*Title of the Paper: Immediate Impact of Disinvestment in the context of Indian Scenario: Implementation of 1991 Industrial Policy Related to Disinvestment*

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*Abstract: Public sector undertakings (PSUs) have been playing a pivotal role in accelerating the pace of industrialization and achieving social and economic goals. However, from late 1980s PSUs face certain serious problems which required urgent corrective measures. Hence, new industrial policy1991 has been implemented for restructuring the PSUs in India. Disinvestment programme is one of the important steps of 1991 New Industrial Policy for improving the efficiency of the PSUs. In this paper we shall try to find out the immediate impact of disinvestment from India in its financial perspective.*

***Key word: Industrialization, New Industrial Policy, Disinvestment, PSUs Financial Perspective***

**1. Introduction:** In the present study the objective is to measure the financial performance of some divested PSUs. In this paper we shall try to find out the immediate effect of disinvestment. That means evaluating the financial performance of pre-and post-disinvestment periods. To measure the financial performance of the PSUs traditional tool, i.e. ratio analysis technique has been used. Under traditional method different types of ratios like liquidity ratio, profitability ratio, leverage ratio and activity ratio have been calculated. In order to know the immediate effect of disinvestment on the basis of various performance parameters the immediate impact has been analysed by comparing the parameters between pre-disinvestment period and post-disinvestment period. In this study we shall also compare two sets of companies individually, that means, we shall compare the performance of the divested companies with the non-divested companies during this period of time and the companies belonging to the same industry and the average turnover as a percentage of capital employed is compared to that of the divested company. Paired t-test is applied for observing, if there is any consistency or not in pre-and post-disinvestment periods as well as in different years for divested companies and control companies.

**2. Objective:** To analyze the financial performance of selected divested PSUs during pre-and post-disinvestment periods and examine the immediate effects of disinvestment. Financial performance evaluation mainly depends upon the financial statement analysis.

**3. Methodology:** The inter-relationship that exists among the different items in the financial statement is revealed by accounting ratios. Ratios are one of the best tools for measuring liquidity, solvency, profitability and management efficiency of a firm. For measuring the financial performance, ratio analysis is the important traditional technique to judge the performance of the companies. In this study, for measuring the immediate effect of disinvestment some ratios like liquidity ratio, profitability ratio, activity ratio and capital structure ratio have been considered. In order to know the immediate impact of disinvestment we shall find out some ratios for the pre-disinvestment and post-disinvestment periods. Moreover, control methodology is also used for the purpose of comparing the two data sets between two periods. Paired statistical tool are also used for the purpose of testing the statistical significance of the result.

**4. Data Base:** We selected 16 PSUs out of the 61 divested PSUs during the period 1990-91 to 2015-16. Companies have been selected mainly on the basis of availability of suitable data which we require for the study for the purpose of performance analysis. All the selected companies were analyzed according to the same set of parameters.

The companies selected for the study are all listed in Bombay Stock Exchange and securities of these companies are frequently traded in the stock market and all the selected companies which we consider are all PSUs after their disinvestment.

**5. Hypothesis:** 1. H01: There is a significant difference between the liquidity positions of the post-disinvestment period and pre-disinvestment period of divested and control company.

2. H02: There is a significant difference between the profitability positions of the post-disinvestment period and pre-disinvestment period of divested and control company.

3. H03: There is a significant difference between the asset management position of the post-disinvestment period and pre-disinvestment period of divested and control company.

4. H04: There is a significant difference between the solvency position of the post-disinvestment period and pre-disinvestment period of divested and control company.

**6. Findings:**

6.1. Summary Result of Liquidity Ratio

Individual year-wise liquidity ratio of the divested companies along with their related control companies during both pre-disinvestment and post-disinvestment periods have been calculated. In table 1.1.1 the summary results of the divested companies along with their control companies have been presented.

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| Table 6.1.1:Summary Results of Liquidity Ratio |
| Changes in Ratio | Divested Company | Control Company |
| Number | Percentage  | Number | Percentage  |
| Immediate Impact on Current Ratio(CR) |
| Increase in CR | 11 | 69 | 9 | 56 |
| Decrease in CR | 5 | 31 | 7 | 44 |
| Total  | 16 | 100 | 16 | 100 |
| Immediate Impact on Liquid Ratio (LR) |
| Increase in LR | 10 | 63 | 8 | 50 |
| Decrease in LR | 6 | 37 | 8 | 50 |
| Total  | 16 | 100 | 16 | 100 |

Source : Own Computation

Table 6.1.1 depicts that for 69 percent of the divested companies the current ratio and 63 percent liquid ratio for the first year of the post-disinvestment period have increased, while for the control companies this percentage is 56 and 50 percent respectively. Hence, from the table we can deduce the fact that divested companies could raise and improve their liquidity position just immediately after disinvestment in comparison to the control companies. The above view cannot be supported unless it is statistically tested and verified. So, in simple terms, it may be interpreted that apparently disinvestment has an immediate positive effect on liquidity position.

Now paired t-test has been applied to find out whether disinvestment has any immediate effect or not in the case of liquidity position. Same test has also been applied for the corresponding control companies. Test result is given in table 6.1.2

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| Table 6.1.2.Result of Paired Sample Test of Liquidity Ratio  |
| Ratio  | Company  | t | df | Sig (2 tailed ) P value |
| Current Ratio  | Divested  | -0.924 | 15 | 0.370 |
|   | Control  | 0.045 | 15 | 0.965 |
| Liquid Ratio  | Divested  | -0.333 | 15 | 0.744 |
|   | Control  | 0.249 | 15 | 0.807 |

From the above table 6.1.2 it is observed that apparently there has been an immediate impact of disinvestment but statistically disinvestment doesn’t have immediate impact. Statistically it is proven that the divested companies’ liquidity position is insignificant.

6.2. Summary Result of Profitability Ratio

Individual year-wise profitability ratios of the divested companies along with their related control companies, both pre-disinvestment and post-disinvestment, have been calculated. In table 6.2.1 the summary result of the divested companies along with their control companies has been presented

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| Table 6.2.1. Summary Results of Profitability Ratio |
| Changes in Ratio | Divested Company | Control Company |
| Number | Percentage  | Number | Percentage  |
| Immediate Impact on Gross Profit Ratio (GPR) |
| Increase in GPR | 11 | 69 | 11 | 69 |
| Decrease in GPR | 5 | 31 | 5 | 31 |
| Total  | 16 | 100 | 16 | 100 |
| Immediate Impact on Net Profit Ratio (NPR) |
| Increase in NPR | 7 | 44 | 6 | 37 |
| Decrease in NPR | 9 | 56 | 10 | 63 |
| Total  | 16 | 100 | 16 | 100 |
| Operating Profit Ratio (OPR) |
| Increase in OPR | 8 | 50 | 8 | 50 |
| Decrease in OPR | 8 | 50 | 8 | 50 |
| Total  | 16 | 100 | 16 | 100 |
| Cash Profit Ratio ( CPR) |
| Increase in CPR | 7 | 44 | 5 | 31 |
| Decrease in CPR | 9 | 56 | 11 | 69 |
| Total  | 16 | 100 | 16 | 100 |
| Impact of Return On Investment (ROI) |
| Increase in ROI | 9 | 56 | 9 | 56 |
| Decrease in ROI | 7 | 44 | 7 | 44 |
| Total  | 16 | 100 | 16 | 100 |
| Impact of Return On Net worth (RONW) |
| Increase in RONW | 9 | 56 | 8 | 50 |
| Decrease in RONW | 7 | 44 | 8 | 50 |
| Total  | 16 | 100 | 17 | 100 |

Source : Own Computation

Table 6.2.1 depicts that for 69 percent of the gross profit ratio, 44 percent of the net profit ratio, 50 percent operating profit ratio ,44 percent cash profit ratio 56 percent of the return on investment and 56 percent of the return on net worth of the divested companies for the first year of the post-disinvestment period have increased, while for the control companies this percentage is 69 for gross profit ratio, 37 percent for net profit ratio, 50 percent operating profit ratio, 31percent cash profit ratio 56 percent for return on investment and 50 for return on net worth. From the table 6.2.1 it is observed that immediate impact of disinvestment on profitability position of divested companies and corresponding control companies are same except net profit ratio and cash profit ratio. In these circumstances it is very difficult to draw any definite thought related to profitability position without applying any statistical measure. Hence, in this situation we applied paired t test for measuring the immediate impact of disinvestment related to profitability ratio.

Now paired t-test has been applied to find out whether disinvestment has any immediate effect or not in case of profitability position. Same test is also applied to the corresponding control companies. Test result is given in table 6.2.2

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| Table 6.2.2Result of Paired Sample Test of Profitability Ratio  |
| Ratio  | Company  | t | df | Sig (2 tailed ) p value |
| Gross Profit Ratio  | Divested  | -0.977 | 15 | 0.344 |
| Control  | -0.930 | 15 | 0.367 |
| Net Profit Ratio  | Divested  | 1.104 | 15 | 0.287 |
| Control  | 1.619 | 15 | 0.126 |
| Operating Profit Ratio (OPR) | Divested  | -0.323 | 15 | 0.751 |
| Control  | 0.215 | 15 | 0.833 |
| Cash Profit Ratio ( CPR) | Divested  | 0.392 | 15 | 0.700 |
| Control  | 1.221 | 15 | 0.241 |
| Return on Capital Employed (ROI) | Divested  | 0.153 | 15 | 0.881 |
| Control  | 0.427 | 15 | 0.676 |
| Return on Net worth or Equity  | Divested  | -2.262 | 15 | 0.039\* |
| Control  | 1.694 | 15 | 0.111 |

**Source:**  Own Computation based on SPSS (Version 17)

Note: \* indicate at 5% level significant

From the table 6.2.2 it is observed that apparently net profit ratio, cash profit ratio and return on net worth ratio has an immediate effect of disinvestment. But without applying any statistical measure it is difficult to draw any definite thoughts related to profitability ratio. After applying paired t test it is observed that that after disinvestment only return on net worth ratio, were statistically significant at 5 percent level.

6.3. Summary Result of Activity Ratio

Individual year-wise activity ratio of the divested companies along with their related control companies both pre-disinvestment and post-disinvestment have been calculated. In table 6.3.1 the summary result of the divested companies along with their control companies has been presented.

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| Table 6.3.1. Summary Results of Turnover Ratio |
| Changes in Ratio | Divested Company | Control Company |
| Number | Percentage  | Number | Percentage  |
| Immediate Impact on Fixed Asset Turnover Ratio(FATR) |
| Increase in FATR | 12 | 75 | 9 | 56 |
| Decrease in FATR | 4 | 25 | 7 | 44 |
| Total  | 16 | 100 | 16 | 100 |
| Immediate Impact on Cash Turnover Ratio (CTR ) |
| Increase in CTR | 12 | 75 | 10 | 63 |
| Decrease in CTR | 4 | 25 | 6 | 37 |
| Total  | 16 | 100 | 16 | 100 |
| Immediate Impact on Inventory Turnover Ratio (ITR) |
| Increase in ITR | 9 | 56 | 7 | 44 |
| Decrease in ITR | 5 | 31 | 7 | 44 |
| Unaltered ITR | 2 | 13 | 2 | 12 |
| Total  | 16 | 100 | 16 | 100 |
| Immediate Impact on Trade ReceivableTurnover Ratio (TRTR) |
| Increase in TRTR | 2 | 12 | 5 | 31 |
| Decrease in TRTR | 12 | 75 | 9 | 56 |
| Unaltered TRTR | 2 | 13 | 2 | 13 |
| Total  | 16 | 100 | 16 | 100 |

Source : Own Computation

Table 6.3.1 depicts that for 75 percent of the fixed asset turnover ratio, 75 percent cash turnover ratio, 56 percent inventory turnover ratio, and 12 percent trade receivable turnover ratio of the divested companies for the first year of the post-disinvestment period have increased, while for the control companies this is 56 percent for fixed asset turnover ratio, 63 percent cash ratio and cash turnover ratio, 44 percent inventory turnover ratio and 31 percent trade receivable turnover ratio. Hence, from the table we can say that fixed asset turnover, cash turnover cash turnover ratio and inventory turnover ratio have an immediate impact of disinvestment compared to control company. On the other hand, trade receivable turnover ratio does not have any immediate effect. Trade receivable turnover ratio only increased by12 percent, after disinvestment due to small scale credit sales.The above view cannot be supported unless it is statistically tested and verified.

Now paired t-test has been applied to find out whether disinvestment has any immediate effect or not in case of asset utilisation position. Same test is also applied for the corresponding control companies. Test result is given in table 6.3.2

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| Table 6.3.2 Result of Paired Sample Test of Turnover Ratio  |
| Ratio  | Company  | t | df | Sig (2 tailed ) P value |
| Fixed Asset Turnover Ratio  | Divested  | -1.954 | 15 |  0.070\*\* |
| Control  | -0.585 | 15 | 0.567 |
| Cash Turnover ratio  | Divested  | -3.104 | 15 |  0.007\* |
| Control  | -2.341 | 15 |  0.033\*\* |
| Inventory Turnover Ratio  | Divested  | -0.629 | 15 | 0.539 |
| Control  | 0.489 | 15 | 0.632 |
| Trade ReceivableTurnover ratio  | Divested  | 0.844 | 15 | 0.412 |
| Control  | 2.351 | 15 |  0.033\*\* |

**Source:**  Own Computation using SPSS (Version 17.0)

Note: \* indicates 1 % level of significance and \*\* indicate 5% level of significance

From the table it can be concluded that apparently fixed asset turnover, capital turnover cash turnover ratio and inventory turnover ratio has an immediate impact of disinvestment. Similarly, it is noticed that statistically, fixed asset turnover ratio is statically significant at 5% level and cash turnover ratio is significant at 1% level. On the other hand, it is also noticed that cash turnover ratio and trade receivable turnover ratio of Control Company are significant at 5% level.

Summary Result of Solvency Ratio

Individual year-wise capital structure ratio of the divested companies along with their related control companies both pre-disinvestment and post-disinvestment have been calculated. In table 6.4.1 the summary result of the divested companies along with their control companies has been presented.

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| Table 6.4.1 Summary Results of Capital Structure Ratio |
| Changes in Ratio | Divested Company | Control Company |
| Number | Percentage  | Number | Percentage  |
| Immediate Impact on Debt Equity Ratio (DER) |
| Increase in DER | 10 | 63 | 9 | 56 |
| Decrease in DER | 3 | 19 | 6 | 38 |
| Unaltered DER | 3 | 18 | 1 | 6 |
| Total  | 16 | 100 | 16 | 100 |
| Immediate Impact on Interest coverage Ratio (ICR) |
| Increase in ICR | 8 | 50 | 5 | 31 |
| Decrease in ICR | 6 | 38 | 10 | 63 |
| Unaltered ICR | 2 | 12 | 1 | 6 |
| Total  | 16 | 100 | 16 | 100 |

Source : Own Computation

Table 6.4.1 depicts that for 63 percent of debt-equity ratio and 50 percent of interest coverage ratio of the divested companies for the first year of the post-disinvestment period has increased, while for the control companies this percentage is 56 for debt-equity ratio and 31 percent for interest coverage ratio. Thus more than 60 percent of the divested companies could raise and improve their long term solvency positions just immediately after disinvestment and 56 percent of the control companies also increased their long term liquidity position without disinvestment. Hence, disinvestment has some significant immediate effect on their capital structure. The above view should be statistically tested and verified.

Now paired t-test has been applied to find out whether disinvestment has any immediate effect or not in case of long term solvency position. Same test is also applied to the corresponding control companies. Test result is given in table 6.4.2

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| Table 6.4.2: Result of Paired Sample Test of Capital Structure Ratio  |
| Ratio  | Company  | t | df | Sig (2 tailed ) P Values |
| Debt Equity Ratio | Divested  | -2.207 | 15 |  0.043\*\* |
| Control  | -0.379 | 15 | 0.710 |
| Interest coverage Ratio | Divested  | -0.392 | 15 | 0.700 |
| Control  | 0.578 | 15 | 0.572 |

**Source:** Own Computation using SPSS (Version 17.0)

Note: \*\* indicate 5% level of significance

From the table 6.4.2 it is found that the difference between the divested companies and the control companies in their capital structure position is significant. Hence it can be inferred that capital structure of the divested PSUs is theoretically and statistically significant at 5% level.

**7. Conclusion:**

 The study has examined the immediate impact of disinvestment. From table 7.1it can be observed that there has been no immediate impact of disinvestment in the liquidity position of the divested PSUs. If we give some focus on profitability position of the PSUs it is observed that return on net worth ratio is affected by disinvestment. After disinvestment the position of the share capital may be changed since, the immediate impact of disinvestment can be noticed in case of return on net worth. Similarly, in the case of asset utilisation ratio it is observed that fixed asset turnover ratio, and cash turnover ratio are also affected due to disinvestment and immediate impact can be noticed. Since capital structure position is changed due to disinvestment, immediate impact of disinvestment is also noticed in the case of debt-equity ratio.

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| Table 7.1: Summary Results of the Immediate Impact of Disinvestment |
| Name of the Indicators used  | Divested Company  | Control company  | Remarks  |
| Increase %  | statistical Significance  | Increase %  | Statistical Significance  |
| Current Ratio  | 69 | Not Significant | 56 | Not Significant | There exists no immediate impact  |
| Liquid Ratio  | 63 | Not Significant | 50 | Not Significant | There exists no immediate impact  |
| Gross Profit Ratio  | 69 | Not Significant | 69 | Not Significant | There exists no immediate impact  |
| Net Profit Ratio  | 44 | Not Significant | 37 | Not Significant | There exists no immediate impact  |
| Operating Profit Ratio | 50 | Not Significant | 50 | Not Significant | There exists no immediate impact |
| Cash Profit Ratio | 44 | Not Significant | 31 | Not Significant | There exists no immediate impact |
| Return on Investment  | 56 | Not Significant | 56 | Not Significant | There exists no immediate impact  |
| Return on Net Worth  | 56 | Significant | 50 | Not Significant | Immediate impact exists  |
| Fixed Asset Turnover Ratio  | 75 |  Significant | 56 | Not Significant | Immediate impact exists  |
| cash Turnover Ratio  | 31 | Significant | 69 |  Significant | Immediate impact exists  |
| Inventory Turnover Ratio  | 44 | Not Significant | 44 | Not Significant | There exists no immediate impact  |
| Trade Receivable Turnover Ratio  | 12 | Not Significant | 12 |  Significant | There exists no immediate impact  |
| Debt Equity Ratio  | 63 |  Significant | 56 | Not Significant | Immediate impact exists  |
| Interest Coverage Ratio  | 50 | Not Significant | 31 | Not Significant | There exists no immediate impact  |

Source : Based on the analysis of chapter 5

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