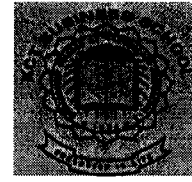


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P-3190

**A COMPARATIVE FINANCIAL ANALYSIS OF THE DIVISIONS OF
SAKTHI SUGARS LIMITED, COIMBATORE.**

A PROJECT REPORT

Submitted by

M.MOHAN KUMAR

Reg. No. 0820400026

In partial fulfillment of the requirements

For the award of the degree

Of

MASTER OF BUSINESS ADMINISTRATION

JUNE, 2010

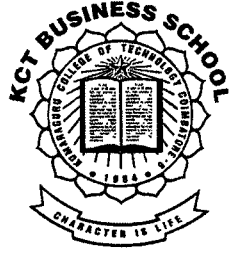
KCT Business School

Department of Management Studies

Kumaraguru College of Technology

(An autonomous institution affiliated to Anna University, Coimbatore)

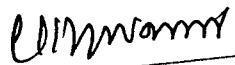
Coimbatore – 641 006



**DEPARTMENT OF MANAGEMENT STUDIES
KUMARA GURU COLLEGE OF TECHNOLOGY (AUTONOMOUS)
COIMBATORE**


BONAFIDE CERTIFICATE

Certified that this project titled “**A COMPARATIVE FINANCIAL ANALYSIS OF THE DIVISIONS OF SAKTHI SUGARS LIMITED, COIMBATORE.**” is the bonafide work of **MR M.MOHANKUMAR** who carried out this project under my supervision. Certified further, that to the best of my knowledge the work reported herein does not form part of any other project report or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.


Mr K.R. Ayyaswamy
Faculty Guide


Prof. Dr. S.V. Devanathan
Director

Evaluated and viva-voce conducted on14.06.2010.....


Examiner I


Examiner II

Certificate



Sakthi Sugars Limited

180, Race Course Road, Post Box No. 3778, Coimbatore - 641 018, Tamil Nadu, India. Phone: 0426 2211511
Gram: "SUGARKING" P.O. 432848A 2230511 Fax: 0426 2211511

GA-26/ 1535 /2010

09.06.2010

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr.M.Mohankumar**, final year MBA student of Kumaraguru College of Technology has Completed his Internship Project in our Organisation during the period from 03.03.2010 to 03.06.2010.

During the above period his performance, conduct and character were found to be **GOOD.**

We wish all success in his career.

For SAKTHI SUGARS LIMITED

**K. GOVINDARAJAN
AGM - HR & ADMN.**

EXECUTIVE SUMMARY

The study aims to compare the growth of divisions of Sakthi Sugars Limited and to identify the contributions by each divisions of the company. The data used are taken from annual reports of the company. The comparative analysis of the company is assessed with various parameters such as sales, operating income, segment assets, and other standard statements.

Sales refer to the firm's revenue statement. The large holding of segment assets, especially cash, strengthens the firm's liquidity position and reduces risk, and also reduces the overall profitability. The firm has a greater degree of flexibility in managing segment assets.

Comparative percentage analysis is one of the popular tools of financial statement analysis. The study helps to analyze relationship between two variables taken from financial statements of a concern. Financial analysis helps management pinpoint specific areas that reflect improvement or deterioration, as well as detect any trouble spots that may prevent the attainment of objectives.

In comparative analysis, the direction of changes over a period of years is of crucial importance. Analysis of variance helps to determine whether the sales over a period of 3 years have shown increased or decreased in it process period. . We can find out the growth factor. The project has been undertaken to study the financial performance of divisions of Sakthi Sugars Limited, Coimbatore, for a period of three months 08-03-2010 to 08-06-2010.

DECLARATION

M.MOHANKUMAR Reg No **08MBA26**, hereby declare that the project titled “**A COMPARATIVE FINANCIAL ANALYSIS OF DIVISIONS OF SAKTHI SUGARS LIMITED.**” submitted to the Kumaraguru College of Technology Business school in partial fulfillment of the requirement for the award of the degree of master of business administration is a record of original work done by me during MAY 2010 under the supervision and guidance of **Prof.K.R Ayyaswamy** , faculty guide KCT Business School ,Kumaraguru College, Coimbatore-641659 and that it has not formed the basis of any degree/ diploma/ associate fellowship/ or other similar title to any candidate of the college.

Name: MOHAN KUMAR. M.

Place: COIMBATORE.



signature of the student

Acknowledgement

ACKNOWLEDGEMENT

I thank the GOD, Almighty for his blessings bestowed upon me, which gave strength, confidence and health for completing this project.

I express my sincere gratitude to our beloved Chairman **Arutchelvar Dr N.Mahalingam**, the prime guiding spirit of Kumaraguru College of Technology.

I express my sincere gratitude to our beloved Co-chairman **Dr.B.K.Krishnaraj Vanavarayar, B.Com, B.L**, the prime guiding spirit of Kumaraguru College of Technology.

I express my sincere gratitude to our beloved correspondent **Mr.M.Balasubramaniam, M.Com, MBA (U.S.A)**, the prime guiding spirit of Kumaraguru College of Technology.

I express my sincere thanks to our Principal **Dr. S.Ramachandran**, Kumaraguru College of Technology, for allowing us to carry out this project.

I wish to express my sincere thanks to Prof. **Dr.S.V.Devanathan**, Director, KCT Business School, for his continuous encouragement throughout my project.

I wish to express deep sense of obligation to **Mr. K.R.Ayyaswamy**, Professor, KCT Business School, for his intensive guidance throughout my project.

I take great pleasure in thanking **Mr. Muthuvellapan**, Senior vice president Hr, Sakthi Sugars Ltd, Coimbatore who provided all the support for the development of this project.

I wish to reserve a warm and special note of thanks for my project guide to **Mr.Jaganathan**, finance, Sakthi Sugars Ltd., Coimbatore whose support and guidance helped me to complete this project successfully.

Finally, I take this opportunity to express my love and gratitude to my beloved parents for their being with me in my entire endeavor including this special achievement.

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Introduction

Chapter 1

1 Introduction

1.1 Background of study

Sakthi Sugars Limited consists of 4 divisions. A comparative financial analysis of the 4 divisions will bring out efficient functioning of each division. The study focuses on assessing division's contributions on all aspects like sales, segment assets, operating income, capital expenditure, segment liability, external sales. Sakthi Sugars contains four segments where the analysis of these segments will bring out the nuances of the entire process. Most of the project works analysis was done on financial performance of the company in Indian scenario.

1.2 Literature review

In any research study like this, it is necessary to review the available previous studies and literature to frame objectives, hypothesis and methodology of analysis. By considering this, the following brief details relating to the present study are given on literature review.

The study conducted by Mohamed Mrini¹, Faozi, Senhaji, and David Pimentel on a “comparative analysis of the production and processing of sugar beet and sugarcane in morocco” was carried out with regard to energy’s and water use. Overall analysis demonstrated that the production of sugar from sugar beet is more energy intensive than from sugarcane while the sugarcane requires large inputs of water.

Mohamed Mrini, Faouzi Senhaji and David Pimentel, the energy and water cost of sugar production in a semiarid context; “a comparative analysis of sugar beet and sugarcane production and processing in morocco.” STAL current scene. April 2001 to June 2001 vol.4.

R. Venugopal² in his article on “sugar production in orissa highlighted that; India is the largest producer of sugar from sugarcane in the world. The sugar industry has played a vital role in the rural development through income and employment generation and being visualized as an important sector of rural economy. Orissa state has been getting good rainfall and suitable climate but the expansion of area and production of sugarcane is very poor compared to other states.

¹ Mohamed mrini, faouzi senhaji and David Pimentel, the energy and water cost of sugar production in a semiarid context; “a comparative analysis of sugar beet and sugarcane production and processing in morocco.” STAL current scene. April 2001 to June 2001 vol.4.

² Venugopal R., “sugar production in orissa” kish world, august 2001. vol.28, no.8, p.21

Abdul Razzaq³ in his study on “assessing sugarcane filter cake as crop nutrients and soil health ameliorant” sugarcane filter cake as an alternate source of crop nutrients and soil health ameliorant was assessed. Sugarcane filter cake was found a valuable and comparatively an economical source of macro nutrient to plants additionally providing micro elements of 32% organic matter and 6% sulphur which would ameliorate and maintain soil health.

S.A.Kasbekar⁴ (1981) of the economic times research bureau in his article “ sugar shares on its way to recovery” has observed that the sugar economy has been passing thru phases of surpluses and deficits in production and consumption leading to wide fluctuations in the price of sugar and whitening agents. The further observed that it has affected the major indicator of sugar industry and sugar- price. In his study he attributed such situations to a lack of coherent and integrated long-term policy of the government of India.

³ Abdul Razzaq “Assessing sugarcane filter cake as crop nutrients and solid health ameliorant.” STAI current scene. April 2001 to June 2001. vol-4, issue-14 p.98

⁴ S.A.Kasbekar “the economic times research bureau in his article 1981”

Gupta⁵ S.K (1972) sugar may be found either in the forms of sucrose or glucose or fructose and maltose. Souse is a commercial sugar ; chemically sugar is carbohydrate containing carbon, hydrogen and oxygen.

DR. TR Gurumoorhty⁶ (1979) in his study “Sugar import socially unjustified”. Kisan world

Nov.1999 has observed that though we are in the era of liberalization sugar mills are still under government control. Decanalisation is introduced in the sugar sector but not decontrol. The sugar mills should supply 40% of their production for their public distribution system at a price less than the market price sugar distribution in the open market is also under the direction of the government. Under decanalisation private traders are permitted to import sugar and sell in the market. Sugar mills their sales are getting down and stock is accumulated and sugar mills may not be in position to pay sugarcane arrears timely. Sugar mills are affected by the problem of working capital shortage.

⁵ Gupta S.K 1972 “the economic times research bureau in his article”

⁶ Dr. TR Gurumoorthy (1979) in his study “Sugar import socially unjustified”. Kisan world
nov.1999

A study of sakthi sugars limited Rajendran⁷ has found that the company in operation had an effect on its finances during the first three years of the study. The company experienced a tight financial position due to continued remunerative price of sugar in 1978. From 1979, the current ratio started declining with the quick ratio indicating the determining liquidity position of the company. The ratio analysis indicated the performance in the year 1980 and 1982 was satisfactory. He suggested that the company should reduce its debt equity ratio 1:1 because the interest charges for the debt heavily reduces the profit.

Sugar Industry in Uttar Pradesh⁸ and Maharashtra continues to dominate the rural Economy and ever the State's, socio-political scene. But in both the state's number of sugar mills have been showing continuous losses year after year. The study is all about to take a total review of the cost and financial aspects of these sugar mills. This book is an attempt to find out cost trends, profitability and operational efficiency of the sugar mills of both the states. The study also attempts to compare the working of the sugar mills of different regions of Uttar Pradesh and Maharashtra i.e. particularly after the adoption of new economic policy 1991.

⁷ A study of sakthi sugars limited Rajendran has found that the company in operation had an effect on its finances during the first three years of the study. The company experienced a tight financial position due to continued remunerative price of sugar in 1978

⁸ Author: Nikam, G.A.

Year: 2006

The South African⁹ sugar industry has to improve its efficiency in order to remain competitive internationally. There is a potential to enhance profitability by examining the interactions between stake holders within the supply chain at the mill area level. Three parties are generally involved: the grower, the hauler and the miller who operate as independent entities in order to harvest, transport and process the sugarcane from the fields to the mill. This study investigates the opportunity to exploit the geographical and temporal variations in RV production by modifying cane supply schedules during a season. A decision support tool known as magi®¹⁰ was used to model the supply chain and compare supply scenarios sourcing cane from various areas in order to maximize the RV yield.

The paper examined the economics¹⁰ of sugarcane production and its competitiveness in the up- and – coming open trade economy. The study also analyzed the extent of policy bend and agricultural safeguard. The data on cost of production series of sugar cane crop were collected from the agricultural prices commission. Punjab, and Sindh, the two major sugarcane producing provinces were the focus of the study. The policy analysis matrix was selected as analytical framework. The crop budgets were constructed both in financial and economic prices. The time series data from 1990- 2002

⁹ South African sugarcane research institute, private bag X02, Mt Edgecombe 4300, South Africa.

Received: 21 December 2006.

¹⁰ Key words: Economics of sugarcane production

on world prices of sugar cane and fertilizers (DAP and potash) were utilized to estimate the risk prices.

A study on comparative analysis¹¹ of sakthi sugars limited, Coimbatore with sugar industries in India. The comparison states from all sugar industries output and production, performance ratio analysis

¹¹ Pillai Christian project work for the year 2010.karunya university.

1.3 Objectives

Primary objective

- To evaluate the financial performance of the segments of Sakthi Sugars Limited for a period of 3 years.

Secondary objective

- To bring out the segment wise sales contributions of Sakthi Sugars Limited.
- To assess the significant change in segment revenue statements.

1.4 Scope of the study

- The study will help the company to know about segment sales variations.
- The study provides more segment analysis regarding operating income, segment assets, liability, and capital expenditure.
- To assess the segment revenues as per the given data.
- The study brings out the sugarcane contributions as a whole.

1.5 Need of the study

- To evaluate segment contribution of sakthi sugars limited.
- The study mainly focuses on critical evaluation of contributions of segments sales.
- The study helps to assess significant change in segment revenues.
- To compare the results of the divisions to identify overall contributions.

1.6 Research Methodology

RESEARCH DESIGN

Research design can be defined as the arrangement of conditions for the collection and analysis of data in a manner that aims to combine relevance in research purpose with economy in procedure. In short research design is a blue print of the research study. Descriptive research design was used in this study. Descriptive research design describes the detailed nature of the research.

SOURCE OF DATA

The study depends on secondary data. Annual balance sheet of sakthi sugars ltd, Coimbatore.

DATA COLLECTION

The secondary data was collected from annual balance sheets of sakthi sugars ltd for a period of 3 years.

STATISTICAL TOOL USED

The following are the statistical tool applied for this study,

Percentage analysis:

A simple percentage analysis will give out the division wise exact contributions of the data taken into consideration.



Analysis of variance:

Analysis of variance is a technique used to test equality of means, when more than two populations are considered. In z-test and t-test we considered only the equality of two population means. If there are more than two populations, for testing the equality of their means the analysis of variance method is applied. This technique is widely used in different fields for example, to study the pattern of average sales by using different sales techniques, the types of drugs manufactured by different companies to cure a particular disease.

A central point here is that although the analysis of variance is literally a technique that analysis, by doing so, it provides us with a test for the significance of the difference among means.

Here we use two- way classification of analysis of variance, which are classified according to two factors, one column wise and the other row wise.

Procedure for testing means:

H_0 : There is no significant difference between column means as well as between row means.

H_1 : There is significant difference between column means or between row means.

Procedure:

Step 1: find N, the total no of observations

Step 2: find T, the total of all observations.

Step 3: find T^2/N , the correction factor.

Step 4: calculate the total sum of squares

Step 5: calculate column sum of squares.

Step 6: prepare the anova table to calculate F-ratio.

ANOVA TABLE

Source of variation	Degrees of freedom	sum of square	Mean sum of square	Variance ratio	F(cal)	F(tab)
Between columns	$c-1$	SSC	$MSC = \frac{SSC}{c-1}$	$F_c = \frac{MSC}{MSE}$		
Between rows	$r-1$	SSR	$MSR = \frac{SSR}{r-1}$			
Residual Error	$N-c-r+1$	SSE	$MSE = \frac{SSE}{N-c-r+1}$	$F_r = \frac{MSR}{MSE}$		
Total	$N-1$	SST				

Comparing F_c with $F_{.05}$ the Null Hypothesis (H_0) is accepted or rejected, accordingly the inference is drawn.

1.8 Limitations of the study

- The availability of information and data is limited for this study.
- The study is restricted to segments only over a period of 3 years.
- Analysis is made only for past data. So the future variations in the price, sales may also effect the interpretations of the study.
- Figures shown are almost approximate and may not be accurate.

CHAPTER 2

2.1 COMPANY PROFILE

SAKTHI SUGARS LIMITED COMPANY'S PROFILE

1. Year of Incorporation : 1961
2. (a) Registered Office : Sakthinagar – 638315
Bhavani Taluk, Erode District
Tamil Nadu – India
- (b)Corporate Office: 180, Race Course Road,
Coimbatore 641018
Tamil Nadu – India
3. Units : Tamil Nadu:
- Sakthinagar, Erode District
Padamathur Village, Sivaganaga District
Pondurai Semur Village, Modakurichi Taluk,
Erode District
- Orissa:
Haripur village, Dhenkanal District

4. BRIEF HISTORY OF THE COMPANY:

a) The company was incorporated on 12.5.1961 and the certificate of commencement of Business was obtained on 11.5.1962. the sugar factory at sakthinagar with a capacity of 1250 tonnes cursh per day commenced production in the year 1964. the capacity of this unit was increased in stages to 4000 TCD. The capacity of this unit has been increased to 6000 TCD to accommodate increased quantum of sugarcane available at the command area of this factory. The capacity has been increased to 9000 TCD in March 2007. the performance of the sugar unit has been efficient all along from its inception and bagged

National award for achieving highest quantum of sugarcane crushed (21.65 lakh MT.) in a single unit during 2005-06 cursing season. This unit has bagged national efficiency award consecutively for three years since the inception of the award. This award has been given to this unit for achieving minimum loss in sugar recovery.

b) in the year 1972, the distillery unit was established at the precincts of sakthinagar sugar unit with a capacity to produce 9000 kilo litres of industrial alcohol per annum. The capacity of the unit was raised to 18000 kilo litres per annum in the year 1982. the capacity of this unit has been further increased to 27500 kilo litres per annum in December 1992. During December 2007 the capacity of the distillery was further increased form 90 KLPd to 120 KLPD.

c) In the year 1988, the company has installed an effluent treatment plant at a cost of over Rs. 2.25 crores for treating the distillery effluent. For this purpose, the company had entered into technical collaboration agreements with societe generale pour les techniques nouvelles (SGN), France and with B.S.Smogless, S.p.a, Italy. The unique feature of this unit is that it will not only treat the effluent water and achieve pollution free environment but also generate bio-gas. This bio-gas can be used as a fuel substitute for raising steam in the boilers used in generation of electricity as well as in distillation. There is no indigenously developed technology in use today to match this and the company has by the collaboration agreement, acquired the right to sell this technology to other distilleries in south India. The company has successfully executed 22 contracts by putting up similar effluent treatment plants for other distilleries, besides executing an ET plant in Thailand.

d) In the year 1988-89 a second sugar unit with licensed and installed capacity of 2500 TCD has been established in Mathur-kannariruppu village in sivaganga taluk of tamilnadu state and the unit commenced operatins in march, 1989. this unit has adopted latest available technology for sugar manufacturing. The capacity of this unit has been increased form 2500 TCD to 4000 TCD in may 2000 to accommodate increased quantum of sugarcane available at the factory's command area.

e) The Soya division was amalgamated with this company with effect from 1.4.1993 pursuant to sanction of the scheme of amalgamation of Sakthi Soya's Ltd, by the high court of madras vide its order dated 4.1.1995. The installed capacity of soya division is 90,000 MT per annum

f) The company's sugar unit with a crushing capacity of 2500 TCD at Haripur village in Dhenkanal district of orissa state started commercial production in May 1994. The capacity of this unit has been restructured to 1500 TCD to be commensurate with the sugarcane availability in its command area.

g) In the year 1995, the company has installed a distillery with 10,000 KL of industrial alcohol per annum capacity at the precincts of Dhenkanal sugar unit to take advantage of captive molasses available from the sugar unit in orissa.

h) The company has setup a 32 MW co-generation plant at the precincts of its sakthinagar sugar unit at a cost of Rs. 78 crores. M/s Tamil nadu newsprint and papers ltd. (TNPL), with whom the company has a barter arrangement, have invested Rs 40 crores towards the cost of boilers and its accessories required for the project. The cost of one boiler, Rs. 20 crores has to be reimbursed by the company over a period of 9 years with interest at 12% p.a. the total exportable surplus power works out to about 144 million units per year valued at about rs.46 crores and the entire surplus power is being sold to TNEB. Since the company's outlay on the project works out to bonly rs. 38 crores the payback period is very short. The project was commissioned for commercial production during December 2003.

i) in order to de-risk the company from sugar business, which is cyclical in nature, the company had embarked upon setting up co-generation power plants in all its sugar units in Tamil nadu. Towards this direction, the company had implemented a new Greenfield sugar project with a crushing capacity of 3500 TCD along with a 25 MW cogeneration power plant in Modakurichi in erode district which were commissioned in September 2007. the company had also installed a new 35 MW cogeneration power plant in its sugar

unit at sivaganga which became operational from February 2008. the additional cogeneration power plant with a capacity of 25 MW being set up at its sakthinagar unit will become operational during December 2008.

j) the company had also set up a soft drink bottling unit at its sivaganga sugar unit at a cost of about Rs. 17 crores. M/s. Hindustan Coca-Cola beverages (P) ltd, to whom the company has been supplying quality sugar for the past 4 years, have required the company for bottling the carbonated soft drinks on a contractual basis, which is ready for commissioning. In the sugar de-control scenario, taking up of the proposed venture will not only facilitate off-take of sizeable quantum of sugar produced by the company but also add to the revenues of the company from margins on bottling operations.

5. Features:

(a) Sakthinagar Sugar Unit:

More than 35,000 acres of sugarcane available around the factory supported by river and canal irrigation. Pioneering efforts put in by the cane department has increased the yield per hectare to more than 125 MT

Crushing in the unit - more than 8 months every year

Unit has capacity to produce export quality sugar corresponding to less than 35 ICUMSA (International Commission for uniform Method of Sugar Analysis, a measure to determine the quality and colour of sugar, adopted by European markets) and has exported more than 12000 MT

Optimal recovery of sugar from sugarcane, i.e., more than 10%

Secured national efficiency award for many years.

Research and development wing of this unit responsible for developing new sugar rich pest resistant varieties of sugarcane.

Has mechanical harvesters imported from austoft industries of Australia

Exported about 13.5 lakh quintals of sugar for the period form October 2000 to October 2001 and bagged the national award for exemplary export performance.

(b) Sivaganga Sugar unit:

More than 18,000 acres of sugarcane available within 40 KMs.of the factory supported by river, pond and well irrigation

Has all the 4 mills in tandem as auto setting mills, which facilitate maximum extraction even while crushing minimum quantities.

Crushing in the unit – more than 6 months in a year

Crushing capacity has been increased from 2500 TCD to 4000 TCD in May 2000 which facilitates this unit to achieve a cane crush of about 8 lakh tones in a season.

(C) Dhenkanal sugar unit:

Perennial rivers like mahanadhi and brahmani run through dhenkanal and cuttack districts Orissa government is in the process of implementing a major canal irrigation scheme form the river mahanadhi and on implementation, additional 2 lakh hectares of land in Dhenkanal district will be brought under cultivation.

Sugarcane is fetched from more than 6000 acres in Dhenkanal and Cuttack area.

No purchase Tax on sugarcane

In view of perennial rain from both the monsoons (Southwest and Northeast) crushing period restricted to a maximum of 150 days in a year between December and April

(d) Modakurichi Sugar unit:

A new Greenfield sugar plant with a crushing capacity of 3500 TCD along with 25 MW cogeneration plant were set up at poondurai semur village, Modakurichi taluk in erode district which have been commissioned on 7th September 2007.

(e) Sakthinagar Distillery Unit:

Largest industrial alcohol manufacturing distillery in Tamilnadu

Raw material, viz., Molasses, captively available from its sugar units

Distillation with exhaust steam of the sugar unit without any need to raise steam separately

Has continuous fermentation system facilitating maximum yield per unit of Molasses.

Effluent treatment plant with technology from France ensures recovery of Methane rich biogas used as alternate fuel in Boilers resulting in saving of more than 10,000 litres of furnace oil per day.

Disposal of treated effluents in a most scientific manner – composting with press mud; HRTS and ferti-irrigation – all methods approved by NEERI and PCB

Has facility to produce Ethanol (Anhydrous Alcohol) for supply to oil companies, pursuant to Government's permission to mix Ethanol with petrol as fuel up to 10%.

(f) Dhenkanal Distillery Unit:

Largest distillery in the state of orissa.

Has all the advantages and features as are available in the company's sakthinagar distillery unit.

(g) Soya unit:

Has solvent extraction and oil refining plants imported from M/s. Buhler brothers, Switzerland, who are again the world class suppliers of such machinery.

Has seed processing and edible flour making plant imported from M/s. extraktionstechnik, West Germany, who are renowned suppliers of such machinery.

Has facility to produce edible grade soya flour and refined edible grade crude sunflower oil.

Concentrates on production and sale of value added products like texturised vegetable protein (TVP) chunks and refining of edible grade crude sunflower oil.

The unit has sophisticated facilities for manufacture of grade soya flour. Once it is a separate entity and has a separate, its features and capabilities can be put through website, which can attract the attention of intending overseas customers instantly.

With the announcement of FDA in United States that intake of soya flour upto 25 grams per day will help to avoid cancer and heart diseases, there is an expectation that there will be huge demand for soya flour manufactured out of non- genetically modified soya seeds which is available in plenty only in Asia.

Analysis and Interpretations

3. Data Analysis and Interpretation

Table No. 1

Segment percentage analysis of sales

Sales/ year	2006	2007	2008
Sugar	80	76	62
Industrial alcohol	9	14	20
Power	8	3	4
Soya	3	7	14
Total	100	100	100

Interpretation:

Sales of sugar over a 3 year period show a very consistent growth of more than 60% of the total segment contribution. An alcohol sale increases gradually where it depends upon the consumption and marginal growth. But the sale of power reduces drastically from the starting year, soya sales increases from 3% to 14% in the stipulated 3 year margin.

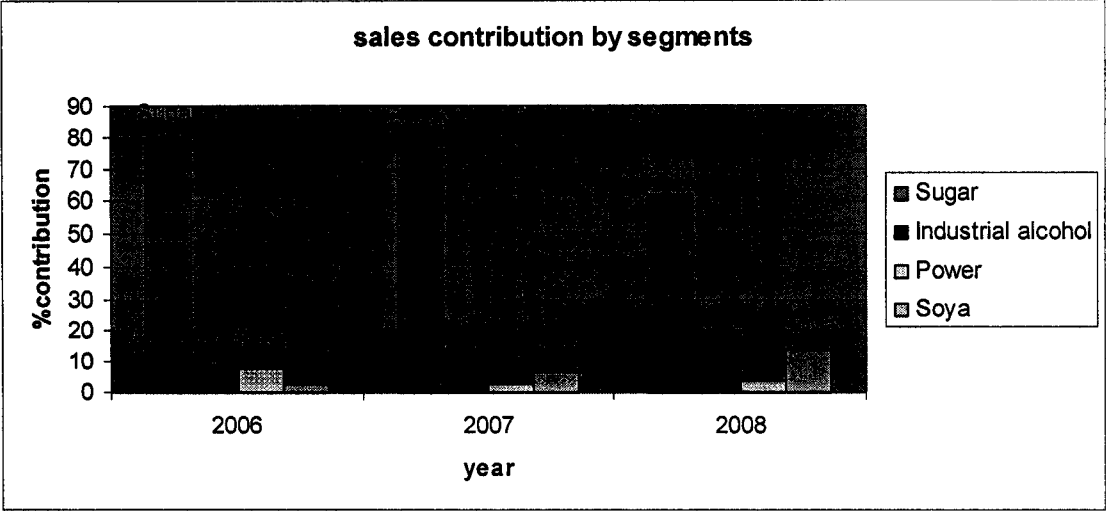


Table No. 2

Segment percentage analysis of External sales

External sales/year	Sugar	Alcohol	Soya	Power
2006	37	22	12	28
2007	27	25	22	24
2008	36	53	66	48
Total	100	100	100	100

Interpretation:

The contribution of sugar towards external sales reduced initially from the year 2006.its ends up with 36% in the year 2008. Alcohols' external sales increased by, a double margin from 22% to 53% which shows a steep rise. Soya sales increase over 5 to 6 times. Power contributes with 28% in the starting year and ends up with high margin.

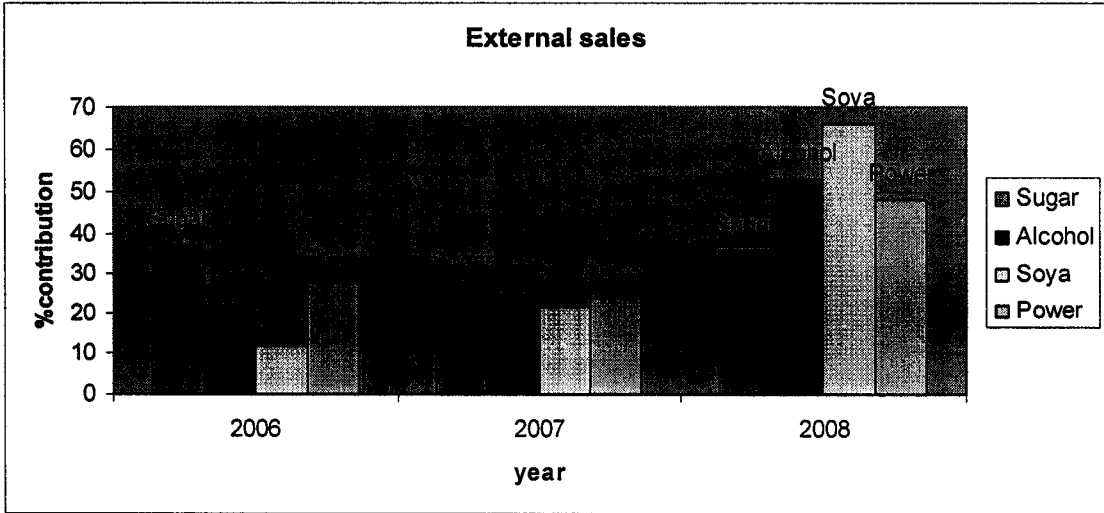


Table No. 3

Segment percentage Analysis for Internal Segment Sales

Inter segment sales/year	Sugar	Alcohol	Soya	Power
2006	24	28	0	23
2007	29	28	0	26
2008	47	44	0	51
Total	100	100	0	100

Interpretation:

Inter segment sales of sugar increases from 24% to 47% in the year 2008. alcohol contributes from 28% to 44%, which shows a steep rise. Soya's contribution here is nil in these periods. Powers have contributed from 23% to 51% which is a positive factor in the internal segment sales contribution.

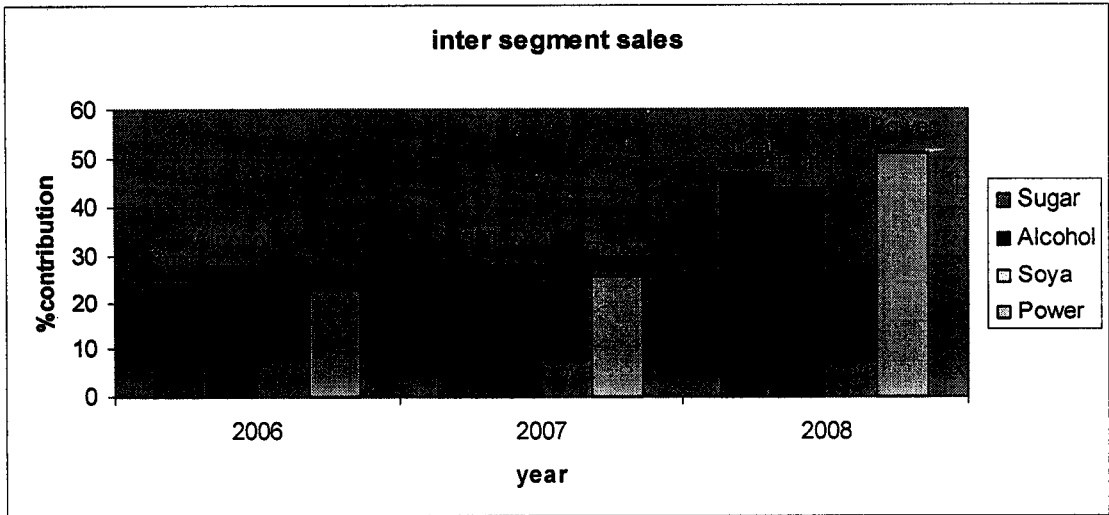


Table No. 4

Segment percentage Analysis for operating income

Operating income/year	Sugar	Alcohol	Soya	Power
2006	5	8	33	74
2007	88	22	25	13
2008	7	70	42	13
Total	100	100	100	100

Interpretation:

Operating income statement for the segments starts from sugar where the sugar contribution increases quiet high to 88% in the year and reduces next year. Alcohol increases from 5% to 70% In these periods. Soya shows a good consistency in operating income statement with power showing decreasing trend in operating income.

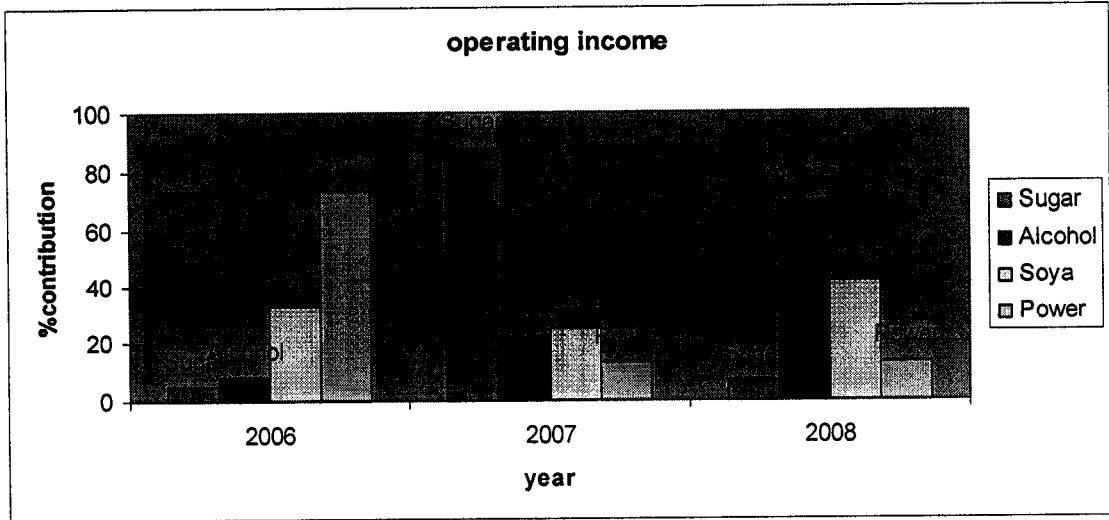


Table No. 5

Segment percentage analysis for Segment assets

Segment Assets/year	Sugar	Alcohol	Soya	Power
2006	30	24	31	12
2007	35	32	28	11
2008	35	44	41	77
Total	100	100	100	100

Interpretation:

Segment asset holding of sugar is at maximum of 35%, alcohol has an asset of 24% to 44% during the period. Soya's level in that period shows some varying trend. Power shows high level for the year 2008.

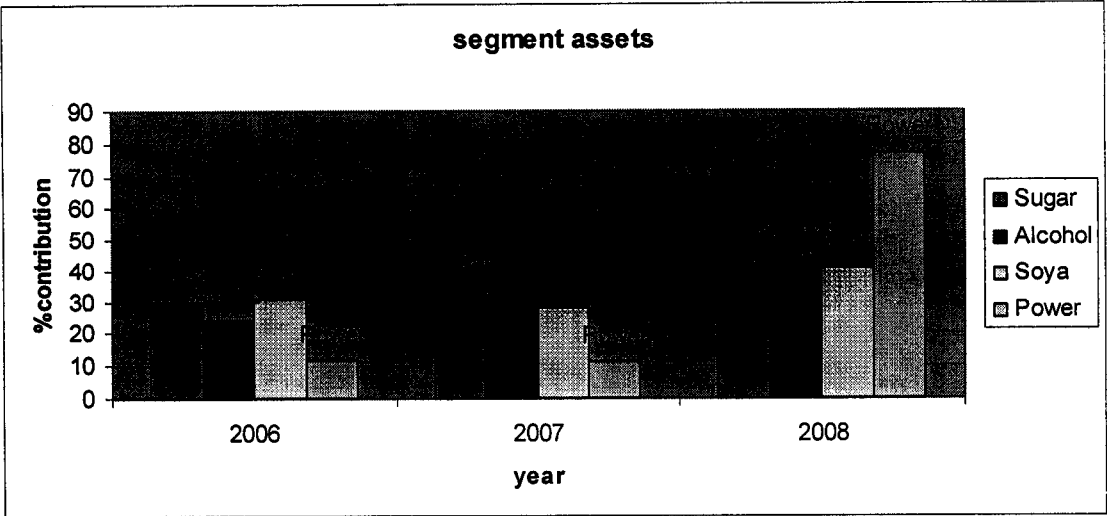


Table No. 6

Segment percentage analysis for Segment liability

Segment liability	Sugar	Alcohol	Soya	Power
2006	28	35	58	7
2007	38	0	36	5
2008	34	65	6	88
Total	100	100	100	100

Interpretation:

Sugar segment have a liability which shows a consistency whereas in alcohol in the year 2007 there is no liability and increases to twice in the year 2008. soya shows a decreasing trend in segment liability. Power shows a drastic increase in upto 88% contribution.

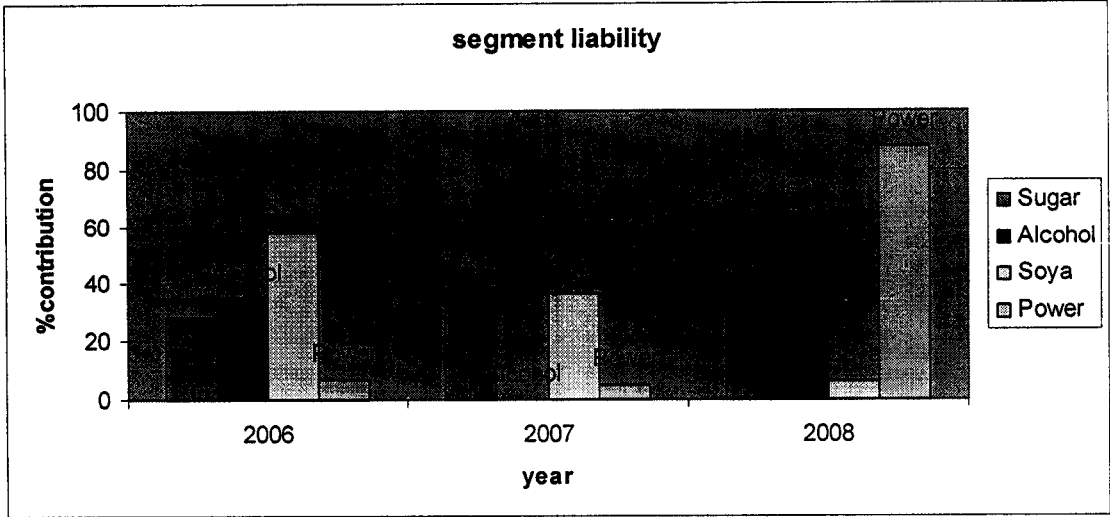


Table No. 7

Segment percentage analysis for capital expenditure

Capital Expenditure/year	Sugar	Alcohol	Soya	Power
2006	10	1	4	2
2007	74	56	18	1
2008	16	43	78	97
Total	100	100	100	100

Interpretation:

Capital expenditure for the sugar division shows large value in 2007, whereas for Soya it's high in the year 2008 where it ends up in (78%), In the case of power division, it didn't attract higher investments in 2006, 07; but in 2008 it absorbed high investment.

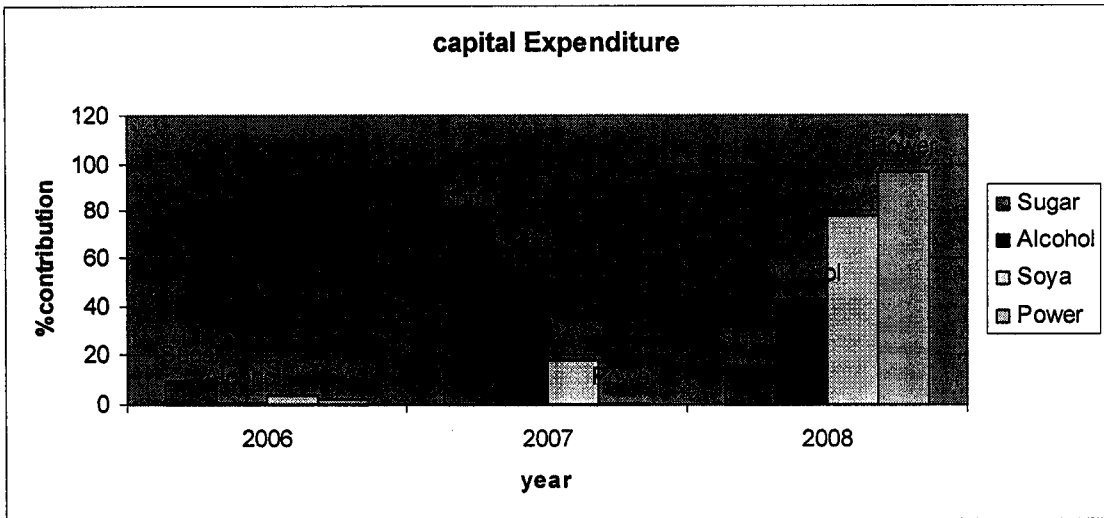


Table No. 8

Segment percentage analysis for revenue from foreign country

Foreign Revenue/year	Sugar	Alcohol	Soya	Power
2006	31	0	20	0
2007	23	0	25	0
2008	46	0	55	0
Total	100	0	100	0

Interpretation:

The segment revenue for the sugar from outside the country contribution shows a positive trend over the 3 years, whereas there is no such contribution from alcohol, soya have a major contribution in the year 2008 , power too have no contribution from outside the country.

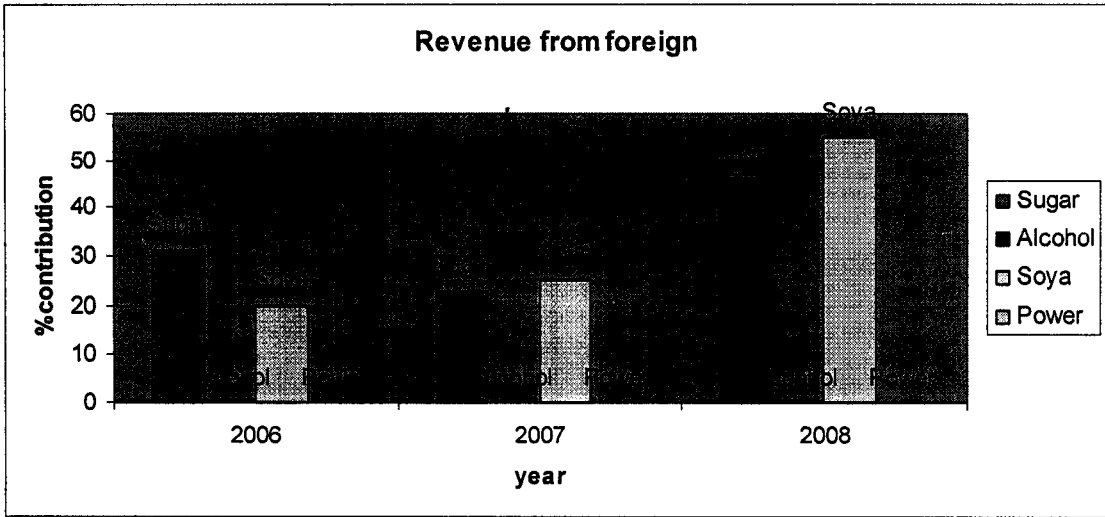


Table No. 9

Segment percentage Analysis Of revenue from Indian market

Indian Revenue/year	Sugar	Alcohol	Soya	Power
2006	37	22	10	26
2007	31	25	22	25
2008	32	53	68	49
Total	100	100	100	100

Interpretation:

Segment revenue from Indian market for all the segments shows a positive trend which determines the company's growth, over the period of time it gives some firm belief and in the year 2008 all the segments contributes highly towards the entire other years revenue.

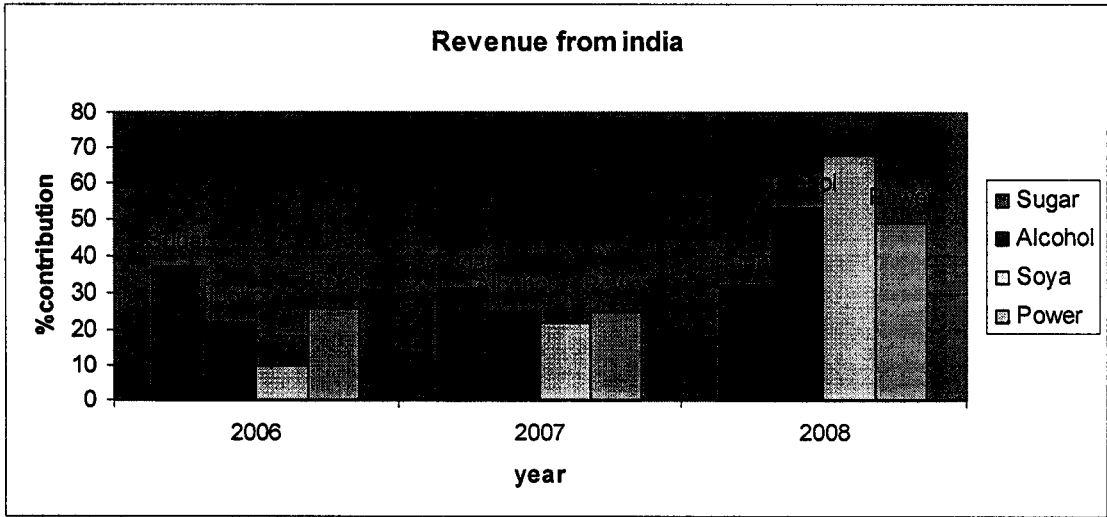


Table No. 10

Analysis Of Variance for Sales

Source	Degrees of freedom	sum of square	Mean sum of square	Variance ratio	F(cal)	F(tab)
Division sum of square	3	2357	785	261/80	3.36	4.76
Year sum of square	2	1180	590	295/80	3.68	19.3
Error	6	2880	480			
Total	11	6417				

Interpretation:

The calculated value of analysis of variance is less than the table value, so there is no significant difference exists between the column means and the row means. So it can be concluded that sales did not vary significantly over the years among the 4 divisions.

Table No. 11

Analysis Of Variance for External sales

Source	Degrees of freedom	sum of square	Mean sum of square	Variance ratio	F(cal)	F(tab)
Division sum of square	3	10961750158	1823092183	MSS/ER	1.14	4.76
Year sum of square	2	5469276550	11354270882	MSS/ER	7.14	19.3
Error	6	5492473608	1588529783			
Total	11					

Interpretation:

The calculated value of analysis of variance is less than the table value, so there is no significant difference exists between the column means and the row means. So it can be concluded that External sales did not vary significantly over the years among the 4 divisions.

Table No. 12

Analysis Of Variance for Internal Segment Sales

Source	Degrees of freedom	sum of square	Mean sum of square	Variance ratio	F(cal)	F(tab)
Division sum of square	3	154307062	23030480	MSS/ER	1.04	4.76
Year sum of square	2	69091439	155007011	MSS/ER	7.04	19.3
Error	6	85215623	21996089			
Total	11					

Interpretation:

The calculated value of analysis of variance is less than the table value, so there is no significant difference exists between the column means and the row means. So it can be concluded that internal segment sales did not vary significantly over the years among the 4 divisions.

Table No. 13

Analysis Of Variance for operating income

Source	Degrees of freedom	sum of square	Mean sum of square	Variance ratio	F(cal)	F(tab)
Division sum of square	3	8932944	753437	MSS/ER	1.02	4.76
Year sum of square	2	2260313	5163374	MSS/ER	7.02	19.3
Error	6	6672630	734989			
Total	11					

Interpretation:

The calculated value of analysis of variance is less than the table value, so there is no significant difference exists between the column means and the row means. So it can be concluded that operating income did not vary significantly over the years among the 4 divisions.

Table No. 14

Analysis Of Variance for Segment assets

Source	Degrees of freedom	sum of square	Mean sum of square	Variance ratio	F(cal)	F(tab)
Division sum of square	3	35126313879	6745651847	MSS/ER	1.70	4.76
Year sum of square	2	20236955542	30551480628	MSS/ER	7.70	19.3
Error	6	14889358337	3967638130			
Total	11					

Interpretation:

The calculated value of analysis of variance is less than the table value, so there is no significant difference exists between the column means and the row means. So it can be concluded that segment assets did not vary significantly over the years among the 4 divisions.

Table No. 15

Analysis Of Variance for Segment liability

Source	Degrees of freedom	sum of square	Mean sum of square	Variance ratio	F(cal)	F(tab)
Division sum of square	3	26945742743	5861269336	MSS/ER	2.82	4.76
Year sum of square	2	17583808008	18321656818	MSS/ER	8.82	19.3
Error	6	9361934736	2076731247			
Total	11					

Interpretation:

The calculated value of analysis of variance is less than the table value, so there is no significant difference exists between the column means and the row means. So it can be concluded that segment liability did not vary significantly over the years among the 4 divisions.

Table No. 16

Analysis Of Variance capital expenditure

Source	Degrees of freedom	sum of square	Mean sum of square	Variance ratio	F(cal)	F(tab)
Division sum of square	3	1056835549	102572894	MSS/ER	1.13	4.76
Year sum of square	2	307718682	644897530	MSS/ER	7.13	19.3
Error	6	749116866	90387439			
Total	11					

Interpretation:

The calculated value of analysis of variance is less than the table value, so there is no significant difference exists between the column means and the row means. So it can be concluded that Capital expenditure did not vary significantly over the years among the 4 divisions.

Table No. 17

Analysis Of Variance revenue from foreign market

Source	Degrees of freedom	sum of square	Mean sum of square	Variance ratio	F(cal)	F(tab)
Division sum of square	3	890634708	190557759.2	MSS/ER	3.08	4.76
Year sum of square	2	571673277.7	560590982.8	MSS/ER	9.08	19.3
Error	6	318961430.3	61672203.94			
Total	11					

Interpretation:

The calculated value of analysis of variance is less than the table value, so there is no significant difference exists between the column means and the row means. So it can be concluded that overseas revenue did not vary significantly over the years among the 4 divisions.

Table No. 18

Analysis Of Variance for revenue from Indian market

Source	Degrees of freedom	sum of square	Mean sum of square	Variance ratio	F(cal)	F(tab)
Division sum of square	3	7783948053	1071008633	MSS/ER		
Year sum of square	2	3213025898	9483965574	MSS/ER	6.76	19.3
Error	6	4570922155	1402159490			
Total	11					

Interpretation:

The calculated value of analysis of variance is less than the table value, so there is no significant difference exists between the column means and the row means. So it can be concluded that revenue from India did not vary significantly over the years among the 4 divisions.

Findings

3.1 Findings

- The sales segments of Sakthi sugars limited shows a declining trend for the sugar and power division when compared with alcohol and Soya segments.
- The operating income of the segments of the Sakthi sugars showed variations where the company needs to concentrate more.
- The revenue from Indian operations was high as compared to the overseas revenue.
- Segment assets of the sugar division remain high as it is the major revenue hub.
- Segment liability shows different levels among the divisions of Sakthi Sugars Ltd, during the periods under study.
- Analysis of variance concluded that sales did not vary significantly over the years among the 4 divisions.
- Analysis of variance concluded that external sales did not vary significantly over the years among the 4 divisions
- Analysis of variance concluded that internal segment sales did not vary significantly over the years among the 4 divisions
- Analysis of variance concluded that operating income did not vary significantly over the years among the 4 divisions
- Analysis of variance concluded that segment assets did not vary significantly over the years among the 4 divisions
- Analysis of variance concluded that segment liability did not vary significantly over the years among the 4 divisions
- Analysis of variance concluded that capital expenditure did not vary significantly over the years among the 4 divisions
- Analysis of variance concluded that overseas revenue did not vary significantly over the years among the 4 divisions
- Analysis of variance concluded that Indian revenue did not vary significantly over the years among the 4 divisions

Conclusion

3.2 CONCLUSION

The study from the above findings concludes that sales of the segments of the Sakthi Sugars Ltd vary within the period of study. The revenue statements of the divisions of the Sakthi Sugars limited from the calculated analysis of variance shows no significant variation over the years of 4 segments. The parameters such as external sales, segment assets, segment liability, operating income, capital expenditure, revenue from Indian operation shows no variation among the segments.

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