

THE SIGNIFICANCE OF INVENTORY TURNOVER AND TOTAL ASSET TURNOVER ON NET PROFIT MARGIN IN HEALTHCARE SUB-SECTOR COMPANIES LISTED ON THE INDONESIA STOCK EXCHANGE: A SHARIA PERSPECTIVE

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Abstrak

Penelitian ini menginvestigasi signifikansi Inventory Turnover (ITO) dan Total Asset Turnover (TATO) terhadap Net Profit Margin (NPM) pada perusahaan sub sektor Healthcare yang terdaftar di Bursa Efek Indonesia (BEI) ditinjau dari perspektif Syariah. Meskipun menunjukkan tren NPM yang meningkat secara konsisten dari 8,99% (2019) menjadi 17,06% (2023), perusahaan Healthcare menunjukkan rasio perputaran persediaan yang jauh di bawah standar industri dan penurunan efisiensi pemanfaatan aset. Kinerja paradoks ini menimbulkan pertanyaan tentang pendorong operasional profitabilitas di sektor padat modal ini. Menggunakan pendekatan kuantitatif asosiatif dengan regresi data panel menggunakan Fixed Effect Model (FEM) yang diproses melalui E-Views 12, penelitian ini menganalisis 18 perusahaan Healthcare yang dipilih melalui purposive sampling selama periode 2019-2023. Temuan menunjukkan bahwa ITO tidak berpengaruh signifikan terhadap NPM (t -statistik = 1,101575, $p = 0,2744 > 0,05$), sementara TATO menunjukkan dampak negatif dan signifikan terhadap NPM (t -statistik = -2,557839, $p = 0,0127 < 0,05$). Secara simultan, kedua variabel berpengaruh signifikan terhadap NPM (F -statistik = 2,149153, $p = 0,011052 < 0,05$), dengan Adjusted R-squared sebesar 19,69%. Dari perspektif Syariah, temuan ini diinterpretasikan melalui prinsip keseimbangan (al-tawazun), keadilan (al-'adl), kemaslahatan (al-maslahah), dan larangan penimbunan (ihtikar).

Kata Kunci: Perputaran Persediaan, Perputaran Total Aset, Margin Laba Bersih, Kesehatan, Syariah, Bursa Efek Indonesia, Regresi Data Panel

Abstract

This study investigates the significance of Inventory Turnover (ITO) and Total Asset Turnover (TATO) on Net Profit Margin (NPM) in healthcare sub-sector companies listed on the Indonesia Stock Exchange (IDX) from a Sharia perspective. Despite demonstrating a consistently increasing NPM trend from 8.99% (2019) to 17.06% (2023), healthcare companies exhibited inventory turnover ratios substantially below industry standards and declining asset utilization efficiency. This paradoxical performance raises questions about the operational drivers of profitability in this capital-intensive sector. Employing a quantitative associative approach with panel data regression using the Fixed Effect Model (FEM) processed through E-Views 12, this research analyzed 18 healthcare companies selected via purposive sampling over the 2019-2023 period. The findings reveal that ITO has no significant effect on NPM (t -statistic = 1.101575, $p = 0.2744 > 0.05$), while TATO demonstrates a negative and significant impact on NPM (t -statistic = -2.557839, $p = 0.0127 < 0.05$). Simultaneously, both variables significantly affect NPM (F -statistic = 2.149153, $p = 0.011052 < 0.05$), with an Adjusted R-squared of 19.69%. From a Sharia perspective, these findings are interpreted through the principles of balance (al-tawazun), justice (al-'adl), benefit (al-maslahah), and the prohibition of hoarding (ihtikar). The study contributes to the understanding of profitability determinants in healthcare companies and provides implications for Islamic financial management practices in asset-intensive industries.

Keywords: Inventory Turnover, Total Asset Turnover, Net Profit Margin, Health, Sharia, Indonesia Stock Exchange (IDX), Panel Data Regression

INTRODUCTION

In order to maintain the stability and integrity of the national financial sector, the Financial Services Authority (Otoritas Jasa Keuangan, OJK) was established through Law No. 21 of 2011, which became effective on January 1, 2013. The OJK is an independent institution responsible for regulating, supervising, and investigating activities in the financial services sector, including banking, insurance, and capital markets. The presence of the OJK is crucial in preventing fraud in the investment world and ensuring the creation of a healthy, transparent, and sustainable investment climate. One of the OJK's areas of oversight is the capital market, a system that connects corporate capital needs with investors through financial instruments such as stocks, bonds, and mutual funds (Riska & Sulubara, 2024).

Within Indonesia's capital market, the Indonesia Stock Exchange (Bursa Efek Indonesia, BEI) plays a highly strategic role as the official venue where securities trading is conducted in an organized manner. The BEI facilitates transactions between investors and companies requiring capital, partly through public share offerings. Stocks themselves represent proof of ownership in a company and serve as an investment vehicle widely popular among the public. In the investment decision-making process, investors typically consider a company's financial performance, particularly profitability indicators such as Net Profit Margin (NPM). Net Profit Margin is used to measure how much net profit a company generates from each unit of sales and reflects the company's efficiency in managing operational expenses (Kasmir, 2012).

One sector that has received particular attention from investors is the healthcare sub-sector, which has shown significant development, especially following the COVID-19 pandemic. Although the sector experienced a growth slowdown in 2022 due to high interest rates and shifting consumer preferences, demand for healthcare products such as medicines, supplements, and multivitamins remained high. Despite challenges from the global supply chain perspective, healthcare companies maintained their profitability levels. This is reflected in a stable and even increasing Net Profit Margin, indicating good efficiency in operational cost management (Siregar, 2020). The high Net Profit Margin increases investor confidence as it signifies the company's ability to generate healthy profits, making this sector an attractive choice in investment portfolios in Indonesia's capital market.

Based on the financial performance data of healthcare sub-sector companies during the 2019 to 2023 period, the Net Profit Margin demonstrated a consistently increasing trend, recorded at 8.99% in 2019, rising to 10.82% in 2020, 11.48% in 2021, 13.36% in 2022, and reaching 17.06% in 2023. Overall, this indicates that companies have been able to improve efficiency in managing revenue and operational expenses. Compared to the healthcare company health standard, where an ideal net profit margin ranges between 5% and 20%, this reflects very good profitability. However, this creates a unique situation for healthcare companies, as the achievement of high net profit margins occurred amid quite severe global supply chain pressures (Bozenhardt & Bozenhardt, 2018).

One factor influencing Net Profit Margin is Inventory Turnover. According to Munawir, high inventory turnover reduces the risk of losses and suppresses storage costs. Effective turnover increases a company's net profit. Conversely, low turnover decreases Net Profit Margin and reflects inefficiency in inventory management (Hery, 2016). The inventory turnover data for healthcare sub-sector companies during 2019–2023 showed significant fluctuations, with values substantially below the efficiency standard of 30%–60% set for the industry. Inventory turnover was recorded at 20.90% in 2019, dropping to 18.73% in 2020, increasing to 20.72% in 2021, declining again to 19.06% in 2022, and rising slightly to 19.57% in 2023. This not only reflects instability in inventory management but also shows that

companies have not been able to achieve the ideal healthcare company health standard of Inventory Turnover above 40% per year (Chen, cited in the original study).

Besides Inventory Turnover, another factor influencing Net Profit Margin is Total Asset Turnover. According to Kasmir (2012), Total Asset Turnover measures the effectiveness of asset utilization in generating sales. A high Total Asset Turnover value indicates efficient utilization of company assets. Conversely, a low ratio indicates that assets are not being used optimally or that many assets are idle. The higher the Total Asset Turnover, the greater the potential for increasing a company's net profit. The Total Asset Turnover data for healthcare sub-sector companies during 2019–2023 showed unstable fluctuations: recorded at 0.80 in 2019, slightly rising to 0.81 in 2020, increasing to 0.83 in 2021, then declining to 0.78 in 2022 and further to 0.77 in 2023. Although moderate, the declining trend in the last two years indicates a decrease in companies' effectiveness in managing assets to generate sales (Syamsuddin, 2013).

Previous research on this topic has yielded inconsistent results. Sumiati and Pratiwi (2023) found a significant effect of Inventory Turnover on Net Profit Margin, while Mauliddiarti et al. (2022) reported no significant effect. Similarly, Putri et al. (2022) demonstrated a significant positive effect of Total Asset Turnover on Net Profit Margin, whereas Widiani found no significant effect. Feren (2020) reported that Inventory Turnover had a positive effect on NPM while Total Asset Turnover had a negative effect in property and real estate companies. This inconsistency in findings, known as the research gap, provides the rationale for this study to re-examine these relationships specifically within the healthcare sub-sector context.

The research problem can be identified as follows: despite healthcare sub-sector companies showing positive performance in profitability, particularly through consistently increasing net profit margins during 2019–2023, significant challenges remain in the operational efficiency dimension. This is reflected in inventory turnover ratios well below ideal standards and decreasing effectiveness in asset utilization shown by the declining trend in Total Asset Turnover. This condition indicates a duality of performance, where high profitability achievement is not fully supported by optimal operational efficiency (Anggraeni & Adi, 2025).

This study aims to: (1) examine the significance of Inventory Turnover on Net Profit Margin in healthcare sub-sector companies listed on the BEI; (2) examine the significance of Total Asset Turnover on Net Profit Margin in these companies; (3) examine the simultaneous significance of both variables on Net Profit Margin; and (4) analyze these relationships from a Sharia perspective. This study employs Signaling Theory as its theoretical framework, which explains how companies communicate information to investors regarding their financial conditions through various indicators, including financial ratios (Spence, 1973). The Sharia perspective is incorporated through the principles of balance (*al-tawazun*), justice (*al-'adl*), benefit (*al-maslahah*), and the prohibition of hoarding (*ihtikar*), providing a unique analytical lens that distinguishes this research from conventional financial analyses.

The novelty of this research lies in its dual analytical framework combining conventional financial ratio analysis with Islamic economic principles in the context of the healthcare sector, a sector that has undergone significant transformation during and after the COVID-19 pandemic. Furthermore, this study addresses the research gap by providing empirical evidence from a specific capital-intensive sector that may explain why the commonly hypothesized positive relationships between activity ratios and profitability do not always hold.

METHOD

This research employs a quantitative approach with an associative research design, which is used to analyze the relationship between one variable and another (Sugiyono, 2016). Specifically, this study examines the significance of Inventory Turnover (ITO) and Total Asset Turnover (TATO) on Net Profit Margin (NPM) in healthcare sub-sector companies listed on the Indonesia Stock Exchange (BEI). The quantitative approach was selected because the research aims to test hypotheses using statistical methods and numerical data, which is appropriate for establishing causal relationships between financial variables (Anshori & Iswati, 2017).

The data used in this research are secondary data obtained from the annual reports and financial statements of healthcare sub-sector companies published on the official BEI website (www.idx.co.id). The data represent time-series data spanning five years from 2019 to 2023, providing sufficient temporal observations for panel data analysis. This period was selected to capture both pre-pandemic, during-pandemic, and post-pandemic financial dynamics of healthcare companies (Windasari & Khasanah, 2021).

The population of this study consists of 34 healthcare sub-sector companies listed on the Indonesia Stock Exchange. Using purposive sampling, the sample was narrowed based on two criteria: (1) healthcare sub-sector companies that were consistently listed on the BEI throughout the 2019–2023 research period, including those on the main board, development board, and special monitoring board; and (2) companies that published complete annual reports and required financial data during the entire 2019–2023 period. After applying these criteria, 16 companies were excluded due to incomplete data availability, resulting in a final sample of 18 companies, yielding 90 firm-year observations (18 companies $\times$ 5 years).

Table 1. Sample Companies

No	Code	Company Name
1	DVLA	Darya-Varia Laboratoria Tbk
2	HEAL	Medikaloka Hermina Tbk
3	INAF	Indofarma Tbk
4	IRRA	Itama Ranoraya Tbk
5	KAEF	Kimia Farma Tbk
6	KLBF	Kalbe Farma Tbk
7	MERK	Merck Tbk
8	MIKA	Mitra Keluarga Karyasehat Tbk
9	PEHA	Phapros Tbk
10	PRDA	Prodia Widyahusada Tbk
11	PRIM	Royal Prima Tbk
12	PYFA	Pyridam Farma Tbk
13	SAME	Sarana Meditama Metropolitan Tbk
14	SCPI	Organon Pharma Indonesia Tbk
15	SIDO	Industri Jamu dan Farmasi Sido Muncul Tbk
16	SILO	Siloam International Hospitals Tbk
17	SRAJ	Sejahteraraya Anugrahjaya Tbk
18	TSPC	Tempo Scan Pacific Tbk

Source: Indonesia Stock Exchange (IDX), processed by the author (2025)

The variables in this study are classified into independent variables and a dependent variable. The independent variables consist of Inventory Turnover (X1) and Total Asset Turnover (X2), while the dependent variable is Net Profit Margin (Y). Inventory Turnover is calculated as Revenue divided by Average Inventory, representing how many times inventory is sold and replaced during a period. Total Asset Turnover is calculated as Revenue divided by Total Assets, indicating the efficiency of asset utilization in generating revenue. Net Profit

Margin is calculated as Net Profit After Tax divided by Revenue multiplied by 100%, measuring the percentage of each sales unit remaining after all expenses are deducted (Kasmir, 2012; Brigham & Houston, 2010).

The data analysis technique employed panel data regression, which combines cross-sectional and time-series data. Three estimation models were tested: Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM). Model selection was conducted through three sequential tests. First, the Chow Test was performed to determine whether CEM or FEM is more appropriate, yielding a probability value of $0.0012 < 0.05$, indicating FEM was preferred over CEM. Second, the Hausman Test compared FEM and REM, producing a probability value of $0.0462 < 0.05$, confirming FEM's superiority over REM. Third, the Lagrange Multiplier Test compared CEM and REM, with a Breusch-Pagan probability value of $0.0729 > 0.05$, favoring CEM over REM. Based on these results, with FEM winning in two out of three tests, the Fixed Effect Model was selected as the most appropriate estimation model (Mirtawati & Aulina, 2021).

Classical assumption tests were conducted to ensure the validity of the regression results. The normality test using the Jarque-Bera method produced a value of 5.310242 with a probability of $0.070290 > 0.05$, confirming that the data were normally distributed. The multicollinearity test showed correlation coefficients between independent variables of -0.22018, well below the threshold of 0.8, indicating no multicollinearity. The heteroscedasticity test using the Glejser method confirmed that all probability values for the independent variables exceeded 0.05 (ITO: 0.3521; TATO: 0.1699), indicating homoscedasticity. Hypothesis testing comprised the partial t-test, simultaneous F-test, and the coefficient of determination (R^2) analysis. All statistical analyses were performed using E-Views 12 software (Ghozali, 2013; Purwanto, 2019).

RESULTS AND DISCUSSION

Descriptive Analysis of Variables

The descriptive analysis provides an overview of the condition of the research variables across the 18 healthcare sub-sector companies during the 2019–2023 period. The analysis encompasses three variables: Inventory Turnover (ITO) as the first independent variable, Total Asset Turnover (TATO) as the second independent variable, and Net Profit Margin (NPM) as the dependent variable.

Inventory Turnover (ITO). The Inventory Turnover data shows significant variation across the 18 sample companies. The company with the highest average ITO over the five-year period was Mitra Keluarga Karyasehat Tbk (MIKA) with an average of 62.02%, while the lowest was Merck Tbk (MERK) with an average of 2.95%. The sector average ITO fluctuated considerably: 20.90% in 2019, declining to 18.73% in 2020, recovering to 20.72% in 2021, dropping again to 19.06% in 2022, and slightly increasing to 19.57% in 2023. These figures indicate that the healthcare sub-sector's inventory turnover remains substantially below the ideal industry standard of 30%–60% for hospitals and 80%–120% for pharmaceutical and medical device companies (Chen, cited in the original study). This suggests that healthcare companies still lack efficiency in managing their inventory and need to improve inventory management practices to reduce storage costs and enhance operational efficiency.

Total Asset Turnover (TATO). The TATO data also reveals considerable variation among sample companies. Organon Pharma Indonesia Tbk (SCPI) recorded the highest average TATO at 1.71, while Sarana Meditama Metropolitan Tbk (SAME) had the lowest at 0.27. The sector average TATO showed a slightly declining trend: 0.80 in 2019, 0.81 in 2020, reaching a peak of 0.83 in 2021, then declining to 0.78 in 2022 and further to 0.77 in 2023.

According to Awais (cited in the original study), the health standard for TATO in the healthcare sector is between 0.5 and 0.9 for hospitals, with a global healthcare sector average of 0.8. While the observed values generally fall within this range, the declining trend in recent years indicates diminishing effectiveness of these companies in utilizing assets to generate revenue (Syamsuddin, 2013).

Net Profit Margin (NPM). NPM data showed wide variation across companies. Indofarma Tbk (INAF) recorded the highest average NPM at 37.25%, primarily driven by an exceptionally high NPM of 137.7% in 2023. Phapros Tbk (PEHA) had the lowest average NPM at 3.64%. The sector average NPM demonstrated a consistently increasing trend: 8.99% in 2019, 10.82% in 2020, 11.48% in 2021, 13.36% in 2022, and 17.06% in 2023. This upward trajectory indicates improving profitability across the healthcare sector, falling within the healthy NPM standard range of 5%–20% (Harjito & Martono, 2018). The consistent improvement in NPM despite challenges from inventory management and asset utilization represents an intriguing phenomenon that warrants further investigation through regression analysis.

Panel Data Regression Results

Based on the Fixed Effect Model estimation, the panel data regression equation obtained is:

$$Y = 25.7924 + 0.2868X_1 - 23.7455X_2 + [CX=F]$$

where Y represents Net Profit Margin, X_1 represents Inventory Turnover, and X_2 represents Total Asset Turnover. The constant value of 25.7924 indicates that without the influence of the independent variables (ITO and TATO), the NPM would be approximately 25.79%. The positive coefficient of ITO (0.2868) suggests that each 1% increase in ITO is associated with a 0.2868% increase in NPM, holding other variables constant. Conversely, the negative coefficient of TATO (-23.7455) indicates that each one-unit increase in TATO is associated with a 23.7455% decrease in NPM, holding other variables constant.

Table 2. Partial Test Results (t-Test)

Variable	t-Statistic	Prob.	Conclusion
C	3.372287	0.0012	Significant
ITO (X1)	1.101575	0.2744	Not Significant
TATO (X2)	-2.557839	0.0127	Negative Significant

Source: E-Views 12 panel data regression output (2025)

The Effect of Inventory Turnover on Net Profit Margin

The t-test results indicate that Inventory Turnover (ITO) has no significant effect on Net Profit Margin (NPM). The t-statistic value for ITO is 1.101575, which is less than the t-table value of 1.988 ($df = 87$, $\alpha = 5\%$). Furthermore, the significance value of 0.2744 exceeds the critical threshold of 0.05. Therefore, H_0 is accepted and H_1 is rejected, concluding that ITO does not have a significant influence on NPM in healthcare sub-sector companies listed on the BEI.

This finding can be attributed to the distinctive characteristics of healthcare companies, which are predominantly service-oriented rather than goods-oriented. Most healthcare companies in the sample, including hospital chains such as Siloam International Hospitals (SILO), Mitra Keluarga (MIKA), Medikaloka Hermina (HEAL), and Royal Prima (PRIM), derive their primary revenue from medical services rather than from the sale of physical goods. Consequently, inventory turnover does not constitute a principal determinant of profitability in this sector. The majority of operational costs in healthcare companies originate from

professional labor, medical equipment, and regulatory compliance rather than inventory management. Additionally, the quantity and value of inventory in this industry are relatively small and supportive in nature rather than central to operational activities (Janrosl, 2015).

This result is consistent with Sulistiono and Nur (2023), who demonstrated that Inventory Turnover does not have a significant relationship with Net Profit Margin in food and beverage manufacturing companies. Similarly, Mauliddiarti et al. (2022) reported that inventory turnover had no significant effect on NPM. However, this finding contradicts Sattuang et al. (2023) and Sumiati and Pratiwi (2023), who found significant positive effects of inventory turnover on profitability. The discrepancy may be attributed to differences in sector characteristics, as healthcare companies rely more on service delivery than on inventory-based revenue generation (Hasanaton et al., 2024; Andreani et al., 2024).

From the perspective of Signaling Theory, the insignificant effect of ITO on NPM suggests that inventory turnover ratios may not serve as strong signals to investors regarding the profitability prospects of healthcare companies. Unlike manufacturing or retail sectors where inventory management directly impacts the bottom line, healthcare investors may place greater emphasis on other financial indicators such as patient volume, service mix, and operational efficiency metrics (Aryal & Bista, 2024).

The Effect of Total Asset Turnover on Net Profit Margin

The t-test results reveal that Total Asset Turnover (TATO) has a negative and significant effect on Net Profit Margin (NPM). The t-statistic value for TATO is -2.557839, which is less than the negative t-table value of -1.988. The significance value of 0.0127 is below the critical threshold of 0.05. Therefore, H_0 is rejected and H_2 is accepted, concluding that TATO has a negative and significant influence on NPM in healthcare sub-sector companies listed on the BEI.

This negative relationship indicates that as Total Asset Turnover increases, Net Profit Margin tends to decrease significantly. In other words, improvement in the efficiency of asset utilization to generate sales does not always correspond proportionally with improvement in the net profit margin. This phenomenon can be explained by the characteristics of healthcare companies, which possess large fixed asset structures including hospital buildings, laboratories, and high-technology medical equipment. These assets do not turn over quickly and require high costs for maintenance, depreciation, and operation, thereby increasing fixed operational expenses (Lumbantobing et al., 2023).

When assets are utilized suboptimally or are underutilized, efficiency decreases and profitability becomes suppressed, resulting in lower net profit margins. Moreover, healthcare companies that aggressively expand their asset base through the acquisition of new facilities and equipment may experience short-term declines in NPM as the revenue generated from these new assets has not yet reached full capacity. Thus, increases in TATO without corresponding optimization of asset performance and operational efficiency can actually suppress the net profit margin in the healthcare sector (Firdiana & Nugroho, 2024; Febriyanti & Wahyudiono, 2023).

This finding aligns with Feren (2020), who reported that TATO had a negative effect on NPM in property and real estate companies, another asset-intensive sector. Firdiana and Nugroho (2024) similarly found a negative significant relationship between TATO and NPM in telecommunications companies. However, this result contradicts Marlinah and Sairin (2025) and Putri et al. (2022), who found positive significant effects of TATO on NPM. This contradiction underscores the importance of sector-specific analysis, as the relationship

between asset utilization and profitability varies across industries with different asset structures and revenue models (Supeno & Aminudin, 2024; Wardana & Fikri, 2020).

Table 3. Simultaneous Test Results (F-Test) and Coefficient of Determination

Indicator	Value	Conclusion
F-statistic	2.149153	Significant ($p < 0.05$)
Prob(F-statistic)	0.011052	
R-squared	0.368424	
Adjusted R-squared	0.196997	19.69% explained

Source: E-Views 12 panel data regression output (2025)

Simultaneous Effect of ITO and TATO on NPM

The F-test results demonstrate that Inventory Turnover and Total Asset Turnover simultaneously have a significant effect on Net Profit Margin. The probability value of the F-statistic (0.011052) is less than the significance level of 0.05, indicating that the independent variables jointly influence the dependent variable. This result supports H_3 , confirming that ITO and TATO together significantly affect NPM in healthcare sub-sector companies listed on the BEI.

The Adjusted R-squared value of 0.196997 (19.69%) indicates that ITO and TATO collectively explain approximately 19.69% of the variation in NPM, while the remaining 80.31% is explained by other variables not included in this research model. These other variables may include Current Ratio, Debt to Equity Ratio, sales growth, receivable turnover, and working capital turnover, as identified in previous studies by Kadir and Phang (cited in the original study) and Kurniansyah (2018). The relatively low explanatory power suggests that while activity ratios contribute to NPM determination, other financial and non-financial factors play a more dominant role in the healthcare sector's profitability (Muhdor, 2023; Putri et al., 2023).

This simultaneous significance aligns with the findings of Sukri (2024), who demonstrated that Inventory Turnover and Total Assets Turnover jointly have a positive significant relationship with NPM in healthcare companies listed on the Singapore Exchange. The synergy between inventory management and asset utilization, when considered together, creates a combined effect on profitability that exceeds their individual contributions. High Inventory Turnover indicates effective management of inventory, which is crucial for the healthcare sector due to its sensitivity to product expiration and logistics efficiency. Meanwhile, high Total Assets Turnover reflects the company's ability to optimize all assets to generate revenue (Aryani, 2023).

Sharia Perspective Analysis

From an Islamic economic perspective, the findings regarding the significance of ITO and TATO on NPM can be interpreted through several fundamental Sharia principles that govern business conduct and financial management.

First, the principle of balance (al-tawazun), as articulated in Surah Ar-Rahman (55:7-9): "He has raised the sky and established the balance, so that you may not transgress the balance. Establish weight with justice and do not fall short in the balance." This Quranic verse emphasizes the importance of maintaining balance in all aspects of business operations, including the management of resources and assets. The negative relationship between TATO and NPM in healthcare companies suggests an imbalance in the utilization of assets, where expansion of assets without corresponding optimization leads to diminished profitability. Islamic financial management requires companies to achieve a harmonious balance between

asset efficiency and profitability, ensuring that neither excessive expenditure (israf) nor excessive restriction (taqtir) prevails in business operations (Dhiya et al., 2024).

Second, the principle of justice (al-'adl) governs the equitable management of resources entrusted to companies by their stakeholders. As stated in Surah Al-Isra' (17:29): "Do not make your hand as though shackled to your neck, nor extend it completely, lest you sit back blamed and destitute." This verse advocates for moderation in resource management, directly applicable to Total Asset Turnover management. Companies must strike a judicious balance between investment in assets and the returns generated from those assets. The findings indicate that healthcare companies need to be more strategic in their asset acquisition and utilization decisions, avoiding both over-investment and under-investment in productive assets (Fatimah & Munawarah, 2021).

Third, the principle of benefit (al-maslahah) requires that business operations serve the broader welfare of society, not merely the pursuit of profit. In the healthcare context, this principle is particularly relevant as healthcare services directly impact public health and wellbeing. The Islamic concept of maslahah mandates that healthcare companies manage their inventories and assets in ways that ensure continuous availability of essential medical supplies and services. The insignificant effect of ITO on NPM does not diminish the importance of efficient inventory management from a Sharia perspective, as maintaining adequate inventory levels of medicines and medical supplies is a social responsibility that transcends mere financial optimization (Herlyanto et al., 2024).

Fourth, the prohibition of hoarding (ihtikar) is directly relevant to inventory management in healthcare companies. Islam prohibits the hoarding of essential commodities that may lead to artificial scarcity and price inflation. In the healthcare sector, this principle takes on heightened significance as medicines and medical supplies are essential for preserving human life and health, which Islam considers among the highest priorities (maqashid al-syariah). Healthcare companies must rotate their inventory efficiently not just for financial reasons but as a fulfillment of their ethical obligation to ensure that essential healthcare products reach consumers promptly. The Quranic narrative of Prophet Yusuf (Joseph) in Surah Yusuf (12:47-48) provides an exemplary model of strategic inventory planning and management during periods of abundance and scarcity (Gusriana Fatimah & Munawarah, 2021).

Furthermore, Signaling Theory, when viewed through an Islamic lens, emphasizes the importance of transparency (al-shafafiyah) and trust (al-amanah) in financial reporting. Companies have a responsibility (amanah) to accurately communicate their financial condition to investors and stakeholders through financial ratios and indicators. The mixed signals provided by activity ratios in the healthcare sector underscore the need for more comprehensive and transparent reporting that considers both financial and non-financial performance metrics, consistent with the Islamic emphasis on holistic accountability. The hadith of Prophet Muhammad (peace be upon him) states: "The best of wealth is that which is in the hands of a righteous person" (HR. Ahmad, no. 18032), emphasizing that assets must be managed wisely and optimally to produce profits that benefit not only the capital owners but also bring blessings (barakah) to all parties involved (Muhammad, 2015).

The Sharia-compliant approach to asset management requires healthcare companies to ensure that their Total Assets Turnover and Net Profit Margin are in equilibrium. If efficiency is high but profitability is low, the company may not be maximizing its economic value. Conversely, if profit is high but efficiency is low, there is waste in asset utilization that contradicts the principles of Islamic economics. This dual perspective enriches the understanding of the empirical findings and provides practical guidance for Sharia-compliant financial management in asset-intensive industries (Pratama, cited in the original study).

CONCLUSION AND RECOMMENDATIONS

Based on the data analysis and discussion of research findings, the following conclusions can be drawn:

First, Inventory Turnover (ITO) does not have a significant effect on Net Profit Margin (NPM) in healthcare sub-sector companies listed on the Indonesia Stock Exchange. This is evidenced by the t-statistic value of 1.101575 being less than the t-table value of 1.988, and the significance value of 0.2744 exceeding the 0.05 threshold. This finding is attributed to the service-oriented nature of healthcare companies, where inventory management is not a primary driver of profitability. The majority of costs arise from professional labor, medical equipment, and regulatory compliance rather than from inventory-related expenses.

Second, Total Asset Turnover (TATO) has a negative and significant effect on Net Profit Margin (NPM). The t-statistic value of -2.557839 falls below the negative t-table value of -1.988, and the significance value of 0.0127 is below the 0.05 threshold. This negative relationship is explained by the capital-intensive nature of healthcare companies, which possess large fixed asset structures that incur substantial maintenance, depreciation, and operational costs, thereby compressing net profit margins when asset turnover increases without corresponding operational optimization.

Third, Inventory Turnover and Total Asset Turnover simultaneously have a significant effect on Net Profit Margin, as demonstrated by the F-statistic probability value of 0.011052 being less than 0.05. The Adjusted R-squared value of 19.69% indicates that these two variables collectively explain approximately one-fifth of the variation in NPM, with the remaining 80.31% attributable to other factors not included in the model.

Fourth, from a Sharia perspective, the findings reflect the importance of the Islamic principles of balance (al-tawazun), justice (al-'adl), benefit (al-maslahah), and the prohibition of hoarding (ihtikar) in financial management. Healthcare companies that manage their inventory and assets optimally not only improve their Net Profit Margin but also align their operations with maqashid syariah in maintaining the sustainability of healthcare services and the welfare of society.

Based on these conclusions, several recommendations are proposed. For healthcare companies, management should focus on maximizing the utilization of capital-intensive fixed assets, particularly medical equipment and healthcare support infrastructure. Strategies such as vertical integration of services, implementation of technology-based management systems for asset scheduling, and strategic alliances through asset sharing should be implemented to reduce fixed operational burdens and optimize Return on Assets. Additionally, companies should adopt Risk-Adjusted Inventory Management approaches utilizing Real-Time Inventory Tracking, Predictive Analytics, and inventory classification based on significance and volatility levels (such as the ABC-XYZ method). For future researchers, expanding the sample size and observation period, incorporating additional independent variables such as Current Ratio, Debt to Equity Ratio, sales growth, and working capital turnover would provide a more comprehensive understanding of NPM determinants in the healthcare sector. Researchers are also encouraged to compare healthcare companies across different stock exchanges to establish cross-national validity of these findings.

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