

An Analysis of Fixed Assets Management of Sugar Industry in Karnataka

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Abstract- The capital expenditure is an important segment of capital investment with reference to fixed assets management and depreciation policy. The size of depreciation and method of depreciation adopted by factories influences its financial strength and adequacy to return on capital employed. The study tries to understand the size of depreciation with regard to gross block and depreciation to sales. It also tries to study the indices of gross block and depreciation in sample sugar factories and its impact on sales as well as return adequacy in sugar industry.

I. INTRODUCTION

Fixed assets management is the major capital expenditure incurred by the company to manage its capital structure; it deals with purchase of land & building plant & machinery, vehicles and other fixed assets which are essential in smooth running of business concern. Therefore when we talk about the fixed assets with usage it deteriorates its value and the role of depreciation policy plays a very important role in the fixed assets management. The depreciation policy blocks the gross fixed assets and decreases the financial strength of the concern. It forces the business concern to purchase the additional fixed assets for the further development of business. Over a period of time fixed assets are subject to obsolescence and the value becomes zero at a particular point in time. Therefore replacement of fixed assets is another issue in fixed asset management. It is advisable to the company to have a replacement policy to its fixed assets for avoiding the excessive capital expenditure in the years to come.

II. REVIEW OF LITERATURE

Pradeep Kumar Das¹, “Financing Pattern and Utilisation of Fixed Assets -A Study”, this study deals with analysis on the financing pattern and utilisation of fixed assets of Tata Steel Limited., the selected company have been studied with the help of several statistical measures during the period from 2011-12 to 2015-16. The study reveals the sufficiency of owners fund to finance fixed assets requirements and that the company had also enough long term funds to finance the entire fixed assets as well as part of current assets. The pace of expansion in gross block on sales was not impressive in the years of study. Apart from this, slow increase in the indices of depreciation points out that overall provision for depreciation was moderate in the company under reference.

Daniel Penkar², “fixed assets management with respect to WILCO Mather and Platt Pumps Private Limited”, fixed assets management is an accounting process that seeks to track fixed assets for the purposes of financial accounting, preventive maintenance and theft deterrence. Organisations face a significant challenge to track the location, quantity, condition, and maintenance and depreciation status of their fixed assets. This research paper addresses the role of fixed assets play in efficiency of a company to generate sales. At the same time, this paper addresses the area of improvement for the company's employees. The study is based on the research conducted at WILCO Mather and Platt Pumps Private Limited.

Biswas Bhaskar³, “Asset Management and Profitability: A Study of Selected Pesticides and Agro Chemical Companies in India”, Indian agriculture has been suffering from various problems like small and fragmented land holdings, use of low crop yielding seed, lack of mechanisation, soil erosion, uneven rainfall, lack of adequate storage and transport facilities. Consumption of agro based machinery, fertilizer, high crop yielding seeds, pesticides; irrigation facilities are the characteristics of present Indian farming system. The objective of the present study is to find out relation between ratio of assets

management and ratio of profitability of the ten select pesticides and Agro chemical companies in India for the period of the study. Ten companies of producing pesticides and Agro-chemical and listed in the stock exchange of India were selected for the study. The period of observation for the study is five years from 2014 to 2018 and correlation Matrix and regression analysis had been used for analysing the data collected from secondary source. As a result it can be said that there was significant correlation and regression between profitability and Asset Management ratio for selected companies for the Period of study.

Balavanthula SaiRam, Shireesha I, Vara Lakshmi Thavva⁴, “a study on fixed assets management in LG Electronics”, the study attempts to know capital expenditure made by the company during the study period. the study is conducted to evaluate depreciation and method of depreciation adopted by LG company. profit maximization is not considered as basic idea for making investment and financing decision through fixed assets management. it also evaluate the adequate return of the company. it deals with evaluation of fixed assets if liquidation take place, what is the proportion of fixed assets amount will contribute for the payment of owners fund and long term liabilities.

Research Gap

After reviewing various literatures, it can be observed that the study reveals that the efficiency of owners fund to finance fixed assets requirements and that the company had also enough long term funds to finance entire fixed assets as well as part of current assets. Slow increase in the indices of depreciation point out that the overall provision for depreciation was moderate in the company.

The other paper deals with the organisation faces a significant challenge to track the location, quantity, condition, maintenance and depreciation status of their fixed assets. The study addresses the role of fixed assets play in efficiency of a company to generate sales.

The another study tries to find out relation between ratio of Asset Management and ratio of profitability of ten select pesticides and Agro chemical companies in India for period of the study. There was a significant correlation and regression between profitability and Asset Management ratio for selected companies for the study period.

Another study attempts to know capital expenditure made by the company during the study period. The study is conducted to evaluate depreciation and method of depreciation. It also tries to evaluate the adequate return of the company. It can be said that, only a little literature could be found out in the fixed assets management, that too the literature review deals with fixed financing pattern of fixed assets, role of fixed assets in efficiency of company to generate sales, one of the study deals with relation between assets management and profitability and last literature deals with capital expenditure and adequate return. There is a lot of work need to be undertaken in the area of size of depreciation, adequacy of depreciation of fixed assets. In case of sugar industry which is a capital intensive industry as its, higher amount of capital is blocked in fixed assets. Therefore there is a need to know the size of depreciation to gross block and depreciation to sales as well as the indices of gross block and depreciation in sample sugar factories in Karnataka state.

III. STATEMENT OF THE PROBLEM

The capital expenditure is an important segment of capital investment with reference to fixed assets management and depreciation policy. the size of depreciation and method of depreciation adopted by factories influences its financial strength and adequacy to return on capital employed. The study tries to understand the size of depreciation with regard to gross block and depreciation to sales. it also tries to study the indices of gross block and depreciation in sample sugar factories and its impact on sales as well as return adequacy in sugar industry.

IV. OBJECTIVES OF THE STUDY

- To study the Performance of Fixed Assets Management.

Need for the Study

Sugar industry occupies a pivotal role in the world market, specifically in Indian market. There is a need to understand in depth the financial strength of sugar industry. The study attempts to know fixed assets management and depreciation policy adopted in sample sugar factories in Karnataka and its impact on sales and return adequacy in sugar industry.

Scope of the Study

The study covers only select sugar factories in Karnataka and excludes all other public and co-operative sugar factories from the study. At the same time the period is confined to 10 years starting from 2005-2006 to 2014-2015, and the performance of selected factories before and after study period excluded.

Research Design

The study is nature of desk research.

Sources of Data: The data required for the study collected from secondary source. The secondary data obtained from the Annual reports of the selected factories; magazines, Government reports, newspapers, internet surfing etc.

Sample Design: As on October 2011, the population for the study comprises of 38 private sugar factories in Karnataka. With the use simple random sampling technique the researcher selected 10 Sugar factories in the Karnataka State. However due to non-cooperation of two factories (GEM and Jamkhandi Sugars Limited) in providing data they have been out of the study. This leaves eight factories as sample and represents the sugar industry. The sample factories are given below:

1. Parrys Sugars Limited (Parrys)
2. Shri Prabhulingeshwara Sugars And Chemicals Limited (Prabhulingeshwara)
3. Shree Renuka Sugar Limited (Renuka)
4. The Ugar Sugars Works Limited (Ugars)
5. Athani Farmers Sugar Factory Limited (Athani)
6. Davangere Sugar Limited (Davangere)
7. Sri Chamundeshwari Sugar Limited (Chamundeshwari)
8. Bannari Amman Sugars Limited (Bannari)

Here on words the sample factories are called in short names.

Tools of Analysis

The data collected analysed with the help of ratio analysis, trend analysis and statistical techniques wherever necessary to draw meaningful inferences.

Limitations of the Study

The figures taken from the annual reports have been rounded off to two decimals of rupees in Lakhs. The data available in financial statements have been translated into pre-designed the structure format so that a meaningful interpretation could be made through inter-firm and intra-firm comparison. The format in which data have been classified is selected after careful consideration of the operations of the sugar factories. Nevertheless, the limitations do in No way act as a deterrent in drawing effective and meaningful inferences from this study.

Analysis of Depreciation Policy of Sugar Industry in Karnataka

Depreciation policy is of considerable importance to the financial manager because of its impact on profitability, its size in relation to total cost of operation, its effects on rate of return on investment and finally its relationship to replacement policy. Depreciation is a permanent, continuing and gradual shrinkage in the book value of fixed assets as a given rate as compared with its value at previous date. Depreciation is the systematic allocation of the cost of capital equipment to the revenues.

Most of the fixed assets may have productive use for many years, but eventually they will wear or become absolute and have little value. As depreciation is charged against revenues it denotes revenues consumed. Usually depreciation may be calculated either based on written down value method or straight line method. The choice of the method of depreciation has important consequences for financial management.

In India, business enterprises calculate depreciation as per the provisions of the Indian Companies Act, 1956. The amount of depreciation is calculated on historical cost of the Asset. Business firms provide depreciation on written down value method as per section 205 (2) (a) or straight line method in accordance with section 205 (2) (b) of Indian Companies Act 1956.

The sample factories have employed both methods for computation of depreciation. Among the sample factories, Parrys, depreciation has been provided on straight line method for tangible assets.⁵ Prabhulingeshwara charge depreciation on straight line method for tangible assets.⁶ Renuka provides depreciation on straight line method.⁷ Ugar charged depreciation under written down value method.⁸ Athani provides depreciation on straight line method on tangible assets.⁹ Davangere charged depreciation under written down value method on fixed assets.¹⁰ Chamundeshwari provides depreciation on straight line method.¹¹ Bannari provides depreciation on straight line method on fixed assets.¹² Regarding rate of depreciation all the sample factories under the study have charged depreciation, not exceeding the rates prescribed by the Income Tax Department. Therefore, the depreciation provided by the factories

presently may not be sufficient to replace the fixed assets whose costs have substantially increased. In spite of this known fact, an attempt has been made here to analyse the depreciation policy and the adequacy of depreciation provided in sample factories.

Size of Depreciation

The size of depreciation can be judged in relation to gross block and sales. The depreciation policy of the sample sugar factories has been studied by computation of two ratios, viz: i) depreciation to gross block and ii) depreciation to sales. Generally, upswing in the ratio of depreciation to gross block as well as sales indicates that a larger portion of sales revenue is consumed as depreciation; thereby the operating income is reduced.

Depreciation as percentage to gross block and sales is shown in Table -1 in consolidated position; sugar industry in Karnataka state has provided depreciation on an average to the extent of four percent on its gross block per annum. Depreciation to sales ratio on an average worked out at four percent as in the case of depreciation to gross block ratio. It points out that depreciation has consumed four per cent of sales on an average. Over the years, the ratio of depreciation to gross block has ranged between three percent and five percent over the years under observation. Further depreciation to sales varied between five percent in 2007 and three percent in 2015. It reveals that both the ratios recorded oscillations. The depreciation policy of the sugar industry was inconsistent. Depreciation to gross block tended to decline at the end under the study period.

Table-1											
Depreciation as a Percentage to Gross Block and Sales											
Name of the Factory	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Average
Consolidated											
Depreciation to Gross Block	5	4	3	4	4	5	5	5	5	4	4
Depreciation to sales	4	5	4	4	3	3	5	3	3	3	4
Parrys											
Depreciation to Gross Block	4	4	3	3	4	6	3	4	5	5	4
Depreciation to sales	4	7	9	14	14	9	5	5	4	4	8
Prabhulingeshwara											
Depreciation to Gross Block	4	4	4	4	4	4	4	5	5	3	4
Depreciation to sales	5	4	5	4	4	3	4	4	4	3	4
Renuka											
Depreciation to Gross Block	2	3	3	4	4	5	5	5	5	5	5
Depreciation to sales	1	3	2	3	1	2	-	2	3	3	2
Ugars											
Depreciation to Gross Block	5	2	4	5	9	7	6	6	6	3	5
Depreciation to sales	3	4	3	4	8	5	4	3	4	2	4
Papri Athani											
Name of the Factory	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Average
Depreciation to Gross Block	8	10	9	6	6	4	4	4	5	6	6
Depreciation to sales	4	5	4	3	5	3	2	3	4	3	4
Channideswar											
Depreciation to Gross Block	2	2	1	4	4	4	5	5	5	3	
Depreciation to sales	8	8	8	7	6	5	4	4	5	4	4
Depreciation to sales	3	3	3	8	7	5	5	5	6	4	5
Amman											
Depreciation to Gross Block	8	6	5	4	4	6	6	5	4	3	5
Depreciation to sales	7	5	5	5	4	9	6	4	8	6	6

Source : i) Appendix-I(A) to I (I); and
 ii) Appendix-III(A) to III (I)

A study of individual factories reveals that all the sample factories have provided depreciation throughout the study period under reference. The lowest average of depreciation to gross block was four percent in Parrys, Prabhulingeshwara, Renuka, Athani and Chamundeshwari each, whereas the highest percentage of six percent in Davangere. The depreciation to sales ratio on an average reported a minimum of two percent each at Renuka. It indicates that depreciation has consumed two percent of sales and eight percent in Parrys on an average. Among the sample factories, the ratio of depreciation to sales has remained more or less constant over the years under study with the exception of Parrys that too 2008 to 2010. It indicates that large portion of sales revenue has not been consumed as depreciation in the sample factories but in Parrys higher part of sales revenue was consumed by depreciation. It implies that these factories adopted liberal depreciation policy. The mild variation in the ratio of depreciation to gross block is found in Renuka and Ugar. It indicates that these factories have followed consistent depreciation policy. In the rest of the factories, the ratio of depreciation to gross block trends to decline over the years under observation. It implies that these factories have not provided adequate depreciation in the latter years of the study.

The depreciation policy adopted by the sugar industry in Karnataka state is satisfactory as the factories could provide depreciation more or less continuously on a consistent basis over the study period.

Adequacy of Depreciation (on Historical Cost Basis)

The adequacy of depreciation is examined on historical cost basis. For this purpose, the trend of the depreciation is compared with the trend of gross block. As such index numbers are computed for the gross block and depreciation provision by taking 2006 as the base year. If both these trends move in the same direction, it can be inferred that sufficient depreciation has been provided. If the pace of increase in the Indices of depreciation exceeds that of the gross block, it is a sign of liberal provision for depreciation. If the gross block shows an increasing trend while depreciation reports a decreasing trend, it indicates insufficient provision of depreciation. An enterprise, which expects to continue in business, must provide depreciation obviously to replace its plant and equipment as they wear out.

A glance at Table -2 shows the overall trend of Indices of depreciation and gross block. In the consolidated position, it reveals that the Indices of gross block and depreciation were in upward direction (except 12). But, the pace of increase in the indices of depreciation was less than that of gross Block with exception (2010-2014). It points out that depreciation was not provided sufficiently in the sugar industry. An analysis of individual factories shows that in five sample factories – namely Prabhulingeshwara, Ugar, Athani, Davangere and Bannari, indices of gross block have recorded an increasing trend. But, indices of depreciation have reported ups and downs. It points out that all the factories have not provided adequate depreciation throughout the study period. The five factories namely Prabhulingeshwara, Ugar, Davangere, Athani, Bannari have shown an increasing trend in both the indices. However, the increase in gross block was more than that of depreciation. Therefore, the overall position of these factories in this regard shows a healthy state of affairs. In other words, these factories provided depreciation adequately.

Table-2										
Indices of Gross Block and Depreciation in Sample Factories										
Name of the Factory	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Consolidated										
Gross Block	100	131	176	206	249	305	158	301	322	339
Depreciation	100	112	133	176	229	337	166	311	321	283
Parrys										
Gross Block	100	112	179	207	210	218	235	40	45	48
Depreciation	100	127.5	140	173	261	356	228	48	62	69
Prabhulingeshwara										
Gross Block	100	117	135	148	158	190	233	246	252	261
Depreciation	100	104	118	123	152	155	219	261	269	187
Renuka										
Gross Block	100	170	262	334	45	-	649	667	692	695
Depreciation	100	284	415	711	928	1656	1812	189	1772	-
Ugars										
Gross Block	100	129	154	163	168	171	175	194	198	210
Depreciation	100	61	131	158	322	268	235	231	239	145
Athani Sugars Limited										
Gross Block	100	121	133	150	157	177	260	318	376	580
Depreciation	100	110	135	135	141	141	142	207	311	219

Table-2										
Contd.										
Name of the Factory	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Davangere										
Gross Block	100	105	108	112	115	126	148	186	196	226
Depreciation	100	110	135	135	141	141	142	207	311	219
Chamundeshwari										
Gross Block	100	128	183	187	198	202	170	174	175	178
Depreciation	100	151	149	459	451	541	544	537	564	391
Bannari										
Gross Block	100	118	134	159	205	217	224	232	278	295
Depreciation	100	87	81	79	89	164	155	139	121	119

Source : i) Appendix-I(A) to I (I); and
ii) Appendix-III(A) to III (I)

The other three factories- Parrys, Renuka and Chamundeshwari - have shown opposite trend. In other words, the rate of increase in indices of depreciation was more than the rate of gross block throughout the study period. It may be observed that these factories were providing more depreciation in all years of study.

To conclude, Prabhulingeshwara, Ugar, Athani, Davangere and Bannari have been providing depreciation adequately but Parrys, Renuka and Chamundeshwari provide more excess depreciation over the gross block.

V. FINDINGS OF THE STUDY

- In the sample factories, plant and machinery occupied highest position in the component of gross block. All the sample factories have registered a positive annual growth rate in their gross block (except Parrys). Renuka accounted for largest expansion in terms of gross block.
- Ownership funds were insufficient to finance fixed assets requirement in the industry. Consequently, the use of borrowed funds had become compulsory in financing the fixed assets. Analysis of individual sugar factories reveals that with an exception of Bannari, all other factories failed to offer adequate protection to their creditors and solvency of these factories was critical. In Bannari, proprietors' funds were adequate to finance the entire fixed assets requirements.
- Majority of sample sugar factories, long-term funds were sufficient to finance not only entire fixed assets requirements but also a part of current assets except in Prabhulingeshwara, this is a sound financial practice.
- The declining turnover of fixed assets indicates that the fixed assets were utilised inefficiently in the industry. However, Ugars is one company, which had shown an impressive performance as regard to the productive utilisation of its fixed assets. Fixed assets were used inefficiently in Parrys, Chamundeshwari, Athani, Bannari and Prabhulingeshwara. Due to short supply raw materials, labour unrest, power cuts and non-completion of expansion programmes.
- Expansion of fixed assets (gross) had positive impact on sales in the industry; the rate of growth in sales was comparatively higher than the growth in gross block. This indicates that the gross of block of fixed assets has been efficiently utilised in the industry. The indices of sales were higher than gross block of fixed assets in most of the years in individual factories like, Prabhulingeshwara, Renuka, Chamundeshwari and lower in case Ugars, Athani, Davangere and Bannari. This is the indication of a positive impact on sales of former sugar factories. The operating profits however, exhibited a fluctuating trend in all the sugar factories throughout the period due to other factors like heavy operating expenses, labour unrest and high cost of raw material.
- As far as depreciation is concerned the sugar factories have followed a uniform policy making provision based on historical cost. The depreciation policy was satisfactory as they could provide depreciation continuously over the study period.

VI. SUGGESTIONS FOR THE STUDY

- Financing of fixed assets through short-term funds is not a healthy practice. In order to avoid this situation, Prabhulingeshwara and Chamundeshwari have to improve proprietary funds.
- Profitability of any business enterprise depends on the effective utilisation of fixed assets. Fixed assets turnover needs to be maintained at a healthy level in the sample sugar factories. For this, they have to take necessary steps to ensure that they existing gross block (fixed asset) is put to the maximum possible use.
- Renuka, Ugars and Davangere have to cut down excess investment in fixed assets per tonne of sugar manufactured. This is possible through adoption of long-term planning, eliminating the cost overruns by strictly adhering to the time schedule of capital projects and proper monitoring and evaluation of the progress of such projects.
- The present technology adopted in sample sugar factories is out-dated. Modernisation programme is possible with the proper evaluation of projects and proper planning, active support of financial institutions and government and with the integrity of the management. The participants of financial institutions in the equity of these factories and extension of fresh loans at concessional rate of interest for undertaking modernised programs are necessary. Government, on its part, has to extend necessary support by way of allowing imports of capital equipment at concessional duty rates so that sample factories can update their production capacities along the lines followed elsewhere in the world. Production of qualitative sugar at low cost is possible only with modernisation of plant with latest technology.
- The sample factories have been providing depreciation on historical cost. Generally, such depreciation provision is sufficient to replace the obsolete assets, but, it is inadequate in the context of inflationary conditions. So, sugar factories have to provide depreciation continuously and also they have to create replacement reserve fund in order to provide for adequate funds for replacing obsolete fixed assets. In other words, these factories may need to provide depreciation on replacement cost basis.
- Establishment of sugar development fund for sugar factories on the lines of the existing Steel development and Cement development funds is the need of the hour. Setting up of this fund jointly by the industry and the financial institutions may be useful in updating technology and realising economies of scale.

VII. CONCLUSION

The depreciation policy adopted by the sugar industry in Karnataka state is satisfactory as the factories could provide depreciation more or less continuously on a consistent basis over the study period. The five factories namely Prabhulingeshwara, Ugar, Davangere, Athani, Bannari have shown an increasing trend in both the indices. However, the increase in gross block was more than that of depreciation. Therefore, the overall position of these factories in this regard shows a healthy state of affairs. In other words, these factories provided depreciation adequately. So, far as the depreciation is concerned, the sample sugar factories had provided depreciation more or less continuously over the study period. The amount earned marked for depreciation in all the factories might not be adequate to replace their assets in the context of inflationary tendencies in the economy and spiralling cost of capital goods.

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