

# Patterns of Revenue Expenditure in Specified Bioenergy Generation Firms of Andhra Pradesh & Telangana State

Sayyad Saadiq Ali, K.Sharath Babu, S.Ramesh, N.Pavan Reddy, K.Hema Divya

**Abstract** - Out of all renewable energy generation fields like solar, small hydro, wind and biomass energy sectors-biomass energy generation sector is not in a well organized condition almost in all the states of India. In this paper we tried to examine the revenue expenditure components to find its impact on the viability of selected firms. For this purpose we have used the statistical tools like mean, standard deviation and co-efficient of variation. The results have shown that the co-efficient of variation of Satyamaharshi Power Corporation Limited is higher than other two firms and from the analysis of individual components of revenue expenditure of three firms, it is notable that administration expenses has highest co-efficient of variation in Rithwik Power Projects Limited and financial & miscellaneous expenses has highest co-efficient of variation in rest of the two firms.

**Keywords** -- Administration expenses, Financial & miscellaneous expenses, Generation expenses, Payments & benefits to employees.

**Abbreviations** - AE-administration expenses, PB- payments and benefits to employees, GE-generation expenses, TOE-Total Operating expenses, F&ME- financial & miscellaneous expenses, TE-total expenses.

## I. INTRODUCTION

An expenditure which neither maximizes the assets nor minimizes the liabilities is considered as revenue expenditure. Examples of revenue expenditure are- salaries and other benefits to employees, interest payments of past dues by the firm, other financial expenses, subsidy considerations etc.. These are generally paid out of revenue receipts. Revenue Expenditure: Simply an expenditure which neither creates assets nor reduces liabilities is called revenue expenditure, e.g., salaries of employees, interest payment on past debt, subsidies, pension, raw material cost, lubricants, repairs of machinery, rent, wages, general expenses.

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These are financed out of revenue receipts. Broadly, any expenditure which does not lead to any creation of assets or reduction in liability is treated as revenue expenditure. It is a short span cost and recurring in nature which is repeatable in nature every year (as opposite to capital expenditure which is long period expenditure and non- repetitive in nature). Revenue expenditure also includes the expenditure incurred for the stores required for manufacturing saleable goods and the expenditure incurred to maintain the- fixed assets in proper working conditions i.e. repair of machinery, building, furniture etc. Importance of revenue expenditure:- Generally, from the financial statements like balance sheet and profit & loss account we can ascertain the financial position and profitability position of every business concern. It is very important to allocate between capital expenditure and revenue expenditure in a proper way for smoothening the business operations of the firm throughout the year. Unless a perfect prediction by financial controller, it is very difficult to saturate all the necessities of futuristic in nature. An in-tune apportionment between capital expenditure and revenue expenditure is essential for proper utilization of all. This fund allocation is influenced by market size, firm expected output generation targets, competitors' strategies, firm brand image, national policies, nature of the product and working capital cycle.

## II. OBJECTIVES OF THE STUDY

To analyze the revenue expenditure status of selected bioenergy generation firms of Andhra Pradesh and Telangana State.

## III. REVIEW OF LITERATURE

**Kanayo Ogugiuba & Terfa W. Abraham** in their research found that there is a strong correlation between revenue and expenditure in Nigeria and also proved that in the long-run also there is a significant correlation between revenue and expenditure and disequilibrium can be minimized through updated policies that cause improvement in revenue. [2]

**Yemane Wolde-Rufael** in his article found by the research carried out of 13 countries to test the causality of relationship between revenue and expenditure and the empirical evidence narrates that there is a bi-directional relationship exist between revenue and expenditure. It means that as expenditure increases it directs the improvement in revenue also in some countries.[3]

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**Matthew Jap f & James E. Payne** in their research have studied about four situations of tax-spend, spend-tax, fiscal synchronization and institutional separation hypotheses. The results found that spend-tax process of revenue generation is more likely the best one among all the cases. [4]

**Paresh Kumar Narayan & Seema Narayan** in their investigation have tried about checking the causality between revenue and expenditure of 12 developing countries. They found that tax- spend hypotheses is proved positively in few countries and neutrality is resulted in remaining countries. [5]

**Paresh Kumar Narayan** in his study observed that in some cases of expenditure it is good to invest initially then expect the benefit later. From his analysis it is clear that this tax-spend or spend-tax behavior is completely depend on the government policies related to specified industry and on its trend behavior. [6]

**Cosimo Magazzino** in his research about relationship between revenue and expenditure found that in most of the ASEAN countries revenue stream decides the expenditure policies. [7]

**Charles Figuieres, Jean Hindriks and Gareth D. Myles** in their results found that corrective policies have inverse

proportional relationship between expenditure and revenue. More precisely, for any form of competition, revenue sharing is desirable exactly when expenditure sharing is not and vice versa. [8]

**Susan B. Hansen and Patrick Cooper** from their study has observed that between time period of 1960 to 1970, a small positive relationship exerts between revenue elasticity and expenditure growth. But it had been turned into weak and negative for 1970 to 1976. High elastic revenue states minimized their spending and less elastic revenue states decreased their imposition of taxes for steady allocations for saturation.[9]

**Jesse W. Hughes** in his article found that revenue fluctuations impact directly on the repetitive investment pattern of governments. Due to the reasons of inflation, population funding patterns are changing.[10]

### IV. DATA ANALYSIS

#### Analysis of revenue expenditure of Rithwik Power Projects Limited

**Table1: Details of Revenue Expenditure of Rithwik Power projects Limited for the period of 2009-10 to 2015- 16[11] (in Lakhs)**

Details		AE	PB	GE	TOE	F&ME	TE
2009 -10	Rs.	189.2	72.91	1133.02	1395.13	84.97	148.1
	%	12.78	4.93	76.55	94.26	5.74	100
2010 -11	Rs.	171.05	83.76	1022.21	1277.02	190.32	1467.34
	%	11.66	5.71	69.66	87.03	12.97	100
2011 -12	Rs.	290.72	99.3	1096.64	1486.66	202.83	1689.49
	%	17.21	5.88	64.91	87.99	12.01	100
2012 -13	Rs.	336.81	105.2	1151	1593.01	211.11	1804.12
	%	18.67	5.83	63.8	88.3	11.7	100
2013 -14	Rs.	437.1	118.86	1398.42	1954.38	173.77	2128.15
	%	20.54	5.59	65.71	91.83	8.17	100
2014 -15	Rs.	325.13	122.65	1991.3	2439.08	159.37	2598.45
	%	12.51	4.72	76.63	93.87	6.13	100
2015 -16	Rs.	533.87	146.74	1805.13	2485.74	164.59	2650.33
	%	20.14	5.54	68.11	93.79	6.21	100
Mean		326.27	107.06	1371.1	1804.43	169.57	1974
Std. Dev		128.87	24.93	382.09	496.79	41.96	496.92
CV		39.5	23.29	27.87	27.53	24.75	25.17

Source: Extracted and Calculated from annual reports of Rithwik Power Projects Limited & mca.gov.in for the above years

#### Analysis of revenue expenditure of Rithwik Power Projects Limited

These expenses involved in daily basis operating functions may be considered as revenue expenditure. The amount of revenue expenditure decides the surplus to be left for appropriations. The degree of success of revenue expenditure makes improving the financial viability. A focus on analysis of revenue expenditure makes the firm to focus on creating some value to expenses components. The analysis is made on the basis of grouping of main activities. Table 1 shows the details of all the revenue expenditure

activity wise of Rithwik Power Projects Limited for the period of 2009-10 to 2015-16

#### A. Expenditure on administration expenses

This is one of the important operating expenditure of all revenue expenditure components and contributing on an average 12.78% in total revenue expenditure in the year of 2009-10. It has increased to 20.94% in 2015-16 of total revenue expenditure.

**B. Expenditure on Payments & benefits to employees**

This is one of the important operating expenditure of all revenue expenditure components and contributing on an average 4.93% in total revenue expenditure in the year of 2009-10. It has increased to 5.54% of total revenue expenditure in 2015-16.

**C. Expenditure on Generation expenses**

It is considered as the key expense of all revenue expenditure expenses and contributing on an average 76.55% in total revenue expenditure in the year of 2009-10. It has decreased to 68.11% of total revenue expenditure in 2015-16.

**A. Expenditure on Financial & Miscellaneous expenses**

It is also considered as one of the primary revenue

expenditure of in nature to these private owned firms and contributing on an average 5.74% in total revenue expenditure in the year of 2009-10. It has increased to 6.21% of total revenue expenditure in 2015-16.

The mean revenue expenditure of entire components in Rithwik Power Projects Private Limited is found to be Rs.1974.00 lakhs with a co-efficient of variation 25.17%. The average values of components of the revenue expenditure of Rithwik Power Projects Private Limited are Rs.326.27 lakhs, Rs.107.06 lakhs, Rs.1371.10 lakhs and Rs.169.57 lakhs respectively for administration expenses, payments & benefits to employees, generation expenses and financial & miscellaneous expenses.

**Analysis of revenue expenditure of Jyoti Bioenergy Limited**

**Table 2: Details of Revenue Expenditure of Jyoti Bio Energy Limited for the period of 2009-10 to 2015-16[11]**

Details		AE	PB	GE	TOE	F&ME	TE
2009-10	Rs.	69.78	119.20	1721.33	1910.31	31.99	1942.30
	%	3.59	6.14	88.62	98.35	1.65	100.00
2010-11	Rs.	196.45	81.45	1065.94	1343.84	18.49	1362.33
	%	14.42	5.98	78.24	98.64	1.36	100.00
2011-12	Rs.	183.91	80.17	828.24	1092.32	7.20	1099.52
	%	16.73	7.29	75.33	99.35	0.65	100.00
2012-13	Rs.	356.45	77.63	1055.98	1490.06	0.02	1490.08
	%	23.92	5.21	70.87	100.00	0.00	100.00
2013-14	Rs.	427.50	92.46	945.32	1465.28	0.00	1465.28
	%	29.18	6.31	64.51	100.00	0.00	100.00
2014-15	Rs.	130.91	116.88	816.95	1064.74	0.00	1064.74
	%	12.30	10.98	76.73	100.00	0.00	100.00
2015-16	Rs.	108.91	142.13	1610.24	1861.28	11.77	1873.05
	%	5.81	7.59	85.97	99.37	0.63	100.00
Mean		186.04	89.49	1015.28	1290.81	8.85	1299.66
Std. Dev		132.76	24.86	367.53	334.08	12.02	341.33

Source: Extracted and Calculated from annual reports of Jyoti Bio Energy Limited & mca.gov.in for the above years

**A. Expenditure on administration expenses**

This is one of the important operating expenditure of all revenue expenditure components and contributing on an average 3.59% in total revenue expenditure in the year of 2009-10. It has increased to 5.81% in 2015-16 of total revenue expenditure. It is contributed to Rs.69.78 lakhs in 2009-10 and increased to Rs.108.91 lakhs in 2015-16.

**B. Expenditure on Payments & benefits to employees**

This is one of the important operating expenditure of all revenue expenditure components and contributing on an average 6.14% in total revenue expenditure in the year of 2009-10. It has increased to 7.59% of total revenue expenditure in 2015-16 and it is contributed to Rs.119.20 lakhs in 2009-10 and Rs.142.13 lakhs in 2015-16.

**C. Expenditure on Generation expenses**

The expenditure of generation expenses decreased from 88.62% in 2009-10 to 85.91% in 2015-16 out of total revenue expenditure pertaining to particular year. It is contributed to Rs.1721.33 lakhs in 2009-10 and increased to Rs.1610.24 lakhs in 2015-16

**D. Expenditure on Financial & miscellaneous expenses**

It is also considered as one of the primary revenue expenditure of in nature to these private owned firms and contributing on an average 1.65% in total revenue expenditure in the year of 2009-10. It has increased to 0.63% of total revenue expenditure in 2015-16. It is contributed to Rs.31.99 lakhs in 2009-10 and Rs.11.77 lakhs in 15-16.

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The mean revenue expenditure of entire components in Jyoti Bio Energy Limited is found to be Rs.1299.66 lakhs with a co-efficient of variation 26.26%. The average values of components of the revenue expenditure of Jyoti Bio Energy

Limited are Rs.186.04 lakhs, Rs.89.49 lakhs, Rs.1015.28 lakhs and Rs.8.85 lakhs respectively for administration expenses, payments & benefits to employees, generation expenses and financial & miscellaneous expenses.

### Analysis of revenue expenditure of Satyamaharshi Power Corporation Limited

**Table 3: details of all the revenue expenditure activity wise of Satyamaharshi Power Corporation Limited for the period of 2009-10 to 2015-16 [in lakhs]**

Details		AE	PB	GE	TOE	F&ME	TE
2009-10	Rs	296.55	75.6	492.44	864.59	6.71	871.3
	%	34.04	8.68	56.52	99.23	0.77	100
2010-11	Rs.	270.57	99.11	451.44	821.12	52.33	873.45
	%	30.98	11.35	51.68	94.01	5.99	100
2011-12	Rs	495.94	143.08	1235.67	1874.69	241.26	2115.95
	%	23.44	6.76	58.4	88.6	11.4	100
2012-13	Rs	450.3	139.81	978.94	1569.05	234.93	1803.98
	%	24.96	7.75	54.27	86.98	13.02	100
2013-14	Rs	521.54	147.34	1026.37	1695.25	260.11	1955.36
	%	26.67	7.54	52.49	86.7	13.3	100
2014-15	Rs	264.28	150.54	1261.42	1676.24	195.32	1871.56
	%	14.12	8.04	67.4	89.56	10.44	100
2015-16	Rs	310	151.53	1897.86	2235.7	181.61	2417.31
	%	12.82	6.27	73.39	92.49	7.51	100
Mean		372.74	129.57	1049.16	1533.81	167.47	1701.27
Std. Dev		112.01	29.9	495.44	518.37	98.87	600.41
CV		30.05	23.08	47.22	33.8	59.04	35.29

#### A. Expenditure on administration expenses

This is one of the important operating expenditure of all revenue expenditure components and contributing on an average 34.04% in total revenue expenditure in the year of 2009-10. It has decreased to 12.82% in 2015-16 of total revenue expenditure. It is contributed to Rs.296.55lakhs in 2009-10 and increased to Rs.310.00 lakhs in 2015-16.

#### B. Expenditure on Payments & benefits to employees

This is one of the important operating expenditure of all revenue expenditure components and contributing on an average 8.68% in total revenue expenditure in the year of 2009-10. It has increased to 6.27% of total revenue expenditure in 2015-16 and it is contributed to Rs.75.60 lakhs in 2009-10 and Rs.151.53 lakhs in 2015-16.

#### C. Expenditure on Generation expenses

The expenditure of generation expenses increased from 56.59% in 2009- 10 to 74.69% in 2015-16 out of total revenue expenditure pertaining to It is contributed to Rs. 492.44 lakhs in in 2009-10 and increased to Rs.1897.86 lakhs in 2015-16.

#### D. Expenditure on Financial & miscellaneous expenses

It is also considered as one of the primary revenue expenditure of in nature to these private owned firms and contributing on an average 0.77% in total revenue expenditure in the year of 2009-10. It has increased to 7.51% of total revenue expenditure in 2015-16. It is contributed to Rs.6.71 lakhs in 2009-10 and Rs.181.61 lakhs in 2015-16. The mean revenue expenditure of entire components in Satyamaharshi Power Corporation Limited is found to be Rs.1701.27 lakhs with a co-efficient of variation

35.29%. The average values of components of the revenue expenditure of Satyamaharshi Power Corporation Limited are Rs.372.74 lakhs, Rs.129.57 lakhs, Rs.1049.16 lakhs and Rs.167.47 lakhs respectively for administration expenses, payments & benefits to employees, generation expenses and financial & miscellaneous expenses.

### V. Findings and Suggestions

From the integrated results comparison, it is clear that, the standard deviation of Satyamaharshi Power Corporation Limited is greater than other two firms. Jyoti Bioenergy Limited has minimum standard deviation than other two firms. From individual components point of view-generation expenditure has highest standard deviation than other components of capital structure of three firms.

The co-efficient of variation is highest for Satyamaharshi Power Corporation Private Limited and least in case of Rithwik Power Projects limited. From individual components point of view, it is found that administration expenses has highest percentage of co-efficient of variation in Rithwik Power Projects Limited and in rest of the two plants, financial & miscellaneous expenses has highest co-efficient of variation.

To make the revenue expenditure more effective of Rithwik Power Projects Limited, the organization has the scope to increase the expenditure of administration expenses in a steady manner.

It needs to increase the expenditure on employee benefits to balance the capital structure.

Jyoti Bioenergy Limited needs to increase the external borrowings to improve financial leverage and hence to reduce complete dependability on owner's fund.

Satyamaharshi Power Corporation Limited has the scope to increase expenditure on financial & miscellaneous expenses by the way of increasing the debt capital in overall capital structure and hence has the scope of expansion of operational activities to reduce the over burden on generation expenses.



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