

Equity divestment and profit rate performance for sustainable development: a study of central public sector enterprises in India.

Desinversión de capital y desempeño de la tasa de ganancia para el desarrollo sostenible: un estudio de empresas del sector público central en la India

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ABSTRACT

Disinvestment can be described as a way of action whereby the Government withdraws its equity capital either in part or in full in public sector enterprises. From 1991-92, the Government of India undertake the process of divesting its equity shares in CPSEs. The present study has inspected the impact of equity divestment on profit rate performance in terms of ROCE of the CPSEs in India during the period 1998-99 to 2017-18. The study concluded that CPSEs have a proficient negative impact of equity divestment on their overall profit rate performance during the study period. However, the CPSEs have been able to sustain satisfactory average ROCE in the competitive market economy.

Key Words: Equity Divestment, Profit Rate, CPSEs, ROCE.

RESUMEN

La desinversión puede describirse como una forma de acción mediante la cual el Gobierno retira su capital social, ya sea en parte o en su totalidad, en las empresas del sector público. Entre 1991 y 1992, el Gobierno de la India emprendió el proceso de desinversión de sus acciones en las CPSE. El presente estudio inspeccionó el impacto de la desinversión de capital en el desempeño de la tasa de ganancias en términos de ROCE de los CPSE en India durante el período 1998-99 a 2017-18. El estudio concluyó que los CPSE tienen un impacto negativo competente de la desinversión de capital en el desempeño general de su tasa de ganancias durante el período de estudio. Sin embargo, los CPSE han podido mantener un ROCE promedio satisfactorio en la economía de mercado competitiva.

Palabras Clave: Desinversión de Capital, Tasa de Utilidad, CPSEs, ROCE.

INTRODUCTION

The term 'disinvestment' can be described as a way of action whereby the Government withdraws its equity capital either in part or in full in public sector enterprises. From 1991-92, the Government of India undertake the process of divesting its equity shares in CPSEs. The Government of India in its Industrial Policy Statement of 1991 indicated that disinvestment of equity shares in CPSEs would be conducted on a selected basis. The prime objective of disinvestment is to ensure optimal usage of national resources, productive efficiency and to augment profit rate of the public sector enterprises, thereby ensuring sustainable development of the CPSEs on a continuous basis.

As prior studies, the important studies carried out in this context are stated below: Kumar, S. (1992), stated that direct sale through competitive bidding is preferable since it allows high level of transparency. Megginson, W.L. and Netter, J.M. (2001), observed that privatized companies became more competent and achieved better financial health. Nagaraj, R. (2005), stated that economic performance is not likely to be affected by disinvestment because the Government would continue to be the leading shareholder. Trien, V.L. and Jonathan, P.B. (2010), suggested that state ownership as well as debt had damaging performance results in changeover economies. Singh, G. (2015), found that the process of disinvestment had improved the profitability performance of the loss making CPSEs. Achini, A. and Begum, S. (2018), revealed that Maharatna companies had significant impact, while no significant impact was found in the Navratna companies due to disinvestment. Ghosh, S. (2019), concluded that inventory management of the CPSEs in India was found to be satisfactory during the period under study. Ghosh, S. (2020), observed that growth rate in net profit after tax was higher in comparison to the growth rate in total expenditure. Thus, the CPSEs had managed their total expenditure efficiently during the study period. Singh, R.A. (2020), concluded that the performance of the public enterprises had improved significantly during the study period.

The Research Gap: Though several studies were carried out in respect of CPSEs, we found no such studies on the relationship between equity divestment and profitability. Hence, this study may be considered to add to the existing literature.

RESEARCH OBJECTIVES

The core objective of the study is to examine the impact of equity divestment on profit rate performance of the CPSEs in India in the liberalized competitive environment.

To achieve the above core objective, the following incidental objectives of the CPSEs are formulated as under:

- To inspect the trends in equity divestment.
- To inspect the trends in profit rate performance
- To inspect the impact of equity divestment on profit rate performance.

HYPOTHESES

In conformity with the above objectives, the following testable null hypotheses have been formulated:

1stNull Hypothesis: H₀: There is no significant trend in equity divestment.

2ndNull Hypothesis: H₀: There is no significant trend in profit rate performance.

3rdNull Hypothesis: H₀: There is no significant impact of equity divestment on profit rate performance.

RESEARCH DESIGN

Sample Selection: The sample of the study covers all the central public sector enterprises operating in India apart from insurance and banking companies.

Study Period: The study period has been selected from the financial year 1998-99 to the financial year 2017-18.

Data Source: Secondary data have been used which is collected mainly from the published annual reports of Public Enterprises Survey. Further, to reach at a meaningful comparison, pooled data have been used in the study.

Methodology: Return on Capital Employed (ROCE) is used as a proxy for profit rate since it measures the overall profitability of an enterprise. ROCE is calculated in the following way:

$$\text{ROCE} = \text{Net Profit} \div \text{Capital Employed}$$

To inspect the trends in equity divestment and ROCE, linear regression equation has been fitted to the time series data which is presented below:

$$Y = a + b t + e \text{ -----eq. (1)}$$

Where: Y = Dependent variable (represented by Equity Divestment and ROCE).

t = time

a and b = parameters indicating intercept and co-efficient respectively.

e = error term of the equation.

For calculating the trends in equity divestment over the years, log natural of the same has been considered in the study.

To inspect the impact of equity divestment on profit rate performance of the CPSEs in India, the following regression equations are used in the study:

$$\text{ROCE} = a + b (\log \text{ED}) + e \text{ -----eq. (2)}$$

Where: t = time

a and b = parameters indicating intercept and co-efficient respectively.

log (ED) = log natural of Equity Divestment

e = error term of the equation

The significance of beta coefficient has been tested by the popular 't' test. Further, to detect the problem of autocorrelation, Durbin-Watson d (D.W.) statistic is applied in the study. The D.W. statistic is computed as follows:

$$t = nt = n$$

$$d = \frac{\sum_{t=2}^n (\hat{U}_t - \hat{U}_{t-1})^2}{\sum_{t=1}^n \hat{U}_t^2} \text{-----} eq. (3)$$

EMPIRICAL FINDINGS AND ANALYSIS

Equity Divestment Trends of CPSEs in India: The disinvestments that have taken place in CPSEs from 1998-99 to 2017-18 are presented in Table 1. It is detected that there is a fluctuating trend in disinvestment during the period under study. However, the last two years under study have documented a significant increase in disinvestment from the CPSEs. Overall an increasing trend is observed in disinvestment.

The CPSEs have recorded highest disinvestment (Rs.100056crore) in the year 2017-18, while the lowest disinvestment (Rs.1569crore) has been recorded in the year 2005-06. The average disinvestment of the CPSEs is found to be Rs.16808.95crore with C.V. at 137.02%.

From the regression results, it is observed that the disinvestment of CPSEs have shown a positive trend ($b = 0.08$) during the study period, although it is found to be statistically insignificant. This leads to the acceptance of the first null hypothesis of the study.

Profit Rate Trends of CPSEs in India: To explore the trends in profit rate performance of the CPSEs in India, ROCE is employed in the study. Table 2 exposes an overall increasing trend in ROCE in the initial years (i.e., up to 2004-05) and then an overall decreasing trend is observed in the remaining years under study. ROCE ranges between 4.72 and 12.88 with an average of 8.14 and C.V. at 34.28%.

From regression results, it is observed that ROCE shows negative trend ($b = -0.06$). However, the result is statistically found to be insignificant, thereby leading to the acceptance of the second null hypothesis of the study.

Impact of Equity Divestment on Profit Rate Performance of CPSEs in India: To measure the impact of equity divestment on profit rate performance of the CPSEs in India, regression equation is carried out with respect to ROCE. The result obtained from the regression equation is shown in Table 3.

Table 1: Trends in Equity Divestment of CPSEs in India

| Year | Amount (Rs. in Crores) |
|--------------------|------------------------|
| 1998 - 1999 | 5371 |
| 1999 - 2000 | 1860 |
| 2000 - 2001 | 1871 |
| 2001 - 2002 | 5657 |
| 2002 - 2003 | 3347 |
| 2003-2004 | 15547 |
| 2004-2005 | 2764 |
| 2005-2006 | 1569 |
| 2006-2007 | 00 |
| 2007-2008 | 4181 |
| 2008-2009 | 00 |
| 2009-2010 | 23552 |
| 2010-2011 | 22144 |
| 2011-2012 | 13894 |
| 2012-2013 | 23956 |
| 2013-2014 | 15819 |
| 2014 - 2015 | 24348 |
| 2015 - 2016 | 23996 |
| 2016 – 2017 | 46247 |
| 2017 -2018 | 100056 |
| Average | 16808.95 |
| S.D. | 23031.26 |
| C.V. (%) | 137.02 |
| Regression Results | R ² = 0.34 |
| | b = 0.08 |
| | t = 1.54 |
| | D.W. = 1.94 |
| | Result: Insignificant |

Source: <http://en.m.wikipedia.org> (Results calculated)

Table 2: Profit Rate Trends of CPSEs in India

| Year | ROCE (%) |
|--------------------|---------------------------------------------------------------------------------------------|
| 1998 - 1999 | 4.98 |
| 1999 - 2000 | 4.73 |
| 2000 - 2001 | 4.72 |
| 2001 - 2002 | 6.66 |
| 2002 - 2003 | 7.75 |
| 2003-2004 | 11.71 |
| 2004-2005 | 12.88 |
| 2005-2006 | 11.97 |
| 2006-2007 | 12.27 |
| 2007-2008 | 11.23 |
| 2008-2009 | 10.59 |
| 2009-2010 | 10.15 |
| 2010-2011 | 7.98 |
| 2011-2012 | 7.34 |
| 2012-2013 | 7.62 |
| 2013-2014 | 7.50 |
| 2014 – 2015 | 5.61 |
| 2015 - 2016 | 5.61 |
| 2016 – 2017 | 5.87 |
| 2017 -2018 | 5.65 |
| Average | 8.14 |
| S.D. | 2.79 |
| C.V. (%) | 34.28 |
| Regression Results | R ² = 0.014 b = -0.06 t = -0.50 D.W. = 0.23 Result: Insignificant |

Source: Published Annual Reports of Public Enterprises Survey (Results calculated)

Table 3: Regression Analysis between Equity Divestment and ROCE

| Profitability Ratio | R ² | Regression Co-efficient (b) | t – value | D.W. |
|---------------------|----------------|-----------------------------|-----------|------|
| (ROCE) | 0.21 | -0.95** | -2.16 | 0.70 |

** marked value indicates significant at 5% level (2-tailed).

It is observed that equity divestment by the CPSEs has a negative impact on their overall profit rate (represented by ROCE) during the period under study which is statistically significant at 5% level of significance. This also leads to the rejection of the third null hypothesis of the study.

CONCLUSIONS

From the above empirical findings, it may be concluded that CPSEs have experienced a negative impact of equity divestment on their overall profit rate performance during the selected study period. This is further strengthened by regression results of the study. Despite this negative impact, it is interesting to note that CPSEs have been able to sustain satisfactory average profit rate performance in terms of ROCE in the competitive market economy. It is recommended that necessary measures should be taken so as to make the CPSEs more efficient and effective.

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Sustainability, Agri, Food and Environmental Research, (ISSN: 0719-3726), 11(X), 2023:
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Received: 04th February 2022; Accepted: 04th April 2022; First distribution: 16th October 2022.