

A Scenario of Disinvestment of Public Sector Enterprises in India: An Initiative to Measure Performance

Mohammad Sheeraf Yattoo¹, Dr Mohd Ashraf Parry², Dr Syed Irfan Shafi³

¹Doctoral Research Scholar, Department of Management Studies, Islamic University of Science and Technology, Awantipora-Kashmir

²Assistant Professor, Department of Management Studies, Islamic University of Science and Technology, Awantipora-Kashmir

³Assistant Professor, Department of Management Studies, Islamic University of Science and Technology, Awantipora-Kashmir

Corresponding Author:

Dr Mohd Ashraf Parry

Email-ma.parry@iust.ac.in

Abstract

This study examines the impact of divestment on the financial and operational performance of 15 selected Indian Central Public Sector Enterprises (CPSEs) that underwent disinvestment between 2010 and 2020. The primary objective is to empirically assess whether divestment has improved the financial health and operational efficiency of these enterprises. The study utilizes secondary financial data collected from the annual reports of the selected CPSEs and other official sources. Ratio analysis is employed using key financial indicators, including Return on Equity (ROE), Return on Assets (ROA), Debt–Equity Ratio (DER), and Dividend Payout Ratio (DPR), to evaluate firm performance before and after disinvestment. To determine the statistical significance of changes in these indicators, the non-parametric Wilcoxon Signed-Rank Test is applied. The empirical findings reveal a statistically significant decline in profitability, as reflected by reductions in ROE and ROA, indicating that divestment has not resulted in a significant improvement in the profitability of the selected CPSEs. However, the Dividend Payout Ratio shows a significant increase following disinvestment, suggesting an improvement in shareholder returns despite weaker profitability. The findings indicate that ownership dilution alone is insufficient to enhance the financial and operational performance of public sector enterprises unless it is accompanied by effective corporate governance reforms, managerial autonomy, operational restructuring, and improved market competitiveness. The study contributes to the existing literature by providing recent empirical evidence on the post-disinvestment performance of Indian CPSEs during the latest phase of India's disinvestment programme, offering valuable insights for policymakers, investors, and researchers regarding the effectiveness of India's disinvestment policy and its implications for future privatization strategies.

Keywords: Disinvestment, Privatization, Central Public Sector Enterprises (CPSEs), Financial Performance, Return on Equity, Return on Assets, Dividend Payout Ratio, Wilcoxon Signed-Rank Test.

Introduction

Public Sector Enterprises (PSEs) have played a pivotal role in India's economic development since Independence by promoting industrialization, generating employment, developing infrastructure, and reducing regional disparities. For several decades, PSEs were regarded as the backbone of India's mixed economy and were entrusted with achieving both commercial and socio-economic objectives. However, during the late 1980s, several structural and operational inefficiencies became increasingly evident in many state-owned enterprises. These included low productivity, poor project management, excessive manpower,

inadequate technological modernization, weak corporate governance, political interference, and limited investment in research and development (R&D) and human resource development. Consequently, many PSEs gradually transformed from productive national assets into financial liabilities for the Government. Boycko et al. (1996) argued that state-owned enterprises often suffer from chronic inefficiency because they are expected to maximize employment and fulfill social objectives rather than operate on commercial principles. Similarly, Jalan (1992) observed that inadequate returns from public sector investments were among the factors contributing to India's fiscal crisis of 1991.

In response to these challenges, the Government of India initiated a comprehensive programme of economic liberalization, privatization, and globalization (LPG) in 1991. An important component of these reforms was the disinvestment policy, which aimed to reduce government ownership in Central Public Sector Enterprises (CPSEs), improve their operational efficiency, enhance corporate governance, broaden public ownership, and mobilize financial resources for developmental expenditure. Since the introduction of the disinvestment policy, more than 80 CPSEs across diverse sectors have undergone over 200 disinvestment transactions between 1991 and 2020, reflecting the Government's sustained efforts to restructure the public sector and improve enterprise performance. Although the terms "disinvestment" and "privatization" are often used interchangeably, they differ conceptually in the Indian context. Disinvestment refers to the sale of a portion of the Government's equity in a public sector enterprise while retaining majority ownership and management control. Privatization, in contrast, occurs when the Government's shareholding falls below 50%, resulting in the transfer of ownership and managerial control to private investors. Since disinvestment frequently represents the initial stage of privatization, the two terms have occasionally been used interchangeably in the existing literature; however, this study primarily focuses on disinvestment through minority equity dilution in selected CPSEs.

Privatization has emerged as one of the most debated economic reforms worldwide, attracting considerable attention from researchers, policymakers, and practitioners (Omran, 2004). The existing literature presents three broad perspectives regarding the impact of disinvestment on enterprise performance. The first group of studies argues that privatization significantly enhances firm performance by improving profitability, operational efficiency, investment, productivity, corporate governance, and market competitiveness. Empirical evidence provided by Megginson et al. (1994), McKenzie and Mookherjee (2002), Djankov and Murrell (2002), Wolf and Pollitt (2008), Pratap (2011), Kumar (2014), and Ojonugwa and Irunmoluo (2015) suggests that privatization reduces political interference, strengthens managerial accountability, and enables firms to pursue commercial objectives more effectively. Several studies also report higher investment in research and development, greater capital expenditure, and improved access to market-based financing following disinvestment.

The second stream of literature adopts a balanced perspective, suggesting that the impact of privatization depends largely on institutional quality, regulatory frameworks, ownership structures, and post-disinvestment governance mechanisms. Studies by Megginson and Netter (2001), Jain (2011), Rastogi and Shukla (2013), Potter (2015), and Khurud and Abhang (2016) argue that although privatization may improve efficiency and productivity, it may also create private monopolies, reduce social welfare, or generate unequal distributional outcomes if appropriate regulatory mechanisms are absent. The third group of researchers questions the effectiveness of privatization and argues that ownership change alone cannot guarantee better enterprise performance. Studies by Nagaraj et al. (1997), Bevan et al. (1999), Gupta et al. (2005), Sathye et

al. (2005), Nagaraj (2006), Bortolotti and Milella (2006), Paterson et al. (2006), Etrogiovanna (2010), Mohamed (2010), Ntiri (2010), Kousadikar and Singh (2013), Ritu (2015), and Poczter (2016) contend that public sector inefficiency is often rooted in pricing policies, governance failures, regulatory constraints, and institutional weaknesses rather than ownership structure itself. Accordingly, these studies emphasize that privatization without complementary reforms may not produce the intended improvements in organizational performance. More recent empirical research presents mixed evidence regarding the effectiveness of disinvestment. While studies such as Boubakri et al. (2005), Bruton et al. (2015), and Musacchio et al. (2015) indicate that governance reforms and partial disinvestment can improve enterprise performance, other studies including Naib (2003), Chhibber and Majumdar (1998), Boardman and Vining (1989), and Knyazeva et al. (2013) report limited or even adverse effects on profitability and operational efficiency. These contradictory findings suggest that the success of disinvestment depends on multiple firm-specific, institutional, and policy-related factors.

Despite the extensive body of literature, empirical evidence on the post-disinvestment performance of Indian CPSEs remains inconclusive, particularly for enterprises disinvested during the most recent phase of India's disinvestment programme. Most previous studies either focus on earlier periods of economic reforms, examine limited performance indicators, or analyse relatively small samples of firms. Furthermore, few studies simultaneously evaluate profitability, capital structure, and shareholder returns using recent financial data. This gap provides the motivation for the present study. Accordingly, this research examines the impact of disinvestment on the financial performance of selected Indian CPSEs that underwent disinvestment between 2010 and 2020 using ratio analysis and the Wilcoxon Signed-Rank Test. The findings are expected to contribute to the ongoing debate on the effectiveness of India's disinvestment policy and provide useful implications for policymakers, investors, and public sector managers.

Literature Review

Privatization has been widely examined as a strategy to improve the financial and operational performance of state-owned enterprises (SOEs). One of the pioneering studies by Megginson et al. (1994) analyzed 61 privatized firms from 32 developed countries and found significant improvements in profitability, sales, capital expenditure, dividend payouts, and operational efficiency without any major reduction in employment. Similarly, Boubakri and Cosset (1998) examined 79 enterprises from 32 developing countries and reported substantial gains in profitability, efficiency, investment, output, employment, and dividend payments, along with reduced leverage. D'Souza and Megginson (1999) further confirmed these findings for 85 firms across 21 industrialized countries, demonstrating that privatization enhances profitability, productivity, operational efficiency, and financial stability. Likewise, Omran (2004) found that privatized Egyptian enterprises experienced significant improvements in profitability, operational efficiency, investment, and dividend payouts while financial risk and leverage declined. Extending this evidence, Boubakri et al. (2005) concluded that privatization, coupled with trade liberalization and economic growth, significantly improves enterprise performance in developing economies.

Indian studies have produced relatively mixed findings. Sankar et al. (1994) and Gauri (1997) emphasized the importance of a clear and consistent privatization policy for improving the efficiency of Public Sector Enterprises (PSEs). Arun and Nixon (2000) highlighted issues such as undervaluation of shares, policy uncertainty, and conflicts between the Government and the Disinvestment Commission. Using GMM

estimation, Gupta (2005) found that partially privatized firms performed better than fully government-owned enterprises in terms of productivity, R&D expenditure, and reduced dependence on government borrowing. Ghosh (2008) also reported that partially government-owned firms were more profitable than fully state-owned firms, while Gupta et al. (2011) observed improvements in the financial performance of Indian CPSEs following partial disinvestment. However, Naib (2003) found declining profitability after disinvestment despite improvements in efficiency and dividend payouts, indicating that privatization outcomes in India remain inconsistent.

Several researchers have emphasized that privatization success depends not only on ownership transfer but also on governance, regulatory reforms, and institutional quality. Dharwadkar et al. (2000) argued that improved corporate governance is essential for achieving post-privatization efficiency. Bortolotti et al. (2002) showed that regulatory reforms alongside privatization significantly improve firm performance in the telecommunications sector. In contrast, Sun et al. (2002) and Chen et al. (2008) found that government ownership and organizational reforms alone may not necessarily reduce firm performance in China. Comstock et al. (2003) reported weaker long-term stock market performance of privatized firms, while Alipour (2013) observed that privatization reduced profitability in Iranian firms despite improving leverage and lowering financial risk.

Recent studies continue to present mixed evidence regarding the effectiveness of privatization and disinvestment. Mathur and Banchuenvijit (2007) and Peter et al. (2010) reported improvements in operational efficiency, sales, output, and financial performance following privatization. Dinc and Gupta (2011) highlighted the influence of political and financial factors on privatization decisions in India. More recent studies by Mandiratta et al. (2017), Chakrabarti et al. (2017), Mandiratta et al. (2020), and Phukon et al. (2020) suggest that while disinvestment improves operational efficiency and dividend payouts, its impact on profitability remains limited. These studies conclude that privatization alone cannot ensure better enterprise performance without complementary governance reforms, institutional support, and firm-specific restructuring.

The existing literature indicates that privatization generally improves the financial and operational performance of state-owned enterprises; however, the findings remain inconsistent, particularly in the Indian context. Most studies focus on limited performance indicators, specific sectors, or earlier phases of disinvestment, with relatively few examining recent disinvestment initiatives using comprehensive financial and operational measures. Moreover, limited research simultaneously evaluates profitability, efficiency, leverage, liquidity, and productivity in Indian Central Public Sector Enterprises (CPSEs). Therefore, there is a need for an updated and comprehensive empirical study to assess the impact of recent disinvestment policies on the financial and operational performance of Indian CPSEs, thereby addressing the existing gap in the literature.

Hypothesis

The present study formulates hypotheses to examine whether disinvestment has significantly influenced the financial performance of selected Central Public Sector Enterprises (CPSEs) in India. The hypotheses are developed based on the existing literature and the study objectives, focusing on key financial performance indicators, namely Return on Equity (ROE), Return on Assets (ROA), Debt–Equity Ratio (DER), and Dividend

Payout Ratio (DPR). The null hypotheses assume that there is no statistically significant difference in the financial performance of the selected CPSEs before and after disinvestment. Specifically, the study hypothesizes that there is no significant difference in the Return on Equity (ROE), Return on Assets (ROA), Debt–Equity Ratio (DER), and Dividend Payout Ratio (DPR) of the selected CPSEs during the pre- and post-disinvestment periods. These hypotheses are empirically tested using the Wilcoxon Signed-Rank Test to determine whether disinvestment has brought about significant changes in the financial and operational performance of the selected enterprises.

- H01: There is no significant difference in the Return on Equity (ROE) of selected CPSEs before and after disinvestment.
- H02: There is no significant difference in the Return on Assets (ROA) of selected CPSEs before and after disinvestment.
- H03: There is no significant difference in the Debt–Equity Ratio (DER) of selected CPSEs before and after disinvestment.
- H04: There is no significant difference in the Dividend Payout Ratio (DPR) of selected CPSEs before and after disinvestment.

Measures

Various performance measures and variables were identified from existing privatization literature to compare the financial and operating performance of disinvested CPSEs before and after disinvestment. In the hypothesized outcomes column, the index symbols A and B denote after and before disinvestment, respectively. The following outcomes are projected for the sample Central public sector enterprises depending on several empirical investigations at the national and international levels.

Table1: Measures Used in the Study

Performance Indicators	Proxies	Null Hypotheses	Hypothesized Outcomes	Formula
With regard to Profitability	Return on assets(ROA) is equal to Net income divided by Total	(Null Hypotheses) $ROA(A) = ROA(B)$	$ROA(A) > ROA(B)$ $ROE(A) >$	Net profit/total assets*100 Net
With regard to financial position	Debt equity ratio(LEV) is equal to Debt divided by Equity	$LEV(A) = LEV(B)$	$LEV(A) < LEV(B)$	Long term debt/shareholders' funds
With regard to Dividend payout	Dividend payout(PAYOUT) is equal to Dividend paid divided by Net income	$PAYOUT(A) = PAYOUT(B)$	$PAYOUT(A) > PAYOUT(B)$	Dps/Eps

Sample Profile of Selected Public Sector Enterprises

The present study examines the financial and operational performance of 15 Central Public Sector Enterprises (CPSEs) that underwent disinvestment by the Government of India between 2010–11 and 2017–18. The sample includes firms operating in diverse sectors such as electricity, mining, manufacturing, and services, thereby ensuring representation across major industries of the Indian economy. The selected companies include SJVN Ltd., Engineers India Ltd., Coal India Ltd., MOIL Ltd., National Buildings Construction Corporation Ltd. (NBCC), NMDC Ltd., Oil India Ltd., Rashtriya Chemicals and Fertilizers Ltd., Indian Oil Corporation Ltd., NHPC Ltd., Housing and Urban Development Corporation Ltd. (HUDCO), National Fertilizers Ltd., General Insurance Corporation of India (GIC), New India Assurance Company Ltd., Bharat Dynamics Ltd., and Mishra

Dhatu Nigam Ltd. The disinvestment methods adopted by the Government varied across the sample firms. These include Initial Sale of Minority Shareholding (ISMS), Subsequent Sale of Minority Shareholding (SSMS), Sale of Minority Shareholding, and Offer for Sale (OFS) through the Stock Exchange Mechanism. The percentage of equity disinvested ranged from 10.00% to 26.00%, reflecting different levels of government stake dilution based on policy objectives and market conditions.

Most of the selected enterprises underwent disinvestment through initial minority stake sales, while several firms such as Engineers India Ltd. and Mishra Dhatu Nigam Ltd. experienced subsequent minority stake sales. In addition, enterprises including NMDC Ltd., Oil India Ltd., Housing and Urban Development Corporation Ltd., and General Insurance Corporation of India were disinvested through the Offer for Sale (OFS) mechanism, enabling the Government to reduce its shareholding through the stock exchange. The disinvestment programme covered multiple financial years, beginning with 2010–11 and continuing until 2017–18, thereby capturing different phases of India's disinvestment policy. The diversity of sectors, disinvestment methods, and years of stake dilution makes the selected sample suitable for examining the impact of disinvestment on the financial and operational performance of Indian CPSEs. The heterogeneous nature of the sample enhances the generalizability of the findings and provides comprehensive insights into the effectiveness of the Government's disinvestment programme across different industries.

Methodology

The present study adopts a quantitative research design to examine the impact of disinvestment on the financial performance of selected Indian Central Public Sector Enterprises (CPSEs). The sample comprises 16 CPSEs operating across four major sectors of the Indian economy that underwent disinvestment between 2010 and 2020. The sample was selected using purposive sampling, whereby only those CPSEs in which 10% or more of the Government's equity was divested were included in the analysis. This selection criterion ensures that the sample represents firms experiencing substantial ownership dilution and enables a meaningful assessment of the effects of disinvestment. Secondary data were collected from the audited annual reports of the selected CPSEs, the Department of Investment and Public Asset Management (DIPAM), annual Public Enterprise Surveys, stock exchange disclosures, and other publicly available financial databases. Unlike many earlier Indian studies that focused on shorter observation periods or limited samples, the present study analyses disinvestment transactions undertaken over a ten-year period (2010–2020), thereby providing more recent empirical evidence on the effectiveness of India's disinvestment programme.

The financial performance of the selected CPSEs was evaluated using four widely accepted financial indicators, namely Return on Equity (ROE), Return on Assets (ROA), Debt–Equity Ratio (DER), and Dividend Payout Ratio (DPR). These indicators were selected because they capture profitability, capital structure, and shareholder returns, thereby providing a comprehensive assessment of post-disinvestment performance. Following the methodology adopted by Megginson et al. (1994), Boubakri and Cosset (1998), and D'Souza and Megginson (1999), the study evaluates enterprise performance over a seven-year observation window comprising three years before disinvestment, the year of disinvestment, and three years after disinvestment. The financial ratios were computed for each enterprise, and average values for the pre-disinvestment and post-disinvestment periods were subsequently calculated to facilitate comparative analysis.

To determine whether disinvestment resulted in statistically significant changes in financial performance, the Wilcoxon Signed-Rank Test was employed. The Wilcoxon Signed-Rank Test is a non-

parametric statistical technique that is appropriate for comparing paired observations when the assumptions of normality are not satisfied. The test examines whether the median difference between the pre-disinvestment and post-disinvestment financial indicators is statistically different from zero. Accordingly, the null hypothesis assumes that there is no significant difference in the financial performance of the selected CPSEs before and after disinvestment. The analysis was carried out separately for each financial performance indicator (ROE, ROA, DER, and DPR). The results of the Wilcoxon Signed-Rank Test were then used to determine whether disinvestment significantly influenced profitability, capital structure, and dividend distribution of the selected CPSEs. The findings were interpreted based on the corresponding test statistics and p-values to assess the acceptance or rejection of the formulated hypotheses.

Below is a complete, journal-style Results and Discussion section with illustrative tables (for formatting and learning purposes only). The numerical values are hypothetical and should be replaced with your actual results once the statistical analysis is performed.

Results and Discussion

This section presents the empirical findings on the impact of disinvestment on the financial performance of the selected Central Public Sector Enterprises (CPSEs). The analysis is based on four financial performance indicators, namely Return on Assets (ROA), Return on Equity (ROE), Debt–Equity Ratio (DER), and Dividend Payout Ratio (DPR). Initially, descriptive statistics are presented to compare the average financial performance of the selected enterprises during the three-year pre-disinvestment period and the three-year post-disinvestment period. Subsequently, the Wilcoxon Signed-Rank Test is employed to determine whether the observed differences are statistically significant. Finally, the results are interpreted with reference to the formulated hypotheses and existing literature.

Descriptive Statistics

Table 2 presents the descriptive statistics of the selected financial performance indicators before and after disinvestment. The comparison provides preliminary evidence regarding changes in profitability, financial position, and shareholder returns following the Government's equity dilution in the selected CPSEs.

Table 2. Descriptive Statistics of Financial Performance Before and After Disinvestment

Variable	Pre-disinvestment Mean	Post-disinvestment Mean	Mean Difference	Percentage Change (%)
Return on Assets (ROA)	7.84	6.92	-0.92	-11.73
Return on Equity (ROE)	16.42	14.18	-2.24	-13.64
Debt–Equity Ratio (DER)	0.94	1.08	+0.14	+14.89
Dividend Payout Ratio (DPR)	24.65	31.87	+7.22	+29.29

The descriptive statistics indicate a decline in the average profitability of the selected CPSEs after disinvestment. The mean ROA decreased from 7.84% to 6.92%, while the mean ROE declined from 16.42% to 14.18%, suggesting reduced earnings generated from assets and shareholders' equity. The average Debt–Equity Ratio increased from 0.94 to 1.08, indicating a relatively greater reliance on debt financing during the

post-disinvestment period. Conversely, the Dividend Payout Ratio increased substantially from 24.65% to 31.87%, implying that firms distributed a larger proportion of profits to shareholders after disinvestment.

Wilcoxon Signed-Rank Test Results

Although descriptive statistics indicate changes in financial performance, they do not establish whether these differences are statistically significant. Therefore, the Wilcoxon Signed-Rank Test was applied to compare the financial performance of the selected enterprises before and after disinvestment.

Table 3. Wilcoxon Signed-Rank Test Results

Financial Indicator	Negative Ranks	Positive Ranks	Z-value	p-value	Decision
ROA	11	5	-2.42	0.016	Reject H_0
ROE	12	4	-2.68	0.007	Reject H_0
Debt–Equity Ratio	7	9	-1.18	0.238	Accept H_0
Dividend Payout Ratio	3	13	-2.97	0.003	Reject H_0

The Wilcoxon Signed-Rank Test indicates that the decline in ROA ($Z = -2.42$, $p = 0.016$) and ROE ($Z = -2.68$, $p = 0.007$) is statistically significant. Therefore, the null hypotheses relating to profitability are rejected, suggesting that disinvestment significantly affected profitability, although the direction of change was negative. The Debt–Equity Ratio did not exhibit a statistically significant change ($p = 0.238$), indicating that disinvestment had no measurable impact on the capital structure of the selected enterprises. However, the Dividend Payout Ratio increased significantly ($Z = -2.97$, $p = 0.003$), demonstrating that the selected CPSEs distributed significantly higher dividends following disinvestment.

Sector-wise Analysis

To understand whether the impact of disinvestment differs across industries, sector-wise financial performance was examined for the electricity, mining, manufacturing, and service sectors.

Table 4. Sector-wise Financial Performance Before and After Disinvestment

Sector	ROA (Pre)	ROA (Post)	ROE (Pre)	ROE (Post)	DER (Pre)	DER (Post)	DPR (Pre)	DPR (Post)
Electricity	6.26	6.58	10.89	11.22	0.54	0.59	32.8	36.2
Mining	18.57	16.18	24.83	23.68	1.28	3.06	25.7	33.4
Manufacturing	5.64	4.84	11.77	10.95	0.64	0.67	18.9	27.1
Services	5.45	5.07	19.38	14.27	0.71	1.29	21.5	29.6

Sector-wise analysis reveals that only the electricity sector experienced marginal improvements in profitability after disinvestment. In contrast, the mining, manufacturing, and service sectors recorded declines in both ROA and ROE. The Debt–Equity Ratio increased across all sectors, with the mining sector showing the largest increase, indicating greater dependence on external financing. The Dividend Payout Ratio increased consistently across all sectors, suggesting that disinvestment was associated with enhanced shareholder distributions irrespective of sectoral differences.

Summary of Hypothesis Testing

The hypotheses formulated in the study were tested using the Wilcoxon Signed-Rank Test. The results are summarised in Table 5.

Table 5. Summary of Hypothesis Testing

Hypothesis	Variable	p-value	Decision	Conclusion
H ₀₁	Return on Assets (ROA)	0.016	Reject	Significant decline after disinvestment
H ₀₂	Return on Equity (ROE)	0.007	Reject	Significant decline after disinvestment
H ₀₃	Debt–Equity Ratio (DER)	0.238	Accept	No significant change
H ₀₄	Dividend Payout Ratio (DPR)	0.003	Reject	Significant increase after disinvestment

The hypothesis testing results indicate that disinvestment significantly influenced the profitability and dividend distribution of the selected CPSEs. Both ROA and ROE declined significantly during the post-disinvestment period, whereas the Dividend Payout Ratio increased significantly. However, no statistically significant difference was observed in the Debt–Equity Ratio. These findings suggest that although disinvestment improved shareholder payouts, it did not result in enhanced profitability or a stronger financial position.

Discussion of Findings

The findings of the present study indicate that the impact of disinvestment on the financial performance of the selected Central Public Sector Enterprises (CPSEs) has been mixed. While disinvestment has contributed to improved shareholder returns through higher dividend payouts, it has not generated the expected improvements in profitability and financial position. The empirical evidence demonstrates a decline in both Return on Assets (ROA) and Return on Equity (ROE) during the post-disinvestment period, suggesting that partial disinvestment alone is insufficient to enhance the operational efficiency and overall financial performance of the selected enterprises. The decline in ROA and ROE indicates that reducing the Government's ownership stake without transferring managerial control may not produce the efficiency gains typically associated with full privatization. In most of the selected CPSEs, the Government continues to retain majority ownership and strategic control even after disinvestment. Consequently, many managerial, operational, and governance practices remain largely unchanged, limiting the ability of these enterprises to achieve significant improvements in productivity, cost efficiency, innovation, and profitability. This finding supports the argument that ownership change alone cannot transform enterprise performance unless accompanied by substantial organizational and institutional reforms.

The results are broadly consistent with earlier empirical studies conducted in the Indian context. Naib (2003) reported that partial divestiture did not significantly improve the profitability of Indian public sector enterprises, although certain operational indicators showed modest improvement. Similarly, Ghosh (2008) observed that while disinvestment improved some efficiency-related measures, it did not significantly enhance profitability because government ownership and managerial influence continued after equity dilution. More recent studies by Mandiratta et al. (2020) and Phukon et al. (2020) also concluded that disinvestment by itself was insufficient to improve the financial performance of CPSEs and emphasized the importance of complementary reforms such as enhanced managerial autonomy, operational restructuring, and stronger governance mechanisms. The findings of the present study therefore reinforce the growing body of evidence suggesting that partial disinvestment has limited ability to improve profitability when

managerial control remains predominantly with the Government. In contrast, the study found a significant increase in the Dividend Payout Ratio following disinvestment. This finding indicates that the selected CPSEs distributed a larger proportion of their earnings to shareholders after the Government diluted its equity stake. The increase in dividend payouts may be attributed to greater market discipline, increased accountability towards minority shareholders, and the Government's continued preference for generating non-tax revenue through dividends from profitable public enterprises. Higher dividend payments also enhance investor confidence and improve the attractiveness of CPSEs in the capital market. However, increasing dividend distributions without corresponding improvements in profitability may not be sustainable over the long term, particularly if earnings continue to decline. Therefore, dividend policy should be supported by improvements in operational efficiency and earnings generation rather than relying solely on existing reserves or temporary profitability.

The analysis also revealed that the Debt–Equity Ratio did not change significantly after disinvestment, indicating that ownership dilution had only a limited influence on the financing decisions of the selected enterprises. This finding suggests that the capital structure of CPSEs continues to be determined by firm-specific characteristics, investment requirements, borrowing capacity, industry conditions, and government policies rather than by changes in ownership alone. The absence of significant improvement in leverage implies that disinvestment has not fundamentally altered the financial management practices of the selected enterprises. From a theoretical perspective, the findings provide only partial support for agency theory and property rights theory, which argue that reducing government ownership should improve efficiency through stronger managerial incentives, better monitoring, and enhanced accountability. While these theories have been supported in studies involving full privatization, the present findings indicate that their applicability is limited in the case of partial disinvestment, where ownership changes are not accompanied by corresponding transfers of managerial authority. The results instead suggest that corporate governance quality, managerial autonomy, strategic flexibility, and organizational restructuring play equally important roles in determining post-disinvestment performance.

The findings also carry important policy implications. The evidence suggests that the Government's disinvestment strategy should move beyond the objective of mobilizing fiscal resources and place greater emphasis on improving enterprise competitiveness and operational performance. Future disinvestment programmes should be accompanied by reforms that strengthen corporate governance, increase board independence, provide greater managerial autonomy, encourage performance-based incentives, modernize technology, improve financial discipline, and promote strategic restructuring wherever necessary. Such complementary reforms are likely to generate the efficiency gains and value creation that policymakers expect from disinvestment. Overall, the findings demonstrate that disinvestment should be viewed as one component of a broader public sector reform strategy rather than as a standalone policy instrument. Although reducing government ownership can improve market participation and shareholder returns, sustained improvements in profitability and financial performance require comprehensive institutional, managerial, and governance reforms. Consequently, the long-term success of India's disinvestment programme will depend not merely on ownership dilution but on creating more efficient, autonomous, and competitively managed public sector enterprises capable of delivering sustainable value to both the Government and private investors. This expanded discussion provides stronger integration with prior

literature, theoretical interpretation, and policy implications, making it more suitable for submission to peer-reviewed management, finance, or public policy journals.

Conclusion

The present study investigated the impact of disinvestment on the financial performance of selected Central Public Sector Enterprises (CPSEs) in India by examining enterprises that underwent government equity dilution between 2010 and 2020. The study was undertaken against the backdrop of India's ongoing economic reforms, where disinvestment has been used as an important policy instrument to reduce the government's ownership in public sector enterprises, improve operational efficiency, broaden public ownership, and mobilize financial resources. Using a seven-year observation window comprising three years before disinvestment, the year of disinvestment, and three years after disinvestment, the study assessed changes in financial performance through four widely accepted indicators, namely Return on Assets (ROA), Return on Equity (ROE), Debt–Equity Ratio (DER), and Dividend Payout Ratio (DPR). The Wilcoxon Signed-Rank Test was employed to determine whether the observed changes between the pre- and post-disinvestment periods were statistically significant. The empirical findings reveal that the impact of disinvestment on the financial performance of the selected CPSEs has been mixed rather than uniformly positive. The analysis indicates that profitability, measured through Return on Assets and Return on Equity, declined during the post-disinvestment period. These findings suggest that partial disinvestment alone has not been sufficient to enhance the operational efficiency and profitability of the selected enterprises. Although disinvestment is generally expected to improve efficiency by introducing market discipline and greater accountability, the results indicate that such benefits may not automatically materialize when the Government continues to retain majority ownership and managerial control. Consequently, the anticipated gains associated with changes in ownership structure remain limited in the context of the selected Indian CPSEs.

The study further observed that the Debt–Equity Ratio did not improve significantly following disinvestment, indicating that ownership dilution alone has had only a limited influence on the capital structure and financial leverage of the selected enterprises. This finding implies that decisions relating to financing, borrowing, and capital restructuring continue to depend on several firm-specific and industry-specific factors rather than solely on changes in government ownership. Therefore, disinvestment should not be viewed as an independent mechanism for strengthening the financial position of public enterprises without simultaneous improvements in financial management and strategic decision-making. In contrast, the Dividend Payout Ratio exhibited a noticeable improvement during the post-disinvestment period. This finding suggests that the selected CPSEs distributed a higher proportion of their earnings to shareholders after disinvestment. Higher dividend payouts may reflect increased pressure to satisfy shareholder expectations and generate returns for investors following stock market listing and wider public ownership. Moreover, the Government continues to benefit from higher dividend income despite reducing its equity stake, thereby achieving one of the important fiscal objectives of the disinvestment programme. However, improved dividend distribution in the absence of corresponding improvements in profitability raises concerns regarding the long-term sustainability of such payout policies.

Overall, the findings demonstrate that disinvestment has not produced the broad improvements in financial performance that are often associated with privatisation. The results suggest that reducing government ownership alone is insufficient to transform the operational and financial performance of public

sector enterprises. The effectiveness of disinvestment depends not only on equity dilution but also on complementary institutional and managerial reforms. These include granting greater managerial autonomy, strengthening corporate governance practices, enhancing operational efficiency, improving accountability mechanisms, encouraging innovation and technological modernization, adopting performance-based management systems, and implementing strategic restructuring wherever necessary. Without these complementary reforms, the potential benefits of disinvestment are likely to remain limited.

The findings of this study contribute to the growing body of literature on privatization and disinvestment by providing updated empirical evidence on the recent phase of India's disinvestment programme. Unlike many earlier studies that examined the initial years of economic liberalization, the present research focuses on disinvestment transactions undertaken between 2010 and 2020, thereby providing contemporary evidence on the effectiveness of the Government's policy. The study extends previous research by analysing enterprises across multiple sectors, including electricity, mining, manufacturing, and services, enabling a broader understanding of the sectoral implications of disinvestment. Consequently, the study enriches the existing empirical literature and provides useful evidence for researchers examining ownership reforms in emerging economies. From a policy perspective, the findings indicate that future disinvestment initiatives should place greater emphasis on improving enterprise governance rather than focusing exclusively on reducing government ownership. Policymakers should recognize that ownership dilution by itself may not improve enterprise efficiency unless accompanied by reforms that strengthen managerial accountability, operational flexibility, transparency, and market competitiveness. Future disinvestment strategies should therefore integrate governance reforms with ownership reforms to ensure that public sector enterprises become financially sustainable, operationally efficient, and globally competitive. Greater autonomy in managerial decision-making, stronger board independence, improved financial discipline, and continuous performance monitoring are likely to enhance the effectiveness of future disinvestment programmes.

The study also has practical implications for investors and corporate managers. Investors should evaluate disinvested CPSEs not merely on the basis of government stake reduction but also by considering improvements in operational efficiency, profitability, governance quality, and long-term growth prospects. Similarly, managers of CPSEs should view disinvestment as an opportunity to undertake organizational restructuring, improve productivity, optimize resource utilization, and enhance shareholder value through strategic reforms rather than relying solely on changes in ownership structure. Despite its contributions, the study has certain limitations. The analysis is confined to a selected sample of CPSEs that experienced disinvestment between 2010 and 2020 and considers only four financial performance indicators. The study also focuses primarily on accounting-based measures and does not incorporate market-based performance indicators, productivity measures, efficiency indices, or qualitative aspects of corporate governance. Furthermore, macroeconomic conditions, industry-specific dynamics, and firm-level strategic differences may also influence post-disinvestment performance and were not explicitly incorporated into the empirical model.

Future research may extend the present study by examining a larger sample of CPSEs covering more recent disinvestment initiatives and longer post-disinvestment periods. Researchers may also incorporate additional financial and non-financial performance indicators, including market valuation, productivity, innovation, environmental performance, corporate governance quality, and sustainability measures.

Comparative studies between fully privatised enterprises and partially disinvested enterprises may provide deeper insights into the relative effectiveness of alternative ownership structures. Furthermore, advanced econometric techniques such as panel regression models, Difference-in-Differences estimation, Propensity Score Matching, and Data Envelopment Analysis may be employed to obtain more robust evidence regarding the long-term impact of disinvestment on enterprise performance.

The study demonstrates that while disinvestment has succeeded in expanding public ownership and improving dividend distributions, it has not consistently enhanced the profitability or financial strength of the selected Central Public Sector Enterprises. The findings highlight that ownership reform should be accompanied by comprehensive organisational, financial, and governance reforms to achieve the broader objectives of efficiency, competitiveness, and sustainable value creation. The success of India's disinvestment policy will therefore depend not merely on reducing government ownership but on creating stronger, more autonomous, and better-governed public enterprises capable of competing effectively in an increasingly dynamic and competitive economic environment.

References

- Ajanthan, A. (2013). The relationship between dividend payout and firm profitability: A study of listed hotels and restaurant companies in Sri Lanka. *International Journal of Scientific and Research Publications*, 3(6), 1–6.
- Alipour, M. (2013). Has privatization of state-owned enterprises in Iran led to improved performance? *International Journal of Commerce and Management*, 23(4), 281–305.
- Anshuman, V. R. (2003). Disinvestment of PSUs: Leaving money on the table? *Economic and Political Weekly*, 38(10), 949–954.
- Arun, T. G., & Nixon, F. I. (2000). The disinvestment of public sector enterprises: The Indian experience. *Oxford Development Studies*, 28(1), 19–32.
- Astami, E. W., Tower, G., Rusmin, R., & Neilson, J. (2010). The effect of privatization on performance of state-owned enterprises in Indonesia. *Asian Review of Accounting*, 18(1), 5–19.
- Bortolotti, B., D'Souza, J., Fantini, M., & Megginson, W. L. (2002). Privatization and the sources of performance improvement in the global telecommunications industry. *Telecommunications Policy*, 26(5), 243–268.
- Boubakri, N., & Cosset, J. C. (1998). The financial and operating performance of newly privatized firms: Evidence from developing countries. *The Journal of Finance*, 53(3), 1081–1110.
- Boubakri, N., Cosset, J. C., & Guedhami, O. (2005). Liberalization, corporate governance and the performance of privatized firms in developing countries. *Journal of Corporate Finance*, 11(5), 767–790.
- Boycko, M., Shleifer, A., & Vishny, R. W. (1996). Second-best economic policy for a divided government. *European Economic Review*, 40(3), 767–774.

- Chakrabarti, A. B., & Mondal, A. (2017). Can commercialization through partial disinvestment improve the performance of state-owned enterprises? The case of Indian SOEs under reforms. *Journal of General Management*, 43(1), 5–14.
- Chen, G., Firth, M., & Zhang, W. (2008). The efficiency and profitability effects of China's modern enterprise restructuring programme. *Asian Review of Accounting*, 16(1), 74–91.
- Chittoor, R., Sarkar, M. B., Ray, S., & Aulakh, P. S. (2009). Third-world copycats to emerging multinationals: Institutional changes and organizational transformation in the Indian pharmaceutical industry. *Organization Science*, 20(1), 187–205.
- Comstock, A., Kish, R. J., & Vasconcellos, G. M. (2003). The post-privatization financial performance of former state-owned enterprises. *Journal of International Financial Markets, Institutions and Money*, 13(1), 19–37.
- D'Souza, J., & Megginson, W. L. (1999). The financial and operating performance of privatized firms during the 1990s. *The Journal of Finance*, 54(4), 1397–1438.
- Dharwadkar, B., George, G., & Brandes, P. (2000). Privatization in emerging economies: An agency theory perspective. *Academy of Management Review*, 25(3), 650–669.
- Dinc, I. S., & Gupta, N. (2011). The decision to privatize: Finance and politics. *The Journal of Finance*, 66(1), 241–269.
- Drukker, D. M. (2003). Testing for serial correlation in linear panel-data models. *The Stata Journal*, 3(2), 168–177.
- Feng, F., Sun, Q., & Tong, W. H. (2002). *Do government-linked companies necessarily underperform?* Working paper, Nanyang University.
- Gangadhar, V., & Devi, S. (2007). *Disinvestment of central public sector enterprises: An appraisal*. The Associated Publishers.
- García, L. C., & Ansón, S. G. (2007). The Spanish privatization process: Implications on the performance of divested firms. *International Review of Financial Analysis*, 16(4), 390–409.
- Ghosh, S. (2008). Does divestment matter for firm performance? Evidence from the Indian experience. *Economic Systems*, 32(4), 372–388.
- Gouri, G. (1996). Privatization and public sector enterprises in India: Analysis of the impact of a non-policy. *Economic and Political Weekly*, 31(48), M63–M74.
- Gouri, G. (1997). The new economic policy and privatization in India. *Journal of Asian Economics*, 8(3), 455–479.
- Gupta, N. (2005). Partial privatization and firm performance. *The Journal of Finance*, 60(2), 987–1015.
- Gupta, S., Jain, P. K., Yadav, S. S., & Gupta, V. K. (2011). Financial performance of disinvested central public sector enterprises in India: An empirical study on select dimensions. *Journal of Applied Finance and Banking*, 1(4), 57–74.

- Hanousek, J., Kocenda, E., & Svejnar, J. (2009). Divestitures, privatization and corporate performance in emerging markets. *Economics of Transition*, 17(2), 43–73.
- Hitt, M. A., Bierman, L., Uhlenbruck, K., & Shimizu, K. (2006). The importance of resources in the internationalization of professional service firms: The good, the bad, and the ugly. *Academy of Management Journal*, 49(6), 1137–1157.
- Huang, Z., & Wang, K. (2011). Ultimate privatization and change in firm performance: Evidence from China. *China Economic Review*, 22(1), 121–132.
- Koner, S., & Sarkhel, J. (2014). Disinvestment of public sector in India: Concept and different issues. *IOSR Journal of Economics and Finance*, 3(6), 48–52.
- Makhija, A. K. (2006). Privatization in India. *Economic and Political Weekly*, 41(20), 1947–1951.
- Malik, V. (2003). Disinvestments in India: Needed change in mindset. *Vikalpa*, 28(3), 57–64.
- Mathur, I., & Banchuenvijit, W. (2007). The effects of privatization on the performance of newly privatized firms in emerging markets. *Emerging Markets Review*, 8(2), 134–146.
- Meggison, W. L., & Boutchkova, M. K. (2000). *The impact of privatization on capital market development and individual share ownership* (Working Paper No. 53).
- Meggison, W. L., & Netter, M. J. (2001). From state to market: A survey of empirical studies on privatization. *Journal of Economic Literature*, 39(2), 321–389.
- Meggison, W. L., Nash, R. C., & Van Randenborgh, M. (1994). The financial and operating performance of newly privatized firms: An international empirical analysis. *The Journal of Finance*, 49(2), 403–452.
- Nagaraj, R. (2005). *Disinvestment and privatization in India: Assessment and options*. Asian Development Bank.
- Naib, S. (2003). Partial divestiture and performance of Indian public sector enterprises. *Economic and Political Weekly*, 38(29), 3088–3093.
- Omran, M. (2004). Performance consequences of privatizing Egyptian state-owned enterprises: The effect of post-privatization ownership structure on firm performance. *Multinational Finance Journal*, 8(1–2), 73–114.
- Peter, S., De Bruijn, E. J., & Rwegasira, K. (2010). Performance of privatized enterprises and impact of partial privatization in a developing country: Case of Sri Lanka. *Journal of Transnational Management*, 15(1), 46–68.
- Public Enterprise Survey. (2015). *Public enterprise survey 2014–15* (Vol. 1). Government of India.
- Sachdev, J. C. (1976). Disinvestment: A corporate failure or a strategic success. *Studies in Management & Organizations*, 6(1–2), 112–130.
- Sankar, T. L., Mishra, R. K., & Mohammed, A. L. S. (1994). Divestments in public enterprises: The Indian experience. *International Journal of Public Sector Management*, 7(2), 69–88.

- Singh, J., & Chittedi, K. R. (2010). Performance of public sector enterprises in India: Pre and post liberalization scenario. *The IUP Journal of Managerial Economics*, 9(3), 7–25.
- Srivastava. (2014). Disinvestment in India: An empirical study. *International Journal on Management*, 5(4), 19–24.
- Sun, Q., Tong, W. H., & Tong, J. (2002). How does government ownership affect firm performance? Evidence from China's privatization experience. *Journal of Business Finance & Accounting*, 29(1–2), 1–27.
- Vijaya Kumar, A., & Jayachitra, S. (2015). Financial and operating performance of disinvested central public sector enterprises of the manufacturing sector in India. *International Journal of Research in Commerce, IT and Management*, 5(1), 38–43.
- Wu, H. L. (2007). Exploring the sources of privatization-induced performance changes. *Journal of Organizational Change Management*, 20(1), 44–59.