

SMART

Journal of Business Management Studies

(A Professional, Refereed, International and Indexed Journal)

Vol-20 Number-2

July - December 2024

Rs. 500

ISSN 0973-1598 (Print)

ISSN 2321-2012 (Online)

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Founder - Publisher and Chief Editor



**SCIENTIFIC MANAGEMENT AND ADVANCED RESEARCH TRUST
(SMART)**

TIRUCHIRAPPALLI (INDIA)

www.smartjournalbms.org

EFFECT OF GST ON WCM AND PROFITABILITY OF FMCG SECTOR IN INDIA

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Abstract

Working capital primarily consists of a company's current assets, or the part of its financial resources that are converted from one kind of resource to another as operations are carried out on a daily basis. Working capital management is regarded as a key component of a company's profitability. This study examines the working capital relationship with firm's profitability. An optimal working capital is essential for enhancing the value of an organization. The impact of GST is significantly evident on all transactions of FMCG sectors, especially during stock transfer between two branches of a company, during which period the funds get blocked. This study considered 55 FMCG manufacturing firms, listed in BSE for a period of 12 years starting from 2012 to 2023. Multiple regression model was used to test the hypothesis. The study established a low working capital turnover ratio, which indicates quick realization of inventory, and creates the demand for funds to procure more stock for production purpose. The working capital turnover was used to gauge aggressive investing practices. An aggressive investment strategy is indicated by a low working capital turnover ratio, and a conservative strategy is indicated by a high ratio.

Keywords: Goods and Service Tax, FMCG sector, Working Capital Components, Working Capital Turnover, Profitability

JEL Code : H2, H20, H21 and H25

Paper Received : 31.01.2024

Revised : 12.03.2024

Accepted : 22.04.2024

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1. Introduction

Working capital refers to the funds that a company utilizes to carry out its day to day operations. It comprises the current assets of the company, such as cash in hand, inventory, pre-paid bills, accounts receivables, short-term investments, and other similar assets. The net working capital of a company is calculated by subtracting the current liabilities from its current assets. If the current assets are less than the current liabilities, it would result in a deficit in the net working capital. The main objective of Working Capital Management (WCM) is to maintain the company's financial resources under control while striking a balance between the firm's profitability and the risk connected with it.

Goods and Services Tax (GST) has become a crucial element of the Indian economy. On July 1, 2017, GST was introduced, bringing about significant indirect tax reform, which has affected every business entity. GST has impacted every transaction, including the transfer of stock between two corporate branches. A business can only claim Input Tax Credit (ITC) on taxes paid after selling products in the market, which can take several months. The current tax structure includes all major indirect taxes such as excise, CST, octroi, and entry taxes, which eliminates the need for multiple storage facilities. However, to improve overall working capital management, a single, well-thought-out logistics and supply chain management is essential. The current tax structure allows organizations to have fewer storage locations, which increases working capital and improves supply chain management. The GST rates on Fast Moving Consumer Goods (FMCG) have spread widely as different FMCG products fall into different tax brackets. Mass consumption goods such as toothpaste, soaps, hair oil, and the like, now attract an 18% tax rate, which is much less

compared to the previous tax rate of 22-24%. This reduction in tax rates is due to the government's policy of maintaining low tax rates on goods intended for mass consumption. According to the GST rate schedule, more than 81% of FMCG goods fall into the 18% tax bracket or less. The remaining 19% FMCG goods are taxed at a 28% rate. Against this background, this study has attempted to establish the impact of GST on the working capital management of FMCG companies.

2. Review of Literature

Many researchers have studied the connection between working capital and profitability. **Deloof (2003)** looked at 1,009 non-financial Belgian businesses and found the negative correlation between a company's gross operating profit with the average collection period and inventory conversion period. In order to boost profitability, he advised financial managers to attempt to lengthen the payment period to creditors, shorten the collection period, and raise inventory turnover. **Padachi (2006)** studied the manufacturing companies, based in Mauritius, to investigate working capital management and its relationship to profitability in a study on small manufacturing firms. The six-year study period from 1998 to 2003, covered cash conversion cycle, inventory turnover, days of payables, and days of receivables as explanatory variables, with Return on Assets (ROA) serving as the dependent variable. **Eljelly (2004)** discovered a strong inverse relationship of cash with the profitability.

Mallik, Sur, and Rakshit (2005) studied pharmaceutical industry and found that there was no relationship between profitability and liquidity. **Singh and Asress (2011)** used a sample of 449 manufacturing companies and found a significant relationship of working capital with liquidity and profitability, and this conclusion was further confirmed by **Ikpefan (2007)**.

Haldankar et.al (2022) studied the Goods and Services Tax operating in India from its broader sense. They have found the substantial increase in GST revenue and economy revival after the recovery from the Covid 19 pandemic. The study, carried out by **Tiwari (2020) and Baby (2020)**, recommend all stakeholders to support and encourage the successful implementation of the GST system. **Naeem & Khan (2020)** examined the socio-economic effect of the GST on the rise in inflation and negative growth. Previous researchers have observed India's GST revenue collection practices. **Gupta (2020)** emphasizes on how the GST's implementation has benefited the Indian economy, and recommends changes in the GST Act to simplify the procedure. **Gobindalal & Atanu (2018) and Kothari (2019)** studied the challenges and roadblocks the industry faced while implementing GST. **Gajanan B Haldankar , Maithili Naik, Santosh Parkar (2022)** studied the growth of GST revenue from its introduction, and found that COVID 19 had created the roadblock but the GST revenue would increase over a period of time.

3. Statement of the Problem

Based on the literature review, it is apparent that previous studies have explored and conducted empirical research on the Goods and Services Tax (GST). It is also evident that previous studies have examined the relationship between Working Capital Management (WCM) and the profitability in India. This has motivated the authors to study the impact of GST on WCM and profitability of Indian FMCG sector. Since the introduction of the GST, its objective has been to increase indirect tax revenue, with simple tax procedure. Therefore, it is crucial to assess the effect of GST on WCM. In India, majority of FMCG companies' inventory, supply chain,

and cash are affected by GST. Companies can claim Input Tax Credit (ITC) upon the sale of their products by the last branch in their supply chain, which results in the blockage of stock and cash, affecting the collection and payable period. Moreover, inter-branch transactions also attract GST, further complicating the matter.

4. Need for the Study

GST is a new indirect tax law, introduced with an intention to bring every business under one single umbrella. It is imperative to know the new tax system i.e GST for its effectiveness in the economy. Anti-profiteering law is very effective under GST, as it results in the price of goods and service to fall, with the introduction of GST. FMCG products were charged at 22 to 24% in the previous regime, whereas it has been reduced to 12 to 18 % under GST regime. This paper evaluates the effect of these reduced GST rates on the performance of Indian FMCG companies.

5. Objectives of the Study

- a) To identify the GST rates applicable to FMCG products in India
- b) To analyze the effect of GST on working capital components and profitability
- c) To analyze and compare profitability and WCT under Pre and Post GST period

6. Hypotheses of the Study

Following hypotheses were formulated and tested in the study .

- H₁: There is significant effect of GST on the Working Capital Turnover of FMCG companies in India
- H₂: There is significant effect of GST on the Profitability of FMCG Companies in India
- H₃: There is significant effect of GST on working capital components in post-GST era

7. Research Methodology

7.1 Sample Selection

The purpose of this study was to examine the effect of GST on the performance of FMCG companies operating in India. Financial data of 55 FMCG companies, listed in BSE between 2012 and 2023, were selected for the analysis. The study covered a period of 6 years, prior to and 6 years after the introduction of Goods and Services Tax (GST) and the sample data were accordingly divided into two groups: Pre-GST and Post-GST. This study wanted to find out whether GST has affected the performance of FMCG companies in India, by analyzing their financial data.

7.2 Sources of Data

This study had collected the financial data of 55 FMCG companies from Capitaline database. The authors compiled the data and prepared cross-sectional time series panel data, appropriated for the analysis.

7.3 Period of Study

The samples were collected for a span of 12 years, from 2012 to 2023. The data were split into two parts Pre-GST period from 2012 to 2017 and Post-GST period from 2018 to 2023, for conducting the statistical analysis.

7.4 Tools used for the Study

Panel data for Pre-GST and Post-GST periods, were tested for accuracy, using SPSS 25 version. Descriptive statistics, Pearson's Correlation and Regression analysis were conducted, for two different periods of study and the comparative analysis has been presented.

8. Data Analysis

8.1 Descriptive Statistics of FMCG Sector in India

As indicated in **Table-1 & Table-2**, an average Return on Asset (ROA), during the pre-

GST period, was identified as 0.13%, and it had increased to 14% during the post-GST period, revealing that the during post-GST period, FMCG companies were able to enhance ROA, due to the fall in the GST rates compared with the old tax regime. Payables period to creditors and lenders during post-GST period, had increased to 139 days as compared with 124 days in the pre-GST period, and as a result, during post-GST period, lagged payment period increased the profitability of firms.

Debts were realized after 36 days during the pre-GST period, whereas it took 38 days to realize debts during the post-GST period. Inventory conversion period had dropped in the post-GST period to 100 days from 120 days in the pre-GST era. In other words, companies were able to convert inventory into sales quickly, as operating cost of warehouses had dropped in the post-GST period. Company can claim input tax on purchased materials after it sells the stock. It also indicates that FMCG companies could clear all the stock quickly by reducing inventory holding cost and in the process, increased during post-GST period.

Working capital turnover ratio during the pre-GST period was 37 times, but during the post-GST period, it had dropped to 6.4 times. This drop, during the post-GST period, enabled the firm to face severe shortage of working capital, as days of sales outstanding had increased in the post-GST period.

8.2 Correlation Analysis of DSO, DIO and DPO with ROA of FMCG companies in India

Table-3 & Table -4 present the results of Pearson's correlation statistics, indicating a significant negative relationship of DSO, DIO and DPO with ROA, during the post-GST period. In contrast, during the pre-GST period, DSO and DPO reported significant negative

association with ROA and DIO reported low positive correlation with ROA, which was not significant. A negative DSO, DIO and DPO, during the Post-GST period, revealed that a decrease in collection period, and payable period increased the profitability of the FMCG companies in India. But inventory conversion period was reduced in the post-GST period, indicating that stock holding cost and operating cost were minimized, with reduced average period to convert the inventory. Durbin Watson results, at 1.96, revealed no autocorrelation issue in the dataset.

8.3 Multiple Regression Analysis of DSO with ROA of FMCG companies in India

Regression coefficient results, given in **Table-5 & Table-6**, showed a significant negative relationship of DSO with ROA. A decrease of one unit in DSO could increase the chances for making profitability by 0.001 unit in the pre-GST period, whereas in the post-GST period, profitability increased by 0.059 units. A negative significant association of DIO (- 0.013) during the post-GST period, revealed that a decrease in inventory turnover by one unit could increase the ROA by 0.013 percentage. In contrast, during the pre-GST period, DIO reported insignificant, very low positive association with ROA. DPO registered positive association with ROA in the post-GST period, indicating that with an increase in DPO by one unit, ROA could increase by 0.005. But during the pre-GST period, DPO reported a very low negative association with ROA, which was not significant. DSO, DIO and WCT established significant ($p < 0.05$) statistical results with relation to profitability, but DPO was insignificant with the profitability. Hence, the null hypothesis was rejected, because the debtors, inventory and working capital turnover reported a significant effect on ROA.

9. Findings of the Study

It is observed that companies were able to manage their operating efficiency during the Post-GST era, as ROA increased with less investment in current assets. An increased number of sales outstanding indicated that the company followed liberal trade credit during the post-GST period, to facilitate the customers to try the products and make the payment. Lagged payables period and increased receivable collection period, as observed in the Post-GST era, is an indication of changes in credit policy of the FMCG Company.

A low working capital turnover in the post-GST period indicates that the firm's working capital is affected by the implementation of GST, as inventory has to be procured quickly and delay in receiving the debtors will also affect the working capital. A higher and significant positive association of working capital turnover ratio with ROA, in the post-GST period, indicates that company is able to manage its working capital efficiently. In contrast, during the pre-GST period, working capital recorded negative relationship with ROA, though not significant. The statistical analysis, for the Post-GST period, has shown significant results, indicating the effect of GST on the WCM and profitability of FMCG companies.

10. Suggestions

The analysis of the results suggests that the finance manager of FMCG companies should monitor the fluctuations in the working capital components and modify the policies to suit the objectives of the organization. As GST council brings about the changes in the GST law, the finance manager should be vigilant and absorb the changes quickly to meet the compliance requirements. Constant monitoring of working capital turnover and credit policies will help the company to have an optimum working capital position.

11. Conclusion

The objective of this paper was to examine how GST had impacted the working capital components and profitability of the FMCG sector in India. During the post-GST period, working capital components such as DSO, DIO, DPO and WCT reported significant correlation with profitability. In other words, GST exerted considerable impact on both the working capital components and the profitability of Indian FMCG sector. The need for a robust credit policy is highlighted by the lagged payment period and receivable period during the post-GST period. The low working capital turnover ratio in the post-GST period revealed that companies were investing more in inventory, requiring more working capital funds. As a result, the alternate hypothesis was accepted, and it is concluded that GST did exert significant effect on working capital components (DSO, DIO, DPO, WCT) and profitability (ROA).

12. Limitations of the Study

This study focused only on FMCG companies, listed in the Bombay Stock Exchange (BSE), during the sample period from 2012 to 2023. The data were collected from companies, that reported their values for all years within this study period. Panel data were compiled using secondary financial statements of FMCG companies, gleaned from the Capitaline database.

13. Scope for Further Research

This study can be expanded to other industries such as pharmaceuticals, automobiles, and other consumer goods. A comparative analysis of BSE and MSME listed companies can be conducted to assess GST impact on working capital.

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Table-1: Descriptive Statistics of FMCG Sector in India for Pre-GST period 2012-2017

Variables	Mean	Std. Deviation
ROA	0.136	0.113
DSO	35.942	43.097
DIO	120.269	589.242
DPO	124.051	191.285
WCT	37.398	317.354

Source: Data collected from Capitaline database and computed using SPSS

Table 2 : Descriptive Statistics of FMCG Sector in India for Post-GST period 2018-2023

Variables	Mean	Std. Deviation
ROA	14.436	12.341
DSO	37.938	46.158
DIO	100.105	196.278
DPO	139.431	259.931
WCT	6.492	58.017

Source: Data collected from Capitaline database and computed using SPSS

Table 3: Pearson's Correlation Statistics of DSO, DIO and DPO with ROA of FMCG Companies in India for Pre-GST Period 2012-2017

		ROA	DSO	DIO	DPO	WCT
Pearson Correlation	ROA	1.000	-.289	0.007	-0.167	-0.012
	DSO	-0.289	1.000	0.245	0.472	0.046
	DIO	0.007	0.245	1.000	0.020	-0.007
	DPO	-0.167	0.472	0.020	1.000	-0.068
	WCT	-0.012	0.046	-0.007	-0.068	1.000
Sig. (1-tailed)	ROA	0.000	0.000	0.449	0.001	0.406
	DSO	0.000	0.000	0.000	0.000	0.188
	DIO	0.449	0.000	0.000	0.348	0.449
	DPO	0.001	0.000	0.348	0.000	0.093
	WCT	0.406	0.188	0.449	0.093	0.000

Source: Data collected from Capitaline database and computed using SPSS

Table 4: Pearson's Correlation of DSO, DIO and DPO with ROA of FMCG Companies in India for Post-GST period 2018-2023

		ROA	DSO	DIO	DPO	WCT
Pearson Correlation	ROA	1.000	-0.191	-0.174	-0.161	0.142
	DSO	-0.191	1.000	0.114	0.561	-0.032
	DIO	-0.174	0.114	1.000	0.643	-0.026
	DPO	-0.161	0.561	0.643	1.000	-0.021
	WCT	0.142	-0.032	-0.026	-0.021	1.000
Sig. (1-tailed)	ROA	0.000	0.001	0.003	0.005	0.012
	DSO	0.001	0.000	0.036	0.000	0.304
	DIO	0.003	0.036	0.000	0.000	0.338
	DPO	0.005	0.000	0.000	0.000	0.371
	WCT	0.012	0.304	0.338	0.371	0.000

Source: Data collected from Capitaline database and computed using SPSS

Table 5: Coefficient Statistics of Regression Model of DSO with ROA of FMCG Companies in India for Pre-GST Period 2012-2017

Coefficients ^a													
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics		
	B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF	
1 (Constant)	0.164	0.007		21.979	0.000	0.150	0.179						
DSO	-0.001	0.000	-0.294	-5.036	0.000	-0.001	0.000	-0.289	-0.252	-0.249	0.716	1.398	
DIO	1.522E-5	0.000	0.079	1.546	0.123	0.000	0.000	0.007	0.080	0.076	0.927	1.078	
DPO	-1.779E-5	0.000	-0.030	-0.531	0.596	0.000	0.000	-0.167	-0.027	-0.026	0.759	1.317	
WCT	-1.237E-7	0.000	0.000	-0.007	0.994	0.000	0.000	-0.012	0.000	0.000	0.987	1.013	

a. Dependent Variable: ROA

Source: Data collected from Capitaline database and computed using SPSS

Table 6: Coefficient Statistics of DSO with ROA of FMCG Companies in India for Post-GST Period 2018-2023

Coefficients ^a													
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics		
	B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF	
1 (Constant)	17.136	1.052		16.287	0.000	15.064	19.208						
DSO	-0.059	0.021	-0.219	-2.735	0.007	-0.101	-0.016	-0.191	-0.171	-0.167	0.581	1.722	
DIO	-0.013	0.005	-0.210	-2.429	0.016	-0.024	-0.002	-0.174	-0.153	-0.148	0.498	2.009	
DPO	0.005	0.005	0.100	0.962	0.337	-0.005	0.014	-0.161	0.061	0.059	0.346	2.893	
WCT	0.028	0.013	0.131	2.152	0.032	0.002	0.054	0.142	0.136	0.131	0.998	1.002	

a. Dependent Variable: ROA

Source: Data collected from Capitaline database and computed using SPSS