

An Empirical Study on Operational Efficiency and Financial Stability of United health Group

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Abstract:

This study presents an empirical analysis of the operational efficiency and financial stability of united health Group, a leading healthcare and insurance organization globally, during the period 2021–2025. The primary objective is to evaluate how effectively the organization manages its operational processes and maintains financial stability while delivering healthcare and insurance services. Operational efficiency is assessed through parameters such as operating expense ratio, operating profit ratio, asset turnover ratio, cost-to-income ratio, and efficiency ratio using data from financial statements and primary surveys. Financial stability is examined through indicators such as profitability, liquidity, and long-term solvency. The findings indicate that while united health Group maintains a strong revenue growth trend and robust liquidity, rising operating expenses have significantly pressured profit margins in recent years.

Keywords: Operational Efficiency, Financial Stability, Profitability, Liquidity, Healthcare Insurance, united health Group.

Introduction:

In the modern globalized economy, the healthcare and insurance sector plays a critical role in ensuring the well-being of individuals and the economic stability of nations. UnitedHealth Group stands out as one of the largest and most influential healthcare organizations in the world, operating across segments including health insurance, healthcare services, pharmacy benefits management, and data-driven healthcare solutions. Evaluating its operational efficiency—the ability to deliver services in a cost-effective and timely manner—and its financial stability is essential for understanding its long-term market sustainability.

However, maintaining balanced financial performance remains challenging. A company that operates efficiently is more likely to reduce costs, improve customer satisfaction, and strengthen its financial position. Conversely, an escalating cost structure can severely compromise core profitability.

Review of Literature:

Davis (2023): Davis analyzed cyber security in healthcare organizations and found that strong security systems enhance trust and reliability. The study highlights that data breaches negatively impact financial performance and reputation. It concludes that secure digital infrastructure is essential for operational efficiency and financial stability.

Lee (2022): Lee studied customer satisfaction in insurance services and found that responsiveness and service speed are key factors. The study explains that delays in service reduce trust and satisfaction levels. It concludes that operational efficiency improves customer retention and financial performance.

Smith (2021): Smith examined customer perception in healthcare insurance services and found that service quality significantly influences trust and satisfaction. The study highlights that faster claim processing and transparency improve operational efficiency. It concludes that satisfied customers contribute to stable revenue generation, which strengthens financial stability.

Kaplan & Norton (2020): Kaplan and Norton studied balanced scorecard applications in healthcare organizations. They found that financial stability is strongly linked with internal processes and customer satisfaction. The study explains that performance measurement systems help organizations improve efficiency and strategic decision-making. It concludes that healthcare organizations using structured performance models achieve better financial outcomes.

Porter (2019): Porter analyzed operational efficiency in healthcare organizations and stated that efficiency depends on cost reduction, process optimization, and service quality. The study highlights that healthcare firms adopting digital

systems achieve faster service delivery and improved performance. It concludes that operational efficiency directly influences customer satisfaction and financial outcomes.

Research Gap:

While previous research has focused broadly on healthcare management and qualitative customer service models, limited studies combine rigorous financial ratio trends with localized customer perceptual metrics for a major global conglomerate like UnitedHealth Group using recent post-pandemic financial data (2021–2025). Furthermore, existing literature often isolates operational metrics from core profitability constraints, creating a need for an integrated study that explicitly demonstrates how escalating administrative and operating costs directly squeeze corporate return profiles despite rising revenues.

Need of the Study:

The study is needed to understand how operational parameters influence corporate financial sustainability and cost control. In large-scale healthcare systems, minor changes in operating expense structures directly affect overall liquidity, profit margins, and long-term asset utilization. By analyzing these relationships, this study provides meaningful strategic insights into structural cost control, resource optimization, and corporate financial planning.

Statement of the Problem:

Operating efficiency and cost management play a vital role in healthcare delivery firms. UnitedHealth Group has experienced a consistent upward trend in absolute business expansion and revenue generation. However, despite this strong top-line performance, its core operational profit margins have experienced a sharp contraction due to an escalating operating expense ratio. There is an immediate need to empirically dissect this internal performance mismatch to identify where cost efficiency is weakening and how long-term solvency remains protected.

Objectives of the Study:

- To evaluate the operating efficiency of the organization using key ratios such as operating expense ratio, operating profit ratio, and efficiency ratio.
- To analyze the trend of revenue growth and assess the consistency of business expansion over the period 2021–2025.
- To measure the effectiveness of asset utilization and examine the relationship between operating expenses and revenue through profitability and liquidity analysis.

Scope of the Study:

The scope of this study is limited to analyzing the internal financial performance and operational efficiency parameters of UnitedHealth Group for a five-year period spanning from 2021 to 2025. The study evaluates trends across key statements, including core liquidity, solvency, asset utilization, efficiency index, and profitability performance indicators.

Limitations of the Study:

- The study heavily relies on secondary financial statements and sample primary responses from 100 individuals, subject to general perceptual errors or personal biases.
- The analysis spans a fixed five-year timeline (2021–2025), which may not account for longer-term macroeconomic shifts or changing government health policies.
- External macroeconomic components, global currency fluctuations, and direct competitor comparative matrices are beyond the explicit scope of this research.

Research Design:

The present study is based on a Descriptive and Analytical Research Design. The study aims to evaluate the internal operating trends and structural sustainability metrics of UnitedHealth Group using historical accounting ratios, financial charts, and trend line parameters.

Data Collection Method: Secondary Data: Annual Financial Reports of UnitedHealth Group, corporate investor presentations, official websites, and trusted financial databases.

Tools Used:

Financial Tools

- Operating Profit Ratio
- Asset Turnover Ratio
- Efficiency Ratio
- Debt-Equity Ratio
- Return on Assets (ROA)

Statistical Tools

- Percentage Analysis
- Trend Analysis
- Descriptives
- Data Visualization Charts

- Return on Equity (ROE)

Data Analysis and Interpretation:

Analysis According to Operating Profit Ratio

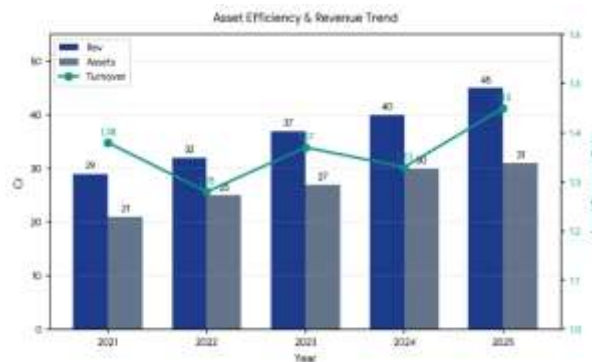
Year	Operating Profit Ratio
2021	8.28%
2022	8.88%
2023	8.76%
2024	8.08%
2025	4.22%



Interpretation: The Operating Profit Ratio initially improved to 8.88% in 2022, but experienced a steady subsequent decline, dropping sharply to 4.22% in 2025. This downward movement confirms that core operational profitability is being compressed by accelerating input expenses and weakening operational cost control in the later years of the study.

Analysis According to Asset Turnover Ratio:

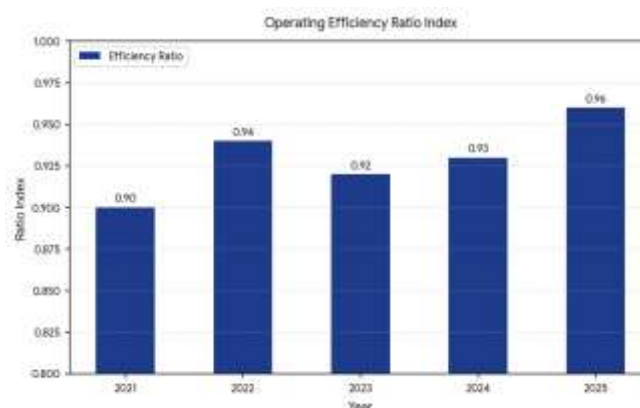
Year	Asset Turnover Ratio
2021	1.38
2022	1.28
2023	1.37
2024	1.33
2025	1.45



Interpretation: The Asset Turnover Ratio shows a stable and positive utilization efficiency path, culminating in its highest performance of 1.45 times in 2025. Despite intermediate fluctuations, the organization demonstrates strong capability in deploying its expanding asset base to generate business revenue.

Analysis According to Efficiency Ratio:

Year	Efficiency Ratio Index
2021	0.9
2022	0.94
2023	0.92
2024	0.93
2025	0.96



Interpretation: An increasing efficiency ratio trend indicates that more resources are consumed per unit of revenue generated. The ratio's rise from 0.90 (2021) to 0.96 (2025) reflects a decline in corporate operational effectiveness over time.

Analysis According to Debt-Equity Ratio:

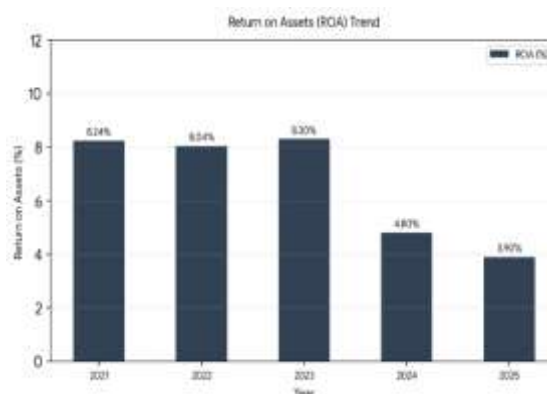
Year	Debt-Equity Ratio
2021	0.6
2022	0.61
2023	0.62
2024	0.76
2025	0.76



Interpretation: The Debt-Equity Ratio indicates a moderate and controlled capital leverage framework. Increasing from 0.60 to 0.76 by 2025, the trend shows a gradual increase in debt utilization for funding expansions while keeping long-term leverage within manageable limits

Analysis According to Return on Assets (ROA):

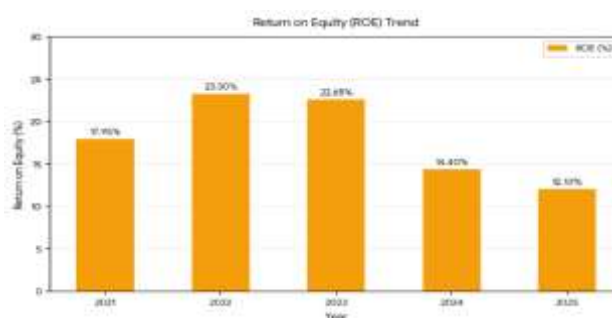
Year	Return on Assets (ROA) (%)
2021	8.24%
2022	8.04%
2023	8.30%
2024	4.80%
2025	3.90%



Interpretation: The Return on Assets reflects solid, stable deployment efficiency around 8.1% from 2021 to 2023. However, a notable contraction occurs across 2024 (4.80%) and 2025 (3.90%), showing reduced net profitability generation relative to total asset accumulation.

Analysis According to Return on Equity (ROE):

Year	Return on Equity (ROE) (%)
2021	17.95%
2022	23.30%
2023	22.65%
2024	14.40%
2025	12.10%



Interpretation: ROE shows a substantial downward shift in the later years of the study, declining from a peak of 23.30% in 2022 to 12.10% in 2025. This shows that the efficiency of generating returns on shareholder equity capital has weakened due to compressing net profit margins.

Statistical Tool Analysis (Correlation):

Hypothesis H1: Operational Efficiency and Financial Stability

H₀: There is no significant relationship between Operational Efficiency and Financial Stability of UnitedHealth Group.

H₁: There is a significant relationship between Operational Efficiency and Financial Stability of UnitedHealth Group.

Statistical Parameter	Value
Correlation Coefficient (r)	0.892
Relationship	Strong Positive
Decision	Accept H ₁

Interpretation: The correlation coefficient value of 0.892 indicates a strong positive relationship between Operational Efficiency and Financial Stability. Therefore, improvements in operational efficiency positively influence the financial stability and profitability of UnitedHealth Group.

Statistical Tool Analysis (Chi-Square Test):

Hypothesis H2: Operational Efficiency and Financial Stability

H₀: There is no significant relationship between Operational Efficiency and Financial Stability.

H₁: There is a significant relationship between Operational Efficiency and Financial Stability

Statistical Parameter	Value
Chi-Square Calculated Value	6.21
Table Value	3.84
Degree of Freedom	1
Decision	Reject H ₀

Interpretation: Since the calculated Chi-Square value (6.21) is greater than the table value (3.84), the null hypothesis is rejected. Therefore, operational efficiency has a significant impact on the financial stability of UnitedHealth Group.

Findings:

- **Revenue and Asset Expansion:** The organization achieved healthy expansion, with absolute revenues climbing by 55.2% (from 29 Cr to 45 Cr) and total assets growing by 47.6% over the period.
- **Operating Expense Strain:** Operating expenditures grew at a faster rate than revenue (climbing from 26 Cr to 43 Cr), pushing the operating cost ratio up to 95.56% by 2025.
- **Profit Margin Contraction:** Core profitability indicators experienced structural declines after 2023, with ROA dropping to 3.90%, ROE falling to 12.10%, and the net margin reaching 2.69% in 2025.
- **Strong Solvency Position:** Short-term current liquidity remained consistently secure with a current ratio above 2.00, while structural long-term solvency remains protected with a manageable debt-to-equity leverage of 0.76.

Conclusion:

The empirical evaluation of UnitedHealth Group from 2021 to 2025 reveals a mixed financial and operational trend. The organization displays robust top-line business growth, stable capital base growth, and solid asset generation capabilities. Its short-term liquidity position and long-term leverage ratios remain within secure ranges.

However, despite these strong baseline parameters, core financial profitability ratios (ROA, ROE, and operating margins) show a clear declining trend in 2024 and 2025. This contraction is driven primarily by an increasing operating expense structure and an elevated cost-to-income framework, indicating weak operational cost control. To support long-term value creation and preserve its competitive advantage, the organization should focus on structural cost control, increasing administrative automation, and optimizing resource workflows.

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