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EMPIRICAL ARTICLE

Revisiting the challenges of disinvestment practices and central public sector enterprises (CPSEs): Indian empirical evidence

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Abstract

The current study investigates the challenges faced in disinvestment practices and conducts an empirical analysis of profitability measures in the selected CPSEs from an Indian perspective. The first part of the objective clarifies the efforts initiated by the disinvestment department concerning strategies adopted, utilization of proceeds, and the reasons for success, demonstrating the qualitative standpoint of the challenges defended to date. The second part examines the profitability measures return of assets (ROA), return of net worth/equity (RONW/E), return of capital employed (ROCE), debt/equity (D/E), enterprise value (EV) and earnings before interest, taxes, depreciation, and amortization (EBITDA), & net profit margin (NPM), clarifying the decision criteria based on accounting-based metrics. The six measures were tested against the financial and operating performance regressors such as gross profit margin (GPM), technical analysis (TA), current liabilities (CL), concentration ratio (CR), and quick ratio (QR) using multiple regression analysis. The study considers 44 CPSEs, leading to 218 firm-year observations, and the study period spans from 2018 to 2022. The former objective provides fresh insights into the challenges of disinvestment practices. The work clarifies that the success factors influencing the functioning of disinvestment practices are based on financial efficiency, modernization, employment generation, regional imbalance, utilization of proceeds, and methods of privatization. The latter objective reveals the model fit that confirms the profitability measures based on decision criteria {(outcome variable) [*Adj. R^2*]} for the best fit {[(RoNW/E) [*0.78*] and (D/E) [*0.75*]}; good fit with normality issues {(NPM) [*0.99*]}; average fit {(ROA) [*0.47*]}; and poor fit {(EV/EBITDA) [*0.06*] and (ROCE) [*0.01*]} regressed on the predictor variables. This study offers insights for policymakers, regulators, academicians, corporate houses, and investors to refine disinvestment strategies, focusing on capital and ownership structures. It highlights the role of sound corporate governance, emphasizing transparency and accountability to enhance CPSEs' economic performance and reduce agency costs. By analyzing profitability measures through multiple regression, the research fills a gap in the literature, providing a comprehensive perspective on disinvestment and modern corporate finance within the Indian context.

Keywords: Central public sector enterprises, Disinvestment, Profitability, State-owned enterprises, Multiple regression analysis.

Introduction

India, a transitional economy, has overcome enormous economic pressures such as a large fiscal deficit, low agricultural produce, inflation, and rising foreign debt, and has progressed economically through the channel of Five-Year Plans following British rule. The early foundation for promoting, establishing, and extending Indian industries was envisioned by the then Prime Minister Pandit Jawaharlal Nehru to strengthen the nation's contribution to the well-being of the society. However, economic growth suffered serious setbacks due to internal resource constraints, discrepancies in attracting foreign investments and exchange reserves, and an inability to repay principal and interest obligations on foreign borrowings. Additionally, the balance of payments crisis in 1991 and the abolition of the license-raj system led India to undergo a major transformation in its economic policy, adopting structural reforms for development.

The study aims to fill the research gap by tracing the disinvestment practices in terms of challenges describing the governmental efforts and to examine the financial performance by profitability measures in deciding the best fit based on the decision criterion. Transition economies are identified with weak corporate governance standards and discrepancies in the inward foreign direct investment

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flows. The ownership function of the state includes the centralized model (one government body vested with the government's stake), the decentralized model (governed by respective ministries), and the dual model (both a sector ministry and a separate central ministry are united). State-owned enterprises (SOEs) are harnessed to achieve social, political, and commercial objectives. This sluggishness happens when state ownership becomes passive, whereby managers are not fully aware of their social goals and refrain from fine-grained political interference.

India has evolved its business ownership from the family ownership phase (before independence), public enterprises and socialist phase (license raj system), professional ownership and social justice (knowledge professionalism), and the period of foreign ownership (liberalization). Indian CPSEs are classified under Maharatnas, Navaratnas and Miniratnas. Maharatnas have listed enterprises with average annual sales (greater than Rs. 25,000 Crores.), average annual net worth (above Rs. 15,000 Crores.), and average annual net profit after tax (PAT) (above Rs. 5,000 Crores.) during the past 3 years. Navratnas are Miniratna category – I, are enterprises with very good ratings under the MoU system over the past 3-5 years in the selected parameters such as net profit/capital employed; manpower costs/total production costs; PBDIT/capital employed; PBIT/turnover; EPS; and inter-sectoral performance. Miniratnas are enterprises that have exhibited profits consecutively and have positive net worth over the past 3 years are conferred Miniratna status.

Disinvestments in India

Disinvestment/divestment/divestiture are the government's actions related to selling or liquidating an asset/subsidiary of a government-owned entity. It disinvests an asset as a strategic move or for raising resources to meet specific needs. The new economic policy (1991) indicated that PSUs had shown a negative rate of return on capital employed. Inefficient PSUs continued to be a drag on the government's resources, turning to be more liabilities to the government than assets. Chhabra *et al.* (2021) examined the financial performance of thirty-two CPSEs, reporting that the government must bring down the equity shareholdings and direct efforts towards strategic disinvestment. Their study considers a single profitability measure tested on limited CPSEs with limited clarity on Schedule A, Schedule B, and Schedule C entities. Public authorities must implement reform measures such as increasing financial and managerial autonomy, executing performance contracts, listing on stock exchanges and implementing corporate governance principles, among others, to improve performance (Gakhar and Phukon, 2018). Their study observes performance from a qualitative perspective with limited emphasis on quantitative aspects. The critical analysis from the prior studies provides evidence to mitigate the limitations whereby the current study addresses observing financial and operating regressors tested on more CPSEs with six profitability-based measures such as ROA, RONW/equity, ROCE, debt/equity, enterprise value/EBITDA, and net profit margin clarifying the test data from schedule A, schedule B, and schedule C categories. Similar studies have observed only the qualitative aspects (Gakhar and Phukon, 2018) of CPSE's performance while re-looking into the disinvestment practices on a holistic inquiry basis requires a revisit. Chhabra *et al.* (2021) observed financial and operating performance on limited regressors tested on a few CPSEs. Prior studies have used the Wilcoxon signed-ranked test without much improvement on profitability parameters, namely RoA and RoE (Chhabra and Gupta, 2024a). Banerjee *et al.* (2022) observe the disinvestment in India between 1991 to 2020 from a qualitative perspective, while a quantitative basis on the financial performance might provide interesting results.

Disinvestment: An Indian Perspective

Chhabra and Gupta (2024b) examine the performance of 32 disinvested PSEs that were sold (between 2000 and 2021) using the Wilcoxon signed-ranked test, reporting no improvement on ROE and ROA while efficiency and dividend payout ratio report positive results. They utilize liquidity, asset utilization, firm size, and firm age as the critical factors impacting the PSE's financial health. Studies by researchers (Gakhar and Phukon, 2018; Ghosh, 2008; Gupta, 2005) found that privatization enhances a firm's efficiency by removing political interferences and redirecting its focus to the economic goal of optimizing returns over time. Chhibber and Gupta (2018) analyze the performance of India's PSUs and confine national public policies (i.e., performance contracts and disinvestment) that affect large and medium-scale SOEs in developing markets. Banerjee *et al.* (2022) corroborate disinvestment from 1991-2020 into four verticals: Phase I [1991-99], Phase II [1999-04], Phase III [2004-14], and Phase IV [2014-20]. Dholakia and Dholakia (2022) discuss disinvestment and privatization of the central non-departmental PSEs in terms of divestment program, achievements and problems in raising additional resources to reduce fiscal stress. Aijaz (2022) presents a critical assessment of India's disinvestment exercise whereby the purpose of reform was to limit its size and redefine its role to enhance productivity and efficiency. Ghosh and Aithal (2022) conducted a comparative analysis of the CPSEs functioning in the manufacturing & service sector between 2010-2011 to 2019-2020 by using profitability measures (ROA, ROCE, and ROE) reporting higher returns reflected in the manufacturing sector due to the vast investment returns fetched from large investments.

Considering the ruling political parties in power between 1991-2021, India's initiation towards privatization from the phase of partial divestiture is of four phases (Naib, 2022). Chhabra and Gupta (2024a) analyze the performance of MoU and disinvestment and confirm that profitability of

MoU-signed non-disinvested firms (greater) due to more substantial managerial autonomy impacting performance and clarify there is a positive impact of ROA and ROE. Chhibber and Gupta (2018) recommend shifts in CPSE's balance sheet aimed at raising capital by disinvestment, privatization, and eventual liquidation thereof and using the proceeds in public infrastructure (National Infrastructure Investment Fund) rather than vesting into the budget. Mandiratta and Bhalla (2021), using univariate and multivariate analysis, empirically examine the disinvestment practices of 26 BSE-listed CPSEs by observing their financial and operating performance between 2000-2014 based on the stock market mechanism. Applying ratio analysis on the regressors such as ROA, ROE, dividend payout, NI efficiency, debt-equity, and employment they confine significant fall in the profitability of CPSEs measured through panel data regression. The results indicated a negative impact of profitability on disinvestment due to pre-disinvestment financial health, negative ROCE, and inefficiency. Tripathi and Singh (2024) examine the public sector performance based on the market response to disinvestment events employing events study analysis on ten utility firms observing market returns based on NIFTY 50 and NIFTY-CPSE indices. The results posit the failure of the partial privatization to improve efficiency and changes in management practices. Deb *et al*. (2024) examine ESG scores on the financial, operating, and market performance of NIFTY100 firms employing ROA, ROE, and Tobin's Q as performance measures using panel data regression. The results summarize adverse effects of financial and operating performance in long observation periods and vice-versa, while market performance demonstrates a positive effect on both short and long observation. Ghosh and Aithal (2022) found a negative and decreasing trend in the profitability measures, such as RoCE and RoNW, with no considerable deviations in the trend and actual values. Choudhary *et al.* (2021) found a positive association with the performance of CPSEs, observing leverage, operating efficiency, liquidity, dividend payout, and firm size.

Materials and Methods

CPSEs differ widely in terms of their nature and volume of operations, employee strength, profitability ranges, product profile, technology, competition, market behavior, geographic coverage, strategic importance, talent and skills needed, and significance to the country's economy. There are three existing systems of CPSE classification such as (i) cognate group-wise classification based on the nature of the operation (sectoral classification); (ii) A, B, C, & D classification directed at supporting relativity between the compensation structures of Board level executives of CPSEs. The DPE has provided the grouping of CPSEs into 4 Schedules, criteria for categorization and revision based on quantitative factors (investment, capital employed, net sales, profit, employee strength, and number of units) and qualitative factors (technology, national importance, expansion, diversification, competition, and national importance). (iii) Classification based on Navratna, Miniratna I &II aimed at delegation of powers. The DPE has reported overall 194 CPSEs that include 77 Schedule 'A', 65 Schedule 'B', 46 Schedule 'C', and 6 Schedule 'D' operating CPSEs (dated 29th October 2024).

The current study test data comprises 44 publicly listed and actively traded CPSEs [Schedule A (34); Schedule B (7); Schedule C (2); and Schedule D (1)] diversified across sectors such as energy, materials, industrials, utilities, financials, consumer discretionary, consumer staples, communications, technology and health care listed in the NSE during the period 2018-2022 leading to 218 firm-year observations. The generalizability of results is based on 22.68% (44/194) of CPSEs as the reporting of financial information is reported in the money control on a timely basis as and when the CPSE share their financials. Prior studies on CPSEs have considered fewer samples than the current study (Chhabra and Gupta, 2024b). The work on Disinvestment practices has been conducted through secondary data analysis. The financial data for the selected CPSEs have been collected from moneycontrol.com, handled by Dion Global India Ltd. Each CPSE financial input was obtained by looking at their overview information, followed by collecting information through their financials as reported in moneycontrol.com. These CPSEs were chosen as they had exhibited consistent financial information on a consolidated and standalone basis. Wherever consolidated information was not available, supporting standalone information were considered for data analysis. The secondary data for this work were collected from moneycontrol.com, the Department of Public Enterprises (DPE); CPSEs Handbook, etc. The data collected from various sources were tabulated and represented using the summary statistics. Previous financials have not been considered prior to 2017. With the dissolution of the Planning Commission (Five Year Plans) in 2014 and the replacement of the NITI Aayog (National Institution for Transforming India) between 2015-2017, the present study traces the financials for the time period from 2018 onwards. The sample size is considerable compared to the strength of the CPSEs hence, the results may fluctuate in accuracy. The selected CPSEs are relevant for the current study as they demonstrate the financial and operating performance whereby profitability measures could be tested effectively. The study employs multiple regression analysis to examine the profitability measures on the financial and operating performance regressors.

Table 1 summarizes emerging market studies on the profitability measures, clarifying the need to focus on ROA, ROE, ROCE, RONW, NPM, OPM, EV/EBDITA, and D|E ratios as a spectrum that can clarify profitability better for CPSEs. The table illustrates empirical studies examined on

profitability measures observing leverage, group-affiliation and standalone firms, and ownership concentration using ordinary least squares regression similar to the multi-regression analysis applied in this study. As the firm-year observations are 218 emanating from 44 CPSEs between 2018-2022, the time period is less to apply other discrete methodologies such as panel data regression which requires consistent longitudinal data to support the financials. This will help in identifying the feasible profitability measure as a model fit overseeing the influential power to reflect performance. The table also clarifies the varied control variables that have been examined in emerging markets, which gives relevant impetus to modern corporate finance theories.

The specific financial ratios for profitability measures were chosen to give clarity on the ideal profitability measure when a series of similar proxies have been applied to assess profitability. Table 2 describes the variable definition employed on the profitability measures. The study considers three return ratios such as ROA, RONW/E, and ROCE; the leverage ratio demonstrated by D/E; EV/EBDITA denoted as the valuation ratio; and NPM representing margin ratio. For example, ROA demonstrates the strength of the CPSE financial assets, saw as other income; RONW/E confirms the strength of the CPSE shareholder's equity, seen as total assets; ROCE explains the capital efficiency seen as sales; D/E ratio indicates the debt-equity component seen as leverage ratio; EV/EBDITA captures the operational capability sees as valuation ratio; NPM describes the net profits to revenues considered for other assets. The predictor variables considered are gross profit margin, total assets, current liabilities, current ratio, and quick ratio. Gross margin measures the sold cost of goods sold observed from fixed assets. Current liabilities are observed from the dividend per share as they are CPSEs. The liquidity ratios are observed by the current ratio and quick ratio, which are seen by total income and total expenditure.

Results

Table 3 describes the list of indicators identified based on the financial statements such as balance sheet, income statement, and cash flow statement. The regressors are considered based on the indicators through ratio analysis. *Per share ratios* (EPS and Diluted EPS) are employed to assess the CPSE's profitability on an absolute basis, considering equity and liability components. *Margin ratios* clarify the ability of CPSEs to convert sales into profits at varied levels of measurement, such as NPM, OPM, and GPM. *Return ratios* measure the effective management of investments to gauge higher rates of return through RONW/E, ROCE, and ROA. *Liquidity ratios* consider the effectiveness of CPSEs to meet their short-term obligations by CR and QR. *Leverage ratios* are used to assess the debt-equity component and the interest cover. *Turnover ratios* or efficiency ratios are observed on debtors and stock. *Growth ratios* are examined on 3-year CAGR sales and profits. *Valuation ratios* are employed to oversee the share price performance and the financial indicators. For a better understanding of the ratios, the variable definitions are represented respectively.

Discussion

Table 4 clarifies the descriptive statistics of the chosen indicators, regressors and ratios. The components of equity and liabilities are reflected by their average mean values of reserves and surplus (25776.71) and current liabilities (33026.05). In contrast, the average assets are classified into fixed assets (34201.16), current assets (38536.90), and other assets (8437.16). The income statement indicators confine that the average net profit (3129.95) exhibited a median (359.5), which is very low. The investment activities reflected negative values with average mean (-3712.22) and median (-76.5), with the financing activities reflecting lesser values in terms of raising funds. The margin ratios are consistently negative, while the inventory turnover ratios are on the higher side.

Table 5 represents the correlation matrix for the financial indicators, with the regressors falling in the weak and strong correlation groups as these regressors included inputs that are consistent with their nature of inclusion in each indicator and the ratio. Fixed assets (0.90), total assets (0.79), and net profit (0.87) exhibit a high correlation with share capital. In contrast, the Investment activities confine a strong correlation between share capital (-0.88) and total assets (-0.62).

Table 6 clarifies the multiple regression analysis on return on assets with the predictors such as GPM | NPM | RoNW/E | RoCE | EV/EBITDA | TA | CR and QR, respectively. The regression model clarifies that GPM [-11.72 (0.00)]; NPM [11.73 (0.00)]; RoNW/E [8.35 (0.00)]; RoCE [2.08 (0.00)]; EV/EBDITA [4.36 (0.00)]; TA [3.24 (0.00)]; CR [-2.43 (0.00)]; and QR [2.62 (0.00)] have statistically significant relationship with the outcome variable with supporting t-values and p-values respectively**.** None of the considered regressors have having statistically insignificant relationship. The F-value in the regression model is 24.85, which is greater than 1, which indicates the model to be a good fit. Both CR and QR have promising beta coefficients of -4.55 and 4.89. The R-squared and Adj. R^2 is 49% and 47% accuracy, which confirms the average model fit in the analysis.

Table 7 clarifies the multiple regression analysis on net worth/Equity [RoNW/E] with predictors such as GPM | NPM | | RoA | EV/EBITDA | D/E | OPM and CL, respectively. The regression model clarifies that GPM [-3.38 (0.00)]; NPM [-5.64 (0.00)]; RoA [4.17 (0.00)]; D|E [-20.92 (0.00)]; OPM [4.97 (0.00)] and CL [2.08 (0.00)] have a statistically significant relationship with RoNW/E. D/E has a beta coefficient of -59.20, followed

Table 1: Summary of the emerging markets studies on profitability measures

Author	*Objective*	*Type of data/ Sample size*	*Country/Data period*	*Dependent variable(s)*	*Methodology followed*	*Findings*
Majumdar & Chhibber (1999)	Examines the relationship b/w the levels of debt in the capital structure & performance	Firm-level/1,000 firms	India/1991	RoNW	OLS	The relationship between capital structure and firm performance are significantly negative.
Simerly & Li (2000)	Examine the influence of environmental dynamism and capital structure	Firm-level/700 firms	US/1989-1993	RoA, RoI	OLS	Competitive environments moderate the relationship between capital structure & economic performance.
Khanna & Rivkin (2001)	Examine the effects of group affiliation on firm profitability	14 emerging markets [ARG, BRA, CHL, IND, IDN, ISR, MEX, PER, PHL, ZAF, KOR, TWN, THA, & TUR]	14 emerging markets [ARG, BRA, CHL, IND, IDN, ISR, MEX, PER, PHL, ZAF, KOR, TWN, THA, & TUR]/1988- 1997	ROA	POLS	Group firms exert decisive influence on economic performance. The magnitude of this impact tends to be different across economies.
De Mesquita & Lara (2003)	Examine the influence of the capital structure on the factor profitability	Firm level/70 firms	Brazil/1995-2001	RoE	OLS	The return rates present a positive correlation with short-term debt & equity, & an inverse correlation with long-term debt.
Chakrabarti *et al.* (2007)	Studies how corporate diversification is influenced by BGA	6 Asian Countries [IDN, MYS, JPN, SGP, KOR, & THA]	6 Asian Countries/1988 - 2003	RoA	POLS	The effect of diversification on performance is negative in economies with developed institutional environments.
Rao *et al.* (2007)	Examines the relationship between capital structure and financial performance	Firm level/93 firms	Oman/1998-2002	RoE, RoA, OPM, NPM, EPS	OLS	There is a negative association between the level of debt and financial performance.
Yiu *et al.,* (2007)	Investigates the effect of state control &GA on corporate performance	Firm level/2,705 firms [GA– 1,671; SA – 1,034]	China/2004 – 2006	RoA	POLS, FEM, REM, FEVD	State-owned group affiliates outperform private standalone.
Singh & Gaur (2009)	Examines the relationship between ownership concentration & board independence	Firm level/500 firms	China & India/2007	RoA; RoE; RoS	OLS	GA firms performed worse than SAs in China & India (negative relationship). Concentration ownership has a positive impact on firm performance while, board independence reports negative effect.
Masulis *et al.,* (2011)	Analyses whether family-controlled BGs, are a means to facilitate better access to capital or to expropriate minority shareholders	Firm level/28,635 firms from 45 countries	45 countries/2002	RoA; Tobin's Q	OLS	Expropriation risk outweighs the group reputation, control rights, & funding access supported by family business houses.
Giroud *et al.* (2012)	Examine the good or bad snow conditions prior to debt restructuring	Firm level/115 firms	Austria/1998-2005	RoA	OLS, IV regressions	Reducing a debt overhang leads to a significant improvement in operating performance.

Dawar (2014)	Investigate the impact of capital structure choice on firm performance	Firm level/78 firms	India/2003-2012	RoA, RoE	FEM	Leverage has a negative influence on financial performance.
Vithessonthi & Tongurai (2015)	Examines the relation between financial leverage and firm performance	Firm level/1,59,375 firms	Thailand/2007-2009	LEV; RoA	2SLS, GMM	The effect of leverage on performance is negative for the domestically-oriented firms & is positive for the internationally-oriented firms.
Tsuruta (2015)	Investigate the relationship between firm performance and leverage	93,036 SMEs	Japan/1996-2006	RoA, RoS	OLS	Highly leveraged small businesses increase their trade payables less even if they have investment opportunities. Highly leveraged firms enjoy stronger performance.

Note: *Abbreviations*: RoA – Return on Assets; RoE – Return on Equity; RoNW – Return on Networth; RoI – Return on Investment; OPM – Operating Profit Margin; NPM- Net Profit Margin; EPS- Earnings Per Share; LEV- Leverage (D|E); RoS – Return on Sales; OLS- Ordinary Least Squares regression; POLS- Pooled OLS; FEM- Fixed Effects Model; 2SLS- Two stage Least Squares; IV- Instrumental Variables; GMM- Generalized Method of Moments; BGA – Business Group Affiliation; SA- Standalone firms; PBDITA- Profit before depreciation, interest, taxes, and amortization.

Table 2: Variable description

Variables	*Description*
Debt-equity ratio (D|E)	The ratio of total debt to total equity [Devos *et al*., (2017); Kim *et al*., (2015); Komera & Lukose (2015)]
Return on assets (RoA)	The ratio of operating income or profit after tax divided by total assets [Forte *et al*., (2013); Komera & Lukose (2015); Gungoraydinoglu & Oztekin (2011); Haron *et al.* (2013); Qian *et al*., (2009); Dang *et al*., (2012)]
Return on equity (RoE)	The ratio of net income divided by book equity [Forte *et al*., (2013)]
Return on capital employed (RoCE)	The ratio of profit before interest and tax divided by total capital [Komera & Lukose (2016); Forte *et al*., (2013); Gungoraydinoglu & Oztekin (2011); Haron *et al.* (2013); Qian *et al*., (2009); Dang *et al*., (2012)]
Return on networth (RoNW)	The ratio of profit after tax divided by net worth [Majumdar (2014)]
Firm size (SZ)	Ln of total assets [Komera & Lukose (2015); Forte *et al*., (2013); Gungoraydinoglu & Oztekin (2011); Haron *et al.* (2013); Kim *et al*., (2015)]
Liquidity (LIQ)	The ratio of total current assets divided by total current liabilities [Gungoraydinoglu & Oztekin (2011); Haron *et al.* (2013)]

Note: Table corroborates the consideration of regressors on performance

by OPM (11.81); RoA (10.35); and GPM (-7.10), impacting RoNW/E significantly and also are the best indicators. The F-value in the regression model is 113.42, which is greater than 1, which indicates the model to be a good fit. The R-squared and Adj. R^2 explained by the predictors are 79 and 78% accuracy, which confirms the best model fit in the analysis.

Table 8 clarifies the multiple regression analysis on return on capital employed [RoCE] with the predictors such as RoNW/E | GPM | NPM | | RoA | EV/EBITDA | D/E | OPM | CL | TA | CR and QR, respectively. The regression model clarifies that NPM [-2.32 (0.02)] and RoA [2.01 (0.05)] have a statistically significant relationship with RoCE. RoA has a beta coefficient of 1.42 confirming the best indicator to influence RoCE. The F-value in the regression model is 1.18, which is greater than 1, which indicates the model to be an acceptable fit. The R-squared and Adj. R^2 explained by the predictors are 6 and 1% accuracy which confirms poor model fit in the analysis.

Table 9 clarifies the multiple regression analysis on Debt/Equity [D|E] with predictors such as RoNW/E | GPM | NPM | OPM and CL, respectively. The regression model clarifies that RoNW/E [-23.77 (0.00)], GPM [-2.01 (0.05)], OPM [2.13 (0.03)], and CL [4.66 (0.00)] have a statistically significant relationship with [D|E]. The F-value in the regression model is 131.63, which is greater than 1, which indicates the model to be a good fit. The R-squared and Adj. R^2 explained by the predictors are 76 and 75% accuracy, which confirms the best model fit in the analysis. The best influencing predictors

Table 3: List of indicators, regressors, and ratios

Indicators	*Regressors*	*Ratios*	*Computation*
Equities & Liabilities	Basic EPS (Rs.)	Per Share Ratios	[Total Earnings/Outstanding Shares]
Share Capital	Diluted EPS (Rs.)		[(Total Income - Preferred Dividends)/Weighted Average of Diluted Common Shares Outstanding]
Reserves & Surplus	Book Value (Rs.)		[Book Value/Shares Outstanding]
Current Liabilities	Dividend/Share (Rs.)		[Total Dividends paid/No. of Outstanding Shares]
Total Liabilities	Face Value		Actual value of the share as stated by its issuer
Fixed Assets	Gross Profit Margin (%)	Margin Ratios	[(Total Sales - Total Expenditure)/Total Sales]
Current Assets	Operating margin (%)		[EBIT/Total Sales]
Other Assets	Net Profit Margin (%)		[Total Income/Total Sales]
Total Assets	Return on Net worth/ Equity (%)	Return Ratios	[Return on Net worth/Total Equity]
Sales	ROCE (%)		[EBIT/(Total Assets - Current Liabilities)]
Other Income	Return On Assets (%)		[Net Income/Total Assets]
Total Income	Current Ratio (X)	Liquidity Ratios	[Current Assets/Current Liabilities]
Total Expenditure	Quick Ratio (X)		[(Current Assets - Stock)/Current Liabilities]
EBIT	Debt to equity (x)	Leverage Ratios	[Total Debt/Total Equity]
Interest	Interest Coverage Ratios (X)		[EBIT/Interest Expenses]
Tax	Asset Turnover Ratio (%)	Turnover Ratios	[Total Sales/Total Assets]
Net Profit	Inventory Turnover Ratio (X)		[Total Expenditure/Total Inventory]
Operating Activities	3 Yr CAGR Sales (%)	Growth Ratios	[(Ending Sales/Beginning Sales) $^{(1/No.\ of\ Years)}$ - 1]
Investing Activities	3 Yr CAGR Net Profit (%)		[(Ending Profit/Beginning Profit) $^{(1/No.\ of\ Years)}$ - 1]
Financing Activities	Price Earnings ratio P/E (x)	Valuation Ratios	[Market Price Per Share/Earnings Per Share]
Net Cash Flow	Price to Book ratio P/B (x)		[Market Capitalization/Book Value]
-	EV/EBITDA (x)		[Enterprise Value/EBITDA]
-	Price to Sales Ratio P/S (x)		[Total Sales/Market Capitalization]

Table 4: Descriptive statistics of indicators, regressors, and ratios

Indicators	*Mean*	*Standard error*	*Median*	*Standard deviation*	*Kurtosis*	*Skew-ness*	*Minimum*	*Maximum*	*Count*
Share Capital	20556.17	2709.06	2803.0	39998.78	12.42	3.24	-19298	253212	218
Reserves & Surplus	25776.71	4333.74	4938.0	63986.92	57.91	6.46	12	693781	218
Current Liabilities	33026.05	5361.14	1552.5	79156.24	16.52	3.78	0	518109	218
Total Liabilities	81176.16	10244.92	13388.5	151264.48	6.50	2.55	53	791000	218
Fixed Assets	34201.16	4873.41	3013.5	71955.04	7.15	2.78	0	349915	218
Current Assets	38536.90	7678.92	4892.5	113377.89	25.05	4.86	9	781864	218
Other Assets	8437.16	1341.40	994.5	19805.57	21.08	4.32	0	129474	218
Total Assets	81176.16	10244.92	13388.5	151264.48	6.50	2.55	53	791000	218
Sales	48064.18	7147.31	8337.0	105528.72	9.21	3.06	0	589335	218
Other Income	753.86	104.01	128.5	1535.72	13.58	3.49	0	9323	218
Total Income	48818.56	7224.16	8595.5	106663.50	9.11	3.05	2	592417	218
Total Expenditure	42938.73	6753.36	4543.0	99712.16	9.45	3.11	8	553941	218
EBIT	5918.19	718.66	620.5	10610.91	5.72	2.30	-4158	58323	218
Interest	1599.64	244.67	155.0	3612.58	12.14	3.29	-2	22050	218
Tax	1187.91	182.62	78.5	2696.41	16.19	3.34	-5300	20880	218
Net Profit	3129.95	425.49	359.5	6282.26	13.92	3.12	-4040	47830	218

Operating Activities	3407.39	1084.18	186.5	16007.79	9.92	0.12	-80251	78000	218
Investing Activities	-3712.22	620.60	-76.5	9162.99	16.48	-3.69	-67111	1741	218
Financing Activities	348.99	786.48	-20.5	11612.20	25.54	3.84	-35979	93616	218
Net Cash Flow	44.99	63.69	0.0	940.42	22.63	0.53	-5473	7000	218
Basic EPS (Rs.)	9.01	1.80	7.0	26.55	11.22	-1.69	-147.17	91.18	218
Diluted Eps (Rs.)	9.00	1.80	7.0	26.55	11.22	-1.69	-147.17	91.18	218
Book Value (Rs.)	90.88	14.82	59.6	218.75	7.97	-0.87	-926.57	788.73	218
Dividend/Share (Rs.)	5.30	0.57	2.2	8.39	28.84	4.19	0	79	218
Face Value	8.67	0.19	10.0	2.82	1.95	-1.86	1	10	218
Gross Profit Margin (%)	-736.21	751.05	15.5	11089.09	217.98	-14.76	-163709.1	102.04	218
Operating margin (%)	-743.09	751.02	10.4	11088.64	217.97	-14.76	-163709.1	96.92	218
Net Profit Margin (%)	-854.43	851.93	6.2	12578.57	217.98	-14.76	-185718.2	303.11	218
RONW/Equity (%)	-44.06	44.61	9.2	658.60	214.30	-14.58	-9682.78	186.55	218
ROCE (%)	18.21	5.55	10.0	81.89	93.01	9.27	-81.82	915.09	218
Return On Assets (%)	2.57	0.73	3.6	10.83	16.47	0.89	-47.81	83	218
Current Ratio (X)	1.83	0.25	1.1	3.63	114.87	9.85	0.07	47	218
Quick Ratio (X)	1.58	0.25	0.9	3.65	114.54	9.84	0.05	47	218
Debt to equity (x)	1.44	0.57	0.3	8.48	111.22	7.71	-50.06	105.49	218
Interest Coverage Ratios (X)	52.68	12.30	3.3	181.56	15.67	3.15	-751.95	1152.23	218
Asset Turnover Ratio (%)	68.29	5.45	51.9	80.46	16.12	3.30	0	650.52	218
Inventory Turnover Ratio (X)	592.69	329.44	8.6	4864.19	103.52	10.02	0	55646.5	218
3 Yr CAGR Sales (%)	146.05	49.05	7.5	724.18	23.87	5.04	-100	4161.76	218
3 Yr CAGR Net Profit (%)	67.37	17.14	10.7	253.13	34.54	5.33	-81.19	2285.27	218
P/E (x)	20.72	6.80	6.5	100.39	83.91	8.42	-183.64	1149.5	218
P/B (x)	4.25	2.99	1.1	44.12	199.56	13.76	-102.76	638.6	218
EV/EBITDA (x)	0.63	4.27	6.5	63.09	53.49	-5.56	-627.89	237.91	218
P/S (x)	45.95	43.89	1.0	648.04	217.98	14.76	0	9570	218

in the model are RoNW/E (-0.01) and OPM (0.07) which suggests D|E holds good when regressed against ownership parameters as they have better beta co-efficient.

Table 10 clarifies the multiple regression analysis on [EV/EBITDA] with the predictors such as RoNW/E | GPM | NPM | OPM | D/E | RoCE | CR | QR and RoA respectively. GPM is positively related [3.60 (0.00)] and NPM [-3.60 (0.00)] is negatively related to EV/EBITDA. The F-value in the regression model is 2.74 which is greater than 1, which indicates the model to be an acceptable fit. The R-squared and Adj. R^2 explained by the predictors are only 9 and 6%, which confirms poor model fit in the analysis. The best-influencing predictors in the model are RoA (2.19), GPM (0.53), and NPM (-0.47), which suggests EV/EBITDA holds good when regressed against profit parameters as they have better beta co-efficient.

Table 11 clarifies the multiple regression analysis on Net Profit Margin [NPM] with the predictors such as RoNW/E | GPM | TA | RoCE | CR | QR | RoA | EV/EBITDA and OPM, respectively. GPM is negatively related [-3.00 (0.00)] and OPM is positively related [9.29 (0.00)] to NPM. The quick ratio has a negative beta coefficient (-14.15) and is statistically significant, while the current ratio has a positive beta coefficient (11.98), which clarifies the strength of quick assets, ignoring inventories. The F-value in the regression model is 5887535.47, which is greater than one which indicates the model to be a good fit. The R-squared explains 99% of the variance in NPM. This provides a clear association between the predictors and the outcome variable.

Table 12 clarifies the Summary of the Model Fit of the six dependent variables considered as the profitability measures for the disinvestment practices such as RoA, RoNW/E, RoCE, D/E, EV/EBDITA, and NPM, respectively. The predictor variables influencing the outcome variables include GPM, NPM, TA, CL, CR, QR, and OPM, respectively. The analysis confirms the influence of regressors [GPM | NPM | RoNW/E | RoCE | EV/EBITDA | TA | CR | QR] tested on normality. The ANOVA table {[F-value] (*statistical significance*)}

Table 5: Correlation matrix for financial indicators

-	*EL*	*SC*	*R&S*	*CL*	*TL*	*FA*	*CA*	*OA*	*TA*	*SLS*	*OI*	*TI*	*TE*	*EBIT*	*INT*	*TAX*	*NP*	*OA*	*IA*	*FA*	*NCF*
EL	1																				
SC	**0.69**	1																			
R&S	0.39	**0.54**	1																		
CL	0.44	0.55	0.41	1																	
TL	0.60	0.79	**0.79**	**0.85**	1																
FA	**0.75**	**0.90**	0.37	0.46	**0.65**	1															
CA	0.22	0.32	**0.75**	0.78	0.81	0.09	1														
OA	0.58	0.92	0.41	0.39	0.63	0.80	0.16	1													
TA	**0.60**	**0.79**	0.79	0.85	1	**0.65**	**0.81**	0.63	1												
SLS	0.55	0.76	**0.46**	0.28	0.55	0.69	0.16	0.78	**0.55**	1											
OI	0.62	0.83	0.35	0.34	0.56	0.77	0.10	0.91	0.56	0.74	1										
TI	0.55	0.76	0.46	0.28	0.55	0.70	0.16	0.79	0.55	1.00	**0.74**	1									
TE	0.52	0.72	0.43	0.24	0.51	0.67	0.12	0.76	0.51	1.00	0.72	1.00	1								
EBIT	0.67	0.87	**0.57**	**0.62**	0.81	0.77	0.46	0.77	**0.81**	**0.68**	0.74	**0.68**	0.63	1							
INT	0.41	0.51	0.61	0.76	0.80	0.42	0.75	0.29	0.80	0.27	0.22	0.27	0.21	**0.67**	1						
TAX	0.54	0.74	0.37	0.35	0.55	0.64	0.19	0.74	0.55	0.65	0.77	0.65	0.61	0.84	0.31	1					
NP	**0.66**	**0.87**	**0.46**	**0.47**	**0.68**	**0.79**	0.26	0.81	**0.68**	**0.72**	0.79	**0.72**	0.67	0.94	**0.42**	0.81	1				
OA	0.45	0.61	0.13	-0.18	0.13	0.71	-0.40	0.68	0.13	0.57	0.70	0.57	0.57	0.45	-0.13	0.55	0.60	1			
IA	**-0.62**	**-0.88**	-0.39	-0.41	-0.62	-0.87	-0.12	-0.87	**-0.62**	-0.75	-0.82	-0.75	**-0.73**	-0.71	-0.33	-0.66	-0.72	-0.69	1		
FA	-0.12	-0.14	0.13	0.58	**0.32**	-0.29	0.65	-0.25	0.32	-0.19	-0.31	-0.19	-0.20	-0.06	**0.44**	-0.23	-0.25	-0.82	0.16	1	
NCF	0.09	0.13	0.09	0.04	0.10	0.10	0.04	0.14	0.10	0.07	0.13	0.08	0.07	0.11	-0.01	0.08	0.16	0.15	-0.06	-0.08	1

Co-efficient of Correlation	Correlation
0.0 to ± 0.20	Little Correlation
± 0.20 to ± 0.40	Weak Correlation
± 0.40 to ± 0.70	Correlated
± 0.70 to ± 0.90	Strong Correlation
± 0.90 to ± 1.00	Very Strong Correlation

Table 6: Multiple regression analysis results summary

SUMMARY OUTPUT **[DV: ROA]**								
Regression Statistics								
Multiple R	0.70							
R Square	0.49							
Adjusted R Square	0.47							
Standard Error	7.90							
Observations	218							
ANOVA								
	df	SS	MS	F	Sig. F			
Regression	8	12401	1550.13	**24.85**	1.1E-26			
Residual	209	13035.07	62.37					
Total	217	25436.1						
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	5.44	0.86	6.29	0.00	3.73	7.14	3.73	7.14
GPM	**-0.19**	0.02	**-11.72**	0.00	-0.22	-0.16	-0.22	-0.16
NPM	0.16	0.01	**11.73**	0.00	0.14	0.19	0.14	0.19
RoNW/E	0.01	0.00	**8.35**	0.00	0.01	0.01	0.01	0.01
RoCE	0.01	0.01	2.08	0.00	0.00	0.03	0.00	0.03
EV/EBITDA	0.04	0.01	4.36	0.00	0.02	0.05	0.02	0.05
TA	1E-05	0.00	3.24	0.00	0.00	0.00	0.00	0.00
CR	**-4.55**	1.87	-2.43	0.00	-8.25	-0.86	-8.25	-0.86
QR	**4.89**	1.87	2.62	0.00	1.20	8.57	1.20	8.57

Dependent Variable: Return on Assets [ROA]
Independent Variables: [GPM | NPM | RONW/E | ROCE | EV/EBITDA | TA | CR | QR]
RoA = 5.44 (-0.19*GPM) + (0.16*NPM) + (0.01*RoNW/E) + (0.01*RoCE) + (0.04*EV/EBITDA) + (0.00*TA) (-4.55*CR) + (4.89*QR)

Table 7: Multiple Regression Analysis Results Summary

SUMMARY OUTPUT **[DV: RONW/E]**								
Regression Statistics								
Multiple R	0.89							
R Square	0.79							
Adjusted R Square	0.78							
Standard Error	306.20							
	218							
ANOVA								
	df	SS	MS	F	Sig. F			
Regression	7	74435978	10633711	**113.42**	8.94E-68			
Residual	210	19688696	93755.7					
Total	217	94124674						
		Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-4.39	29.08	-0.15	0.88	-61.72	52.94	-61.72	52.94
GPM	**-7.10**	2.10	-3.38	0.00	-11.24	-2.96	-11.24	-2.96
NPM	-4.15	0.74	-5.64	0.00	-5.60	-2.70	-5.60	-2.70
RoA	**10.35**	2.48	4.17	0.00	5.46	15.25	5.46	15.25
EV/EBITDA	-0.48	0.34	-1.39	0.17	-1.15	0.20	-1.15	0.20
D/E	-59.20	2.83	**-20.92**	0.00	-64.78	-53.62	-64.78	-53.62
OPM	**11.81**	2.38	4.97	0.00	7.12	16.50	7.12	16.50
CL	0.00	0.00	2.08	0.04	0.00	0.00	0.00	0.00

Dependent Variable: Return on Networth/Equity [RoNW/E]
Independent Variables: [GPM | NPM | | RoA | EV/EBITDA | D/E | OPM | CL]
RoNW/E = -4.39 (-7.10*GPM) (-4.15*NPM) + (10.35*RoA) (-0.48* EV/EBITDA) (-59.20*D/E) + (11.81*OPM) + (0.01*CL)

Table 8: Multiple regression analysis results summary

SUMMARY OUTPUT **[DV: RoCE]**								
Regression Statistics								
Multiple R	0.24							
R Square	0.06							
Adjusted R Square	0.01							
Standard Error	81.52							
Observations	218							
ANOVA								
	df	SS	MS	F	Sig.F			
Regression	11	86085.88	7825.989	**1.18**	0.30			
Residual	206	1369034	6645.796					
Total	217	1455120						
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	9.13	10.54	0.87	0.39	-11.65	29.91	-11.65	29.91
RoNW/E	0.00	0.02	-0.06	0.95	-0.04	0.04	-0.04	0.04
GPM	0.88	0.59	1.49	0.14	-0.29	2.05	-0.29	2.05
NPM	-0.51	0.22	-2.32	0.02	-0.94	-0.08	-0.94	-0.08
RoA	**1.42**	0.71	2.01	0.05	0.02	2.82	0.02	2.82
EV/EBITDA	-0.04	0.09	-0.48	0.63	-0.23	0.14	-0.23	0.14
D/E	0.11	1.33	0.09	0.93	-2.50	2.73	-2.50	2.73
OPM	-0.30	0.69	-0.44	0.66	-1.67	1.06	-1.67	1.06
CL	0.00	0.00	-0.90	0.37	0.00	0.00	0.00	0.00
TA	0.00	0.00	0.21	0.83	0.00	0.00	0.00	0.00
CR	-8.89	19.82	-0.45	0.65	-47.96	30.19	-47.96	30.19
QR	8.01	19.83	0.40	0.69	-31.08	47.11	-31.08	47.11

Dependent Variable: Return on Capital Employed [RoCE]
Independent Variables: [RoNW/E | GPM | NPM | | RoA | EV/EBITDA | D/E | OPM | CL | TA | CR | QR]
RoCE = 9.13 + (0.01* RoNW/E) + (0.88*GPM) (-0.51*NPM) + (1.42*RoA (-0.04*EV/EBITDA) + (0.11*D/E) (-0.30*OPM) + (0.01*CL) + (0.01*TA) (-8.89*CR) + (8.01*QR)

Table 9: Multiple regression analysis results summary

SUMMARY OUTPUT **[DV: D/E]**								
Regression Statistics								
Multiple R	0.87							
R Square	0.76							
Adjusted R Square	0.75							
Standard Error	4.23							
Observations	218							
ANOVA								
	df	SS	MS	F	Sig.F			
Regression	5	11795.42	2359.084	**131.63**	5.45E-63			
Residual	212	3799.465	17.92					
Total	217	15594.88						
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0.60	0.36	1.66	0.10	-0.11	1.31	-0.11	1.31
RoNW/E	-0.01	0.00	**-23.77**	0.00	-0.01	-0.01	-0.01	-0.01
GPM	-0.06	0.03	-2.01	0.05	-0.12	0.00	-0.12	0.00
NPM	-0.01	0.01	-1.40	0.16	-0.03	0.01	-0.03	0.01
OPM	0.07	0.03	2.13	0.03	0.01	0.14	0.01	0.14
CL	0.00	0.00	4.66	0.00	1.05E-05	2.58E-05	1.05E-05	2.58E-05

Dependent Variable: Debt/Equity [D|E]
Independent Variables: [RoNW/E | GPM | NPM | OPM | CL]
D|E = 0.60 – (-0.01* RoNW/E) (-0.06*GPM) (-0.01*NPM) + (0.07*OPM + 0.01*CL)

Table 10: Multiple regression analysis results summary

SUMMARY OUTPUT **[DV: EV/EBITDA]**								
Regression Statistics								
Multiple R	0.31							
R Square	0.09							
Adjusted R Square	0.06							
Standard Error	61.16							
Observations	218							
ANOVA								
	df	SS	MS	F	Sig. F			
Regression	8	81971.98	10246.5	**2.74**	0.01			
Residual	209	781680.2	3740.096					
Total	217	863652.1						
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-17.57	7.11	-2.47	0.01	-31.60	-3.55	-31.60	-3.55
RoNW/E	-0.02	0.01	-1.53	0.13	-0.04	0.01	-0.04	0.01
GPM	**0.53**	0.15	**3.60**	**0.00**	0.24	0.82	0.24	0.82
NPM	**-0.47**	0.13	**-3.60**	**0.00**	-0.73	-0.21	-0.73	-0.21
D/E	-0.45	0.94	-0.48	0.63	-2.30	1.40	-2.30	1.40
RoCE	-0.02	0.05	-0.46	0.65	-0.13	0.08	-0.13	0.08
CR	16.49	14.68	1.12	0.26	-12.45	45.43	-12.45	45.43
QR	-16.68	14.66	-1.14	0.26	-45.59	12.22	-45.59	12.22
RoA	**2.19**	0.50	**4.37**	**0.00**	1.20	3.18	1.20	3.18

Dependent Variable: EV/EBITDA
Independent Variables: [RoNW/E | GPM | NPM | OPM | D/E | RoCE | CR | QR | RoA]
EV/EBITDA = -17.57 – (-0.02* RoNW/E) + (0.53*GPM) (-0.47*NPM) (-0.45*D/E) (-0.02*RoCE) + (16.49*CR) (-16.68*QR) + (2.19*RoA)

Table 11: multiple regression analysis results summary

SUMMARY OUTPUT **[DV: NPM]**								
Regression Statistics								
Multiple R	0.99							
R Square	0.99							
Adjusted R Square	0.99							
Standard Error	25.45							
Observations	218							
ANOVA								
	df	SS	MS	F	Sig. F			
Regression	9	3.43E+10	3.81E+09	**5887535.47**	0			
Residual	208	134774.6	647.95					
Total	217	3.43E+10						
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-7.00	3.24	-2.16	0.03	-13.38	-0.62	-13.38	-0.62
RoNW/E	-0.03	0.00	**-9.11**	0.00	-0.03	-0.02	-0.03	-0.02
GPM	-0.54	0.18	-3.00	0.00	-0.90	-0.18	-0.90	-0.18
TA	0.00	0.00	-5.53	0.00	-8.7E-05	-4.1E-05	-8.7E-05	-4.1E-05
RoCE	-0.05	0.02	-2.30	0.02	-0.09	-0.01	-0.09	-0.01
CR	11.98	6.11	1.96	0.05	-0.07	24.02	-0.07	24.02
QR	-14.15	6.07	-2.33	0.02	-26.10	-2.19	-26.10	-2.19
RoA	1.84	0.18	**10.00**	0.00	1.48	2.20	1.48	2.20
EV/EBITDA	-0.09	0.03	-3.06	0.00	-0.14	-0.03	-0.14	-0.03
OPM	1.67	0.18	**9.29**	0.00	1.32	2.03	1.32	2.03

Dependent Variable: Net Profit Margin [NPM]
Independent Variables: [RoNW/E | GPM | TA | RoCE | CR | QR | RoA | EV/EBITDA | OPM]
NPM = -7.00 – (-0.03* RoNW/E) (-0.54*GPM) + (0.01*TA) (-0.05*RoCE) + (11.98*CR) – (14.15*QR) + (1.84*RoA) (-0.09*EV/EBITDA) + (1.67*OPM)

TABLE 12: Summary of model fit

Dependent variables	*RoA*	*RoNW/E*	*RoCE*	*D/E*	*EV/EBITDA*	*NPM*
R^2	0.49	0.79	0.06	0.76	0.09	0.99
Adj. R^2	0.47	0.78	0.01	0.75	0.06	0.99
F-value	24.85	113.42	1.18	131.63	2.74	5887535.47
DECISION	*AVERAGE FIT*	*BEST FIT*	*POOR FIT [insignificant]*	*BEST FIT*	*POOR FIT*	*GOOD FIT (with Normality Issues)*
Independent Variables	GPM -VE (sig)	GPM -VE (sig)	GPM -VE (insig.)	GPM -VE (sig)	GPM +VE (sig)	GPM -VE (sig)
	NPM +VE (sig)	NPM -VE (sig)	NPM +VE (sig)	NPM -VE (insig.)	NPM -VE (sig)	
	RoNW/E +VE (sig)		RoNW/E -VE (insig.)	RoNW/E -VE (sig)	RoNW/E -VE (insig.)	RoNW/E -VE (sig)
	RoCE +VE (sig)				RoCE -VE (insig.)	RoCE -VE (sig)
	EV/EBITDA +VE (sig)	EV/EBITDA -VE (insig.)	EV/EBITDA -VE (insig.)			EV/EBITDA -VE (sig)
	TA +VE (sig)		TA -VE (insig.)			TA +VE (sig)
	CR -VE (sig)		CR -VE (insig.)		CR +VE (insig,)	CR +VE (sig)
	QR +VE (sig)		QR -VE (insig.)		QR -VE (insig.)	QR -VE (sig)
		RoA -VE (sig)	RoA +VE (sig)		RoA +VE (sig)	RoA +VE (sig)
		D/E -VE (sig)	D/E -VE (insig.)		D/E -VE (insig.)	
		OPM +VE (sig)	OPM -VE (insig.)	OPM +VE (sig)		OPM +VE (sig)
		CL +VE (sig)	CL -VE (insig.)	CL +VE (sig)		

results are reported on the six profitability measures that evident {RoA [24.85] (*0.00*); RoNW/E [113.42] (*0.00*); RoCE [1.18] (*0.30*); D/E [113.63] (*0.00*); EV/EBDITA [2.74] (*0.01*); & NPM [5887535.47] (*0.00*) with RoCE demonstrating statistically insignificant scores in comparison to other measures while NPM suffers normality issues with other results hold good with statistically significant association. The multicollinearity is worked out whereby, in the regression analysis, each dependent variable acts as a predictor variable in the other profitability measure observing the effects. Also, the profitability measures are ratio, based the influence of the financial performance inputs are considered and reported in the correlation analysis.

Conclusion

The study clarifies the Disinvestment practices in the selected CPSEs from an empirical perspective to revisit the challenges, success and failure stances, latest disinvestment strategies, utilization of disinvestment proceeds, etc, towards the goodwill of the nation. The Disinvestment Commission had to solve the modalities by reducing political and bureaucratic influences to meet the financing and investment targets. At times, loss-making enterprises led by financial reforms were provided support to be financially viable and thereafter given to the private sector. The channels of privatization were concentrated on transparency, competitiveness, mitigation, and commitment to ensure optimal utilization of economic resources and profitability. The selected CPSEs are categorized into Schedule A, Schedule B, and Schedule D. Overall, 44 CPSEs have been selected, leading to 218 firm-year observations, and the study period entails 2018 to 2022, respectively. The CPSEs were chosen for the study as they provide an opportunity to trace discrepancies in capital structure decisions, public accountability, stock listing arrangements, political interferences, bureaucratic checks, corporate governance, etc. The study is limited to 44 CPSEs that are consistent, having balanced information through the sample period and further research can be extended to include other CPSEs that comply with audited financial statements reported in a timely manner. Succinctly, laying insights on State-Owned Enterprises (SOEs) along with CPSEs can enrich substantial evidence of profitability measures on leverage and ownership structure elusively. The study insights support policymakers, regulatory bodies, academicians, corporate houses, and public investors to revisit the pattern of disinvestment decisions based on the lines of capital structure and ownership structure. A sound corporate governance framework with due transparency and accountability can usher the economic performance of CPSEs and thereby reduce agency costs. The study adds to the existing body of literature and provides a conclusive outlook of CPSEs with the support of multiple regression analysis. This paper attempts to fill the gap by observing a spectrum of profitability measures individually, which clarifies the supporting financials on disinvestment by reflecting modern corporate finance in terms of capital and ownership structure from an Indian perspective.

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