Working Capital Efficiency and Its Impact on Liquidity & Profitability: An Analysis of India's Maharatna Central Public Sector Enterprises

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Abstract

Purpose of the study: This study focuses on the working capital management of Maharatna central public sector enterprises in India.

Research Objectives: In the present study, we examine the impact of working capital management on the profitability of Maharatna companies. Also, identify the relationship between liquidity and profitability for Maharatna companies in India.

Research Design: This study is descriptive and analytical in nature. This paper is based on secondary data; for the study,13 Maharatna companies have been taken into account. The study period is from 2020-21 to 2024-25. For the analysis of the data, ratio analysis, mean, correlation matrix, and multiple linear regression have been used.

Findings: There is no significant relationship found between liquidity and profitability, except that ROE has a moderately positive correlation with QR. It has been concluded that only QR and ITR have a significant impact on ROE.

Implications: This study will benefit academics and practitioners in the fields of finance and business management. Also, the study could provide insights into the strategic decision-making processes of Maharatna companies concerning their working capital management.

Limitations: This study is time-bound only from 2020-21 to 2024-25. Also, only Maharatna companies. This study only covers working capital management; other financial management aspects are untouched.

Keywords: Working Capital Management, Maharatna Companies, Liquidity, Profitability

1. Introduction

Companies face constant obstacles as a result of the complicated relationships between profitability, liquidity, and operational efficiency in the dynamic and complex world of modern business. The idea of working capital, a crucial element that supports a company's daily operations, is key to this equilibrium. The secret to finding a delicate balance between preserving enough liquidity for operational demands and using resources wisely to improve overall financial performance is working capital management (WCM).

For day-to-day operations corporates need smooth short term finance, which is effectively provided by working capital management, working capital management not only provides operability but also financial resilience. Mahartana companies a vital state-owned company provides huge production scale, influence, and strategic importance to overall economic development of the country to a greater degree. With strategic management of working capital, state owned companies significantly improve revenue growth, viability, and supporting their social responsibility towards complicated cyclical fluctuation, regulatory compliance and global market volatility like tariff and unrest world geopolitics.

In India, the department of Public enterprises under the Ministry of Heavy Industries and Public Enterprises accountable for managing State owned companies. Certain Central Public Sector Enterprises (CPSEs) are given enhanced operational and financial flexibility, Entitled them with Maharatna , Navratna and Mini ratna according to to their revenue and profitability. In 2009, Government of India recognised high-performance state-owned companies as Maharatna rest two operating since 1997.To recognise as Mahartna companies state owned companies must follow the criteria to recognise as Navratna company. For attaining status of Navratna state owned companies needs to comply required operational and financial eligibility like profit, net worth and revenue etc. Companies need to maintain average annule turnover which is at least 25,000 crores in last three previous years; with average annual net worth of Rs. 15000, which is a minimum requirement, and also they needed to maintain annual net profit in last three years, which is Rs.50000 crore.

To help policymakers, financial experts, and corporate leaders make decisions that will improve these entities' operational effectiveness and financial robustness, this

research paper seeks to analyse each aspect of their working capital management practices.

There have been some studies conducted regarding the examination of the almost two decades of financial performance of Indian public enterprises. There haven't been many studies on the topic recently that take into account the working capital management of Maharatna companies in India. But in recent years, hardly any thorough research has been done to address all thirteen Maharatna firms in India. The time frame of the study and the sample appear to be separated by a large gap. The current study, which considers all the important aspects of working capital management, was done to bridge the gap.

2. Review Of Literature

Asaduzzaman & Chowdhury (2014) investigate how working capital affects the bottom-line financial performance of Bangladeshi textile companies. The findings show a significant correlation between working capital management and profitability in Bangladeshi textile companies. The study also shows that while the number of days of accounts payable is inversely connected with a firm's profitability, the number of days of inventory, accounts receivable, and cash conversion time are positively correlated. By analysing the impact of working capital management on profitability in the context of a developing capital market like Bangladesh, this study adds to the body of knowledge already available. According to Dutta et al. (2019), NTPC is used as the case company in this analysis to look at the impact of working capital management components on corporate profitability. In this paper, several issues have been raised concurrently, along with potential answers, and these have also been highlighted. These solutions, among others, include stricter laws against power theft and greater implementation of these laws; opening up distribution sectors to private players to increase competition; investing more in renewable energy projects; opening up the coal mines sector to private players to accelerate efficiency; wise CAPEX use; and proper use of capital budgeting techniques before execution. Biswas (2018). The study's goals are to examine the profitability and management effectiveness of two specific public sector "Maharatna" and "Navaratna" companies manufacturing capital goods, as well as the relationship between profitability and management effectiveness. Except for a few instances, there is a positive correlation between Bharat Heavy

Electricals Limited's (BHEL) profitability ratios and management ratios that have been taken into consideration for the study. This is also the case for Bharat Heavy Electricals Limited in general. Profitability and managerial efficiency ratios have a mixed relationship with Bharat Electronics Limited (BEL), showing both a positive and a negative association. Sur & Chakraborty (2011). In this study, the working capital management and profitability of ten specific multinational corporations in the Indian pharmaceutical industry from 1996–1997 to 2007–2008 are examined. Utilising a purposive sampling technique, the companies were chosen. The analysis was conducted using pertinent statistical methods and tests. Even though the study was unable to resolve this very controversial question definitively, it did have a substantial impact. Gahlot (2019). This study analyses liquidity, profitability, solvency, and activity ratios from the previous five years to analyse the financial performance of five Maharatna companies: Oil & Natural Gas Corporation Ltd., Coal India Ltd., NTPC Ltd., Steel Authority of India Ltd., and Bharat Heavy Electricals Ltd. Due to their rising efficiency, it has been discovered that NTPC and CIL are the enterprises growing at the fastest rate. Debasish & Chakraborty (2015). In the current study, the financial performance of Bharat Heavy Electricals Ltd., the only "Maharatna" CPSE in the Indian power equipment manufacturing sector, has been examined across all significant aspects from 2004/2005 to 2013/2014. Relevant statistical measures have been applied during the analysis. While the company's fixed asset management failed to establish itself as a substantial contributor to its wealth generation in the same period, the working capital management of BHEL made a considerable contribution towards strengthening its value-generating potential during the research period. Batth et al. (2018). The study's goal is to shed light on the PSUs' (public sector undertakings) financial performance in India. The study employs the Altman Z Score Model to determine financial performance. The analysis takes into account different financial ratios for the businesses that fall under the Maharatna and Navrana classifications. The study aids in identifying businesses with "good" or "poor" financial performances. Investors can use the study's findings to determine the financial health of PSUs, which is very helpful. It significantly affects the investment choices made by public-sector businesses. Sharma et al. (2015). The present study examines SAIL's working capital and profitability. Utilising correlation and regression analysis, it also examines the relationship between these variables. Through investigation, we verify the model that

may be used to forecast ROCE and ROTA values. In contrast to its favourable correlations with CR, LR, DTR, and ITR, the profitability ratio has a negative relationship with the working capital turnover ratio. Except for the study period of 2013–2014, SAIL's profitability and working capital management indicators exhibit a declining trend. Nearly all analysed variables in the 2013–14 SAIL show a growing trend, reflecting performance improvement. Shekhar & Jena (2020). The purpose of the current study was to evaluate how working capital and liquidity management affected SAIL's profitability, which is a measure of operational effectiveness. The ability of SAIL's investment and returns is examined, with a focus on measuring and analysing liquidity's impact on SAIL's profitability performance throughout a 15-year accounting period from 2005–2006 to 2019–20. To draw a conclusion, correlation and regression models have been applied to ratios that measure working capital, liquidity, and profitability. The current ratio, liquid ratio, total debt/equity, inventory turnover ratio, and interest coverage ratio have all been taken into account as explanatory variables, with return on capital employed taken as a dependent variable. According to Sharma (2022), with particular reference to SAIL, this article examines how working capital management determines a company's financial status and areas of vulnerability and offers recommendations for mitigating those issues. Even though SAIL is a Maharatna PSU, its profitability trend has declined, posing a threat to India's public sector firms. The debt-to-equity ratio should be strictly enforced by rules. To lessen reliance on debt capital and prevent potential future insolvency, a cap should be placed on loans and debt raising. Yadav (2023) revealed an extensive difference in technical efficiency score (TES) levels between the companies that were included in the study. According to average TES, CIL takes the top spot in terms of average value-generating capacity, whereas HPCL occupies the bottom two spots. According to the consistency coefficient of TES during the study, CIL was determined to be the most reliable performer in terms of value generation, while HPCL was determined to be the least reliable performer.

2.1 Objectives of the Study

The objectives of the study are as follows:

1. To study the contribution of Maharatna companies to the Indian economy.
2. To analyse the working capital management and profitability of Maharatna companies in India.

3. To identify the relationship between liquidity and profitability for Maharatna companies in India.
4. To examine the impact of working capital management on the Profitability of Maharatna companies.

2.2 Hypothesis of the Study

The hypotheses of the study are as follows:

$H0_1$: There is no significant relationship between liquidity and profitability for Maharatna companies in India.

$H1_1$: There is a significant relationship between liquidity and profitability for Maharatna companies in India.

$H0_2$: There is no significant impact of working capital management on the profitability of Maharatna companies.

$H1_2$: There is a significant impact of working capital management on the profitability of Maharatna companies.

3. RESEARCH METHODOLOGY

3.1 Nature of the Study

This study is descriptive and analytical in nature. Descriptive in the way that in this study, we describe and explore various components of Maharatna companies that contribute to the Indian economy. The analytical study undertakes the financial audited reports of thirteen Maharatna companies and analyses their ratios for the study.

3.2 Sources of Data

This study is based on secondary data that is extracted and retrieved from the company's websites, government publications, magazines, and national and international research papers.

3.3 Area of the Study

For the study, secondary data from all thirteen Maharatna companies has been taken. They are Bharat Heavy Electricals Limited (BHEL), Bharat Petroleum Corporation Limited (BPCL), Coal India Limited (CIL), GAIL India Limited, Hindustan Petroleum Corporation Limited (HPCL), Indian Oil Corporation Limited (IOCL), NTPC Limited, Oil & Natural Gas Corporation Limited (ONGC), Power Finance Corporation (PFC), Power Grid Corporation of India Limited (POWERGRID), Rural Electrification Corporation

Limited (RECL), and Steel Authority of India Limited (SAIL), according to the Department of Public Enterprises under the Ministry of Heavy Industries and Public Enterprises (2023, May 10). The study period is from 2020-21 to 2024-25. Also, Oil India has been taken into consideration, which is the 13th Maharatna company granted by the Government of India (2023, August 05).

3.4 Data Analysis

The collected data has been analysed by accounting as well as statistical tests. To analyse working capital management and profitability, we use ratio analysis. Thereafter, to identify the relationship between liquidity and profitability, we apply correlation analysis. Moreover, to examine the impact of working capital management on profitability, multiple linear regressions have been used.

4. Significance of Mahartna Companies in Economy

A scalable company is a backbone of any economy, In India Mahartna companies are performing the same. Like ONGC not only contributing by Indian exploration but also from foreign soil maintain energy requirement. This is possible when Government of India provides Mahartna status to these companies by their size, scalability, financial performance and turnover. We can understand these companies' importance, how they influencing other sectors and Indian economy by following.

Revenue Generation: Maharatna firms are essential to the Indian economy's ability to generate significant amounts of income. These businesses work in a variety of industries, including steel, mining, telecommunications, and energy. Sales of goods, services, and raw materials are major sources of income for their activities.

Employment Creation: Maharatna corporations are significant employers and offer a wide range of employment possibilities nationwide. Through their operations, they directly employ workers in administrative, technical, and engineering positions, as well as skilled and unskilled labour. Furthermore, their presence frequently generates indirect employment in related industries and supply chains.

Development of Infrastructure: Power plants, refineries, ports, and transportation networks are just some of the infrastructure development projects that several Maharatna corporations are working on. These initiatives support the nation's overall

infrastructure growth by supplying crucial facilities for economic and industrial development.

Foreign Exchange Earnings: Maharatna enterprises participate in exports and international trade, which boosts India's foreign exchange revenues. These businesses export a wide variety of goods and services, such as steel, software services, and petroleum products. Earned foreign currency increases foreign reserves and aids in improving the nation's balance of payments.

Technological Advancement: Research and development (R&D) spending by Maharatna firms contributes to technological developments in their respective industries. They encourage innovation, use cutting-edge technology, and build up their capacities. This advances the nation's overall technological development and raises its level of global competitiveness.

Social Welfare Initiatives: Corporate social responsibility (CSR) activities and programs are actively supported by Maharatna corporations. They contribute a portion of their profits to social development initiatives in the areas of community improvement, healthcare, education, and skill development. The communities they operate in and the adjacent ones greatly benefit from these initiatives.

Government Revenue Generation: Maharatna businesses provide the government with significant tax revenue through corporation taxes, royalties, dividends, and other levies. These funds go towards the government's budget and are used to support important services like infrastructure improvement and public welfare initiatives.

Maharatna enterprises have made a substantial and diverse contribution to the Indian economy in general, including economic growth, job creation, infrastructure development, technological innovation, foreign exchange gains, and social welfare programs. Their operations have a significant influence, assisting in the development and strengthening of numerous Indian economic sectors.

5. Data Analysis and Interpretation

The profitability and working capital management of Maharatna companies have been measured through ratio analysis, and we have taken an average of five years for every company. Working capital management is analysed using the current ratio (CR), quick ratio (QR), debtor turnover ratio (DTR), inventory turnover ratio (ITR), and working

capital turnover ratio (WCTR). The profitability ratio is measured through net profit margin (NPM), gross profit margin (GPM), return on capital employed (ROCE), return on assets (ROA), and return on equity (ROE).

Table 1: Profitability and Working Capital Management Ratios of Maharatna Companies
Source: Compiled from the various annual financial reports of Maharatna companies

RATIOS	CR	QR	DTR	ITR	WCTR	NPM	GPM	ROCE	ROA	ROE
BHEL	1.56	1.69	4.14	3.08	2.75	-2.94	-2.97	0.3	81.17	-1.65
BPCL	0.62	0.35	46.57	13.47	-125.05	2.86	2.74	15.25	217.92	16.84
CIL	2.94	2.98	6.23	6.49	4.86	1.01	1.82	4.29	31.72	0.21
GAIL	0.71	0.68	17.1	27.22	-40.78	8.16	8.68	16.38	121.56	13.47
HPCL	0.49	0.28	53.68	12.95	-15.63	1.5	1.62	8.86	218.42	8.81
IOCL	0.51	0.31	38.45	7.67	-13.66	2.85	4.22	11.77	116.33	12.24
NTPC	0.81	1.17	7.91	11.08	-33.03	12.32	18.48	8.46	124.26	11.27
ONGC	0.64	0.65	12.85	13.23	-37.64	23.27	27.63	16.31	174.98	11.52
PFC	1.85	42.41	4.34	7.58	1.09	23.75	92.68	11.34	203.32	23.75
POWERGRID	0.84	1.15	7	28.71	-2.88	33.77	56.18	11.66	119.38	18.34
RECL	4.41	15.26	8.94	12.06	0.23	23.32	90.99	8.54	208.55	17.86
SAIL	0.6	0.43	14.41	3.52	11.18	5.1	10.36	12.46	109.22	9.27
OIL INDIA	0.87	0.84	10.19	11.26	0.43	23.78	19.88	12.45	263	11.87

5.1 Working Capital Management of Maharatna Companies

The current ratio reflects the company's capability to meet its current obligations. The ideal current ratio should be 2:1. Table 1 demonstrates that, except for CIL and RECL, neither company had an above-ideal ratio. This means they have faced a little bit of a challenge in meeting the short-term liabilities. The quick ratio shows the company's capacity to meet short-term obligations from quick assets. It can be calculated as (current assets minus inventory) minus current liabilities. The ideal norm for a quick ratio is 1:1. BHEL, NTPC, and POWERGRID meet the standard norm, but CIL, PFC, and RECL are overly liquid in the short term and do not put money to work efficiently. All other remaining companies are far from the standard norm of the quick ratio, which implies these companies have some problems meeting their current obligations. The debtor turnover ratio illustrates how effectively debts are managed. A higher DTR number indicates more effective handling of sales or receivables. However, BPCL, HPCL, and IOCL show very high DTR, which means the companies restrained loan sales and caused a loss of revenue. The inventory turnover ratio is a financial indicator that shows how effectively a company maintains its inventory. The ideal ITR is generally between 5 and 10. BPCL, GAIL, HPCL, NTPC, ONGC, POWERGRID, and

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RECL, with a high ITR, typically sell their items quickly, effectively manage their inventory, and refrain from overstocking. BHEL and SAIL have low ITR. Possibly as a result of excessive inventory, weak sales, or inadequate marketing tactics, a corporation is having trouble moving its items.

The working capital turnover ratio shows how efficiently a business uses funds for the effective manufacturing of goods or services. BHEL, CIL, PFC, RECL, SAIL, and OIL INDIA have positive WCTRs, indicating that a company is properly allocating its working capital. On the other hand, a negative WCTR indicates that the business is investing more in inventories. It might also imply that the company owes its suppliers too much money, which raises the possibility of bad debts.

5.2 Profitability of Maharatna Companies

The net profit margin is a crucial financial metric since it offers information on how profitable a firm may be based on its revenue. Since its standard ratio is between 10% and 20%. Table 1 shows that NTPC, ONGC, PFC, POWERGRID, OIL INDIA, and RECL meet their standards. Other than the mentioned companies, NPM may signify operational inefficiencies or poor pricing tactics as the company's costs continue to cut into its earnings. Gross profit margin gives insight into a business's capacity to control production costs and make a profit from its primary activities. PFC, POWERGRID, and RECL show that a business is successfully managing its manufacturing costs and producing more gross profit per unit of revenue. Other companies have a low GPM, which means that, in terms of overall sales, a company is making relatively less money from its main operations. Return on Capital Employed shows how profitable and effective a company's capital investments are. BPCL, GAIL, IOCL, ONGC, PFC, POWERGRID, SAIL, and OIL INDIA have a good financial position. Out of 13 companies, 5 show low ROCE and have ineffectiveness in operations or capital allocation. Return on assets (ROA) assesses how well a business generates profits from the value of all of its assets. All Maharatna companies have a higher return on assets (ROA), which shows that they are often more effective at turning their assets into earnings. Return on equity assesses how effectively a business makes a profit from the capital put into it by its shareholders. BPCL, PFC, POWERGRID, and RECL effectively use their shareholders' funds. BHEL shows a negative ROE, which means the company's net income is insufficient to pay off the capital that its shareholders have invested in it.

5.3 Correlation Analysis

Table 2 shows the matrix of the Pearson correlation coefficients between liquidity (CR and QR) and profitability (ROCE, ROA, and ROE), along with their corresponding p-values for significance.

The correlation coefficient ranges from -1 to 1, where -1 indicates a perfect negative linear correlation, 1 indicates a perfect positive linear correlation, and 0 indicates no linear correlation. The p-values help determine whether the observed correlations are statistically significant. ROCE has a correlation of -0.470 with CR (current ratio), indicating a moderately negative correlation. This correlation is not statistically significant (p = 0.892). ROCE has a correlation of -0.042 with QR (Quick Ratio), which is a very weak negative correlation.

Table 2: Correlation Matrix

Correlation Matrix						
		ROCE	ROA	ROE	CR	QR
ROCE	Pearson Correlation	1	0.454	.645*	-0.470	-0.042
	Sig. (2-tailed)		0.120	0.017	0.105	0.892
	N		13	13	13	13
ROA	Pearson Correlation		1	.592*	-0.074	0.267
	Sig. (2-tailed)			0.033	0.811	0.378
	N			13	13	13
ROE	Pearson Correlation			1	-0.003	0.553
	Sig. (2-tailed)				0.994	0.050
	N				13	13
CR	Pearson Correlation				1	0.439
	Sig. (2-tailed)					0.133
	N					13
QR	Pearson Correlation					1
	Sig. (2-tailed)					
	N					
*. Correlation is significant at the 0.05 level (2-tailed).						

Source: compiled by authors

This correlation is not statistically significant. ROA has a weak positive correlation of 0.267 with CR. This correlation is not statistically significant (p = 0.378). ROE has a correlation of -0.003 with CR, suggesting a very weak negative correlation. This

correlation is not statistically significant (p = 0.994). Only in the case of ROE, which has a correlation of 0.553 with QR, indicating a moderately positive correlation. This correlation is statistically significant at the 0.05 level (p = 0.050).

So overall, we failed to reject the null hypothesis ($H0_1$), which means there is no significant relationship between the liquidity and profitability of Maharatna companies in India.

5.4 Multiple Linear Regression Analysis

The regression analysis has been used to examine the hypothesis, as there is a significant impact of working capital management on the profitability of Maharatna companies. The independent variable is the one whose value has been used for prediction, and the dependent variable is the one whose value is predicted. ROE can be used to efficiently measure the profitability of companies. We developed the functional model to identify and evaluate the working capital management component's contribution to company profitability. Top of Form

Model 1: ROE = β0 + β1 (ITRt)+ β2 (DTRt) + β3(QRt) + β4(CRt) + et

Table 3 displays the findings of the regression analysis of Model 1. The multiple correlation coefficient (R) value is 0.833, which shows a strongly positive correlation between the model's variables. According to the value of R-squared, ITR, DTR, QR, and CR are responsible for 69.5 per cent of the variability in ROE. It implies that ROE and the working capital management component have a close relationship.

Table 3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.833[a]	0.695	0.542	4.71151
a. Predictors: (Constant), ITR, DTR, QR, CR				
b. Dependent Variable: ROE				

Source: compiled by authors

According to Table 4, the developed model can be utilised to forecast ROE because it is statistically significant. The value of the F-stat is determined to be 4.550, which is significant because the level of significance is less than 5 per cent. Thus, it was

discovered that the firm's quick ratio, current ratio, debtor turnover ratio, and inventory turnover ratio all have an impact on the return on equity of Maharatna companies in India. This leads to our rejecting the null hypothesis ($H0_2$).

Table 4: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	404.019	4	101.005	4.550	.033[b]
	Residual	177.587	8	22.198		
	Total	581.605	12			
a. Dependent Variable: ROE						
b. Predictors: (Constant), ITR, DTR, QR, CR						

Source: compiled by authors

The beta coefficient and significance of the independent variable are displayed in Table 5. ITR and QR's p-values are less than 0.05, indicating that they significantly impact how much ROE is valued. Now Model 1 can be written as:

ROE = 2.757 + 0.489 (ITRt)+ 0.097 (DTRt) + 0.462 (QRt) + -0.789 (CRt) + et

Table 5: Coefficient

Model	Unstandardized Coefficients			Standardized Coefficients	t	Sig.
	B		Std. Error	Beta		
1	(Constant)	2.757	4.059		0.679	0.516
	CR	-0.789	1.398	-0.132	-0.564	0.588
	QR	0.462	0.130	0.788	3.550	0.008
	DTR	0.097	0.091	0.235	1.065	0.318
	ITR	0.489	0.179	0.550	2.732	0.026

Source: compiled by authors

Table 6 demonstrates the findings of the regression analysis of Model 1. The multiple correlation coefficient (R) value is 1.000 for the mentioned companies, which shows a perfect positive correlation between the model's variables.

Table 6: Distinctive Model Summary & ANOVA

Company	R	R Square	Adjusted R Square	df	F	Sig. Value	Significant Or Not	Conclusion
BHEL	1.000	1.000	-	4	-	-	Significant	Reject

BPCL	1.000	1.000	-	4	-	-	Significant	Reject
COAL INDIA	1.000	1.000	-	4	-	-	Significant	Reject
GAIL	1.000	1.000	-	4	-	-	Significant	Reject
IOCL	1.000	1.000	-	4	-	-	Significant	Reject
HPCL	1.000	1.000	-	4	-	-	Significant	Reject
NTPC	1.000	1.000	-	4	-	-	Significant	Reject
ONGC	1.000	1.000	-	4	-	-	Significant	Reject
PFC	.995	0.990	0.961	3	33.813	.126	Not Significant	Accept
POWERGRID	1.000	1.000	-	4	-	-	Significant	Reject
RECL	1.000	1.000	-	4	-	-	Significant	Reject
SAIL	.94	0.887	0.547	3	2.607	.420	Not Significant	Accept
OIL INDIA	1.000	1.000	-	4	-	-	Significant	Reject

Source: compiled by authors

According to the value of R-squared, ITR, DTR, QR, and CR are responsible for 100% of the variability in ROE of BHEL, BPCL, CIL, GAIL, HPCL, IOCL, NTPC, ONGC, POWERGRID, RECL, and OIL INDIA.

It implies that ROE and the working capital management component have a perfect relationship.

TABLE 7: PFC Model Summary and ANOVA

Model summary			**ANOVA**		
R	R Square	Adjusted R Square	df	F	Sig.
.995	0.990	0.961	3	33.813	.126
a. Dependent Variable: ROE					
b. Predictors: (Constant), DTR, QR, CR, ITR					

Source: compiled by authors

Table 7 displays the findings of the regression analysis of Model 1. The multiple correlation coefficient (R) value is 0.887, which shows a strongly positive correlation between the model's variables. According to the value of R-squared, ITR, DTR, QR, and CR are responsible for 54.7 per cent of the variability in ROE. It implies that ROE and the working capital management component have a close relationship.

TABLE 8: SAIL Model Summary and ANOVA

Model summary			ANOVA		
R	R Square	Adjusted R Square	df	F	Sig.
.942	0.887	0.547	3	2.607	.420
a. Dependent Variable: ROE					
b. Predictors: (Constant), DTR, QR, CR, ITR					

Source: compiled by authors

Table 8 shows the findings of the regression analysis of Model 1. The multiple correlation coefficient (R) value is .995, which shows a perfect positive correlation between the model's variables. According to the value of R-squared, ITR, DTR, QR, and CR are responsible for 96.1% of the variability in ROE. It implies that ROE and the working capital management component have a close relationship.

6 Conclusion and Suggestions

The prudent management of working capital emerges as a crucial aspect that can have a significant impact on Maharatna Company's financial performance, sustainability, and capacity to uphold its social obligations as it navigates the complex landscape of economic fluctuations, regulatory dynamics, and global market pressures. The Maharatna contribution is very wide, since they provide employment, generate revenue, develop infrastructure, etc. The management of the working capital of Maharatna companies is not as good as it has to be. Only CIL and RECL are good at managing their working capital. DTR and ITR are higher than standard norms for most companies, but CR, QR, and WCTR are far from ideal ratios. GAIL, NTPC, ONGC, PFC, POWERGRID, RECL, SAIL, and Oil India are profitable since their NPM, GPM, ROCE, ROA, and ROE meet their standard norms. There is no significant relationship found between liquidity and profitability, except that ROE has a moderately positive correlation with QR. It has been concluded that only QR and ITR have a significant impact on ROE.

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