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"Financial Performance of Power Sector Companies in Rajasthan"

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ABSTRACT

Financial performance evaluation is the process of discovering economic facts about an enterprise on the basis of interpretation of the available financial data. The primary objective of financial evaluation is to given an accurate picture of the financial condition of a concern in condensed form. The present study has been undertaken to examine the financial performance of DISCOMS of Rajasthan for a period of seven years from 2011-2012 to 2017-18*. Data have been collected from various published annual reports and financial statements liquidity, profitability, management efficiency. Solvency and market valuation ratios have been calculated and analyzed. One way ANOVA have been applied in order to examined the hypothesis of current research study on profitability ratio's. The findings highlighted that there is no significant impact of current ratio and inventory turnover ratio on profitability. However, debt-equity ratio has a significant impact on profitability of DISCOMS of Rajasthan.*

Keywords: Power sector, ratio Analysis, ANOVA, JVVNL, AVVNL, JDVNL, SPSS

1. INTRODUCTION:

Infrastructure has become supremely important for a nations economic development. As it provides the basic structural foundation for it. And it is far more so in the case of developing countries of the world as their economic development, which had been neglected for long, for various reasons, depends very much upon their raising an effective and efficient infrastructure which can respond to demand and provide the required services promptly and efficiently. Effective and provide the required services promptly and efficiently. Effective service is the golden measure of infrastructure development. Infrastructure services in return enhance the welfare of the people, foster economic growth and productivity, and help to improve the quality of life in general. Therefore it has been said that infrastructure is like the wheels of economic activity. Its failure, especially in major areas such as power, reduces productivity and radically affects the quality of life. There is every reason to believe that in the developing countries today countries today investments in infrastructure have been improper despite high cost, and therefore have not been rendering the services expected of its properly. The Economic development of any country irrespective of its size mainly depends upon the development of the power sector, which in fact is a key indicator of the nation's overall economic development. Power is central not only to all household activities , but to economic development as well. In fact it is the fuel of economic progress in all sectors, not only agriculture and industrial but all allied areas. Economic progress depends very much upon how successfully and profitably a country manages it power sector. Agriculture, industry and other core areas of economic ultimately depends for their development and success on the availability of adequate power constantly and uninterruptedly throughout the year. How important is power consumption in the economic development a country, apart from other factors, may be taken known by taking into consideration its power consumption. If power consumption by all sectors is seen to increase, then the index of eco-development as a measure of its progress is also found to increase. Usually the correlation between consumption of power and the growth of economy is taken as a measure of progress. The production of Electricity is a basic indicator of a country's size and level of development in all spheres. Some countries are exporting electricity on a massive scale and other are importing it on a large scale. In India most of the consumption is by the agricultural sector, where the rate of revenue is very low. Expanding the supply of electricity to meet the growing demand of ever increasing urbanized Indian economy without incurring unacceptable costs is a major challenge to it. People's standard of living depends on their use of energy in general and access to electricity in particular. It is a major factor on which the policy-makers have to seriously focus their attention and direct their efforts. Compared with several other countries of the world, India is lagging behind many in terms of production as well as per capita consumption of energy. (Fatima N, 2011)

Power Sector in India is at a crucial juncture of its evolution from a controlled environment to a competitive, market driven regime which endeavors to provide affordable, reliable and quality power at reasonable prices to all sectors of the economy. The Gross Domestic Product (GDP) of our country has been growing at the rate of about 8% for the last several years. The liberalization and globalization of the economy is leading to an increased pace in industrial and commercial activities and this, coupled with penetration of new technologies and Information Technology in the day-to-day life of the common man, is expected to result in a high growth in power demand. It is accordingly essential that development of the Power Sector should commensurate with the overall economic growth of the nation.

The power sector has to expand if India is to meet the country's ambitious growth targets of 8–10 percent over the next two decades. According to the Planning Commission, India must triple or quadruple its primary energy supply and increase its installed electricity capacity by at least five or six times 2017/18 levels to meet demand in 2031/32. By 2032, India will require a total primary energy supply of approximately 80 million TJ (terajoules), almost triple the 2010 output of 29 million TJ, requiring a compound annual growth rate of 4.7 percent.

The most urgent need is to address the financial distress of the power sector while using the crisis as leverage to implement interventions to improve efficiency and other measures essential to the longer-term sustainability of the power sector.

Financial performance analysis is a scientific evaluation of the profitability, efficiency and soundness of any business concern. Performance analysis and financial statement analysis have the similar meaning and both are generally used as synonymous. The management decision making process or planning process starts for the analysis of financial performance. After preparation of the financial statement, the financial performance appraisal analysis takes place in any business concern. (***Pandey. I.M., 2010***)[1]

[1] Pandey I.M. "Financial Management" Vikas Publishing house, New Delhi (2010)

With this backdrop the researcher is interested in making an in-depth study on the financial performance of selected Power sector companies. Hence an attempt is made to assess "***Financial Performance of Power Sector Companies in Rajasthan"*** units at micro level, over a period of 7 years and to suggest measures to tackle and improve their financial performance.

2. REVIEW OF LITERATURE:

S.No	Author	Year	Research Findings
1	Mani Khurana and Sudeshna Ghosh Banerjee	2015	• The study reviewed the financial and operational performance of segments in the power sector value chain since adoption of the Electricity Act 2003 and the factors that contributed to the recent crisis. • The findings of the study revealed that efficiency and productivity, whether performance has improved over time, and which states have emerged as performance leaders. Analysis of this kind is not new or unique, but this report aims to integrate historical performance, the current scenario, projections into the future of the impact of worsening sector finances, and the actions that need to be taken to check the downturn.
2.	K P Kannan, N Viayamoihanan PiIllai	2011	• This article examined significant aspects of inefficiency costs involved in SEBs functioning. Part I of this article, published last week, dealt with physical performance focusing on such aspects as technical inefficiency, T and D losses, it's possible underestimation, as well as some aspects of institutional and organisational inefficiency. • The results showed that patronizing policies of the state resulted in excessive employment, especially at the non-technical, administrative level, involving unwarranted cost increases and in irrational pricing practices for subsidized power sales, irrespective of considerations of costs, leading to substantial losses
3.	Muhammer İLKUÇAR Ahmet ÇİFCİ	2016	• In this study, the financial performance of 6 electricity generation companies whose shares are traded in the BIST were evaluated with multi decision making analysis by using financial ratios. • TOPSIS performance evaluation method was used since this was a multi-criteria decision problem. Six companies are listed in descending order according to 2015 economic data criteria and company performance. As a result, company with the best performance was AYEN, and the company with the worst performance was AKENER.
4.	Pranati Misra		• The study examined the financial performance of DISCOMS OF RAJASTHAN for a period of ten years from 2010- to 2015-16. • The findings highlighted that there is no significant impact

			of current ratio and inventory turnover ratio on profitability. However, debt-equity ratio has a significant impact on profitability of DISCOMS OF RAJASTHAN .
5.	AB Angappapillai, P Kandasamy	2017	• The researcher analyzed the financial performance of the power industry of Tamil Nadu by using financial variables. • It is inferred from the findings that the trend co–efficients for the total cost incurred by the TNEB under the three periods are positive and statistically significant at five per cent level. It implies that on an average total cost incurred by the TNEB have been increasing
6.	Ajai Nirula	2019	• The paper aimed to offer an analysis of Discoms' performance, and establish the key areas of focus going forward, with strategies proposed for each focus area. • The result areas highlighted to follow a pragmatic strategy, and balancing diverse stakeholder interests, it is possible to achieve distribution sector financial sustainability on a pan-India basis.
7.	Dragos Paun	2017	• The aim of the current paper was to analyze the financial performance of the companies operating in the field. Our assumption is that the success of the implementation of the energy switch from classic to renewables relies on the businesses operating in this industry. • The findings of the study reveals that the investments have been rather opportunistic, based on the commitment of the government to keep the subsidies introduced by the policy, and have not been based on the realistic long-term financial performance of the companies in this area.
8.	Tu Chi Nguyen, Richard Bridle and Peter Wooders	2014	• This paper tried to provide a methodology to assess the financial performance of the electricity sector to identify challenges and examples of good practice which influence the ability of the sector to meet the needs and expectations of consumers. • The findings suggests i) to benchmark the performance of one country against that of others to help countries develop priorities for reform if necessary; (ii) to highlight how an unsustainable sector could result from unfavourable arrangements resulting from historical conditions, or political and economic constraints (e.g., keeping electricity tariffs below the cost of supply, leading the system to accumulate losses); and (iii) to provide an analysis that highlights potential challenges by considering factors that may not currently have a financial cost but may lead to future costs.

3. RESEARCH METHODOLOGY:

RESEARCH METHODOLOGY	
Objectives of Research	• To evaluate the financial strength of DISCOMS of Rajasthan • To analyze the profitability of DISCOMS of Rajasthan.
Research Design	Exploratory and Analytical
Selected Universe	DISCOMS of Rajasthan.
Sampling Design	Random sampling Method
Sample Size	♦ Jaipur Vidyut Vitran Nigam Limited (JVVNL) ♦ Ajmer Vidyut Vitran Nigam Limited (AVVNL) ♦ Jodhpur Vidyut Vitran Nigam Limited (JDVVNL)
Data collection Techniques	The study is mainly based on the secondary data. The data relating to the selected sample units have been collected from the 'Capitaline' database for the period of 7 years viz 2011-2012 to 2017-18. Other relevant information is also obtained from power transmission and distribution in Rajasthan Reports, CMIE Publications, Annual Survey of Industry, BSE Official Directory, Business News Papers, Magazines and Journals. Websites like www.cma.com, www. indiainfoline.com, www.indiastat.com, www.indiaPowerSector.com, have been comprehensively searched
Period of Study	2011-2012 to 2017-18

4. FINDINGS OF STUDY

Profitability analysis helps in critically analyzing and interpreting the current and prospective earning capacity of business corporations. In the process of analysis and interpretation certain methods are adopted to measure more systematically the trends of business profits. Profitability analysis owing to its methods enables both official and unofficial agencies to measure the trends of profits, to construct a number of indicators of business activity and to analyze, evaluate and interpret in right perspective the earning capacity of a business house.

To maximize the firm‟s profits there is a trade-off between return (profit) and risk. If more risk exist in a decision, the greater the expected profit. Some persons invest in bank deposits while others are willing to get more risk and invest in shares. Some firms are more willing than other firms to accept the high risk in order to get high potential profit. In making a decision the firm is faced with the trade-off – "risk vs. return"

Profitability analysis is external because it helps the external users of accounting information pertaining to particular business concern viz. stock holders, bond-holders, potential investors, bankers and other creditors and government agencies in measuring its economic wealth by its earnings.

The profitability of an undertaking may be measured by means of different techniques. But a ratio technique is one of the best and the most understandable techniques to measure the profitability of any concern. The result of ratio analysis is of particular interest to those potential creditors or owners who are contemplating long-term commitments in the business under consideration as well as to management in judging its own effectiveness.

The main object of every business concern is to earn profits. A business must be able to earn adequate profit In relation to the capital Invested in It. The following are the important profitability ratio's analysed of selected Rajasthan and Gujarat Power sector companies in current research study:

GROSS PROFIT RATIO

The gross profit ratio shows the proportion of profits generated by the sale of products or services, before selling and administrative expenses. It is used to examine the ability of a business to create sellable products in a cost-effective manner. The ratio is of some importance, especially when tracked on a trend line, to see if a business can continue to provide products to the marketplace for which customers are willing to pay a reasonable price.

(Sales – Direct materials) ÷ Sales

Table 1 Gross Profit Ratio of Selected Power Sector Companies Under Study

(Gross Profit Ratio in Percentage)

(Values in Rs Crore)

COMPANY		Financial Year							Mean	SD	CV
		2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18			
JVVNL	Gross Profit	-1758.89	-1125.49	-1514.70	-686.37	272.51	1853.36	3016.17	8.08	1813.46	22431.94
	Sales	5342.65	6907.14	8075.47	10070.09	11502.12	13682.36	16257.44	10262.47	3861.24	37.62
	Ratio	-32.92	-16.29	-18.76	-6.82	2.37	13.55	18.55	-5.76	18.48	-320.79
AVVNL	Gross Profit	-1448.98	-1048.39	-1051.01	-192.69	464.87	1479.61	2129.62	47.58	1370.23	2880.11
	Sales	3821.77	4991.26	6261.08	7413.63	8331.21	9596.79	11285.67	7385.92	2604.26	35.26
	Ratio	-37.91	-21.00	-16.79	-2.60	5.58	15.42	18.87	-5.49	20.74	-377.73
JDVVNL	Gross Profit	-1352.59	-1459.48	-1087.16	-799.56	521.63	804.29	1475.87	-271.00	1180.67	-435.67
	Sales	3650.85	5185.62	6930.19	8223.05	9983.61	11138.63	12304.22	8202.31	3163.74	38.57
	Ratio	-37.05	-28.14	-15.69	-9.72	5.22	7.22	11.99	-9.45	18.72	-198.09

***Source** –Annual Reports& Accounts of Selected Power Sector Companies under Study*

Interpretation:

The above table demonstrates the Gross Profit ratio of seven power sector companies for the year 2011 to 2018. The table contains the value of Gross Profit of the company upon its total Sales. Starting from the first, JVNL the mean calculated for Gross Profit ratio from the year 2011 to 2018 was -5.76 whereas the mean for AVVNL was -5.49 respectively. Coming on the third company named JDVVNL, the mean value for Gross Profit ratio ranged at -9.45.

OPERATING RATIO

Operating ratio is computed by dividing the operating cost by sales. As a formula it can be expressed as:

Operating Ratio= Cost of Purchase of Power + Operating Expenses / Net Sales

Table 2 Operating Ratio of Selected Power Sector Companies Under Study

(Operating Ratio in Percentage)

(Values in Rs Crore)

COMPANY		Financial Year							Mean	SD	CV
		2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18			
JVVNL	Cost of Purchase of Power + Operating Expenses	8581.91	9737.50	11381.08	12873.87	13455.86	14540.12	16203.11	12396.21	2679.80	21.62
	Net Sales	5342.65	6907.14	8075.47	10070.09	11502.12	13682.36	16257.44	10262.47	3861.24	37.62
	Ratio	160.63	140.98	140.93	127.84	116.99	106.27	99.67	127.61	21.59	16.92
AVVNL	Cost of Purchase of Power + Operating Expenses	6796.60	7307.41	8783.97	9247.75	9725.87	10228.96	11115.13	9029.38	1545.58	17.12
	Net Sales	3821.77	4991.26	6261.08	7413.63	8331.21	9596.79	11285.67	7385.92	2604.26	35.26
	Ratio	177.84	146.40	140.29	124.74	116.74	106.59	98.49	130.16	27.10	20.82

***Source** –Annual Reports& Accounts of Selected Power Sector Companies under Study*

Interpretation:

The above table 2 explains Operating Ratio for seven well-known power companies from 2011 to 2018. Operating ratio is calculated from Cost of Purchase of Power + Operating Expenses upon Net Sales of the company. JVVNL, the first company had a mean Operating Ratio of 127.61 whereas AVVNL had a little higher ratio calculated as 130.16. Moving further, the third company was JDVVNL with a mean operating ratio of 130.20

OPERATING PROFIT RATIO

The operating margin formula is calculated by dividing the operating income by the net sales during a period.

Operating Profit Ratio= Operating Income/ Net sales

Operating income, also called income from operations, is usually stated separately on the income statement before income from non-operating activities like interest and dividend income. Many times operating income is classified as earnings before interest and taxes. Operating income can be calculated by subtracting operating expenses, depreciation, and amortization from gross income or revenues.

The operating profit margin ratio is a key indicator for investors and creditors to see how businesses are supporting their operations. If companies can make enough money from their operations to support the business, the company is usually considered more stable. On the other hand, if a company requires both operating and non-operating income to cover the operation expenses, it shows that the business' operating activities are not sustainable.

Table 3 Operating Profit Ratio of Selected Power Sector Companies Under Study

(Operating Profit Ratio in Percentage)

(Values in Rs Crore)

COMPANY		Financial Year							Mean	SD	CV
		2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18			
JVVNL	Operating Income	-3239.26	-2830.36	-3305.61	-2803.78	-1953.74	-857.76	54.33	-2133.74	1289.56	-60.44
	Net Sales	5342.65	6907.14	8075.47	10070.09	11502.12	13682.36	16257.44	10262.47	3861.24	37.62
	Ratio	-60.63	-40.98	-40.93	-27.84	-16.99	-6.27	0.33	-27.61	21.59	-78.17
AVVNL	Operating Income	-2974.83	-2316.15	-2522.89	-1834.12	-1394.66	-632.17	170.54	-1643.47	1111.31	-67.62
	Net Sales	3821.77	4991.26	6261.08	7413.63	8331.21	9596.79	11285.67	7385.92	2604.26	35.26
	Ratio	-77.84	-46.40	-40.29	-24.74	-16.74	-6.59	1.51	-30.16	27.10	-89.88

***Source** –Annual Reports& Accounts of Selected Power Sector Companies under Study*

Interpretation:

The above table shows the Operating Profit ratio of seven power sector companies for the year 2011 to 2018. The table contains the value of Operating Income of the company upon its Net Sales. Starting from the first, JVNL the mean calculated for Operating Profit ratio from the year 2011 to 2018 was -27.61 whereas the mean for AVVNL was -30.16 respectively. Coming on the third company named JDVVNL, the mean value for Operating Profit ratio ranged at -30.20

ANOVA OF FINANCIAL STRENGTH AND PROFITABILITY OF SELECTED RAJASTHAN DISCOMS UNDER STUDY

ANOVA							
GROUP			Sum of Squares	df	Mean Square	F	Sig.
Rajasthan Power Sector Companies	PROFITABILITY ANALYSIS	Between Groups	5.322	5	.294	1.010	.043
		Within Groups	57.118	201	.292		
		Total	62.440	206			

Obtained from SPSS Analysis

The above statistical analysis of FINANCIAL STRENGTH AND PROFITABILITY OF SELECTED RAJASTHAN UNDER STUDY states that as the F value and P value is found be significant thus in the tested set of hypothesis

Null Hypothesis

H_0 ***There is no positive correlation between financial strength and profitability of the companies under study.***

IS REJECTED

Alternative Hypothesis

H_A: ***There is a positive correlation between financial strength and profitability of the companies under study."***

IS ACCEPTED AND PROVED.

CONCLSUION

The profitability ratios show that overall profitability on DISCOMS of Rajasthan has been positive during the study period. However, the profitability of DISCOMS OF RAJASTHAN has declined over the period of study. The gross profit margin of DISCOMS OF RAJASTHAN has been in fluctuating trend while the operating profit margin is much lower than the gross profit margin which shows increase in operating expenses during the study period. Besides, the short term solvency position or liquidly position of DISCOMS OF RAJASTHAN was not good as current ratio and quick ratio were lower than standard norms. Negative working capital in last year of study indicates more current liabilities than current assets. Therefore, it can be conclude that liquidity position of DISCOMS OF RAJASTHAN deteriorated during the study period. Nevertheless Long term solvency position of DISCOMS OF RAJASTHAN has been satisfactory from 2007. 16. The overall debt equity capital indicating that DISCOMS OF RAJASTHAN is exploring the trading on equity advantages but because of declining profit to cover its financial charges but proper attention is required in this area. The management efficiency of DISCOMS OF RAJASTHAN has declined indicating that NPTC has not been able to utilize the resources effectively. Decline in account receivable turnover ratio brought the conclusion that debtors management of DISCOMS OF RAJASTHAN has weaken over the study period. Market valuation of DISCOMS OF RAJASTHAN . has weaken over the study period. Market valuation of DISCOMS OF RAJASTHAN has decline over the period of study. Finding of the study brought the conclusion that overall financial performance of DISCOMS OF RAJASTHAN was satisfactory during initial years of the study but deteriorated in later years.

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