

Performance Assessment through Return on Assets: A Study with reference to Selected Manufacturing Industries in Indian CPSEs

Sudipta Ghosh¹ and P.S. Aithal²

PDF, Srinivas University, Mangaluru, Karnataka, India

¹Department of Commerce (UG & PG), Prabhat Kumar College, Contai, West Bengal, India
Corresponding Author E-mail: sgcostmanagement@gmail.com

²Institute of Management and Commerce, Srinivas University, Mangaluru, Karnataka, India
E-mail: psathal@srinivasgroup.com

Abstract: Return on Assets (ROA) signifies a method by which a firm earns income by investing its assets. As a best practice, ROA of a particular company should be compared with the ROA of industry average to which the particular company belongs. Thus, ROA provides vital information to the prospective investors about efficiency of a particular company in terms of converting the invested funds into net revenue. The CPSEs in India were established to achieve the socio-economic objectives of monetary intensification, self-sufficiency in manufacturing, intemperance balance of payments, etc. They offer indispensable goods and services and occupy a momentous market place in different important segments. The current research crum is an attempt to assess the performance through ROA of selected manufacturing industries in Indian CPSEs during 2010-11 to 2019-20. The selected manufacturing industries generate both affirmative and pessimistic returns on their assets. On the average, all the industries (except chemicals & pharmaceuticals industry) have shown positive ROA. This implies that these industries have efficiently utilized their assets in generating profit. Furthermore, on the average, other minerals & metals industry has shown highest ROA, while chemicals & pharmaceuticals industry has registered lowest (i.e., negative) ROA. In most of the cases, the selected manufacturing industries have played a significant role in the progress of the country.

Keywords: CPSEs, manufacturing industries, performance, ROA, selected.

1. THE BACKGROUND

Return on Assets (ROA) signifies a method by which a firm earns income by investing its assets. A high ROA indicates favorable situation (i.e., asset efficiency) of a company, while a low ROA indicates the provision for further improvement in revenue of a company.

As a best practice, ROA of a particular company should be compared with the ROA of industry average to which the particular company belongs. Thus, ROA provides vital information to the prospective investors about efficiency of a particular company in terms of converting the invested funds into net revenue. The CPSEs in India were established to achieve the socio-economic objectives of monetary intensification, self-sufficiency in manufacturing, intemperance balance of payments, etc. They offer indispensable goods and services and occupy a momentous market place in different important segments.

2. REVIEW OF PAST STUDIES

Mishra, R.K. and Nandagopal, R. (1989), indicated that privatization in industries would result in the welfare of the consumers.

Galal, A. et al. (1994), stated that privatization cannot be held responsible for all the problems connected with transition.

LaPorta, R. and Lopez-De, S. (1998), observed that profitability of the competitive markets are found to be higher as compared to the non-competitive markets.

Ray, K.K. and Maharana, S. (2002), observed little success in the disinvestment of the PSEs under crum. The crum suggested that all the troubles associated with disinvestment could be solved through a transparent method.

Patnaik, I. (2006), recommended that shares should be offered to the public through the process of disinvestment of the PSEs.

Trien, V.L. and Jonathan, P.B. (2010), observed mixed results with respect to debt and state possession. A negative impact on the recital of the firm was observed when debt and state possession were used separately, while a positive impact was observed on the recital of the firm when both debt and state possession were used jointly.

Vijayakumar, A. and Jayachitra, S. (2015), observed enhancement in fiscal and operating recital of the sample units under crum.

Batth, V., Nayak, B., and Pasumarti, S.S. (2018), found satisfactory pecuniary position for the companies that had fewer market capitalizations.

3. OBJECTIVE OF THE STUDY

The study aims to assess the performance through return on assets of selected manufacturing industries in Indian CPSEs.

4. RESEARCH METHODOLOGY

4.1 Sample Framework

The manufacturing sector has been purposely selected, since it contributes significantly to the growth of the economy. Presently, the population of manufacturing industries in Indian CPSEs comprises of thirteen industries. Unsystematic sampling system is employed for selection of sample manufacturing industries in the cram. Five manufacturing industries are randomly selected out of thirteen manufacturing industries, thereby representing 38% (approx.) of the total population. The sample industries selected in the study are as follows:

- Other Minerals & Metals Industry
- Steel Industry
- Petroleum (Refinery & Marketing) Industry
- Chemicals & Pharmaceuticals Industry
- Heavy & Medium Engineering Industry

4.2 Data and Study Period

Aggregate data is used in the study which is of secondary character. The requisite statistics have been collected from the yearly reports of the PSEs, Govt. of India from the pecuniary year 2010-11 to the pecuniary year 2019-20.

4.3 Psychoanalysis Technique

Ratio analysis is engaged to calculate return on assets of the sample manufacturing industries by the method shown below:
 $ROA = (\text{Net Profit after Taxes}) \div (\text{Total Assets})$

Apart from it, averages are calculated for ROA of each of the manufacturing industries elected in the cram.

5. RESULTS AND DISCUSSION

5.1 Analysis of ROA in Other Minerals & Metals Industry

ROA generated by the other minerals & metals industry are shown in Table 1 below.

Table 1: ROA in Other Minerals & Metals Industry

Year	ROA
2010-11	0.18
2011-12	0.17
2012-13	0.13
2013-14	0.12
2014-15	0.13
2015-16	0.06
2016-17	0.07
2017-18	0.10
2018-19	0.12
2019-20	0.07
Average	0.12

Source: Computation by the Authors

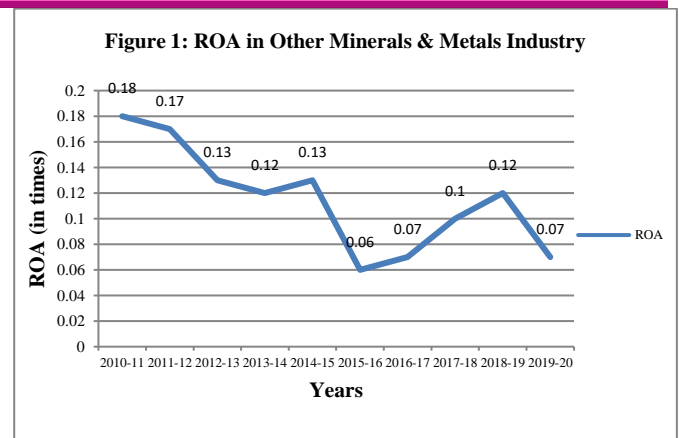


Table 1 and Figure 1 reveal positive returns on its assets during the entire study time. However, no precise trend has been observed during the phase under study. The ROA ranges between 0.06 in the year 2015-16 and 0.18 in the year 2010-11 with an average of 0.12.

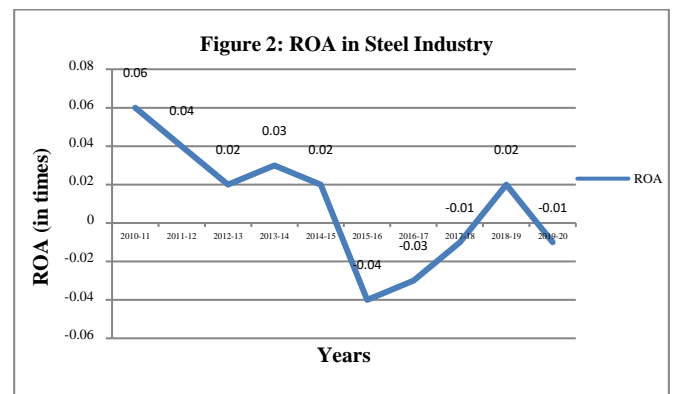
5.2 Analysis of ROA in Steel Industry

ROA generated by the steel industry is presented in Table 2 below.

Table 2: ROA in Steel Industry

Year	ROA
2010-11	0.06
2011-12	0.04
2012-13	0.02
2013-14	0.03
2014-15	0.02
2015-16	-0.04
2016-17	-0.03
2017-18	-0.01
2018-19	0.02
2019-20	-0.01
Average	0.01

Source: Computation by the Authors



From Table 2 and Figure 2, we found positive returns as well as negative returns on their assets. Majority of the positive

returns are generated in the first five years, while the negative returns are generated in the last five years under study. A decreasing trend has been observed in the first six years and thereafter an improvement has been observed in ROA (except the last year).

The ROA of steel industry varies from -0.04 in the fiscal year 2015-16 to 0.06 in the fiscal year 2010-11 with an average of 0.01.

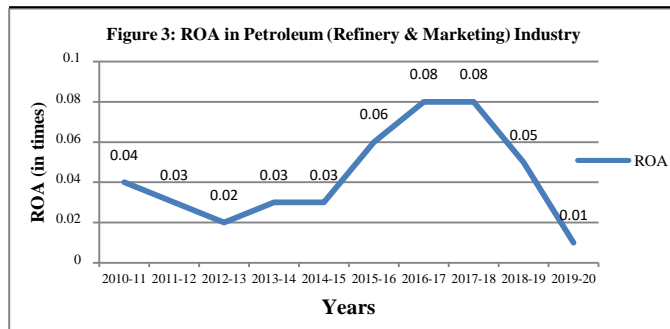
5.3 Analysis of ROA in Petroleum (Refinery & Marketing) Industry

The results of ROA in petroleum (refinery & marketing) industry are shown in Table 3.

Table 3: ROA in Petroleum (Refinery & Marketing) Industry

Year	ROA
2010-11	0.04
2011-12	0.03
2012-13	0.02
2013-14	0.03
2014-15	0.03
2015-16	0.06
2016-17	0.08
2017-18	0.08
2018-19	0.05
2019-20	0.01
Average	0.04

Source: Computation by the Authors



As observed from Table 3 and Figure 3, ROA of the petroleum (refinery & marketing) industry shows optimistic returns all through the years under study with a mean of 0.04. ROA of the petroleum (refinery & marketing) industry shows no specific trend. The ratio varies from 0.01 in the year 2019-20 to 0.08 in the years 2016-17 and 2017-18.

5.4 Analysis of ROA in Chemicals & Pharmaceuticals Industry

Table 4 presents ROA that are generated by chemicals & pharmaceutical industry in Indian CPSEs during the time phase 2010-11 to 2019-20.

Table 4: ROA in Chemicals & Pharmaceuticals Industry

Year	ROA
2010-11	-0.35
2011-12	-0.33

2012-13	-0.24
2013-14	-0.05
2014-15	-0.04
2015-16	-0.07
2016-17	-0.07
2017-18	-0.03
2018-19	0.01
2019-20	-0.01
Average	-0.12

Source: Computation by the Authors

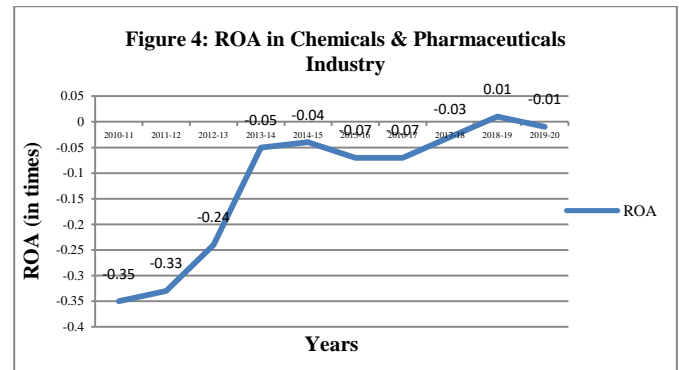


Table 4 as well as Figure 4 reveal negative ROA in the all the years (except the year 2018-19). Although negative in returns on their assets, improvement in ROA of chemicals & pharmaceutical industry has been observed in the first five years under study. The ROA moves from -0.35 in the year 2010-11 to 0.01 in the year 2018-19 with an average of -0.12.

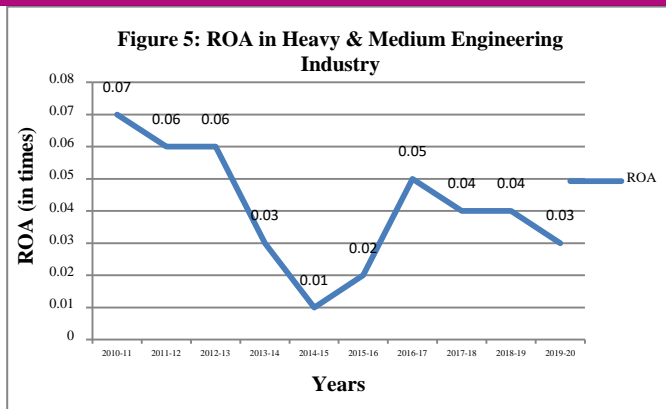
5.5 Analysis of ROA in Heavy & Medium Engineering Industry

ROA produced by the heavy & medium engineering industry has been presented in Table 5 below.

Table 5: ROA in Heavy & Medium Engineering Industry

Year	ROA
2010-11	0.07
2011-12	0.06
2012-13	0.06
2013-14	0.03
2014-15	0.01
2015-16	0.02
2016-17	0.05
2017-18	0.04
2018-19	0.04
2019-20	0.03
Average	0.04

Source: Computation by the Authors



From Table 5 and Figure 5, we found positive ROA in all the years beneath the cram. Almost, a decreasing trend is observed in the first six years, while no specific trend is observed in the last four years. The ratio varies from 0.01 to 0.07 with an average of 0.04.

6. CONCLUSION AND RECOMMENDATION

The selected manufacturing industries generate both affirmative and pessimistic returns on their assets. On the average, all the industries (except chemicals & pharmaceuticals business) have shown positive ROA. This implies that these industries have efficiently utilized their assets in generating profit. Furthermore, on the average, other minerals & metals industry has shown highest ROA, while chemicals & pharmaceuticals business has registered lowest (i.e., negative) ROA. In most of the cases, the selected manufacturing industries have played a significant role in the progress of the country.

The results of the cram have both theoretical and practical implication. Theoretically, the study contributes to the accessible literature in the pertinent field. Practically, the cram recommends adopting appropriate measures by the Govt. to convert the negative returns into positive returns.

References

- [1] Batth, V. et al. (2018). The study of financial performance of Indian public sector undertakings. *Global Journal of Finance and Management*, 10(1), 21-43.
- [2] Galal, A. et al. (1994). *Welfare Consequences of Selling Public Enterprises: An Empirical Analysis*. Oxford University Press for the World Bank, Washington D C., 527-589.
- [3] <https://www.investopedia.com/terms/r/returnonassets.asp>
- [4] Khan, M.Y. & Jain, P.K. (1994). *Financial management – text and problems*. (2nd ed.), New Delhi: Tata McGraw-Hill Publishing Company Limited, 103-106.
- [5] LaPorta, R. & Lopez-De, S. (1998). The benefits of privatization: Domestic reform and international negotiations, *World Bank Policy Research*, Working Paper, 31795.
- [6] Mishra, R.K. & Nandagopal, R. (1989). *Capital Market and Privatization of Public Enterprises: The Case of India*. Institute of Public Enterprises and Bobolinks Corp., India, 123-150.
- [7] Patnaik, I. (2007). *PSU Disinvestment*. Available at: <http://www.India-seminar.com/2006/557/557%20ila%20patnaik.htm>. Retrieved on 19.6.21, 1-12.
- [8] Published Annual Reports of Public Enterprises Survey (2010-11 to 2019-20), *Department of Public Enterprises*, Government of India, New Delhi.
- [9] Ray, K.K. & Maharana, S. (2002). Restructuring PSEs through disinvestment: Some critical issues. *Pratibimba, Journal of MIS*, 2(2), 56-62.
- [10] Trien, V.L. & Jonathan, P.B. (2010). Can two wrongs make a right? State ownership and debt in a transition economy. *Journal of Management Studies*, 47(7), 1297-1316.
- [11] Vijayakumar, A. & Jayachitra, S. (2015). Financial and operating performance of disinvested central public sector enterprises of manufacturing sector in India. *International Journal of Research in Commerce, IT & Management*, 5(1), 38-46.