higher, indicating a slightly higher stock price relative to expected earnings growth. Johnson Controls performs better in terms of EPS growth rate and PEG, indicating stronger growth potential, but its stock price and EPS are lower. This comparison shows that Honeywell and Johnson Controls are performing better, while 3M and Emerson have some financial pressures and challenges in some areas. However, Emerson has a higher PEG than Johnson Controls, and lower GP/A than both Honeywell and Johnson Controls. 3M has the greatest GP/A, and its stock price is lower than Honeywell. It does have negative growth rates, which is the major red flag. So here, 3M and Emerson will be dropped the consideration.

Table 1: The important financial data of each company

	Honeywell	3M	Emerson	Johnson Controls
Stock Price	$218.47	$103.31	$118.87	$72.18
TTM EPS	9.49	9.66	5.16	3.37
NTM EPS	10.47	7.29	5.71	3.81
TTM P/E ratio	23.02	10.69	23.04	21.42
NTM P/E ratio	20.87	14.17	20.82	18.94
Revenue Growth Rate	6.9%	-24.7%	8.7%	5.7%
EPS Growth Rate	10.3%	-24.5%	10.7%	13.1%
PEG	2.23	N/A	2.16	1.64
GP/A	22.2%	28.1%	17.4%	21.2%

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Next, this paper will analyze the gross margin and net margin. The Table 2 and Table 3 is the calculated relevant data. Based on the trends shown in the Fig. 1 and Fig. 2, it can be concluded that quarterly numbers are driven by seasonal factors, so less weight will be put on them. By analyzing the gross margin data, it can be concluded that Honeywell's annual gross margin has been increasing year on year, from 32.1% in 2020 to 37.7% in 2023, which shows the company's significant ability in cost control. Johnson Controls, on the other hand, has a relatively stable annual gross margin that fluctuates around 33%, with a higher gross margin in 2021 but declining to 33.5% in 2023. In terms of net margin, Honeywell's performance remains strong, with the overall stability and high level of its net margin demonstrating Honeywell's greater ability to improve net profitability. Johnson Controls' annual net margin is gradually improving but remains volatile and at a lower level.

Table 2: The important annual and quarterly margin of Honeywell

Period Ending:	12/31/2023	12/31/2022	12/31/2021	12/31/2020
Gross Margin	37.3%	37.0%	35.9%	32.1%
Net Margin	15.4%	14.0%	16.1%	14.6%
Quarterly Ending:	3/31/2024	12/31/2023	9/30/2023	6/30/2023
Gross Margin	38.7%	34.3%	38.4%	38.5%
Net Margin	16.1%	13.4%	16.4%	16.3%

Table 3: The important annual and quarterly margin of Johnson Controls

Period Ending:	9/30/2023	9/30/2022	9/30/2021	9/30/2020
Gross Margin	33.5%	33.0%	34.1%	33.2%
Net Margin	6.9%	6.1%	6.9%	2.8%
Quarterly Ending:	3/31/2024	12/31/2023	9/30/2023	6/30/2023
Gross Margin	32.6%	32.7%	32.0%	34.1%
Net Margin	-4.1%	6.1%	7.9%	14.7%

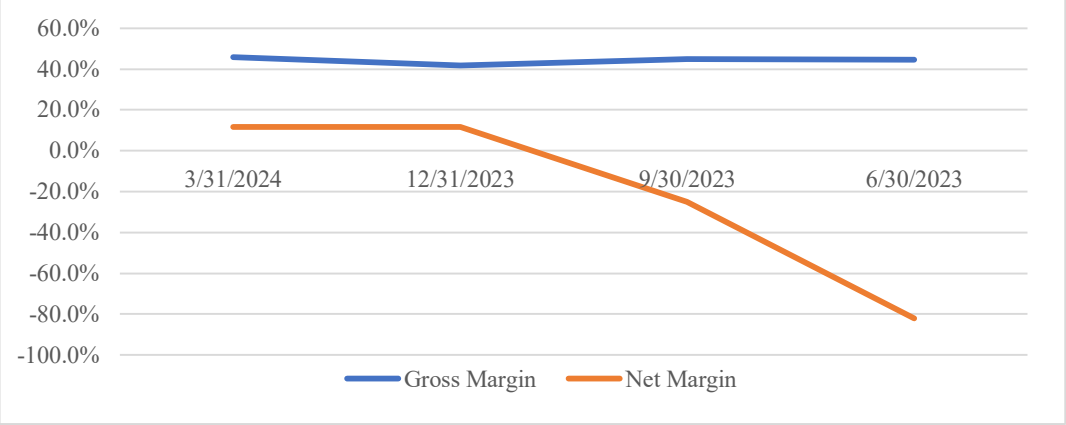

Figure 1: The important quarterly margin trend of Honeywell.

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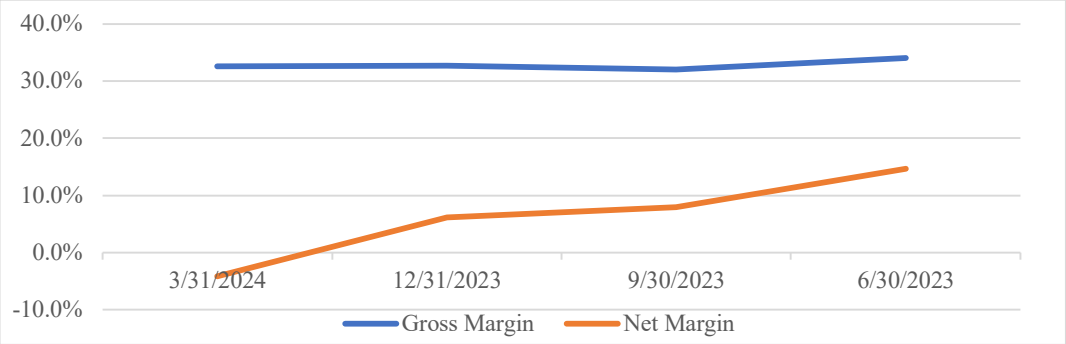

Figure 2: The important quarterly margin trend of Johnson Controls.

3.2. Explanation and Implications

On a consolidated basis, Honeywell's gross margin is higher than that of Johnson Controls in both annual and quarterly figures and has shown to be more stable and is gradually increasing. At the same time, its net margin is also significantly higher than that of Johnson Controls, showing stronger and more stable profitability. That's why the paper argues that Honeywell is a better candidate to be invested in.

Meanwhile, based on the analysis, this paper will give some investment insights. Honeywell has excellent performance in terms of gross and net profit margins, and has been growing steadily year by year, which shows its strong profitability and cost control ability, from which investors can expect its financial performance to remain strong in the future. Honeywell's revenue and EPS growth rates are high, and its GP/A and PEG are within reasonable ranges, which indicates that the market is optimistic about its future growth. For investors looking for a stable stock with growth potential, Honeywell is an option worth considering. And while Johnson Controls' gross and net margins are lower than Honeywell's, its revenue and EPS growth rates show some growth potential, especially with its lower PEG, which suggests it may have better returns in the future. However, its net margin is subject to some fluctuations and losses, which suggests investors need to be aware of the volatility of its profitability. For investors with higher risk tolerance, they may consider buying low during market correction.

3.3. Limitations and Prospects

The financial data used in this paper is limited to a specific time horizon (2020-2024 for Honeywell and 2020-2023 for other companies). Shorter time horizons, however, may not reflect long-term trends or the impact of economic cycles, which may affect the robustness of the conclusions. At the same time, this analysis does not consider macroeconomic factors, geopolitical events or industry-specific disruptions, which may have a significant impact on the financial performance and stock prices of the companies analyzed. In addition, while the selected financial metrics (TTM P/E ratio, NTM P/E ratio, revenue growth rate, EPS growth rate, PEG, GP/A, gross margins, and net margins) provide valuable insights, they may not fully reflect a company's financial health or investment potential. Other metrics such as cash flow, debt levels and R&D spending can provide additional perspective. Contemporarily, the ongoing convergence of IoT, AI and machine learning technologies with industrial automation will drive significant growth and efficiency improvements. Companies that effectively utilize these technologies will reap considerable long-term benefits. As emerging markets continue to industrialize, the demand for advanced automation solutions will continue to grow. Companies like Honeywell, with a strong global presence and strategic market entry plans, are well positioned to capitalize on these opportunities. By addressing these limitations and considering

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the outlook, investors and stakeholders can gain a more nuanced understanding of the financial health and growth potential of companies in the industrial automation space.

4. Conclusion

To sum up, this paper provides an in-depth financial analysis of Honeywell International Inc. compared to 3M Company, Emerson Electric Co., and Johnson Controls Inc. The comparative study focuses on various financial metrics including TTM P/E ratio, NTM P/E ratio, revenue growth rate, EPS growth rate, PEG, GP/A, gross profit margin, and net profit margin. Honeywell stands out with its high stock price, robust TTM and NTM EPS, and favourable P/E ratios. Its revenue and EPS growth rates are commendable, indicating strong financial health and growth potential. The company's gross and net profit margins have shown consistent improvement, demonstrating its efficiency in cost control and profitability enhancement. On the other hand, Johnson Controls exhibits lower gross and net margins compared to Honeywell but shows promise with its revenue and EPS growth rates, suggesting potential for high returns, especially with its lower PEG ratio. However, its net margins fluctuate significantly, highlighting the need for caution among investors. 3M and Emerson face more pronounced financial challenges. 3M, despite having high TTM EPS and GP/A, suffers from negative revenue and EPS growth rates, marking it as a less favourable investment. Emerson, although showing higher growth rates, has a higher PEG ratio, indicating its stock price may be overvalued relative to its earnings growth. The analysis reveals that Honeywell and Johnson Controls are more attractive investment options compared to 3M and Emerson. Honeywell's strong profitability, steady growth, and efficient asset utilization make it a reliable choice for investors seeking stable and growth-oriented stocks. Meanwhile, Johnson Controls could appeal to those with higher risk tolerance, given its potential for better returns during market corrections. Looking to the future, the ongoing convergence of IoT, AI, and machine learning technologies with industrial automation is expected to drive significant growth and efficiency improvements. Companies that effectively leverage these technologies, like Honeywell, are well-positioned to reap substantial long-term benefits. As emerging markets continue to industrialize, the demand for advanced automation solutions will increase, presenting further growth opportunities for these companies. This paper underscores the importance of using comprehensive financial metrics to assess a company's investment potential. By providing a nuanced understanding of the financial health and growth prospects of Honeywell and its competitors, this study offers valuable insights for investors and stakeholders in the industrial automation sector.

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