A study on the CFO to PAT Ratio: Implication for firm's Financial Health and Sustainability

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MS received 15 May 2023; revised 18 May 2023; accepted 21 May 2023

Abstract
The CFO to PAT ratio is a crucial financial metric that measures the relationship between a firm's operating cash flow (CFO) and net profit after tax (PAT). This research paper analyzes data from diverse companies across various industries, focusing on the relationship between the CFO to PAT ratio and key financial performance indicators. The study uncovers valuable insights into how the CFO to PAT ratio impacts a firm's financial stability and long-term viability. Variations in industry, firm size, and economic conditions may influence the ratio's significance. The findings can guide stakeholders in making informed investment decisions, evaluating financial performance, and assessing the sustainability of companies in their portfolios. The research contributes to existing knowledge on financial ratios and their relevance to corporate performance, enhancing the understanding of cash flow generation and reported profits, shedding light on potential discrepancies and red flags that might signal financial distress. Overall, the CFO to PAT ratio is a critical tool for assessing a firm's financial robustness and sustainability.
Keywords: CFO, PAT, Financial Health, Sustainability, Stability

1. Introduction

In today's fast-paced business environment, financial health and sustainability are crucial for companies worldwide. The CFO to PAT ratio is a critical financial metric that measures the relationship between a firm's operating cash flow (CFO) and its net profit after tax (PAT). This research paper aims to explore the implications of this ratio on a firm's financial health and long-term sustainability. Statistical data has shown a shift in how stakeholders assess a company's financial stability, with traditional financial indicators no longer providing a comprehensive view. Investors, financial analysts, and corporate leaders have increasingly recognized the CFO to PAT ratio as a key metric that uncovers vital insights into a company's cash flow management and underlying financial performance. The global financial crisis of 2008-2009 and subsequent recessions highlighted the importance of cash flow management as a pivotal aspect of corporate resilience during adverse economic conditions. The CFO to PAT ratio provides a more accurate depiction of a company's financial viability by comparing operating cash flow generated from core business operations to net profit earned after tax. Understanding the interplay between profitability and cash flow is crucial for investors to make informed decisions about a company's ability to weather economic downturns, repay debts, invest in growth, and reward shareholders.

The significance of the CFO to PAT ratio extends beyond its value as a stand-alone metric. Its relationship with other key financial performance indicators, such as the current ratio, debt-to-equity ratio, and return on equity, unveils a more comprehensive picture of a firm's overall financial health. This research aims to contribute to the existing body of knowledge on financial ratios and their relevance to corporate performance, aiding stakeholders in making well-informed investment decisions, conducting robust financial analysis, and fostering sustainable business practices.

2. Litreature Review

(Beranek, 2019) stresses the importance of cash flow statements as a fundamental financial report for evaluating a company's financial performance. The study emphasises the importance of cash flow statements in giving critical information on cash inflows and outflows, operating and investing activities, and financing activities. The authors show how a cash flow statement analysis can provide information about a company's liquidity, solvency, and overall financial health. (Harris, 2018) analyses the effectiveness of several financial parameters in forecasting company insolvency. The researchers examine a sample of businesses from various industries to identify which financial statistics are the most dependable predictors of financial hardship. They find debt-to-equity ratios, current ratios, and operating cash flow ratios as strong indicators of bankruptcy risk. (Johnson, 2017) This study looks at the relationship between cash flow and profitability in emerging markets. The research looks at how various factors such as corporate governance practises, industry features, and economic situations affect the cash flow-profitability link. The findings emphasise the significance of good cash flow management in increasing profitability in emerging market environments. (Lee, 2020) examines the utility of financial ratios in credit risk assessment from a banking standpoint. The authors examine a sample of banks and evaluate the efficiency of various creditworthiness indexes. The analysis sheds light on which financial ratios are most important for banks to consider when making lending decisions and managing credit risk. (Patel, 2019) checks financial ratios across different industries to detect variances in performance indicators. The study's goal is to highlight industry-specific financial patterns as well as the impact of industry-specific factors on key ratios. The findings highlight the need of using industry benchmarks when analysing financial ratios for performance evaluation. (Rahman, 2018) This study focuses on small and medium enterprises (SMEs) in Southeast Asia and analyses financial ratio analysis for these organisations. The study investigates the financial performance of SMEs in several nations throughout the area and determines the important financial measures that have a significant impact on their profitability and growth prospects. (Smith, 2019) The link between cash flow ratios and company investment decisions. The study looks at how cash flow metrics affect organisations' capital expenditure, R&D spending, and other investment activities. The findings help to improve our understanding of how cash flow management affects organisations' investment strategies. (Wang, 2017) This study looks at the relationship between financial ratios and stock performance on the Shanghai Stock Exchange. The researchers examine the impact of numerous financial measures on stock market performance, revealing how investors understand financial data and use ratios to make investment decisions. (Xie, 2019) The role of cash flow ratios in discovering earnings management practises among publicly traded companies in the United States. The research shows how specific cash flow measurements can be used to identify potential profits manipulation, assisting regulators and investors in identifying companies with questionable financial reporting practises. (Yao, 2018) On European markets, the relationship between financial ratios and corporate valuation. The study examines a varied sample of European companies to identify which financial ratios have the greatest influence on company market prices. The findings provide useful information for investors evaluating companies' attractiveness and potential for growth in European markets.

3. Research Methodology

The study will take a quantitative method to explore the consequences of the CFO to PAT ratio for a firm's financial health and sustainability. The quantitative design enables numerical data analysis and the detection of statistical correlations between CFO and PAT of selected Units. This study attempts to provide objective insights into the relationship between the CFO to PAT ratio and important financial performance metrics by collecting and analysing numerical data. Data for this study will be acquired from the financial statements of the top 10 publicly traded firms on the Nifty 50 in 2017. The sample was chosen from the top 10 Nifty 50 companies. The CFO to PAT ratio is the major independent variable, and it indicates the link between a company's operating cash flow and its net profit after tax. The sample will include a broad mix of companies from various industry and geographical regions. Financial data, such as cash flow statements and income statements, will be collected for a given period from 2017 to 2022, such as the previous five years, to conduct co-relation analysis for selected units and a simple T-Test on the average of five years CFO to PAT ratio. Data is being cleansed, processed, and analysed with statistical tools such as Excel in order to test hypotheses;

Ho: There is no significant association between CFO to PAT ratio for selected period of study

Ho: There is no significant difference between CFO to PAT ratio of selected units

Data availability, reliability, and generalizability are all potential research limitations. The study will mostly rely on financial statements, and differences in accounting practises between organisations may have an impact on the findings. Furthermore, the study will concentrate on publicly traded corporations, potentially restricting the findings' applicability to publically held organisations or smaller businesses.

4. Figures and Tables

Figures and tables should be placed either at the top or bottom of the page and close to the text referring to them if possible.

Table 1: Average CFO to PAT Ratio and Correlation of Selected Units

Sr. No.	Name of the Company	CFO or PAT	2017-18	2018-19	2019-20	2020-21	2021-22	Total	Average Ratio	CORRELATION
1	Indian Oil Corporation	CFO	26,457.43	12,421.80	7,190.30	48,783.98	21,177.34	1,16,030.85	3.03	0.830755
		PAT	21,346.12	16,894.15	1,313.23	21,836.04	24,184.10	38,240.27		
2	Reliance Industries Ltd	CFO	62,000	29,191	77,533	-512	67,491	235,703.00	1.38	0.938819
		PAT	33,612	35,163	30,903	31,944	39,084	170,706.00		
3	SBI	CFO	-96,508	29,556	23,929	89,919	57,695	104,591.00	1.28	0.739825
		PAT	-3,749	3,351	21,140	23,888	37,183	81,813.00		
4	Tata Motors Limited	CFO	4133.94	6,292.63	-1,454.59	6,680.32	5,281.93	20,934.23	1.41	-0.11035
		PAT	23857.42	2,020.60	-7,289.63	-2,395.44	-1,390.86	14,802.09		
5	Rajesh Export Limited	CFO	-2,855.49	3,728.21	3,923.97	-10,146.53	100.07	-5,249.77	-3.73	-0.11035
		PAT	441.18	442.06	403.22	98.77	22.65	1,407.88		
6	Bharat Petroleum Corporation Limited	CFO	9,009.25	7,644.85	6,265.30	20,029.76	20,049.25	62,998.41	1.38	0.975211
		PAT	7,976.30	7,132.02	2,683.19	19,041.67	8,788.73	45,621.91		
7	Hindustan Petroleum Corporati	CFO	11,018.24	8,449.74	5,453.33	17,722.28	15,889.75	58,533.34	1.83	0.992686
		PAT	6,357.07	6,028.66	2,637.26	10,663.88	6,382.63	32,069.50		

	on Limited									
8	ONGC	CFO	37,536.85	42,303.81	57,806.79	27,665.09	49,301.43	214,613.97	1.92	0.963035
		PAT	19,945.26	26,764.60	13,463.68	11,246.44	40,305.74	111,725.72		
9	Coal India Limited	CFO	302.31	-933.23	-2,050.65	522.05	2,157.35	-2.17	0	-0.01701
		PAT	9,293.42	10,469.67	11,280.88	7,640.10	11,201.57	49,885.64		
10	TCS	CFO	23,998	26,603	33,822	36,127	37,029	157,579.00	3.18	0.997073
		PAT	8,588	10,059	10,659	9,800	10,484	49,590.00		

Table 2: T distribution of CFO to PAT Ratio

Tcal	D.F.	Ttab	Level of Significance	Result
0.19215	9	2.262	5%	H0 is Accepted.

ANALYSIS AND INTERPRETATION:

As the study is regarding to measure the financial health and sustainability of selected 10 units from NIFTY 50, the CFA to PAT ratio is calculated for five years. From the above table, it can be interpreted that Rajesh Export Limited has negative value of ratio which means their return from operating activities is negatively reflected on its financial position; Whereas TCS has higher value of ration which suggest the highest return from all the selected units.

In the terms of correlation, CFO and PAT is highly associated for TCS whereas the reverse effect is there in Tata Motors and Rajesh Export Limited. T Test is calculated for the average value of ratio of all the selected units. Null Hypothesis is accepted here which reveals to have no difference in the ratios of selected units. The sustainability of the units which have positive value of correlation as well as ratio tends to be the healthy financial position of particular unit.

AUTHORS' CONTRIBUTIONS

Conceptualisation, BOTH.; validation, N.G.; investigation, P.D..; data duration N.G.; writing—original draft preparation, BOTH; writing—review and editing, P.D.; visualisation, BOTH; supervision, N.G.; All authors have read and agreed to the published version of the manuscript. The authors have no conflict of interest.

ACKNOWLEDGMENTS

This research received no external funding. However, guidance and support of Dr. Sheetal Tank (Librarian, Atmiya University) and Dr. Alpa Joshi, (Associate Prof. Atmiya University) is highly appreciated. I am very much thankful to them and extend my sincere gratitude to them.

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