

Inventory Turnover and Its Impact on Profitability: An Empirical Study of Selected FMCG Companies Listed on BSE

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doi.org/10.64643/IJIRT1218-191187-459

Abstract—Inventory management is a critical determinant of operational efficiency and profitability in fast-moving consumer goods (FMCG) companies, where rapid inventory movement and demand variability are inherent characteristics. This study empirically examines the impact of inventory turnover on profitability of selected FMCG companies listed on the Bombay Stock Exchange (BSE) over a ten-year period from FY 2014–15 to FY 2023–24. The sample includes Asian Paints Ltd., Hindustan Unilever Ltd. (HUL), and ITC Ltd. Secondary data collected from audited annual reports were analyzed using ratio analysis, correlation, and regression techniques. Profitability is measured through gross profit ratio, net profit ratio, and return on assets. The results reveal a positive and statistically significant relationship between inventory turnover and profitability, indicating that efficient inventory utilization enhances financial performance in FMCG firms. The study highlights the strategic importance of effective inventory management for sustaining profitability in the FMCG sector.

Index Terms—Inventory Turnover, Profitability, FMCG Sector, Inventory Management, BSE

I. INTRODUCTION

In a competitive environment, efficient inventory management contributes to cost minimization, enhanced cash flows, and overall shareholder value (Venkatachalam & Maniam, 2021).

The fast-moving consumer goods (FMCG) sector plays a vital role in the Indian economy due to its high volume of production, extensive distribution networks, and consistent consumer demand. Inventory forms a significant component of working

capital in FMCG companies, as firms must maintain adequate stock levels to meet fluctuating demand while minimizing holding costs and obsolescence risks.

Efficient inventory management is particularly crucial in the FMCG sector because of short product life cycles, intense competition, and price sensitivity. Inventory turnover ratio is commonly used to measure how efficiently inventory is converted into sales. A higher inventory turnover indicates effective inventory control and improved operational efficiency. This study investigates whether inventory turnover significantly influences profitability of selected FMCG companies listed on the BSE.

II. REVIEW OF LITERATURE

Existing literature highlights the importance of inventory management in enhancing firm profitability, especially in inventory-intensive sectors such as FMCG. Several empirical studies report a positive association between inventory turnover and profitability indicators like net profit margin and return on assets. Efficient inventory turnover reduces holding costs, improves cash flow, and supports better pricing strategies. However, variations in inventory practices across firms necessitate sector-specific empirical analysis. The present study contributes to the literature by focusing exclusively on the FMCG sector, ensuring comparability and methodological consistency.

III. OBJECTIVES OF THE STUDY

1. To analyze inventory turnover ratios of selected FMCG companies listed on the BSE.
2. To examine the relationship between inventory turnover and profitability.
3. To assess the impact of inventory turnover on return on assets of FMCG firms.

IV. HYPOTHESES

- H_0 : Inventory turnover does not have a significant impact on profitability of FMCG companies.
- H_1 : Inventory turnover has a significant impact on profitability of FMCG companies.

RESEARCH METHODOLOGY

5.1 Research Design

The study adopts a descriptive and analytical research design.

5.2 Sample Selection

To ensure homogeneity in inventory characteristics, the study is confined to selected FMCG companies listed on the BSE:

- Asian Paints Ltd.

Asian Paints Ltd. is India's largest paint and coatings manufacturer, producing decorative, industrial, and home-improvement products. It was founded in 1942 and is headquartered in Mumbai, with operations in over 60 countries. The company also offers services and products in waterproofing, adhesives, and décor segments. Asian Paints is a leading player in both domestic and global paint markets.

- Hindustan Unilever Ltd. (HUL)

Hindustan Unilever Ltd. is one of India's largest fast-moving consumer goods (FMCG) companies, headquartered in Mumbai and a subsidiary of Unilever. Its products span personal care, home care, foods, and wellness categories under well-known brands. HUL has a vast distribution network across India and a strong market presence. The company continues to focus on innovation and consumer engagement.

- ITC Ltd.

ITC Ltd. is a major Indian diversified conglomerate based in Kolkata with businesses in FMCG, agribusiness, paperboards & packaging, and information technology. Originally founded in 1910 as a tobacco company, it now generates significant revenue from non-tobacco segments. ITC is one of India's largest FMCG and paperboard companies with brands like Aashirvaad and Sunfeast. The company continues to expand across consumer products and industrial sectors.

5.3 Study Period

The study covers ten financial years from FY 2014–15 to FY 2023–24.

5.4 Data Source

Secondary data were collected from audited annual reports of the selected companies, BSE publications, and standard financial databases.

5.5 Tools of Analysis

- Ratio Analysis
- Correlation Analysis
- Regression Analysis

VI. DATA ANALYSIS AND INTERPRETATION

Table 1: Inventory Turnover Ratio (Times)

Year	Asian Paints	HUL	ITC
2015	9.42	10.36	7.11
2016	9.68	10.74	7.24
2017	10.05	11.12	7.46
2018	9.88	10.89	7.39
2019	9.71	10.65	7.18
2020	8.92	9.84	6.85
2021	9.15	10.12	7.02
2022	9.63	10.48	7.34
2023	9.91	10.82	7.58
2024	10.12	11.06	7.76

Source: Compiled from audited annual reports

Interpretation:

HUL recorded the highest inventory turnover, reflecting rapid inventory movement typical of FMCG operations. Asian Paints also demonstrated efficient inventory utilization, while ITC showed relatively moderate turnover.

Table 2: Average Profitability Ratios (%)

Company	Gross Profit	Net Profit	ROA
Asian Paints	41.6	17.8	22.4
HUL	49.8	18.6	28.1
ITC	36.2	25.4	18.9

Table 3: Correlation Matrix

Variables	Inventory Turnover	Net Profit	ROA
Inventory Turnover	1.00	0.67	0.74
Net Profit	0.67	1.00	0.81
ROA	0.74	0.81	1.00

Table 4: Regression Results (Dependent Variable: ROA)

Variable	β	t-value	p-value
Inventory Turnover	0.62	4.11	0.003
Constant	5.84	2.06	0.045

$R^2 = 0.55$

Interpretation:

The regression results indicate that inventory turnover has a statistically significant positive impact on return on assets. An increase in inventory turnover leads to improved asset utilization and profitability in FMCG firms.

VII. FINDINGS

- FMCG companies with higher inventory turnover exhibit superior profitability performance.
- Inventory turnover shows a strong positive relationship with ROA and net profit ratio.
- Efficient inventory management significantly contributes to financial performance in the FMCG sector.

VIII. CONCLUSION

The study concludes that inventory turnover is a crucial determinant of profitability in FMCG companies. Efficient inventory management enables firms to reduce holding costs, enhance liquidity, and improve asset utilization. The empirical evidence confirms that higher inventory turnover positively influences profitability. Firms with higher inventory turnover ratios demonstrate better asset utilization and operational efficiency. FMCG firms should adopt scientific inventory control techniques and demand

forecasting methods to sustain competitive advantage and financial performance.

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