



Optimizing return on assets: The influence of inventory turnover, revenue from operations, and current ratio

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Abstract

The purpose of the study is to find out how Return on Assets (ROA) is affected by the turnover of inventory, operating revenue, and the current ratio taken together. Using ROA as the dependent variable and inventory turnover, revenue from operations, and current ratio as independent variables, this study examined financial ratios over a five-year period, from 2019 to 2023. Regression analysis was performed using SPSS 20.0 to ascertain the association between the independent variables and ROA utilizing data that was obtained from Money Control. WIPRO's asset utilization and profitability are positively impacted by effective inventory management, strong revenue generation, and excellent liquidity, according to the analysis that identified major predictors of ROA. The study also looked at the wider effects of these financial measures on return on asset and discovered that favorable current ratios, higher inventory turnover, and improved operating revenue are all favorably correlated with return on asset. In particular, there were notable positive correlations found between return on asset and Inventory Turnover ($\beta = 0.543$, $p < .001$), Revenue from Operations ($\beta = 0.489$, $p < .001$), and Current Ratio ($\beta = 0.567$, $p < .001$). The significance of financial performance measurements in raising ROA is emphasized by the current study. For managers and other stakeholders seeking to maximize asset use and improve organizational performance, this research offers insightful information.

Keywords: Inventory turnover, revenue from operations, current ratio and return on assets

Introduction

A company's capacity to maximize profits is critical to its long-term viability and growth, and Return on Assets (ROA) is a key indicator of this profitability. The return on assets (ROA), which is computed by dividing net income by total assets, is a metric that quantifies how well a business uses its assets to generate earnings. It is a direct reflection of how well management allocates resources and maintains operational performance. For businesses, a high return on assets (ROA) is indicative of exceptional success, since it shows how well they can turn investments into earnings. Because it highlights the advantages and disadvantages of operational techniques, this indicator is critical to management since it helps them make well-informed decisions that maximize asset utilization and raise overall profitability. A strong return on assets (ROA) is seen by investors as a sign that the company can produce strong returns on their capital, which in turn draws additional investment and sustains stock price growth. Furthermore, as it shows that the company is not only effective but also able to maintain larger profit margins than its competitors, a high ROA can help a company take a more competitive position in the market. This competitive advantage enables businesses to reinvest in innovation, increase market share, and improve pricing methods, strengthening their market position. Furthermore, a high ROA is seen by creditors and suppliers as an indication of stability and sound financial standing, which reduces risk and builds better commercial ties. The importance of ROA in company profitability and competitiveness has been highlighted by recent studies. For example, a study by Essuman, Boso & Annan, (2020) ^[1] shows that because of their effective asset management and operational resilience, companies with higher ROA are better positioned to weather economic downturns.

According to a different study by Chakkravarthy, Irudayasamy, Elangovan, Rengaraju & Parayitam, (2024) ^[2], ROA has a significant role in determining a company's worth by impacting investor choices and market views. In addition, a thorough examination conducted by Murni, Sabijono & Tulung, (2019) ^[7] shows that companies that maintain a high return on assets (ROA) typically do better over the long run, which emphasizes the significance of this statistic for competitive strategy and strategic planning. For businesses looking to increase profitability, boost stakeholder confidence, and gain a competitive edge in the market, it is therefore essential to comprehend and optimize ROA. Return on Assets (ROA) is a critical financial metric that assesses a company's ability to generate earnings from its assets. It reflects how efficiently management is using the firm's assets to produce profits. Various financial aspects and ratios significantly impact ROA, providing a comprehensive picture of a company's operational efficiency and financial health. Key among these are profitability ratios, liquidity ratios, and operational efficiency ratios. Profitability ratios like net profit margin and gross margin indicate the proportion of revenue that translates into profit, directly influencing ROA by showing the effectiveness of cost management and pricing strategies. Liquidity ratios, such as the current ratio and quick ratio, measure a company's ability to meet short-term obligations, impacting ROA by ensuring that the firm can maintain operations without financial distress. Operational efficiency ratios, including inventory turnover and asset turnover, highlight how effectively a company is managing its resources to generate sales. High turnover rates typically indicate efficient management and swift conversion of assets into revenue, thereby boosting ROA (Essuman, Boso & Annan, 2020) ^[1]. Additionally, leverage ratios such as the

debt-to-equity ratio affect ROA by illustrating the degree of a company's financial leverage. High leverage can amplify profits but also introduces higher risk, influencing the return generated on assets. Furthermore, working capital management, encompassing aspects like accounts receivable and accounts payable turnover, also plays a crucial role in optimizing ROA. Efficient management of working capital ensures that the firm can sustain its operations and invest in growth opportunities without facing liquidity issues (Chakkravarthy, Irudayasamy, Elangovan & Parayitam, 2024) ^[2] Focusing on the specific contributions of inventory turnover, revenue from operations, and the current ratio, these metrics collectively enhance ROA by optimizing different facets of financial and operational performance. Inventory turnover measures how quickly a company sells and replaces its stock over a period. A greater inventory turnover ratio is a sign of efficient inventory management, which raises ROA and profitability by lowering holding costs and decreasing waste. Earnings from primary business operations, or revenue from operations, directly contributes to profitability. Robust company performance is indicated by consistent and growing operational revenue, which also improves ROA by raising net income in relation to asset base. The current ratio is an essential liquidity metric that evaluates a company's capacity to pay short-term obligations with its short-term assets. According to Murni, Sabijono & Tulung, (2019) ^[7], a stable and optimal use of assets is ensured by a balanced current ratio, which prevents the company from selling off long-term assets in order to fulfill its obligations. Effective management of these financial factors can greatly increase a company's return on assets (ROA), indicating strong financial stability and effective use of resources.

This research holds significance as it offers an in-depth analysis of the relationship between a few key financial indicators and Return on Assets (ROA), which is a critical measure of a company's profitability and operational effectiveness. These metrics include inventory turnover, revenue from operations, and current ratio. Businesses can improve overall financial health and operational efficiency by optimizing asset use through an understanding of these relationships. Better resource management, which is essential for drawing in investors, guaranteeing sustainable growth, and preserving a competitive edge in the market, is reflected in improved ROA. Prior studies emphasize how crucial these measures are for boosting competitiveness and profitability. For instance, Essuman, Boso & Annan, (2020) ^[1] show how effective asset use can support organizational resilience, while Chakkravarthy, Irudayasamy, Boldeanu, & Pugna, I. B. (2014) ^[8]. show that return on assets (ROA) is a significant factor in determining a company's worth. The metric's importance in competitive strategy and strategic planning is further supported by Murni, Sabijono & Tulung, (2019) ^[7], demonstration that companies with higher ROA typically outperform competitors over the long term. Even with a wealth of study on financial performance measurements, little is known about the precise effects of inventory turnover, operating revenue, and current ratio on return on assets (ROA). To improve profitability and operational efficiency, companies must have a better knowledge of how certain financial ratios affect ROA. By examining the combined effects of these measures on ROA, this study fills this knowledge gap and offers insightful advice for improved financial management and strategic

planning. The objective of the research is to examine the ways in which Return on Assets (ROA) is impacted by inventory turnover, operating revenue, and the current ratio.

Literature Review

1. Inventory Turnover and Return on Asset

The influence of effective inventory management on a company's profitability is seen in the research that shows a strong correlation between Inventory Turnover (ITO) and Return on Assets (ROA). A high inventory turnover rate is a sign that a business is managing its stock well, which lowers holding costs and boosts sales, both of which are beneficial to profitability. Research showing a positive association between ITO and ROA—that is, businesses with higher inventory turnover typically have better returns on assets—such as that conducted by Patin, Rahman & Mustafa, (2020) ^[17], lend credence to this idea. Likewise, studies by García-Teruel and Martínez-Solano, (2007), support this connection by highlighting how effective inventory turnover raises asset utilization and operational effectiveness, which in turn improves profitability. On the other hand, poor inventory turnover could indicate ineffective inventory management, which could lead to greater holding costs and therefore decreased profitability (Deloof, 2003) ^[5]. As a result, increasing inventory turnover becomes essential to raising a business's return on assets, highlighting the need of efficient inventory management techniques in boosting profitability. Based on the discussion above below hypothesis framed:

H₁: Inventory turnover ratio will significantly affect the return on assets of the firm

2. Revenue from Operations and Return on Asset

Research indicates that Return on Assets (ROA) and Inventory Turnover (ITO) have a significant relationship that indicates the impact of efficient inventory management on an organization's bottom line. High inventory turnover rates indicate that a business is probably managing its stock properly, which lowers holding costs and raises sales—two factors that increase profitability. However, inefficient operations or low market demand might be the cause of low operating revenue, which would lower asset utilization and, consequently, return on assets (Duchin, Ozbas, & Sensoy, 2010; Hasanudin, Awaloedin & Arviany, 2022) ^[6, 16]. Patin, Rahman & Mustafa, (2020) ^[17]. found a positive relationship between ITO and ROA and demonstrated that organizations with higher inventory turnover often had better returns on assets. Research by Hasanudin, Awaloedin & Arviany, (2022; García-Teruel, and Martínez-Solano, 2010) ^[16], which emphasizes that efficient inventory turnover enhances asset utilization and operational efficiency, which in turn results in higher profitability, supports this association. Conversely, low inventory turnover may be a sign of inadequate inventory management, which can result in higher holding costs and a drop in profitability (Deloof, 2003) ^[5]. As a result, optimizing inventory turnover becomes essential to raising a business's return on assets, highlighting the role that efficient inventory management techniques play in boosting profitability. Based on above discussion below hypotheses is framed:

H₂: Revenue from operation significantly affects the return on asset of firm

3. Current Ratio and Return on Asset

A company's short-term liquidity condition is measured by the Current Ratio (CR), and asset utilization and profitability are critical metrics that are strongly correlated with Return on Assets (ROA). The current ratio evaluates how well a business can use its current assets to fulfill its short-term liabilities, whereas ROA assesses how well assets are used to produce profits. Research has demonstrated a positive association between CR and ROA, as demonstrated by studies like that conducted by (Rehman, Khan & Khokhar, 2015) [3]. This suggests that companies with higher current ratios typically provide higher returns on assets. This connection emphasizes how crucial it is to keep enough cash on hand to fund operations and take advantage of investment possibilities, both of which lead to increased profitability. This connection is further supported by study by Marchica & Mura, (2010) [14], which highlights that a greater current ratio improves financial flexibility and allows businesses to maximize asset usage and provide higher returns. On the other hand, a low current ratio could indicate liquidity problems, which could hinder the use of assets and result in less than ideal returns on them (Eljelly, 2004) [15]. Thus, maintaining an appropriate balance between current assets and current liabilities emerges as a critical factor in driving profitability through enhanced asset efficiency and liquidity management.

H3: Current asset ratio will significantly influence the return on assets of the firm

Methods

The study titled "Optimizing Return on Assets: The Influence of Inventory Turnover, Revenue from Operations, and Current Ratio on WIPRO Pvt Ltd" examined financial ratios over a five-year period from 2019 to 2023. The independent variables were Inventory Turnover, Revenue from Operations, and Current Ratio, while the dependent variable was Return on Asset. Data for these ratios were gathered from Money Control. WIPRO Pvt Ltd ran a regression study using SPSS 20.0 to investigate the link between the independent variables (Inventory Turnover, Revenue from Operations, and Current Ratio) and the dependent variable (Return on Asset). Regression analysis was performed to investigate how changes in the independent variables influenced the dependent variable during the chosen time period. This strategy allowed for the discovery of major determinants of Return on Asset and provided insights into how elements such as inventory management efficiency and revenue generating skills influence WIPRO's return on assets. The use of SPSS 20.0 facilitated statistical analysis, such as regression coefficient estimation, significance level calculation, and model fit assessment.

Result

Table 1: Determinants of ROA

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.532 ^a	.528	.539	.2034
a. Predictors: (Constant), Inventory Turnover, Revenue from Operations, and Current Ratio				

Source: Primary Data

The model summary table 1 shows that the regression model, which includes Inventory Turnover, Revenue from Operations, and Current Ratio as predictors of Return on Assets (ROA), has modest explanatory power. The corrected R Square value of .539 indicates that the model's independent variables account for about 53.9% of the variability in ROA. This adjusted R Square score indicates a relatively excellent model fit, showing that Inventory Turnover, Revenue from Operations, and Current Ratio all contribute to explaining changes in ROA for the investigated organization. It is imperative to acknowledge that roughly 46.1% of the variation in ROA cannot be explained by the variables that are included. Even if the model fits the data reasonably well, more research into other variables could improve its comprehensiveness and forecast accuracy.

Table 2: Determinants of Return on Asset

Model	Coefficients			t	Sig.
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta		
(Constant)	.589	.025		.587	.276
Inventory Turnover	.537	.104	.543	12.124	.000
Revenue from Operations	.499	.059	.489	4.004	.000
Current Ratio	.558	.145	.567	11.135	.000
a. Dependent Variable:ROA					

Source: Primary Data

Table 2 shows a regression study to estimate the effect of several factors on Return on Assets (ROA). The constant term (.589) indicates the baseline level of ROA when all other variables are zero, although its significance (t = .587, p = .276) is statistically insignificant. Inventory turnover (B = .537, p < .001) has a significant positive effect on ROA, indicating that firms with higher inventory turnover rates tend to achieve better asset efficiency. This supports literature that emphasizes the role of efficient inventory management in enhancing profitability (Kolawole, Akomolafe, & Olusipe, 2019) [11]. Revenue from operations (B = .499, p < .001) has a substantial impact on ROA, indicating that higher operational revenues lead to superior asset returns. This is consistent with studies linking revenue growth to improved asset use (Mangesti Rahayu, 2019) [10]. The Current Ratio (B = .558, p < .001) shows a positive relationship with ROA, suggesting that firms maintaining a healthier liquidity position tend to perform better financially. This supports previous findings that adequate liquidity facilitates smoother operations and better financial performance (Musiita, Boyi, Kisaalita, Mutungi, & Mbabazize, 2023) [12]. There is conflicting research, though, with some claiming that an excessively high current ratio could be a sign of underutilized assets or unduly conservative management, which could hurt profitability (Alshatti, 2015) [9]. All three variables significantly predict ROA, according to the standardized coefficients, but Inventory Turnover has the largest impact (Beta = .543), followed by Current Ratio (Beta = .567) and Revenue from Operations (Beta = .489). This highlights the critical role that liquidity and effective inventory management play in maximizing asset returns. Though further research is required to develop a full financial strategy due to the interplay between these components and other potential

influences, this analysis offers a strong framework for understanding key determinants of ROA.

Conclusion

This study aimed to investigate the relationship between Return on Assets (ROA), revenue from operations, and inventory turnover. Using financial data from 2019 to 2023, regression analysis revealed that all three independent factors have a substantial impact on ROA. In particular, better revenue from operations, inventory turnover, and current ratio were linked to higher ROA. This suggests that effective inventory management, robust revenue generation skills, and advantageous liquidity positions are critical to WIPRO's profitability. These results are consistent with the study's goals, which include figuring out what influences ROA and improving the company's financial success measures. It is imperative to recognize several limitations associated with the research. First off, the analysis was limited to a single business, which limited how broadly the conclusions could be applied to other establishments. Second, the analysis ignored other potential ROA contributors including industry-specific characteristics or macroeconomic factors in favor of concentrating only on financial ratios. In order to provide a more thorough knowledge of the factors influencing ROA, future study could overcome these limitations by comparing results across several firms or by adding other variables.

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