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STATEMENT OF THE PROBLEM

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CONTRIBUTIONS TO BOOKS

- Sharma T., Kwatra, G. (2008) Effectiveness of Social Advertising: A Study of Selected Campaigns, Corporate Social Responsibility, Edited by David Crowther & Nicholas Capaldi, Ashgate Research Companion to Corporate Social Responsibility, Chapter 15, pp 287-303.

JOURNAL AND OTHER ARTICLES

- Schemenner, R.W., Huber, J.C. and Cook, R.L. (1987), "Geographic Differences and the Location of New Manufacturing Facilities," Journal of Urban Economics, Vol. 21, No. 1, pp. 83-104.

CONFERENCE PAPERS

- Garg, Sambhav (2011): "Business Ethics" Paper presented at the Annual International Conference for the All India Management Association, New Delhi, India, 19–22 June.

UNPUBLISHED DISSERTATIONS AND THESES

- Kumar S. (2011): "Customer Value: A Comparative Study of Rural and Urban Customers," Thesis, Kurukshetra University, Kurukshetra.

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FINANCIAL AND OPERATING PERFORMANCE OF DISINVESTED CENTRAL PUBLIC SECTOR ENTERPRISES OF MANUFACTURING SECTOR IN INDIA

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ABSTRACT

This paper examines the financial and operating performance of the disinvested CPSEs of Indian Manufacturing sector. A sample of 12 firms is drawn from various cognate group viz., Fertilizer, Heavy Engineering, Medium & Light Engineering, Petroleum (refinery & marketing) and Transportation Equipment of Indian CPSEs (Central Public Sector Enterprises). The period of analysis covers 5 years before and 5 years after disinvestment. In the present study, an attempt has been made to cover financial and operating performance of disinvested firms. As firms move from public to private ownership or both, their profitability should increase. More specifically, the present studies seek how firms' (1) profitability ratios, (2) operating efficiency, (3) output, (4) employment, (5) leverage, and (6) stock indicators are affected by disinvestment. The empirical evidence of these studies suggests that disinvestment could lead to an improvement in profitability, efficiency, outputs and stock indicators. On the other hand, although there is no consistent result with regard to the employment level and debt it is expected to decline after disinvestment. To test our predictions, the technique of Megginson et al. (1994) was followed in order to determine post disinvestment performance changes. The analysis is based on Ratio analysis, mean, median, SD, CV, CAGR value of each variable for each firm over pre and post disinvestment periods are calculated. Wilcoxon Signed-rank test and proportion test based on sign test are used as principal methods for testing significant changes in variables. Results obtained from this study are mixed. Whereas some of the sample CPSEs shows improvement in some indicator other sample CPSEs have shown decline in some indicator after disinvestment. However, in spite of mixed results the overall picture shows improvement in financial and operating performance for at least more than 41per cent of the sample.

KEYWORDS
Disinvestment; Profitability; Operating Efficiency; Output; Employment; Solvency; Stock Indicators.

INTRODUCTION

Public enterprises in most of the countries of the world, so as also in India were created to accelerate economic and social development. Jawaharlal Nehru, the first prime minister of independent India called the public sector units (PSUs) the "Temples of modern India". These 'temples' were built during an era of socialist Indian politics and planned economy (India adopted the 5 year plan model from the communist/ socialist erstwhile Soviet Union). Industrial Policy of 1956 reserved a number of strategic sectors for the exclusive participation of, and development by, the public sector. Later, in late 1970s, Indira Gandhi, the then prime minister of India, in a surge of populist socialism, nationalized most of the 'strategic' industries in the Indian economy. Public sector enterprises have been set up to serve the broad macro-economic objectives of higher economic growth, self-sufficiency in production of goods and services, long-term equilibrium in balance of payments and low and stable prices. While there were only five Central Public Sector Enterprises (CPSEs) with a total investment of Rs.29 crore at the time of the First Five Year Plan, there were as many 260 CPSEs (excluding 7 Insurance Companies) with a total investment of Rs.7, 29,228 crore as on 31st March, 2012. It was in the year 1988-89, when Prime Minister Shri Atal Bihari Vajpayee made a statement in parliament about disinvestment - "Disinvestment/ Privatization is the only Panacea for ills of loss making public sector undertakings." And soon the response from the opposition was "you can't sell the family silver to meet your daily expenditure. It is a truism which in the year 1991 triggered the politico- economic thinking of the then government leading to 'liberalization' – a historical policy shift. The Nehruvian 'commanding heights' concept was seen to have lost its relevance. The serious budgeting and fiscal deficits of the government and severe pressure on the country's balance of payments created the 'necessity.' "Necessity is the mother of invention. It took the Balance of Payments (BOP) crisis in early 1990s for the P V Narashima Rao's government and Dr. Manmohan Singh's Finance Ministry to initiate the liberalization process and the subsequent privatization process in India. With economic liberalization, post-1991, sectors that were exclusive preserve of the public sector enterprises were opened to the private sector. The CPSEs, therefore, are faced with competition from both domestic private sector companies (some of which have grown very fast) and the large Multi-National Corporations (MNCs). Disinvestment of government equity in CPSEs began in 1991-92 following the Industrial Policy Statement of 1991, which stated that the Government would divest part of its holdings (minority share-holding) in select CPSEs. Till 1999-2000, disinvestment was primarily through sale of minority shares in small lots. From 1999-2000 till 2003-04, the emphasis of disinvestment changed in favor of strategic sale. The current policy on disinvestment envisages people's ownership of CPSEs while ensuring that the Government equity does not fall below 51 per cent and Government retains management control.

CONCEPTUAL FRAMEWORK

Investment and disinvestment are two sides of the same coin. When we deal with the investment management, it automatically encompasses disinvestment also, as what is investment for one is disinvestment for another, particularly in the secondary market. If investment is an art and science; the more so is the disinvestment process. Disinvestment refers to the use of a concerted economic boycott to pressure a government, industry, or company towards a change in policy, or in the case of governments, even regime change. Investment refers to the conversion of money or cash into securities, debentures, bonds or any other claims on money. As follows, disinvestment involves the conversion of money claims or securities into money or cash." Disinvestment can also be defined as the action of an organization (or government) selling or liquidating an asset or subsidiary. In most contexts, disinvestment typically refers to sale from the government, partly or fully, of a government-owned enterprise. A company or a government organization will typically disinvest an asset either as a strategic move for the company, or for raising resources to meet general/specific needs. Disinvestment is a wider term extending from dilution of the stake of the government to a level where there is no change in the control to dilution that results in the transfer of management. The transfer of ownership may occur when in an enterprise the dilution of government ownership is beyond 51 per cent. The disinvestment implies that the government will sell to public or private enterprises / public institutes' part of its holding in public sector enterprises. Disinvestment has been a major political and economic phenomenon over the past few decades, and researchers continue to target it for both theoretical and empirical work. Since first application in Britain in 1979 under Thatcher government, privatization has come to be accepted and employed throughout the world, often under conditions of considerable controversy. Given that most socialist and communist economies from every region in the world have recently started implementing economic reform programs, the reduction in size of the public sector

through disinvestment has become an important part of such programs. Privatization has being a subject of intense global debate in recent years. The concept has received so much criticism from labour unions, academia and individuals. However in recent times, we are witnessing sweeping changes in the economics of both developed and developing countries. Several developing and transition economies have embarked on extensive privatization programs in the last two and a half decades as means of attaining macroeconomic stability, fostering economic growth and managing public sector borrowing arising from corruption, subsides and subventions to State Owned Enterprises (SOEs).

DISINVESTMENT STATUS IN INDIA

The objective of Disinvestment policy is to promote people's ownership of Central Public Sector Enterprises through increased participation of retail investors. For the first four decades after Independence, the country was pursuing a path of development in which the public sector was expected to be the engine of growth. However, the public sector overgrew itself and its shortcomings started manifesting in low capacity utilization and low efficiency due to over manning, low work ethics, over capitalization due to substantial time and cost over runs, inability to innovate, take quick and timely decisions, large interference in decision making process etc. Hence, a decision was taken in 1991 to follow the path of Disinvestment. There are primarily three different approaches to disinvestments in India (from the sellers' i.e. Government's perspective). A minority disinvestment is one such that, at the end of it, the government retains a majority stake in the company, typically greater than 51per cent, thus ensuring management control. Historically, minority stakes have been either auctioned off to institutions (financial) or offloaded to the public by way of an Offer for Sale. A majority disinvestment is one in which the government, post disinvestment, retains a minority stake in the company i.e. it sells off a majority stake. Historically, majority disinvestments have been typically made to strategic partners. Complete privatization is a form of majority disinvestment wherein 100% control of the company is passed on to a buyer.

The change process in India began in the year 1991-92, with 31 selected PSUs disinvested for Rs.3, 038 crore. In August 1996, the Disinvestment Commission, chaired by G V Ramakrishna was set up to advice, supervise, monitor and publicize gradual disinvestment of Indian PSUs. It submitted 13 reports covering recommendations on privatization of 57 PSUs. However, the Disinvestment Commission ceased to exist in May 2004. The Department of Disinvestment was set up as a separate department in December, 1999 and was later renamed as Ministry of Disinvestment from September, 2001. From May, 2004, the Department of Disinvestment became one of the Departments under the Ministry of Finance. Against an aggregate target of Rs. 54,300 crore to be raised from PSU disinvestment from 1991-92 to 2000-01, the Government managed to raise just Rs. 20,078.62 crore (less than half). The reasons for such low proceeds from disinvestment against the actual target set were: unfavorable market conditions, offers made by the government were not attractive for private sector investors, lot of opposition on the valuation process, no clear-cut policy on disinvestment, strong opposition from employee and trade unions, lack of transparency in the process and lack of political will. This was the period when disinvestment happened primarily by way of sale of minority stakes of the PSUs through domestic or international issue of shares in small tranches. The value realized through the sale of shares, even in blue chip companies like IOC, BPCL, HPCL, GAIL & VSNL, however, was low since the control still lay with the government. Most of these offers of minority stakes during this period were picked up by the domestic financial institutions. Unit Trust of India was one such major institution.

During the period from 2001-02 - 2003-04 the maximum number of disinvestments took place. These took the shape of either strategic sales (involving an effective transfer of control and management to a private entity) or an offer for sale to the public, with the government still retaining control of the management. The valuations realized by this route were found to be substantially higher than those from minority stake sales. During this period, against an aggregate target of Rs. 38,500 crore to be raised from PSU disinvestment, the Government managed to raise Rs. 21,163.68 crore. The issue of PSU disinvestment remained a contentious issue during the period from 2004-05 – 2008-09. As a result, the disinvestment agenda stagnated during this period. In the 5 years from 2003-04 to 2008-09, the total receipts from disinvestments were only Rs. 8515.93 crore. A stable government and improved stock market conditions initially led to a renewed thrust on disinvestments. The Government started the process by selling minority stakes in listed and unlisted (profit-making) PSUs. From 2009-10 onwards period saw disinvestments in companies such as NHPC Ltd., Oil India Ltd., NTPC Ltd., REC, NMDC, SJVN, EIL, CIL, MOIL, etc. are made through public offers. However, from 2011 onwards, disinvestment activity has slowed down considerably. As against a target of Rs.40, 000 crore for 2011-12, the Government was able to raise only Rs.14, 000 crore.

REVIEW OF LITERATURE

Megginson, Nash and Van Randenborgh (1994)[1] developed a proxy variable methodology to test whether a significant operational and financial performance changes exist between pre and post privatization period of divested firms. They compare both pre and post privatization 3-year average performance ratios for 61 firms in 18 countries over the period 1961-1989. The finding indicates significant increases in output, operating efficiency, profitability, capital investment spending and dividend payments are found along with significant decreases in leverage. The changes in employment after privatization are found to be insignificant. **Boubakri, Narjess, and Jean-Claude Cosset(1998)**[2] examine post-privatization financial and operating performance of 79 companies in 21 developing countries and 32 industries between 1980-1992.The study concludes that there are economically and statistically significant post-privatization increases in output (real sales), operating efficiency, profitability, capital investment spending, dividend payments, and employment as well as significant decreases in leverage.

D' Souza and Megginson (1999)[3] compared the pre- and post–privatization financial and operating performance of 85 companies in 28 countries and 21 industries that were privatized through public share offerings for the period between 19901 and 1996. Reported that privatization has led to significant increases in profitability, output, operating efficiency and dividend payments as well as a significant decrease in leverage ratios. **La Porta and Lopez-de-Silanes (1999)**[4] address significant improvements in output and sales efficiency of 218 Mexican privatized firms through June 1992, and find that the gap in performance between privatized firms and privately controlled firms narrows. They also find a significant decrease in the level of employment. **Harper (2000)**[5] examined privatization in the Czech Republic and concluded that this process resulted in improved profitability, higher efficiency and lower employment levels in divested firms in the second wave of privatization but caused the opposite results in the first divestment round. **Harper (2001)**[6] documents different findings for 178 Czech firms that were included in the first wave of voucher privatization. He concludes that profitability and efficiency decreased immediately following privatization. **Ray and Maharana (2002)**[7] have attempted to examine the progress of the process of PSEs disinvestment in India during the decade of 1991 to 2001. In terms of action to the PSEs disinvestment, very little has actually materialized. They suggest that the controversies and criticisms against disinvestment can be largely avoided through a transparent process.

Sudhir Naib (2003)[8] examined the impact of the partial divestiture of disinvested enterprises in India. The results indicate that in case of partial divestiture, where divested equity is thinly spread with the majority shareholding still the government, there has been no improvement in terms of profitability and operational efficiency. **Torero (2003)**[9] analyses the impact of privatization through a detailed statistical and econometric analysis of first difference (the difference between pre- and post-privatization performance), and second difference (change in performance of privatized firms relative to the change in performance of SOEs) of several indicators on profitability, operating efficiency, employment, leverage and convergence. The results indicate that privately owned firms are more efficient and profitable than state-owned firms. **Omran (2004)**[10] examines the performance of 54 newly privatized Egyptian firms against a matching number of SOEs. By matching sample firms (privatized) with control firms (SOEs) 94 over 1994–98.The analyses show that privatized firms do not exhibit significant improvement in their performance changes relative to SOEs.

Alovsat Muslumov (2005)[11] analyzed the impact of financial and operating performance of privatized companies in the Turkish cement industry. Document that privatization in cement industry results in significant performance deterioration. **Isnurhadi Banaluddin (2007)**[12] evaluated the impact of privatization on operating and financial performance of the privatized firms in Malaysia. The results showed that the performance proxies ROS, ROA and ROE deteriorated and real sales and net profit of the firms improved upon privatization. **Ravinder and Rupinder's (2007)**[13] study compares the pre- and post-disinvestment financial and operational performance of 15 PSEs of India that experienced partial disinvestment during the period of 1991-92 to 2002. The empirical evidence supports the positive effects of privatization on PSEs' performance. These privatized units have significantly improved the level of profitability, sales, operational efficiency, earnings per share and dividend payments after disinvestment. **Gagan Singh and Deepak Paliwal (2010)**[14] assessed the impact of disinvestment on

the financial and operating performance of competitive and monopoly units in Indian public sector enterprises. Documents that performance of monopoly firms show an improvement during the after-disinvestment period when compared to competitive firms. **Gupta Seema et al. (2011)**[15] assessed the financial performance of disinvested Central Public Sector Enterprises in India. Disinvestment has not yielded desired results in majority of dimensions, Concludes that government's intervention in operational functioning and managerial decision-making should be a matter of last resort.

Yahya Zakari Abdullahi et al. (2012)[16] investigates the financial and operating efficiency of the privatized firms in Nigeria. The period of analysis covers 5 years before, and 5 years after privatization. To test their predictions, we follow the techniques of **Megginson et al. (1994)** in order to determine post privatization performance changes. The mean values of each variable for each firm over the pre and post privatization periods are calculated. Then T-Test and Wilcoxon sign rank test are used as a principal method of testing for significant changes in the variables. Results obtained from this study are mixed. However in spite of the mixed results, the overall picture shows improvement in profitability for at least half of the firms in their sample. **Kishor C.Meher and Samiran Jana (2013)**[17] studied the impact of ownership due to strategic sale on financial performance of the privatized Pubic sector enterprises between pre and post privatization of Paradeep Phosphates Ltd, India. The various statistical tests have confirmed the significance of financial performance through improvement of short term financial position bringing liquidity in case of Paradeep Phosphates Ltd.

STATEMENT OF THE PROBLEM

The most important criticism levied against public sector undertakings has been that in relation to the capital employed, the level of profits has been too low. Even the government has criticized the public sector undertakings on this count. Of the various factors responsible for low profits in the public sector undertakings, most important among them are; price policy of public sector undertakings, under – utilization of capacity, problem related to planning and construction of projects, problems of labour, personnel and management and lack of autonomy. The government in order to put an end to these problems, decided to disinvest its stake in the PSUs (Public Sector Undertakings). The companies traditionally established as pillars of growth have now become a burden on the economy. Except few mighty oil and petroleum companies, almost all other PSUs are incurring losses. The national gross domestic product and gross national savings are also adversely affected by low returns from PSUs. About 10 to 15 per cent of the total gross domestic savings are reduced on account of low savings from PSUs. With the equity markets having come off their historic lows in March 2009, there are certain signs of recovery. However, this should not be of any concern to the Government as PSUs, being high quality paper, would always find ready investors if the pricing is reasonable. PSU disinvestment of 10 per cent as per the Government's announced intentions, at attractive prices to retail investors, could ensure a strong message to the investment community about the Government's resolve to continue with reforms. Hence, it very important to analyze the profitability performance of disinvested Central Public Sector Enterprises in India which are very far from satisfactory. Therefore, the present study is undertaken to analyze the financial and operating performance of disinvested Central Public Sector Enterprises of Indian Manufacturing Sector.

OBJECTIVES OF THE STUDY

The general objective of the study is to empirically investigate the impact of disinvestment on financial and operating performance of the selected disinvested CPSE's of manufacturing sector in India.

HYPOTHESIS

On the basis of the objectives of the study the following two main alternative hypotheses were developed for the purpose of the present study.

Ha_1 - There is a significant difference between financial performances of selected disinvested CPSEs before and after disinvestment.

Ha_2 - There is a significant difference between operating performances of selected disinvested CPSEs before and after disinvestment.

To support the above two hypothesis, six sub-hypotheses are in need of examination. These six sub-hypotheses are as follows:

1) There is a significant difference between profitability before and after disinvestment.
2) There is a significant difference between operating efficiency before and after disinvestment.
3) There is a significant difference between output before and after disinvestment.
4) There is a significant difference between employment before and after disinvestment.
5) There is a significant difference between solvency position before and after disinvestment.
6) There is a significant difference between stock indicators before and after disinvestment.

METHODOLOGY AND EMPIRICAL MODEL

As noted earlier the main purpose of this study is to examine the impact of disinvestment on the financial and operating performance of disinvested CPSEs of manufacturing sector in India. The study used secondary sources of data, which are collected from the capital market database called Centre for Monitoring Indian Economy Private Limited (Prowess CMIE). The research design used in the study is a "before- and-after" design (also known as the pre-test/post- test design). A "before and after" design can be described as two sets of cross section observations on the same population to ascertain the nature of the change in the phenomenon or variable (s), between two points of time. The change is measured by comparing the difference in the phenomenon or variables at the before and after periods. The most appropriate method in such a research is a post-event research methodology known as casual comparative method.

The research design adopted is similar to those employed by **Megginson et al. (1994), Boubakri and Cosset (1998) and D'Souza and Megginson 1999)**. Data on disinvested CPSEs for an eleven years, five years prior to the disinvestment and a five years period after the year of disinvestment for each disinvested firm in manufacturing sector were collected. According to purpose, the present research is classified as an applied research. Based on methodology and (nature, it is also presented as descriptive research. To measure the effects of disinvestment on firm performance, at first performance measures for every firm for the years before and after disinvestment was calculated. Then, the mean of each measure is computed for each firm over the before disinvestment (years –5 to –1) and after disinvestment (years +1 to +5) periods. The main objective of the study is to do a comparative analysis of disinvested firms before and after disinvestment mainly in manufacturing sector. Therefore, the research design tries to identify whether the CPSEs perform better after disinvestment.

SAMPLING DESIGN

Disinvested practices have started to implement in India since 1991. India has opted for the disinvestment for the period of 23 years (1991-92 to 2013-14). There are 260 CPSEs in India at present. Out of which only 80 CPSEs were disinvested during the period 1991-92 to 2013-14. Total disinvested enterprises till 6th July 2013 consist of 158 CPSEs. CPSE's consist of five sectors namely; Agriculture, Electricity, Manufacturing, Mining and Services. The analysis of the sectoral breakdown of the disinvestment in CPSEs in India within 1991-92 to 2013-14 shows that disinvested enterprises in manufacturing sector constitute 40.50 per cent of the total disinvestment of CPSEs which is higher than other sectors in India since 1991-92. (Table 1).

Keeping in view the scope of the study, it is decided to include all the 28 CPSEs in manufacturing sector which was disinvested during the period 1991-1992 to 2013-2014. But, owing to several constraints such as non-availability of financial statements, it was compelled to restrict the number of sample enterprises to 12 (Table 2). Thus, Multi-stage sampling technique is used. The final sample which constitutes 42.85 per cent of disinvested CPSEs of manufacturing sector in India during the time period 1991-1992 to 2013-2014 is selected using the following criteria: (i) Disinvested CPSEs should operate in manufacturing sector; (ii)Disinvested CPSEs are requested to have financial data for a period of eleven years encompassing five years before disinvestment and five years after disinvestment and (iii) The latest year of disinvestment is taken into account for the selection of sample and where there is no further dilution of stake by the government till 06 July 2013.

SELECTION OF VARIABLES

The variables that refer to the different factors that may influence disinvested firms' performance. Specifically, the study seeks to determine whether, following disinvestment, the disinvested CPSEs of manufacturing sector in India: improved their profitability. In the present study, an attempt has been made to cover

financial and operating performance of disinvested firms. As firms move from public to private ownership or both, their profitability should increase. More specifically, the present studies seek how firms' (1) profitability ratio, (2) operating efficiency, (3) output, (4) employment, (5) leverage, and (6) stock indicators are affected by disinvestment. The empirical evidence of these studies suggests that disinvestment could lead to an improvement in profitability, efficiency, outputs and stock indicators. On the other hand, although there is no consistent result with regard to the employment level and debt it is expected to decline after disinvestment. Table 3 presents variable description, performance measurement and expected results of the performance measure after disinvestment used in the present study. It focuses on the characteristics, which are examined for changes resulting from divestiture. The symbols A and B in the testable predictions stand for 'after' and 'before' divestiture.

TOOLS OF ANALYSIS

The data available in the database are computed for requirements of the study. Analysis of the data is made using various accounting, mathematical and statistical tools. The tools used for the purpose of analysis of the present study are: Ratio Analysis, Mean, median, standard deviation, co-efficient of variation, compound annual growth rate, Wilcoxon signed-ranked test is adopted to test for significant changes in the variables before and after disinvestment. The proportion test to determine whether the proportion (P) of companies experiencing changes in a given direction is greater than what would be expected by chance, typically testing whether P = 0.5 based on sign test has been employed.

EMPIRICAL MODEL

To test for the significant difference in performance change of the sample, the data are adjusted to ensure that such comparison is valid. In this method, the absolute change in mean performance for each firm are calculated as follows:

APC = Pi, t - Pi, t -1

Where:

APC is absolute performance change,

Pi, t is the mean performance after -disinvestment period, and

Pi, t -1 is the mean performance before -disinvestment period.

Overall, the data analysis is conducted using a general-purpose statistical package called SPSS. Basically, SPSS is a collection of statistical analysis routines. SPSS provides a broad range of data manipulation and transformation procedures, statistical procedures, and charting facilities. The version IBM SPSS Statistics 20 for Windows of SPSS has all the necessary statistical routines for conducting the tests required in this research. The entire set of data has been analyzed by using Statistical Package for Social Sciences (SPSS).

ANALYSIS

ANALYSIS OF FINANCIAL AND OPERATING PERFORMANCE BEFORE AND AFTER DISINVESTMENT

This section, present and discuss the empirical results for financial and operating performance. It is examined whether the financial and operating performance of selected 12 disinvested manufacturing Central Public Sector Enterprises have improved after they were disinvested. In the present study, an attempt has been made to cover financial and operating performance of disinvested firms. As firms move from public to private ownership or both, their profitability should increase. More specifically, the present studies seek how firms' (1) profitability ratio, (2) operating efficiency, (3) output, (4) employment, (5) leverage, and (6) stock indicators are affected by disinvestment. The empirical evidence of these studies suggests that disinvestment could lead to an improvement in profitability, efficiency, outputs and stock indicators. On the other hand, although there is no consistent result with regard to the employment level and debt it is expected to decline after disinvestment.

ANALYSIS OF PROFITABILITY CHANGES BEFORE AND AFTER DISINVESTMENT

The primary objective of disinvestment has been to enhance operational efficiency leading to better/higher profitability. Therefore, profitability ratios are relatively of higher significance than liquidity and solvency ratios. Public Sector Enterprises (PSEs) are often chronically unprofitable. They need to pursue objectives like maximizing employment or providing goods or services at heavily subsidized prices erode the goal of profit maximization. As a consequence, PSEs often are unprofitable. A change in ownership structure leads to a shift in company's objective towards profit maximization, resulting in increased profitability. Hence, it is expected that profitability to increase after disinvestment took place. To attain this objective, the following profitability ratios have been computed and analyzed for the selected disinvested CPSEs of Indian manufacturing sector during the period of study. First, profitability has been measured on the basis of return on sales by employing Operating Profit Margin (OPM) and Net Profit Margin (NPM) Ratios. Secondly, on the basis of rate of return on investment includes Return on Capital Employed (ROC), Return on Total Assets (ROA) and Return on Equity (ROE). Table 4 depicts the overall changes in profitability performance of whole sample before and after disinvestment. The mean (median) changes in OPM, NPM, ROC, ROA and ROE from 7.288 (7.919), -4.506 (-6.045), -3.688 (-4.272), 1.249 (0.857) and 16.437 (17.090) before disinvestment to 9.300 (10.743), 4.656 (5.342), 12.237 (11.967), 6.228 (6.341) and 15.225 (18.883) after disinvestment, respectively. The results show that mean changes in OPM, NPM, ROC and ROA are positive after divestiture. To find the significance difference between median before disinvestment and median after disinvestment Wilcoxon Signed-Rank test is applied. The findings indicate that OPM, NPM and ROE show statistically insignificant based on Wilcoxon Signed-Rank test. The Standard Deviation (SD) of OPM and ROA has become more volatile after disinvestment. The Coefficient of Variation (CV) showed an erratic fluctuation in profitability measures of selected disinvested CPSEs after disinvestment. The changes in Compound Annual Growth Rate (CAGR) of all the profitability indicators were positive after disinvestment.

Table 5 shows the proportion test results based on Sign test for significant increase in profitability ratios after disinvestment. The mean changes in profitability ratio were positive after disinvestment except for ROE. Only 41.67 per cent of the sample companies show increase in OPM, 58.33 per cent of the sample companies experience increases in ROE after disinvestment, 66.67 per cent of the sample companies show increase in NPM and 83.33 per cent of the sample companies show increase in ROC and ROA after disinvestment. The increase in the above mentioned profitability measures are equally significant at as low as 41.67 per cent and as high as 83.33 per cent of the sample companies. Though, the increase in OPM, NPM and ROE is not statistically significant. Thus, the findings tend to contrast the benchmark studies **(Megginson et al., 1994; Boubakri and Cosset, 1998)**. Obviously, the findings reveal that disinvestment has no positive effect on profitability. So the hypothesis that disinvestment associates with improvement in company profitability is rejected strongly in the case of Indian Manufacturing Sector.

ANALYSIS OF OPERATING EFFICIENCY CHANGES BEFORE AND AFTER DISINVESTMENT

One important role of disinvestment is to achieve the best allocation of resources, whatever, financial, human or technological. Given that, operating efficiency is expected to improve after divestiture. Disinvested firms therefore should try to employ their resources more efficiently. To capture the ability of the firms to extract maximum output from any given level of inputs, disinvestment is expected to result in increased operating efficiency. To test this prediction, two indicators of operating efficiency are used; inflation-adjusted sales per employee and inflation adjusted net income after tax per employee. Both ratios are computed as an index, defined to be unity for year 0 (the year of disinvestment), with the other years being expressed relative to unity. One of objectives of government to disinvest CPSEs is the greater stress to generate profits. A change in ownership structure leads to a shift in company's objective towards profit maximization, resulting in increased profitability. The profitability of a productive activity would depend upon the revenue realized from the output and the cost incurred in raising that output. Disinvestment when correctly conceived should foster efficiency, stimulate investment and yield a corresponding increase in operating efficiency. Hence, it is expected that operating efficiency to improve after disinvestment since profits are expected to rise. Sales efficiency and net income efficiency is calculated for appraising the operating efficiency performance of the selected disinvested Central Public Sector Enterprises of Indian manufacturing sector. In computing real operating efficiency the nominal sales and net income after tax are deflated using appropriate consumer price index (CPI) values taken from the **Labour Bureau, Government of India Statistics'**. To present clear and easy to interpret figures, the deflated sales revenue data were normalized to 1.000 in year 0 (the year of disinvestment) so that other year figures are expressed as a fraction of operating efficiency of the year of disinvestment**.**

Table 4 depicts the overall changes in operating efficiency performance of whole sample before and after disinvestment. The mean (median) changes in sales efficiency and net income efficiency from 0.925 (0.890) and 1.624 (1.650) before disinvestment to 2.495 (2.288) and 0.506 (0.659) after disinvestment, respectively. The results shows that mean change in sales efficiency are positive and net income efficiency are negative after divestiture. The changes in sales efficiency and net income efficiency have increased by 169.62 and decreased by -68.82 percentages respectively, after disinvestment. To find the significance difference between median before disinvestment and median after disinvestment Wilcoxon Signed-Rank test is applied. The findings indicate that sales efficiency show statistically significant at one per cent level based on Wilcoxon Signed-Rank test. The Standard Deviation (SD) of operating efficiency has become more volatile after disinvestment. The Coefficient of Variation (CV) showed a high fluctuation in operating efficiency measures of selected disinvested CPSEs after disinvestment. The Compound Annual Growth Rate (CAGR) of the sales efficiency was positive, whereas, CAGR was negative for net income efficiency after disinvestment. Table 5 shows the proportion of firms that changed as predicted based on sign test for significant increase in operating efficiency after disinvestment. The overall mean changes in sales efficiency were positive after disinvestment. Only 91.67 per cent of the sample companies show increase in sales efficiency and 58.33 per cent of the sample companies show increase in net income efficiency after disinvestment. The findings revealed that, the increase in sales efficiency is statistically significant; the hypothesis that disinvestment associates with improvement in sales efficiency is accepted strongly in the case of Indian Manufacturing Sector.

ANALYSIS OF OUTPUT CHANGES BEFORE AND AFTER DISINVESTMENT

Successful disinvestments are typically characterized not only by increase profitability, efficiency and investment spending but also by new growth and higher output. As a proxy for output, inflation adjusted sales levels for before and after disinvestment period are used, normalized to unity for the year of disinvestment (year 0). Government hope and expect that real sales will increase after disinvestment because newly disinvested firms now have better incentives, more flexible financing opportunities, increased competition and greater scope for entrepreneurial initiatives **Boubakri & Cosset (1998) and Megginson et al.,(1994)**. On the other hand, **Boycko, Shleifer and Vishny (1993)** argue that effective disinvestment will lead to reduction in output, since government can no longer entice managers (through subsidies) to maintain inefficiently high output levels Disinvestment when correctly conceived should foster efficiency, stimulate investment and yield a corresponding increase in output. Hence, it is expected that output to increase after disinvestment since profits are expected to rise. Real sales are calculated for appraising the output performance of the selected disinvested Central Public Sector Enterprises of Indian manufacturing sector. In computing real sales the nominal sales are deflated using appropriate consumer price index (CPI) values taken from the **Labour Bureau, Government of India Statistics'**. To present clear and easy to interpret figures, the deflated sales revenue data were normalized to 1.000 in year 0 (the year of disinvestment) so that other year figures are expressed as a fraction of output of the year of disinvestment**.**

Table 4 depicts the overall changes in output performance of whole sample before and after disinvestment. The mean (median) changes in real sales from 0.912 (0.873) before disinvestment to 2.288 (2.192) after disinvestment, respectively. The results shows that mean change in real sales are positive after divestiture. The change in output has increased by 150.81percentages after disinvestment. To find the significance difference between median before disinvestment and median after disinvestment Wilcoxon Signed-Rank test is applied. The findings indicate that real sales show statistically significant based on Wilcoxon Signed-Rank test. The Standard Deviation (SD) has become more volatile after disinvestment. The Coefficient of Variation (CV) showed a high fluctuation in output measures of selected disinvested CPSEs after disinvestment. The Compound Annual Growth Rate (CAGR) of the output indicators was positive after disinvestment. Table 5 shows the proportion of firms that changed as predicted based on sign test for significant increase in real sales after disinvestment. The overall mean changes in output were positive after disinvestment. Only 83.33 per cent of the sample companies show increase in output after disinvestment. The findings revealed that, the increase in output is statistically significant; the hypothesis that disinvestment associates with improvement in company are output is accepted strongly in the case of Indian Manufacturing Sector.

ANALYSIS OF EMPLOYMENT CHANGES BEFORE AND AFTER DISINVESTMENT

One could argue that disinvestment will increase the level of employment as far as disinvested firms will target more growth and expand their investment spending, in turn; they will be able to produce more job vacancies. On the other hand, it is confirmed that most of the PSEs tend to be over-staffed as one objective of establishing the public sector is creating many employment opportunities as possible. In this sense, extensive layoffs are expected to take place because of the style of new management, since social aspects will not be considered in favour of business objectives. The great fear which most governments have expressed is that, the objectives of efficiency and profitability as a result of disinvestment can only be achieved at the cost of large scale job losses. From theoretical view points, as priority is given to minimize the cost in the initial step, in the short run, the level of employment will slump. However, in the long-run as the cost efficiency results in lower production costs, the number of employment will increase. In other words, people expect large declines in employment following disinvestment. Hence, it is expected that employment to decline after disinvestment took place. Number of Employees is used as a measure for appraising the employment levels of the selected disinvested Central Public Sector Enterprises of Indian manufacturing sector. According to the literature, the effect of disinvestment on employment is ambiguous. **MNR (1994) and Boubakri and Cosset(1998)** reported an increase in employment after disinvestment while other authors **La Porta and Lopez-De-Silanes (1999)** found a significant decline in number of employees after disinvestment. Hence, it is necessary to analyze the employment levels by computing the average employment levels before disinvestment and after disinvestment periods in order to ascertain whether employment has actually fallen after disinvestment.

Table 4 depicts the overall changes in employment level of whole sample before and after disinvestment. The mean (median) changes in number of employees from 13816 (13781) before disinvestment to 12897 (12896) after disinvestment, respectively. The results shows that mean change in number of employees have declined after divestiture. The change in number of employees has fallen by -6.649 percentages after disinvestment. To find the significance difference between median before disinvestment and median after disinvestment Wilcoxon Signed-Rank test is applied. The findings indicate that number of employees show statistically insignificant based on Wilcoxon Signed-Rank test. The Standard Deviation (SD) has become more volatile after disinvestment. The Coefficient of Variation (CV) showed a high fluctuation in employment level of selected disinvested CPSEs after disinvestment. The in Compound Annual Growth Rate (CAGR) of the employment indicators was negative after disinvestment. Table 5 shows the proportion of firms that changed as predicted based on Sign test for significant decrease in employment level after disinvestment. The overall mean changes in employment ratio were negative after disinvestment. Only 72.73 per cent of the sample companies showed decrease in employment level after disinvestment. The findings revealed that, the decrease in level of employment are statistically insignificant based on Sign test, the hypothesis that disinvestment associates with decline in company's employment are rejected in the case of Indian Manufacturing Sector.

ANALYSIS OF SOLVENCY CHANGES BEFORE AND AFTER DISINVESTMENT

The term financial position generally refers to short-term and long-term solvency of the business concern, indicating safety of different interested parties. Basically, solvency ratios look at long-term debt obligations while liquidity ratios look at working capital items on a firm's balance sheet. In this section, solvency ratios are analyzed to find judicious use of funds to meets its long-term liabilities. The lower a company's solvency ratios, greater the profitability that it will default on its debt obligations. PSEs, particularly in developing countries, are typically encumbered by large debts, causing many to have negative net worth. PSEs often receive explicit or implicit government debt guarantees and are, therefore, able to borrow at relatively low costs. The removal of debt guarantees in post-disinvestment period should lead to higher borrowing costs. On the other hand, disinvested firms will have more opportunities to access public equity markets. In order to place a greater priority on improving the financial soundness of the disinvested CPSEs of manufacturing sector in India, solvency ratios are expected to drop after disinvestment. There are several reasons why solvency should decline after disinvestment, for one thing, CPSEs traditionally have extremely high debt levels at least partly because they cannot sell equity to private investors, and thus the only equity available to the firms are capital injections and retained earnings **(Megginson et al. 1994)**. After disinvestment it is expected that there will be decrease in the proportion of debt in capital structure both because of the state's withdrawal of debt guarantees and increase in enterprises costs of borrowing. This is based on the fact that a state-owned enterprise has much more debt capacity than a private firm. Furthermore, credit rating of public firms is assumed to be higher than for private ones, given no-default risk of government activities. Hence, disinvested firms would experience lower ratings and higher costs of debt. The increased cost of debt will result in the firms adjusting their capital structures. Hence, it is expected that solvency to decline after disinvestment took place. The solvency ratios measures long-term financial

position of a firm and the extent to which the firm relied on debt to finance assets. It is establishes the relationship between funds supplied by owners of a firm and those provided by creditors of a firm. The changes in solvency of disinvested CPSEs have been measured by employing Debt-Equity Ratio (DER), Interest Cover Ratio (ICR), Proprietary Ratio (PR) and Long-term Debt Ratio (LDR).

Table 4 depicts the overall changes in solvency of whole sample before and after disinvestment. The mean (median) changes in DER, ICR, PR and LDR from 0.250 (0.100), 5.551 (5.345), 0.157 (0.169) and 0.245 (0.237) before disinvestment to 0.060 (0.180), 17.894 (11.697), 0.220 (0.243) and 0.153 (0.146) after disinvestment, respectively. The results show that mean changes in DER and LDR are negative after divestiture. However, ICR and PR show positive changes before and after disinvestment with mean value of 12.343 and 0.063, respectively. To find the significance difference between median before disinvestment and median after disinvestment Wilcoxon Signed-Rank test is applied. The findings indicate that only ICR show statistically significant increase based on Wilcoxon Signed-Rank test. The Standard Deviation (SD) of ICR and LDR has become more volatile after disinvestment. The Coefficient of Variation (CV) showed an erratic fluctuation in DER, ICR and LDR of selected disinvested CPSEs after disinvestment. The Compound Annual Growth Rate (CAGR) of all the solvency indicators was negative after disinvestment. Table 5 shows the prediction test results based on Sign test for significant improvement in solvency ratios after disinvestment. The mean changes in solvency ratios were negative after disinvestment except for ICR and PR. Only 41.67 per cent of the sample companies changed as predicted in PR, 66.67 per cent of the sample companies experienced decline in DER and LDR after disinvestment and 91.67 per cent of the sample companies show improvement in ICR due to positive change in mean value after disinvestment. The improved performance in the above mentioned solvency measures are equally significant at as low as 41.67 per cent and as high as91.67 per cent of the sample companies. Though, the changes in all the solvency measures are not statistically significant except for ICR based on findings of the Sign test. Hence, the hypothesis is rejected.

ANALYSIS OF CHANGES IN STOCK INDICATORS BEFORE AND AFTER DISINVESTMENT

The more important objective of financial management is to maximize the shareholders wealth or maximize the value of the shares in the market. The financial aim in the firm is also to maximize the market value per share in the market. People buy stock to invest in a company. Generally, investors are accustomed to judge companies in the context of the share market, with the help of 'Earnings Per Share', Book value per common share and Dividend payout ratio. Hence, it is expected that Earnings Per Share, Book value per share and dividend payments should increase after disinvestment since profits are expected to rise. This section, present and discuss the empirical results for stock performance. It is examined whether the Earnings Per Share and Book value per common share performance of selected 12 disinvested manufacturing Central Public Sector Enterprises have improved after they were disinvested. As only 7 out of 12 selected disinvested manufacturing Central Public Sector Enterprises have paid dividend during the period of study, dividend payout ratio is examined only for the companies who paid dividend and it is expected to improve after disinvestment. Table 4 depicts the overall changes in stock indicators performance of whole sample before and after disinvestment. The mean (median) changes in EPS, Book value per share and Dividend Payout ratio from 82.740 (34.523), 120.984 (154.963) and 24.218 (22.266) before disinvestment to 29.001 (22.298), 34.405 (34.036) and 24.521 (23.627) after disinvestment, respectively. The results shows that mean change in EPS and Book value per common shares are negative after divestiture. The change in EPS and book value per common share o has fallen by -64.950 and -71.56 percentages after disinvestment, respectively. Dividend Payout ratio has increased by 1.25 per cent after disinvestment. To find the significance difference between median before disinvestment and median after disinvestment Wilcoxon Signed-Rank test is applied. The findings indicate that stock performance show statistically insignificant based on Wilcoxon Signed-Rank test. The Standard Deviation (SD) has become less volatile after disinvestment. The Coefficient of Variation (CV) showed a high fluctuation in stock performance of selected disinvested CPSEs after disinvestment. The Compound Annual Growth Rate (CAGR) of the stock indicators was negative after disinvestment.

Table 5 shows the proportion of firms that changed as predicted based on sign test for significant increase in stock indicators after disinvestment. The overall mean changes in Earnings Per Share and Book value per share were negative after disinvestment. Only 83.33 per cent of the sample companies show increase in EPS after disinvestment. The findings revealed that, the increase in EPS is statistically significant, the hypothesis that disinvestment associates with improvement in company's Earnings Per Share is accepted strongly in the case of Indian Manufacturing Sector. 58.33 per cent and 42.86 per cent of the sample companies showed improvement in Book value per share and Dividend Payout ratio, respectively. The findings revealed that the proportion of companies that changed as predicted is statistically insignificant based on Sign test. Hence, the hypothesis is rejected.

CONCLUSION

The study examined the overall financial and operating performance of 12 disinvested CPSEs of Indian Manufacturing Sector by comparing before and after disinvestment performance. The indicators used are profitability, operating efficiency, output, employment, solvency and stock indicators. The results, albeit mixed, return on capital employed, return on total assets, interest cover ratio, operating efficiency and output showed a significant improvement after disinvestment. The findings revealed that there was a decline in return on net worth, employment, debt, EPS and book value per share after disinvestment but it was statistically insignificant. Operating profit margin, net profit margin and dividend payout ratio have improved after disinvestment. However, in spite of mixed results the overall picture shows improvement in all the indicators for at least more than 41 per cent of the sample.

REFERENCES

1. Megginson, William, Robert Nash, and Matthias van Randenborgh. (1994). "The financial and Operating Performance of Newly Privatized Finns: An International Empirical Analysis", *Journal of Finance,* 49: 403-452.
2. Boubakri, Narjess and Jean-Claude Cosset. (1998). "The Financial and Operating Performance of Newly-Privatized Firms: Evidence from Developing Countries", *Journal of Finance,* 53: 1081-1110.
3. D' Souza, J. and W. L. Megginson (1999). "The Financial and Operating Performance of Privatized Firms during 1990s", *The Journal of Finance,* 54(4): 1397-1438.
4. La Porta, R. and F. Lopez-de-Silanes (1999). "Benefits of Privatization: Evidence from Mexico", *Quarterly Journal of Economics*, 114: 1193-1242.
5. Harper, J. T. (2000). "The Performance of Privatized Firms in the Czech Republic." Working Paper, Florida Atlantic U., Boca Raton.
6. Harper, J. (2001). "Short-term effects of privatization on performance in the Czech Republic", *Journal of Financial Research,* 24 (1): 119-31.
7. Ray, K.K. and Maharana, S. (2002). "Restructuring PSEs through Disinvestment: Some Critical Issues", *Pratibimba, The Journal of MIS,* 2(2): 56-62.
8. Sudhir Naib (2003). "Partial Divestiture and Performance of Indian Public Sector Enterprises", *Economic and Political Weekly,* Pp. 3088 to 3093.
9. Torero, M. (2003). "Peruvian privatization: Impacts on firm performance", Research Network, Working paper No.R-481, Inter-American Development Bank, Washington, D.C.
10. Omran, M. (2004). "The Performance of State-Owned Enterprises and Newly Privatized Finns: Does Privatization Really Matter?", *World Development*. 32(6): 1019-1041.
11. Alovsat Muslumov (2005). "The Financial and Operating Performance of Privatized Companies in Turkish Cement Industry", *METU Studies in Development*, 32: 59-101.
12. Isnurhadi Banaluddin (2007). *"The operating and financial performance of newly privatized state-owned enterprises in Malaysia"* Doctoral Thesis, June 2007.
13. Ravinder Vinayek and Rupinder (2007). "The Effects of Disinvestment on Financial and Operational Performance of Public Sector Enterprises: Some Reflections", *The Journal of Institution of Public Enterprise*, Vol. 30, Nos. 1 and 2
14. Dr. Gagan Singh and Dr. Deepak Paliwal (2010). "Impact of Disinvestment on the Financial and Operating Performance of Competitive and Monopoly Units of Indian Public Sector Enterprises", *International Journal of Research in Commerce and Management*, Volume No. 1, Issue No. 2, June 2010.
15. Gupta Seema , P.K. Jain, Surendra S. Yadavand and V.K. Gupta (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): 57-106 ISSN: 1792-6580 (print version), 1792-6599 (online) International Scientific Press.

16. Dr.Yahya Zakari Abdullahi, Dr.(Mrs.) Hussainatu Abdullahi and Dr. Yelwa Mohammed (2012), "Privatization and firm Performance: An Empirical Study of selected Privatized Firms in Nigeria", *Mediterranean Journal of Social Sciences,* Vol. 3(11), November 2012.
17. Dr. Kishor C. Meher and Dr. Samiran Jana (2013). "Bottom Line of Divested PSE's in Post Privatization Scenario", *4D International Journal of Management and Science*, ISSN No: 2250-0669 @4D Crossconnect.com, Inc, 2012. www.4dinternationaljournal.com Vol. 3, Issue1, 2013 page 10 to 26.

TABLES

TABLE 1: DISINVESTMENT BASED ON SECTOR FROM 1991-92 TO 2013-14 (As on 06 July 2013)

Sector	No. of Enterprises Disinvested	No. of Disinvestments	% of Disinvestment to Total No. of Disinvestments
Agriculture	-	-	-
Electricity	6	9	5.70
Manufacturing	28	64	40.50
Mining	11	31	19.60
Services	35	54	34.20
Total	**80**	**158**	**100**

Source: Department of Disinvestment, Ministry of Finance, Government of India.

TABLE 2: SAMPLE BASED ON DIFFERENT APPROACHES TO DISINVESTMENTS

Cognate Group	Name of the enterprise	Latest year of disinvestment Year	Type of disinvestment	% stake disinvested	% residual equity with govt.
Fertilizers	Paradeep Phosphates Ltd.	2001-02	Majority	74	26
Heavy Engineering	Bharat Heavy Electricals Ltd.	1994-95	Minority	32.26	67.72
	Jessop & Company Ltd.	2003-04	Majority	72	27
	Lagan Jute Machinery Company Ltd.	2000-01	Majority	74	26
Medium & Light Engineering	Bharat Electronics Ltd.	1994-95	Minority	24.16	75.86
	Maruti Udyog Ltd.	2007-08	Complete Privatization	45.79	0
Petroleum (refinery & Marketing)	Bongaigaon Refinery & petrochemicals Ltd.	2000-01	Complete Privatization	100	0
	Gail (India) Ltd.	2003-04	Minority	42.65	57.34
	Hindustan Petroleum Corporation Ltd.	1994-95	Minority	48.57	51.07
	Indian Oil Corporation Ltd.	1999-00	Minority	17.84	82.16
	Madras Refineries Ltd.	2000-01	Complete Privatization	68.73	0
Transportation Equipment	Bharat Earth Movers Ltd.	1994-95	Minority	39.26	60.81

Source: Department of Disinvestment, Ministry of Finance, Government of India.

TABLE 3: TESTABLE PREDICTIONS OF FINANCIAL AND OPERATING PERFORMANCE INDICATORS

Characteristic	Proxies	Testable Prediction
1. Profitability	Operating Profit Margin Ratio (OPM) = PBIDTA/Total Sales*100	$OPM_A > OPM_B$
	Net Profit Margin Ratio (NPM) = PAT/Total Sales*100	$NPM_A > NPM_B$
	Return on Capital Employed (ROC) = PAT/Capital Employed*100	$ROC_A > ROC_B$
	Return on Total Assets (ROA) = PAT/Total Assets*100	$ROA_A > ROA_B$
	Return on Net worth (ROE) = PAT/Net worth*100	$ROE_A > ROE_B$
2. Operating Efficiency	Sales Efficiency (SE) = Real Sales/Number of Employees	$SE_A > SE_B$
	Net Income Efficiency (NIE) = Real Net Income/ Number of Employees	$NIE_A > NIE_B$
3. Output	Real Sales (RS) = Nominal Sales/ Consumer Price Index	$RS_A > RS_B$
4. Employment	Employment (EMP) = Number of Employees	$EMP_A < EMP_B$
5. Solvency	Debt-Equity ratio (DER)= Debt/Equity	$DER_A < DER_B$
	Interest cover ratio (ICR) = PBIT/Fixed Interest Charges	$ICR_A > ICR_B$
	Proprietary ratio (PR) = Shareholders Fund/ Total Tangible Assets	$PR_A < PR_B$
	Long-term debt ratio (LDR)= Long-term Borrowing/Total Tangible Assets	$LDR_A < LDR_B$
6. Stock Indicators	Earnings per share (EPS) = (NPAT-Preference Dividend)/ Number of Equity Shares	$EPS_A > EPS_B$
	Book value per share (EPS) = Equity Shareholders Fund/ Number of Equity Shares	$BVPS_A > BVPS_B$
	Dividend Payout Ratio (DPR) = Equity Dividend/Net Profit after tax and Preference Dividend *100	$DPR_A > DPR_B$

Source: Megginson et al (1994).

TABLE 4: SUMMARY OF TEST FOR SIGNIFICANCE CHANGES IN FINANCIAL AND OPERATING PERFORMANCE FOR THE FULL SAMPLE

Characteristics	Variables	Combined Performance Statistics	Disinvestment		Change (After - Before)	Percentage of Change (%)	Wilcoxon test (After-Before)	
			Before	After			Z - Statistic	P - Value
Profitability Ratios	Operating Profit Margin Ratio	Mean	7.288	9.300	2.012	27.61	-0.784	0.433
		Median	7.919	10.743	2.824	35.66		
		SD	4.451	4.637	0.186	4.19		
		CV	-17.386	1.398	18.785	108.04		
		CAGR (%)	-34.51	-30.806	3.704	10.73		
	Net Profit Margin Ratio	Mean	-4.506	4.656	9.162	203.31	-1.255	0.209
		Median	-6.045	5.342	11.387	188.37		
		SD	6.587	3.140	-3.446	-52.32		
		CV	0.008	2.955	2.946	35419.81		
		CAGR (%)	-48.981	-20.528	28.452	58.09		
	Return on Capital Employed	Mean	-3.688	12.237	15.926	431.8	-2.510	0.012*
		Median	-4.272	11.967	16.238	380.14		
		SD	9.817	7.433	-2.384	-24.29		
		CV	0.018	2.053	2.035	11357.47		
		CAGR (%)	-48.959	-20.89	28.069	57.33		
	Return on Total Asset	Mean	1.249	6.228	4.979	398.55	-2.197	0.028*
		Median	0.857	6.341	5.484	640.18		
		SD	3.710	4.020	0.311	8.38		
		CV	0.006	-0.463	-0.468	-8190.16		
		CAGR (%)	-47.695	-19.998	27.697	58.07		
	Return on Net Worth	Mean	16.437	15.225	-1.213	-7.38	-0.784	0.433
		Median	17.09	18.883	1.793	10.49		
		SD	15.626	15.464	-0.162	-1.04		
		CV	0.408	0.490	0.082	20.12		
		CAGR(%)	-63.028	-42.04	20.988	33.3		
Operating Efficiency	Sales Efficiency	Mean	0.925	2.495	1.570	169.62	-2.943	0.003**
		Median	0.890	2.288	1.398	157.19		
		SD	0.169	1.634	1.465	867.26		
		CV	0.212	0.426	0.214	100.69		
		CAGR (%)	4.616	25.677	21.061	456.25		
	Net Income Efficiency	Mean	1.624	0.506	-1.117	-68.82	-0.078	0.937
		Median	1.650	0.659	-0.991	-60.08		
		SD	0.811	1.721	0.910	112.15		
		CV	0.410	-0.415	-0.825	-201.18		
		CAGR (%)	-39.143	-11.669	27.474	-70.19		
Output	Real Sales	Mean	0.912	2.288	1.376	150.81	-2.746	0.006**
		Median	0.873	2.192	1.320	151.27		
		SD	0.156	1.373	1.217	782.63		
		CV	0.222	0.411	0.189	85.19		
		CAGR (%)	4.172	24.317	20.146	482.89		
Employment	No. of Employees	Mean	13816	12897	-919	-6.649	-1.423	0.155
		Median	13781	12896	-885	-6.421		
		SD	326.558	342.389	15.831	4.848		
		CV	0.03	0.028	-0.002	-6.223		
		CAGR (%)	-0.281	-0.937	-0.657	-234.157		

*Significant at 5% level and **Significant at 1% level.

Source: Computed.

TABLE 4 (Continued): SUMMARY OF TEST FOR SIGNIFICANCE CHANGES IN FINANCIAL AND OPERATING PERFORMANCE FOR THE FULL SAMPLE

Characteristics	Variables	Combined Performance Statistics	Disinvestment		Change (After - Before)	Percentage of Change (%)	Wilcoxon test (After-Before)	
			Before	After			Z - Statistic	P - Value
Solvency	Debt-Equity Ratio	Mean	0.250	0.060	-0.191	-76.149	-1.177	0.239
		Median	0.100	0.180	0.080	80.217		
		SD	0.656	0.521	-0.135	-20.613		
		CV	0.122	0.728	0.606	497.587		
		CAGR (%)	-28.354	-20.272	8.083	28.506		
	Interest Cover Ratio	Mean	5.551	17.894	12.343	222.340	-2.981	0.003**
		Median	5.345	11.697	6.352	118.834		
		SD	4.277	16.285	12.007	280.723		
		CV	-0.048	0.879	0.927	1920.837		
		CAGR (%)	-13.500	-17.477	-3.977	-29.460		
	Proprietary Ratio	Mean	0.157	0.220	0.063	40.085	0.000	1.000
		Median	0.169	0.243	0.073	43.258		
		SD	0.132	0.100	-0.032	-24.280		
		CV	0.230	0.088	-0.141	-61.506		
		CAGR (%)	-8.995	-20.002	-11.007	-122.360		
	Long-term Debt Ratio	Mean	0.245	0.153	-0.092	-37.636	-0.902	0.367
		Median	0.237	0.146	-0.091	-38.296		
		SD	0.063	0.066	0.003	4.617		
		CV	0.285	0.601	0.316	110.728		
		CAGR (%)	4.215	-19.528	-23.743	-563.332		
Stock Indicators	Earnings Per Share	Mean	82.740	29.001	-53.740	-64.950	-1.255	0.209
		Median	34.523	22.298	-12.225	-35.410		
		SD	243.874	60.955	-182.919	-75.010		
		CV	1.724	0.450	-1.274	-73.890		
		CAGR (%)	-76.620	-11.984	64.636	-84.360		
	Book Value Per Share	Mean	120.984	34.405	-86.579	-71.560	-0.471	0.638
		Median	154.963	34.036	-120.927	-78.040		
		SD	83.035	7.426	-75.609	-91.060		
		CV	0.074	0.452	0.378	513.820		
		CAGR (%)	-16.056	-9.724	6.332	-39.440		
	Dividend Payout Ratio	Mean	24.218	24.521	0.302	1.250	-0.169	0.866
		Median	22.266	23.627	1.361	6.110		
		SD	7.158	6.656	-0.502	-7.010		
		CV	0.346	0.268	-0.078	-22.540		
		CAGR (%)	1.490	-0.995	-2.484	-166.750		

*Significant at 5% level and **Significant at 1% level.

Source: Computed.

TABLE 5: SUMMARY OF TESTS OF PREDICTIONS OF FINANCIAL AND OPERATING PERFORMANCE FOR THE FULL SAMPLE

Characteristics	Variables	Sign Description		Sign Test		H_a
		Predicted Mean Change	Observed Mean Change	Firms that Changed as Predicted (%)	P-Value	
Profitability Ratios	Operating Profit Margin Ratio	Positive	Positive	41.67	0.774	Rejected
	Net Profit Margin Ratio	Positive	Positive	66.67	0.388	Rejected
	Return on Capital Employed	Positive	Positive	83.33	0.039*	Accepted
	Return on Total Assets	Positive	Positive	83.33	0.039*	Accepted
	Return on Net worth	Positive	Negative	58.33	0.774	Rejected
Operating Efficiency	Sales Efficiency	Positive	Positive	91.67	0.006**	Accepted
	Net Income Efficiency	Positive	Negative	58.33	0.774	Rejected
Output	Real Sales	Positive	Positive	83.33	0.039*	Accepted
Employment	No. of Employees	Negative	Negative	72.73	0.227	Rejected
Solvency	Debt-Equity Ratio	Negative	Negative	66.67	0.388	Rejected
	Interest Cover Ratio	Positive	Positive	91.67	0.006**	Accepted
	Proprietary Ratio	Negative	Positive	41.67	0.774	Rejected
	Long-term Debt Ratio	Negative	Negative	66.67	0.388	Rejected
Stock Indicators	Earnings Per Share	Positive	Negative	83.33	0.039*	Accepted
	Book Value Per Share	Positive	Negative	58.33	0.774	Rejected
	Dividend Payout Ratio	Positive	Positive	42.86	1.000	Rejected

*Significant at 5% level and **Significant at 1% level.

Source: Computed.

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