Critical Analysis of Economic Value Added Technique in Selected Infrastructure in India

*** Karn Singh**

Introduction

A company can add value by the efficient use of the resources available to it. These resources can be in the form of manual skills, technical skills, know-how, special purpose machines, factory lay-out, etc. The process of manufacturing begins with a certain quantum of raw material and goes through a conversion process to yield an output. This output is a product with new utility and market value which is different from the original cost of materials. The excess of such market value over the cost of materials is defined as Value Added. The concept of Value Added is considerably old. It originated in the US treasury in the 18th century and periodically accountants have deliberated upon whether the concept should be incorporated in financial accounting practices.

Introduction of Economic Value Added

Economic Value Added (EVA) is the same as what economists call as economic profit. In business, revenue comes from customers and is distributed among the shareholders. Suppliers are paid for their goods and services and employees for their services. Depreciation amount is deducted from revenue as it results in loss of the value of assets. Creditors are paid interest while loans and taxes are paid to the government.

To the extent EVA is positive; the firm is adding value for its shareholders. But if a firm's EVA is negative, the firm is destroying value even though it may be reporting a positive or growing earning per share (EPS) or return on investment (ROI). This means that if a firm wants to have an attractive investment, it has to have a return that would exceed other investment options with a similar risk. Though EVA just reiterates the basic tenet behind any enterprise, it is not just any other metric for the firm. It is a framework for complete financial management and compensation system. It can guide every decision a company makes that can a corporate culture and help produce greater wealth for shareholders, customers and themselves. While, creating value for the shareholders is an objective measure of corporate performance, the measure of creation of wealth for the company as a whole is also equally important.

Economic Value Added (EVA) for a given period can be written as:

$$\textbf{Economic Value Added (EVA)} = \textbf{NOPAT} - \textbf{Cost of Capiral} = \textbf{NOPAT} - \textbf{WACC X CE}$$

Where;

- NOPAT is related to the amount of profit remaining of the business after tax and adding back interest payments. It can be calculated as per accounting concept after making necessary adjustments for certain for non-operating incomes and expenses.
- WACC (Weighted Average Cost of Capital) which can be defined as the weighted average cost of both equity capital and debt. It is the weighted average of both the specified costs with weights

equal to proportion of each in total capital. The tax shield of the debt is adjusted with the cost of debt

- CE (Capital employed): it is also called as invested capital which can be refers to total assets (net of revaluation) net of non-interest bearing liabilities. From an operating perspective, invested capital can be defined as Net Fixed Assets, plus investments plus Net Current Assets. Net Current Assets denote current assets net of Non-Interest Bearing Current Liabilities (NIBCLS). From a financing perspective, the same can be defined as Net Worth plus total borrowings. Total borrowings denote all interest bearing debts.

REVIEW OF LITERATURE

Following literature has been used for the present study:

Modanlo Joibary and Nagaraja (2015) examined the relationships between Economic Value Added (EVA) and Traditional Accounting Measures of Companies listed in Bangalore Stock Exchange (BgSE). The results indicated 5 % changing in share price (P), 81.6 % changing in Net Operating Profits After Taxes (NOPAT), and 20.9 % changing in dividend (DPS) can predict Economic Value Added (EVA). This study shows that Net Operating Profits After Taxes (NOPAT) with regression co-efficient 0.904 have stronger relationship with EVA then P and DPS.

Sakthivel (2014) analyzed the value creation in Indian Pharmaceutical Industry from 1997-98 to 2006-07 by using regression analysis. It was found that the Companies with high level of EVA were very highly valued and differ from valuation of Companies with low and moderate EVA groups. In regression analysis, it was found that total productivity did not have explanatory power on value creation in short-term, but it had some influence on value creation in the long-run in respect of pharmaceutical Companies.

Pantea, et al. (2014) represented that Economic Value Added (EVA) the performances of the firm were dependent on the strategies, which are applied by managers. The goal of this study was to provide a pertinent measure of managerial performances, starting from the idea that those were real only when they assured the satisfaction of all groups, which were interested in the good evolution of the firm. The performances of a firm came from the operating activities, which has to generate big enough cash flow to accomplish the satisfactory remuneration of the creditors, to overcome all the taxes imposed by the state and to lead to the growth of the shareholders' wealth.

Modanlo Joibary and Nagaraja (2014) introduced Economic Value Added (EVA) as ideal characteristics of Performance Evaluation in cooperative Companies. In this study authors discussed potential disadvantage of Economic Value Added (EVA) application in cooperative Companies.

Huang and Liu (2013) represented that the traditional accounting performance measures (Return of Equity, Earnings per Share) only reflected short-term performance, and were unable to express an enterprise's long-term value.

Ding (2015) investigated profitability of Shanghai Stock Exchange (SSE) 50 Sample Companies from the View of EVA. The potential reason may be (1) the leading shareholder of most of the SSE 50 samples was the state; (2) the owner's equity often be considered to be "self-owned" by the samples while not by the stockholder; (3) most stockholders speculated but not to invest on the intrinsic value of stock; so their ignore Companies' profits, nevertheless EVA; (4)the

concept of EVA was based on the opportunity cost of capital, but in China the average investors lack of opportunity to invest their money rather than stock market.

RESEARCH GAP

On the basis of the above papers and books it was found that there is less study was conducted on Infrastructure sector in India. The above study shows that few study was conducted on EVA analysis and its impact. Hence, it is the main cause of selecting this topic for the research.

OBJECTIVES OF THE STUDY

Followings are the main objectives of the study:

1. To gain familiarity with a phenomenon or to achieve new insights into it
2. To portray accurately the EVA analysis of the infrastructure companies in India.

HYPOTHESIS

Following is the main hypothesis of the study:

H0 : There is no significant relationship between EVA and Profitability in selected infrastructure companies.

H1 : There is a significant relationship between EVA and Profitability in selected infrastructure companies.

SCOPE OF THE STUDY

The scope of this study is categorized into three categories i.e. for Infrastructure sector, for the employees of investors and employees, academicians, researchers and students.

UNIVERSE OF THE STUDY

Infrastructure Companies in India

SAMPLE OF THE STUDY

The sample of the study includes following five top infrastructure companies:

1. Larson & Turbo Infrastructure Limited
2. Jaypee Infra Limited
3. Lanco Infrastructure Limited
4. Reliance Infrastructure Limited
5. GMR Infrastructure Limited

SOURCES OF DATA

For the purpose of data collection and analysis, secondary data has been collected through annual reports and websites of the selected companies under study.

Primary data has been collected through personal interview.

Secondary data has been collected from the published reports, manuals, journals, books, magazines

and websites of the selected IT companies.

The process of data analysis has been made using IBM SPSS 20 (Statistical software).

DATA ANALYSIS AND INTERPRETATION

The analysis and interpretation of collected data is explained in the following table:

Comparative Gross profit Ratio

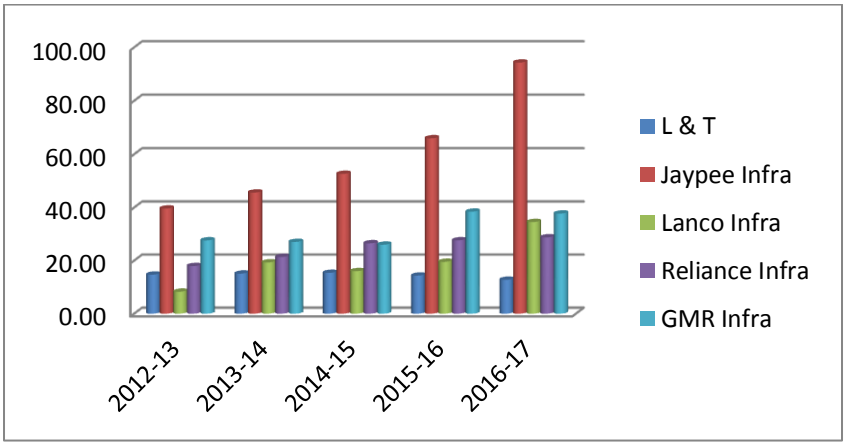
The comparative gross profit ratio of the selected companies is explained in the following table:

Table: 1

Analysis of comparative Gross Profit Ratio

Year	L & T	Jaypee Infra	Lanco Infra	Reliance Infra	GMR Infra	Range = H - L
2012-13	14.70	39.61	8.28	17.94	27.61	31.33
2013-14	15.10	45.64	19.31	21.38	27.04	30.54
2014-15	15.38	52.67	16.02	26.53	25.99	37.29
2015-16	14.34	65.97	19.55	27.63	38.42	51.63
2016-17	12.77	94.32	34.54	28.76	37.72	81.55
Highest	15.38	94.32	34.54	28.76	38.42	
Lowest	12.77	39.61	8.28	17.94	25.99	
Range = H - L	2.61	54.71	26.26	10.82	12.43	

It is clear from the above table that the gross profit ratio is marked highest in Jaypee Infra Limited forming a range of 54.71 present and lowest marked Larson and Turbo with the minimum range of 2.61 present. Similarly, the highest range is marked in 2016-17 which shows that the companies are working hard for their profitability and assets creation. But, due to government plans and higher prices these companies are not maintaining their profit at constant rates. It can also be explained by the following diagram:



Comparative Net Profit Ratio

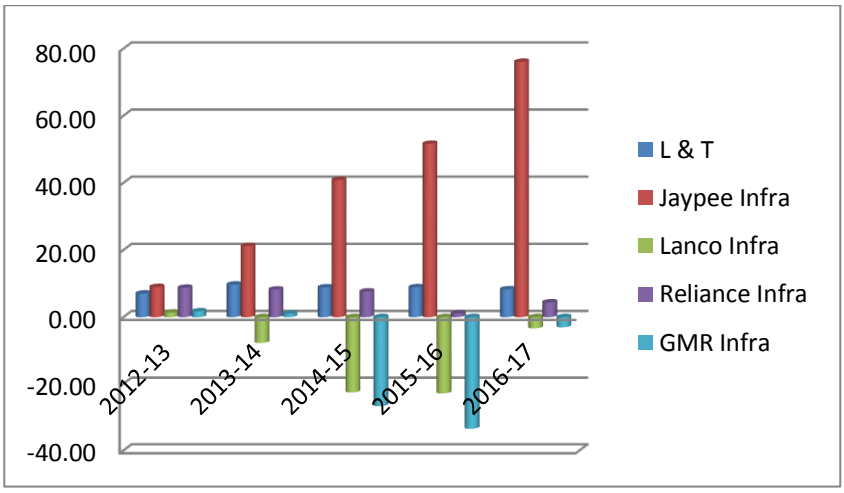
The detailed analysis of net profit ratio of the selected companies is explained in the following table:

Table: 2

Analysis of Comparative Net Profit Ratio

Year	L & T	Jaypee Infra	Lanco Infra	Reliance Infra	GMR Infra	Range = H -L
2012-13	7.03	8.97	1.34	8.75	1.74	7.63
2013-14	9.70	21.20	-7.72	8.22	1.01	28.92
2014-15	8.86	40.86	-22.58	7.63	-26.68	67.54
2015-16	8.88	51.64	-22.87	1.09	-33.47	85.11
2016-17	8.29	76.09	-3.36	4.40	-3.02	79.45
Highest	9.70	76.09	1.34	8.75	1.74	
Lowest	7.03	8.97	-22.87	1.09	-33.47	
Range = H - L	2.67	67.12	24.21	7.66	35.21	

It is clear from the above table that the net profit ratio was marked highest range at 67.12 percent in Jaypee Infra Limited and lowest in Larson and Turbo Infrastructure at 2.67 percent which shows that the tax burden on the companies as well as the plans and policies of the government for infrastructure sector. Hence, the Lanco Infra Limited and GMR Infra Limited is maintaining their profit margin after paying indirect taxes in the selected financial years. It can also be explained by the following diagram:



Conclusion:

On the whole it can be concluded that the Jaypee Infrastructure is performing well on the basis of EVA model as compared to the other companies.

***Research Scholar**
Department of ABST
Rajasthan University
Jaipur (Raj)

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