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A STUDY ON INFLUENCE OF ECONOMIC VARIABLES ON SHARE PRICES OF SAKTHI SUGARS LIMITED, COIMBATORE

A PROJECT REPORT

Submitted by

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Reg. No. 0820400038

In partial fulfilment of the requirements

For the award of the degree

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MASTER OF BUSINESS ADMINISTRATION

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KCT Business School

Department of Management Studies

Kumaraguru College of Technology

(An autonomous institution affiliated to Anna University, Coimbatore)

Coimbatore – 641 006

CERTIFICATE

Sakthi Sugars Limited

GA-26/ 7660 /2010 12.06.2010

CERTIFICATE

This is to certify that **Ms.R.Radhikha.** (0820400038) MBA student of Kumaraguru College of Technology , Coimbatore has done a Project Work on the topic **A Study on Influence of Economic Variables on Share Prices of Sakthi Sugars Limited, Coimbatore** in Finance department of our organisation during the period from 10.03.2010 to 10.06.2010.

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

We wish all succeess in her career.

For SAKTHI SUGARS LIMITED

P.MUTHUVELAPPAN
SR.VICE PRESIDENT-HRD

BONAFIDE CERTIFICATE

DEPARTMENT OF MANAGEMENT STUDIES

KUMARAGURU COLLEGE OF TECHNOLOGY (AUTONOMOUS)

COIMBATORE

BONAFIDE CERTIFICATE

Certified that this project titled **"A STUDY ON INFLUENCE OF ECONOMIC VARIABLES ON SHARE PRICES OF SAKTHI SUGARS, COIMBATORE"** is the bonafide work of **Ms. R.RADHIKHA** 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.

Prof.K.R.Ayyasamy
Faculty Guide

Prof.Dr.S.V.Devanathan
Director

Evaluated and viva-voce conducted on .....14..6..2010.....

Examiner I

Examiner II

DECLARATION

DECLARATION

I hereby declare that the dissertation entitled **"A STUDY ON INFLUENCE OF ECONOMIC VARIABLES ON SHARE PRICES OF SAKTHI SUGARS, COIMBATORE"** submitted for the Master of Business Administration degree is my original work and the dissertation has not formed the basis reward of any degree, associate ship, fellowship or any other similar titles.

Signature of the Candidate

Radhikha.R

(RADHIKHA.R)

EXECUTIVE SUMMARY

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Sakthi sugars limited - is one of the largest producer of Sugar in India with a capacity of over 13,500 tonnes of cane crush per day. Sakthi Sugar has units / plants in Tamil Nadu and Orissa states, India. The problem concentrated here is the factors influencing the share prices of the company. The data is made available from the secondary sources considering the external and internal factors identified from the fundamental analysis.

The study is a descriptive type in which the data for share prices and the internal, external variables were taken for a period of 5 years ranging from 2003-2008. Multiple regression, simple regression and correlation analysis were used to find the influence of the factors taken on the share prices of Sakthi sugars limited. Market conditions in relation with the sensex and the share price of the company was analyzed to understand the behavior of the share price of sakthi sugars in the market. The regression analysis for the share prices and the other sugar manufacturing companies was performed to understand the position of Sakthi sugars limited among its competitors and the market support for the company. The correlation analysis was performed for the share price of the company and the sensitivity index to statistically identify the relationship between those variables. The predictions were made on the basis of the analysis and the results were interpreted.

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ACKNOWLEDGEMENT

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1.1 BACKGROUND OF THE STUDY

Share prices rise and fall to reflect the ups and downs in the earnings of the company and also the overall trend in the market and the investor's varying expectations in the market. Companies sell shares to the public to raise the capital. A falling share price makes it difficult for the company to raise the funds for further improvement, whereas an increase in share price gives the company more flexibility to raise money from the shareholders rather than from the bank. A falling share price can make a company susceptible to a takeover offer, especially if the falling share price is because of the poor management.

A share price can also impact on the company's reputation as well as its culture and staff morale. A strong share price performance can play an important role in motivating, retaining and recruiting staff; whereas a collapsing share price can often lead to a poor reputation.

The current scenario seems to be a windfall for the sugar industry as the sugar prices keeps increasing. The key driver for this upsurge is the lower supply because of crop failure witnessing significant stock reduction. The rise in sugar prices internationally has also aided the surge in the domestic sugar prices. The key success factors behind the individual players in the domestic sugar industry as identified by ICRA are the cane development activities, operating efficiency, level of integration and the capital structure. The price increase in the international sugar markets has been caused by host of factors including high crude oil prices, phase out of subsidies, higher consumption rate and lower crops.

In relation with the above study it is important for any company listed in the stock exchange to know about the factors behind the movements in the share prices of their company and the competitor's place in the market. It is also necessary to know the market support for the company under the market condition and its impact on the share prices.

From the fundamental analysis it is identified that the factors affecting sugar market are:

- Price
- Refinery activity
- Consumer income
- Candy and confectionery sales
- Changing eating habits
- Sugar's use in new technologies, such as ethanol production for automobile fuel
- GDP
- Inflation
- Labour cost
- Expansion and change in the sugar manufacturing condition

It is identified that the price of levy sugar is Rs 1335 per quintal and it was constant for the period of study. The percentage of levy sugar given to the government by the company is also constant. The pricing factors like international and national pricing of retail and wholesale sugar is the most important variable influencing the daily share price of the company. the factors are identified based on the theory of economics.

The study portrays the importance of knowing the daily market condition in order to identify the forces behind the movements in the share prices of the company. Sakthi sugars limited – is one of the leading exporter of sugar also. So the global elements like inflation, exchange rates, and global production, import and export factors influence the share price of the company. The internal environment of the company like the operating expenses, debt funds, Management of the company, capital investments and interest charges have an impact on the share prices of the company. The internal factors are long term perspective and so they do not influence on a day to day basis. The internal factors are related to the performance of the company and its reputation

The factors identified for the study has been grouped into three factors namely internal, external and the market.

The external factors are

- National production of sugar
- Global production of sugar
- National price of sugar
- International price of sugar
- Company production of sugar

The internal factors are

- Net profit
- Gross profit
- Sugarcane tonnes crushed per month
- Sugarcane price
- Operating expenses

The market factor is the BSE Sensex for which the regression analysis is made. The SENSEX is an index determined by the market forces and the share price movements. So for market factor sensex has been taken as a variable for analysis.

The comparative analysis of market performance of Sakthi sugars limited and the six companies listed in BSE stock exchange was made to identify the market position of the sakthi sugars among the other sugar manufacturing companies. The sugar manufacturing companies listed in Bombay stock exchange are:

- Bannari Amman sugars
- Dwarikesh sugars
- Rajshree sugars
- Rana sugars
- Shree Renuka sugars
- Triveni engineering

1.2 REVIEW OF LITERATURE

Title: India's Sugar Crop Wilts Amid Drought.

Authors: MUKHERJEE, ARPAN

Source: Wall Street Journal

The article reports on the decline in sugarcane harvests and incomes in India due to drought in June and August 2009. Due to the global warming, the monsoon and rainfall does not occur at times. Since agricultural people are mostly dependent on the monsoon their cultivation is affected to a larger extent. The drought affected the growth and yields of sugarcanes and forced the country to import sweeteners from other countries. Uttar Pradesh received 14.2 inches of rain during the months from the previous 27 inches. The dry weather also shrank yields of other crops such as rice, oilseeds and legumes. Unseasonal climatic conditions have reported down surge in agriculture and economy of farmers. Nowadays sugarcane fields are located near the sugar manufacturing units to make easy availability of raw materials when required by the producing company.

Title: Purchase of free sale sugar to fill PDS gap.

Source: Chemical Business

The article reports the Union Government has decided to purchase 12 lakh tonne of free sale sugar from the industry to meet the current shortfall in levy requirement for the public distribution system (PDS) in the country. Levy sugar is the quantity given by the sugar mills to the government for the public distribution system. The quantity that should be given by the sugar manufacturing companies is fixed by the government. The levy sugar price for 1997-98 has been fixed at Rs. 1,022 per quintal to provide a fair price to the sugar mills for the statutory levy sugar taken from them. The levy sugar quantity is 10% of the total production by the company and the price for non levy sugar is Rs.1,335 per quintal till 2008 after which it has been raised.

Title: Sugar imports to be monitored.

Source: Chemical Business

The Union Government has decided to monitor sugar imports on a regular basis by prescribing compulsory registration of all contracts with the Agricultural and processed Food products Export Development Authority (Aped). Import of sugar is duty free under OGL in the 1997-2002 Exim Policy. Sources, aid sugar importers had taken advantage of the Libor interest rate at 6 per cent available in the international market. The rate was sharply lower than the 22 per cent charged by commercial banks in India. In this context, it may be stated that the domestic sugar industry seems to be adversely affected by free-duty imports and is considering prevailing upon the government to impose some sort of countervailing duty on imported sugar in order to protect the local sugar mills. If this option fails, they may go in for legal action also. Incidentally 3 multinational trading giants - US based Cargill, French Gugden and London based Glencor have decided to export about 29500 tonnes of sugar to India although there is no shortage of it at the moment. This development has made the Indian sugar producers panicky.

Title: Assistance for sugar industry.

Authors: Aiyar, Sharda

Source: Chemical Business

The Reserve Bank of India (RBI) is slated to reduce the working capital margin for sugar industry from 20 to 15 per cent in the current sugar season. The representatives of the industry were, in fact, demanding reduction of working capital margin from 20 to 10 per cent on production of free sale sugar and zero per cent margin for production of levy sugar. However, the RBI officials were of the option that a sharp reduction of working capital margin was not feasible. The officials argued that such a drastic reduction in margin money could not be accepted as the government was contemplating an increase in the buffer stock of sugar from five lakh tonnes to 20 lakh tonnes.

Title: The case of the Indian sugar industry.

Authors: Vijayalakshmi, B.1

Source: European Journal of Operational Research

A multi-objective linear programming model is developed for the Indian sugar industry to plan for additional output by production technique, geographical region and forecasted year. Various policy scenarios generated by assigning different values to the policy variables in the model are studied. Thus a useful planning tool which demonstrates the exact impact of the policy parameters on various objectives is provided to the central decision maker. A satisfying multi-objective decision making method is developed based on an existing method of solution and used in policy analysis. The solution method is ideally suited to any general planning problem.

Title: Sugar

Author: Rafiq Ahmed

The world sugar market continues to fall, a trend which started in 1996. This was because of perennial over-supply and sluggish demand from Russia, traditionally the world's biggest buyer. The International Sugar Organization (ISO) said that the global output at 134.97mt in 1999/2000, against a consumption of 130.4mt, with this season's production expected to hit 135.9mt, as supplies increase from Brazil, India and Thailand.

The London-based trade house ED&F Man projects surplus stocks of 6mr in 1999/2000, compared to last season's 9mt. Africa's output in 1998 was 9.1mt, equivalent to 7% of the world's total. The largest producer remains South Africa.

Prices had hit historic lows in 1999 and at the time of writing, it was trading over six cents to the pound compared to long-term average of 11 cents/lb. The ISO expects weak prices for at least two-to-three years, unless there are major crop failures in the main producing countries such as Brazil, Cuba, Thailand and Australia.

Title: Converting sugar industry wastes into eco friendly bio products

Authors: C.Senthil and K.C.Das

Source: Bio cycle International dated June 2004

The sugar industry follows textile manufacturing to be the second largest agriprocessing sector in India. A typical sugar and distillery complex generates large quantities of wastes like bagasse, filter cake, molasses and distiller spentwash. Bagasse is a solid waste of sugar mill used as a fuel for boilers. Molasses is a liquid by product that is used as a fermentation substrate in production of industrial alcohol for industrial and potable uses. Recognizing the importance of organic additives in sustainable agriculture, a commercially viable, large scale composting technology based on principles of "Aerobic Microbial solid state fermentation" was developed to convert sugar industry wastes into nutrients rich eco friendly compost.

In the emerging industrial climate with increasing need to conserve natural resources and prevent pollution problems, the innovative use of sugar industry wastes such as filter cake and distiller spentwash for the production of compost assumes greater importance. Composting is an integrated treatment technology to convert organic wastes into a value added product. The end product formed in this process is no longer a waste but a nutrient rich compost that can improve soil fertility and agricultural productivity .Implementing this technology has promoted the 4R strategies of reduce, reuse, recover and recycle wastes to conserve resources and prevent pollution. After the green revolution, Indian farmers started using large quantities of chemical fertilizers, pesticides, fungicides despite warning from agricultural scientists about long term effects on soil and environment. In this scenario it is imperative to add adequate quantity of organic matter to soils in order to increase soil fertility and achieve crop production sustainability

Title: Sugar confectionery in India

Source: Datamonitor published May 2004

The sugar confectionery market includes the following sectors: Caramels and toffees, gums and jellies, hard boiled sweets, liquorices, lollipops, medicated confectionery and mints. India has the second largest growing sugar confectionery market in Asia Pacific region by value and the largest in terms of volume. The leading revenue source for the Indian sugar confectionery market is the hard boiled sweets. The leading confectionery companies in India are Parle agro products limited, Wrigley Jr company and Nestle India limited.

Title: Stock basics – What causes stock prices to change?

Source: Investopedia.com

Stock prices change every day as a result of market forces. The share prices change because of supply and demand. That being said that the price movement of a stock indicates what investors feel a company is worth. The most important factor that affects the value of a company is its earnings. Earnings are the profit a company makes, and in long run no company no company can survive without them. The only thing known is that stocks are volatile and can change in price extremely rapidly.

Title: Quality versus prices as factors influencing common stock price fluctuations.

Author: John.C.Clendenin

Source: The journal of Finance

The field of stock-market price behaviour is probably unique among all areas of economic study. For many years the writer has read and has been told that low-priced stocks "move faster and farther" than high-priced ones. More specifically, it is said that low prices per share are conducive to volatility, that the percentage price fluctuation in a low-priced stock is commonly greater than it would be in a higher-priced stock of similar quality and prospects. The obvious implication is that low-priced stocks provide the ideal hunting area for profit-minded investor-speculators. The truth of the matter is that the percentage price fluctuations in most low-priced stocks are about the same as those in high-priced stocks of the same quality. The price instability which characterizes so many low-priced stocks should be attributed to their speculative quality, not to the fact that they are low priced.

1.3 OBJECTIVES OF THE STUDY

Primary objective:

To identify the most influential economic variables relevant to sugar industry and its influence on the share price of Sakthi sugars limited during the period 2003 – 2008

Secondary objectives:

1. To study the internal factors that influences the share prices.
2. To what extent the general market condition is reflected on share price of Sakthi sugars.

1.4 STATEMENT OF THE PROBLEM

The share prices are the ones which change every minute in the market and fluctuate from peak to trough according to market conditions. The study focuses on the variables that influence the share price of the company in relation with the industry and the market.

1.5 SCOPE OF THE STUDY

The factors taken for analysis were grouped into two namely external and internal. External factors are the variables which are market determined. Internal factors are the variables under the management control. The fundamental analysis helps to determine the factors that influence the share price movements in relation with the industry and the company. The share price is taken as a dependent variable and the other factors as independent influencing the dependent variable.

The market influence is determined by analysis of share prices and the BSE sensex. The analysis is made to identify the market support on the company's share prices. Indian sugar industry is a well developed one with a strong consumer base of more than billions of people and is the second largest producer in the world. There are around 45 millions of sugarcane growers in India since in India major production of sugar is from sugarcane. The sugarcane cultivation is mainly dependent on the

monsoon and rainfall and the price of sugarcane is fixed as a statutory minimum price fixed by the government to be paid to the farmers.

It is also that the sugarcane fields are located near the sugar manufacturing units which help to minimise the transportation cost. Recently there has been a major reduction in area under sugarcane cultivation and its yield mainly due to drought in almost the whole of tropical and sub-tropical regions. The effect of drought, delayed payment of cane price and low sugar prices in the recent past have led to fall in sugarcane production and closure of some sugar mills. All these factors express the importance of studying the cause and effect of the share price movements of the company and the economic conditions supporting the share prices and the reputation of the company. The study helps to determine the extent of influence of the factors taken for study on the share price of the company which will be useful for the organization and help in identifying the areas to be concentrate to improve upon their market efficiency.

1.6 RESEARCH METHODOLOGY

1.6.1 TYPE OF STUDY

The study on influence of economic variables on share prices of Sakthi sugars in descriptive in nature. The data required for this study is collected through the secondary sources. The secondary sources are the annual reports of the company, research publications and official websites related to the industry.

1.6.2 TIME PERIOD OF STUDY

The time period of study is taken to be 5 years from 2003 to 2008.

1.6.3 STATISTICAL TOOLS USED

Different types of data require different kinds of statistical tools. The data available here is a variable data. The tools used are

- Multiple Regression analysis
- Simple regression analysis
- Correlation analysis

1.6.3.1 MULTIPLE REGRESSION ANALYSIS

The regression is a statistical relationship between two or more variables. When there are two or more independent variables, the analysis that describes such a relationship is known as multiple regressions. This analysis is adopted when there is one dependent variable is presumed to be a funct6ion of two or more independent variables. In the multiple regressions, a linear composite of explanatory variables is formed in such a way that it has maximum correlation with an active criterion variable. The main objective of using this technique is to predict the variability of the dependent variable, based on its co – variance with all the independent variables. It is useful to predict the variability of dependent phenomenon through multiple regression analysis, if the levels of independent variables were given. The linear multiple regression problems is to estimate coefficients β_1, β_2, $\beta_3 \ldots \beta_n$ and α such that the expansion is

$$Y= \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \ldots\ldots\ldots\ldots\ldots \beta_n X_n$$

Provides a good estimate of an individual Y score based on the X scores.

1.6.3.2 SIMPLE REGRESSION ANALYSIS

In statistics, simple linear regression is the least squares estimator of a linear regression model with a single predictor variable. In other words, simple linear regression fits a straight line through the set of *n* points in such a way that makes the sum of squared residuals of the model (that is, vertical distances between the points of the data set and the fitted line) as small as possible. The simple linear regression analysis is to estimate the β and α such that the expansion is

$$Y = \alpha + \beta x,$$

Where,

Y – share prices of the company

β – market index

β is calculated using the formula

$$b = \frac{\sum[(x_i - \bar{x})(y_i - \bar{y})]}{\sum(x_i - \bar{x})^2}$$

α is calculated using the formula

$$a = \bar{y} - b\bar{x}$$

B is the slope of the regression line and a is the intercept. Y is the dependent variable and X is the independent variable influencing the dependent variable. The b value is the coefficient of the independent variable showing that, a unit increase in the value 'x' will have 'b' units of change in the y value.

1.6.3.3 CORRELATION ANALYSIS

In statistics, correlation and dependence are any of a broad class of statistical relationships between two or more random variables or observed data values. Correlations are useful because they can indicate a predictive relationship that can be exploited in practice. In general statistical usage, correlation or co-relation can refer to any departure of two or more random variables from independence, but most commonly refers to a more specialized type of relationship between mean values. There are several correlation coefficients, often denoted ρ or r, measuring the degree of correlation. The most common of these is the Pearson correlation coefficient, which is mainly sensitive to a linear relationship between two variables. Other correlation coefficients have been developed to be more robust than the Pearson correlation, or more sensitive to nonlinear.

The correlation coefficient is calculated using the formula

$$r = \frac{\sum XY - \frac{\sum X \sum Y}{N}}{\sqrt{\left(\sum X^2 - \frac{(\sum X)^2}{N}\right)\left(\sum Y^2 - \frac{(\sum Y)^2}{N}\right)}}$$

The 'r' value implies the relation between the two variables taken for analysis. Positive 'r' value shows that increase in independent variable will increase the dependent variable, whereas negative 'r' value shows increase in independent variable will decrease the dependent variable.

1.7 LIMITATIONS OF THE STUDY

- The data taken for analysis is only for a limited period of 5 years.
- The data is made available from the secondary source and it may not be accurate.
- The analysis was limited to few factors amidst many.
- Since the study is related to the financial terms many information were confidential and the study was made to be done with data available.
- The time duration for the study is limited.
- The information for the analysis is availed from the web portals which may not be reliable.

CHAPTER - 2 ORGANIZATION PROFILE

CHAPTER 2

ORGANIZATION PROFILE

2.1 HISTORY OF THE ORGANIZATION

The company was incorporated on 12.5.1961 and certificate of commencement of business was obtained on 11.5.1962. The first sugar unit was set up at Sakthi nagar, Erode district with a crushing capacity of 1250 tonnes crushed per day. The capacity of the unit has been increased in stages and now it has a crushing capacity of 9000 tonnes crushed per day.

In 1972, distillery unit was established at the precincts of sakthi nagar sugar unit with a capacity to produce 9000 kilo litres of industrial alcohol per annum. Now it has been raised to 36000 KLPA. In the year 1988, the company has installed an effluent treatment plant for treating the distillery effluent. The second sugar unit was started in the year 1988 – 89 in Sivaganga taluk, Tamil nadu with a crushing capacity of 2500 TCD and now the crushing capacity has been upgraded to 4000 TCD. The soya division was amalgamated this company with effect from 1.4.1993 and its installed capacity is 90,000 MT per annum. Another sugar unit was set up at Dhenkanal district of Orissa. The crushing capacity of this division has been increased from 1500 TCD to 2500 TCD. In 1995, distillery unit was installed at Dhenkanal district with 10,000 KLPA.

The company has a 32MW co-generation plant at the precincts of sakthi nagar sugar unit. The co – generation plant was started in order to de risk the company from sugar business which is cyclical in nature. The company has also set up a soft drink bottling unit at its Sivaganga sugar unit. Pursuant to government's decision to permit mixing of ethanol with petrol as fuel, the company has created facilities at its sakthi nagar distillery unit for manufacture of ethanol.

2.2 MANAGEMENT

Dr .N.Mahalingam – Chairman

Sri M.Manickam – Vice chairman & Managing Director

Sri M. Balasubramaniam – Joint Managing Director – Finance

Sri M.Srinivasan - Joint Managing Director - Technical

Sri V.K.Swaminathan – Executive director

DIRECTORS

Sri P.K.Chandran

Sri G.Gurumurthy

Sri S.S. Muthuvelappan

Sri N.K. Vijayan

Sri S.Doreswamy

Sri C.Rangamani

Sri B.Elangovan (Nominee of TIDCO)

Smt.S.Usha (Nominee of IDBI)

Sri S.Baskar – Senior Vice President – Finance & Company Secretary

2.3 FEATURES

SAKTHINAGAR SUGAR UNIT:

- More than 35,000 acres of sugarcane available around the factory supported by the river and canal irrigation. Pioneering efforts put in the cane department has increased the yield per hectare to more than 125MT.
- Crushing in the unit – more than 8 months in year.
- Unit has capacity to produce export quality sugar corresponding to less than 35ICUMSA
- Optimal recovery of sugar from sugarcane.
- Secured National efficiency award for many years.
- Research & development wing oh\f this unit is responsible for developing new sugar rich pest resistant varieties of sugarcane.
- Has mechanical harvesters imported from Austoft Industries Australia.
- The company has bagged the National award for exemplary export performance.

SIVAGANGA SUGAR UNIT:

- More than 18,000 acres of sugarcane available within 40 kms of the factory supported by river, pond and well irrigation.
- 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 tonnes in a season.

DHENKANAL SUGAR UNIT:

- Perennial rivers like Mahanadi and Brahmani run through Dhenkanal and Cuttack districts.
- Orissa government is in the process of implementing a major canal irrigation scheme from the river Mahanadi 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, crushing period restricted to a maximum of 150 days in a year between December and April.

MODAKURICHI SUGAR UNIT:

- A new Greenfield sugar plant with a crushing capacity of 3500 TCD along with 25MW cogeneration plant were set up at Modakurichi taluk in Erode district.

SAKTHINAGAR DISTILLERY UNIT:

- Largest industrial alcohol manufacturing distillery in Tamil nadu.
- 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 10,000m 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 for supply to oil companies, pursuant to government's permission to mix ethanol with petrol as fuel up to 10%.

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.

SOYA UNIT:

- Has solvent extraction and oil refining plants imported from M/s Extraktionstechnik, West Germany, who are world renowned suppliers of such machinery.
- Has seed processing and edible flour making plant imported from M/s Buhler Brothers, Switzerland, who are again the world class suppliers of such machinery.
- Has facility to produce edible grade soya flour and refined edible grade sunflower oil.
- Concentrates on production and sale of value added products like Texturised vegetable protein chunks and refining of edible grade crude sunflower oil.
- The unit has sophisticated facilities for manufacture of edible grade soya flour. Once it is a separate entity and has a separate identity , its features and and capabilities can be put through web site, which can attract the attention of intending overseas customers instantly.
- With the announcement of FDA in United states that intake of soya flour up to 25 gms 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.

2.3 PRODUCTS AND SERVICES

Sakthi Sugars is primarily engaged in processing and producing sugar. The company's key products include the following:

PRODUCTS:

- Sugar
- Molasses
- Baggasse
- Bio compost
- Electricity

INDUSTRIAL ALCOHOL:

- Rectified spirit
- Extra neutral alcohol/neutral spirit

SOYA PRODUCTS:

- Soya flour
- Soya chunks
- Texturised vegetable protein (minced)
- Hypro soya flakes
- Pre-cooked soya food
- Soya refined oil
- Lecithin

AUTO COMPONENTS:

- Steering Knuckles
- Brake drums
- Brake discs
- Hubs
- Brake calipers
- Carriers
- Differential cases and manifolds

2.4 PERFORMANCE

Performance of the sugar division of the company for the year ended as on 31st December 2008 is furnished here under:

SUGAR DIVISION

(Figures in lakhs)

Units	Sakthinagar	Sivaganga	Dhenkanal	Modakurichi
Cane crushed(MTs)	23.56	9.79	3.66	7.14
Recovery %	9.01	8.83	9.99	9.10
Sugar produced (qtls)	21.30	8.64	3.63	-
Raw sugar processed (MTs)	-	-	-	-
Sugar produced(qtls)	-	-	-	6.50
Sale value (INR)	28333	12575	5936	8970

CHAPTER – 3 MACRO – MICRO ANALYSIS

CHAPTER 3

MACRO – MICRO ANALYSIS

Indian Sugar Industry

The Indian sugar industry has been on an upward trend since 2003, after weathering the rough patch of 1999-2003. This upward trend has resulted in strong capacity expansion. Sugar and Sugarcane are essential commodities under the Essential Commodities Act 1955. The Government has taken the steps for decontrol of the sugar industry. India has been known as the original home of sugar and sugarcane. Indian mythology supports the above fact as it contains legends showing the origin of sugarcane. India is the second largest producer of sugarcane next to Brazil. Presently, about 4 million hectares of land is under sugarcane with an average yield of 70 tonnes per hectare. India is the largest single producer of sugar including traditional cane sugar sweeteners, khandsari and Gur equivalent to 26 million tonnes raw value followed by Brazil in the second place at 18.5 million tonnes. Even in respect of white crystal sugar, India has ranked No.1 position in 7 out of last 10 years.

The era of planning for industrial development began in 1950-51 and Government laid down targets of sugar production and consumption, licensed and installed capacity, sugarcane production during each of the Five Year Plan periods.The discovery of sugarcane, from which sugar as it is known today, is derived dates back unknown thousands of years. It is thought to have originated in New Guinea, and was spread along routes to Southeast Asia and India. The process known for creating sugar, by pressing out the juice and then boiling it into crystals, was developed in India around 500 BC.The world production of sugar in million tonnes

	2008/09	2009/10
Production	159.887	152.976
Consumption	167.134	164.316

The Indian sugar industry uses sugarcane in the production of sugar and hence maximum number of the companies is likely to be found in the sugarcane growing states of India including Uttar Pradesh, Maharashtra, Gujarat, Tamil Nadu, Karnataka, and Andhra Pradesh. Uttar Pradesh alone accounts for 24% of the overall sugar production in the nation and Maharashtra's contribution can be totalled to 20%.

The sugar industry can be divided into two sectors including organized and unorganized sector. Sugar factories belong to the organized sector and those who produce traditional sweeteners fall into unorganized sector. Gur and khandsari are the traditional forms of sweeteners.

Manufacturing process followed in India

Several steps are usually followed to produce sugar. These steps can be mentioned as below:

- Extracting juice by pressing sugarcane
- Boiling the juice to obtain crystals
- Creating raw sugar by spinning crystals in extractors
- Taking raw sugar to a refinery for the process of filtering and washing to discard remaining non-sugar elements and hue
- Crystallizing and drying sugar
- Packaging the ready sugar

India's Sugar Development Fund is financing projects related to bagasse-based cogeneration of power. Currently, 25 sugar mills in India are generating 250 megawatt of power from bagasse. The on-going projects, on completion, would generate another 700 mw. Out of 450 mills, 300 mills have infrastructure facilities to generate a total of 4000 mw of power from bagasse. There are many other projects. The Indian federal government has imposed a concessional surcharge of Rs. 5.25 per litre on petrol blended with 5 percent ethanol presumably to boost consumption of alcohol which in turn is expected to boost the sugar industry.

Sakthi sugars limited

Sakthi Sugars is engaged in producing sugar and sugar derived products. The company is also involved in the manufacture and marketing of industrial alcohol, soya products and supplies auto components to passenger car manufacturers.

The company primarily produces white crystal sugar under S 30, M 30 and L 30 grades and also produces bi-products such as molasses, baggasse and bio compost. The company conducts its core sugar business operations through its four sugar units: Sakthinagar sugar unit, which has the capacity of crushing 7,000 tons of sugarcane daily; Sivaganga sugar unit, which has the capacity of crushing 4,000 tonnes of sugarcane daily; Baramba sugar unit with the capacity of crushing 1,250 tonnes of sugarcane daily; and Dhenkanal sugar unit with the capacity of crushing 2,500 tons of sugarcane daily. Sakthinagar and Sivaganga units are located in the state of Tamil Nadu, where as Baramba Dhenkanal sugar units are located in the state of Orissa in India. The company's Sakthi Soya subsidiary combines technology from Switzerland and Germany, such as a flash desolventizing system, to manufacture high-protein soya flour. It has the capacity to process 90,000 tons of soya beans per annum. Its products include soya flour, soya chunks, Texturised vegetable protein (minced), Hypro soya flakes, pre-cooked soya food, soya refined oil and lecithin.

The company's soya products are exported to Sri Lanka, Thailand, Singapore, Malaysia, the UK, South Korea and Taiwan. Sakthi Auto Component subsidiary of the company supplies auto components to passenger car manufacturers. It manufactures and supplies steering knuckles, brake drums, brake discs, hubs, brake calipers, carriers, differential cases and manifolds to Maruti Udyog, Hyundai, Ind Auto, Ford, Honda Siel Cars and Tractors and farm Equipment among others. In addition, the company operates a 35 megawatt power plant located at Sakthi Nagar. The plant runs by coal as fuel and the bagasse released from this unit is supplied as feedstock for the Tamil nadu News Prints.

The company also operates an industrial alcohol manufacturing distillery in the state of Tamil Nadu with a capacity of processing nine million litres of industrial alcohol (rectified spirit and extra neutral alcohol/neutral spirit) per annum; and another industrial alcohol manufacturing distillery unit in the State of Orissa with a capacity of processing ten million litres per annum.

Bombay Stock Exchange

The stocks of the company are listed in Bombay stock exchange which is the is the oldest stock exchange in Asia. Over the past 135 years, BSE has facilitated the growth of the Indian corporate sector by providing it with an efficient capital raising platform. The BSE Index, SENSEX, is India's first and most popular Stock Market benchmark index. Exchange traded funds (ETF) on SENSEX, are listed on BSE and in Hong Kong. Futures and options on the index are also traded at BSE.

CHAPTER – 4 DATA ANALYSIS & INTERPRETATION

CHAPTER 4

DATA ANALYSIS AND INTERPRETATION

4.1 MULTIPLE REGRESSION ANALYSIS OF SHARE PRICES OF SAKTHI SUGARS AND THE EXTERNAL FACTORS

TABLE 4.1.1

VARIABLES	COEFFICIENTS	t	SIGNIFICANCE
Constant	-642.27	-1.49	0.14
X_1	-2.32	-1.23	0.23
X_2	10.70	2.93	0.005
X_3	-18.05	-2.94	0.005
X_4	67.44	1.64	0.107
X_5	0.003	1.21	0.23

The regression line for the share price on external factors is

$Y = -642.27 - 2.32X_1 + 10.70X_2 - 18.05X_3 + 67.44X_4 + 0.003X_5$

Where,

X_1 - Monthly average prices of sugar in India

X_2 – Global monthly average prices of sugar

X_3 – Monthly average production in India

X_4 – global monthly average production of sugar

X_5 – monthly average production of sugar by Sakthi sugars limited.

REGRESSION STATISTICS

TABLE 4.1.2

R VALUE	R^2 VALUE	DEGREE OF FREEDOM – V1	DEGREE OF FREEDOM – V2	F VALUE	SIGNIFICANCE
0.72	0.5106	5	54	11.79	1%

The multiple linear regression components (dependent variable) is found statistically a good fit as R^2 is 0.5106. It shows that 4 out of 5 variables contribute to the share price movements and this is statistically significant at 1% and 5% levels.

The table indicates that the coefficient of monthly average price of sugar and national production of sugar negatively associated which implies when there is a increase in the national sugar price and national production of sugar , the share price of sakthi sugars decreases. The global monthly average price of sugar and the global production of sugar are positively associated which implies with an increase in these variables the share price of the company also increase. The company production factor is also positively associated saying that an increase in the production of sugar in the company will increase the share price of the company. It indicates that these variables that contribute to the movement of share price of the company are statistically significant implying that their influence is stronger than those of the other variables.

The rate of increase in share price of sakthi sugars could be better achieved with better performance of independent variables such as , with -1.23 units change in monthly average price of sugar in India, with 2.93 units change in monthly average global price of sugar, with -2.94 units change in national production of sugar, with 1.64 units change in global production of sugar, with 1.21 units change in total company production of sugar.

4.2 MULTIPLE REGRESSION ANALYSIS OF SHARE PRICES OF SAKTHI SUGARS AND THE INTERNAL FACTORS

TABLE 4.2.1

VARIABLES	COEFFICIENTS	t	SIGNIFICANCE
Constant	51.58	2.59	0.0122
X_1	0.0219	5.91	2.37
X_2	0.0013	0.68	0.4999
X_3	-0.0002	-1.91	0.0611
X_4	0	-	-
X_5	0.0389	2.19	0.0325
X_6	0	-	-

The regression line is

$$Y = 51.58 + 0.0219X_1 + 0.0013X_2 - 0.002X_3 + 0\ (X_4) + 0.0389X_5 + 0.(X_6)$$

Where,

Y – Monthly average share price of Sakthi sugars

X_1 – quarterly average net profit/loss of the company

X_2 – quarterly average gross profit / loss of the company

X_3 – average sugarcane crushed /month

X_4 – sugarcane price

X_5 – monthly average operating expenses of the company

X_6 – monthly average interest charges paid by the company

Constant – 51.58

REGRESSION STATISTICS

TABLE 4.2.2

R VALUE	R^2 VALUE	DEGREE OF FREEDOM – V1	DEGREE OF FREEDOM – V2	F VALUE	SIGNIFICANCE
0.71	0.5034	6	54	13.68	1%

The multiple linear regression components (dependent variable) is found statistically a good fit as R^2 is 0.5034. It shows that 4 out of 6 variables contribute to the share price movements and this is statistically significant at 1% and 5% levels.

The table indicates that the coefficient of average sugarcane tonnes crushed per month is negatively associated which implies when there is a increase in the sugarcane crushing the share price of sakthi sugars decreases. The quarterly net profit/loss and the quarterly gross profit/loss and the operating expenses of the company are positively associated which implies with an increase in these variables the share price of the company also increase. The coefficient of average sugarcane tonnes crushed is insignificant since the value is very less. It indicates that these variables that contribute to the movement of share price of the company are statistically significant implying that their influence is stronger than those of the other variables.

The rate of increase in share price of sakthi sugars could be better achieved with better performance of independent variables such as, with 5.91 units change in the net profit of the company, with 0.68 units change in the gross profit of the company. The regression value for the cane price is 0 because it is the statutory minimum price fixed by the government and the value remains constant until revised by the government.

Thus from the above multiple regression analysis, it shows that the internal and the external factors have 50% influence on the share price of the company.

4.3 SIMPLE LINEAR REGRESSION ANALYSIS OF SHARE PRICES OF SAKTHI SUGARS AND BSE SENSEX

The regression line for the market and the share price of the company is

Y= 77.18 + 0.0017X

Where,

Y – Monthly average share price of the company.
X – Monthly average sensex
Y is the dependent variable which is influenced by the independent variable X. The market support for the company's share prices is very less since the coefficient of the independent variable is insignificant. Therefore it states that the market fluctuations do not affect to a greater extent but still the share price movements is positively associated with the sensex movements.

4.4 SIMPLE LINEAR REGRESSION ANALYSIS OF SHARE PRICES OF BANNARI AMMAN SUGARS AND BSE SENSEX

The regression line for the market and the share price of the company is

Y= 140.91 + 0.0782X

Where,

Y – Monthly average share price of the company.
X – Monthly average sensex

Y is the dependent variable which is influenced by the independent variable X. The market support for the company's share prices is medium Therefore it states that the market fluctuations do affect the share price movements of Bannari Amman sugars and is positively associated with the sensex movements.

4.5 SIMPLE LINEAR REGRESSION ANALYSIS OF SHARE PRICES OF DWARIKESH SUGARS AND BSE SENSEX

The regression line for the market and the share price of the company is

Y= 164.19 - 0.0008X

Where,

Y – Monthly average share price of the company.
X – Monthly average sensex
Y is the dependent variable which is influenced by the independent variable X. The market do not support for the company's share prices since the beta value turns to be negative and is very insignificant. Therefore it states that the market fluctuations do not affect the share price movements of Dwarikesh sugars.

4.6 SIMPLE LINEAR REGRESSION ANALYSIS OF SHARE PRICES OF RAJSHREE SUGARS AND BSE SENSEX

The regression line for the market and the share price of the company is

Y= -18.80 + 0.0083X

Where,

Y – Monthly average share price of the company.
X – Monthly average sensex
Y is the dependent variable which is influenced by the independent variable X. The market has less support for the company's share prices since the beta is positive. Therefore it states that the market fluctuations affect the share price movements of Rajshree sugars but not to a greater extent.

4.6 SIMPLE LINEAR REGRESSION ANALYSIS OF SHARE PRICES OF RANA SUGARS AND BSE SENSEX

The regression line for the market and the share price of the company is

Y= 4.93 + 0.0016X

Where,

Y – Monthly average share price of the company.
X – Monthly average sensex
Y is the dependent variable which is influenced by the independent variable X. The market has less support for the company's share prices since the beta is positive. Therefore it states that the market fluctuations affect the share price movements of Rana sugars but it is very insignificant.

4.7 SIMPLE LINEAR REGRESSION ANALYSIS OF SHARE PRICES OF SHREE RENUKA SUGARS AND BSE SENSEX

The regression line for the market and the share price of the company is

Y= 1463.82 - 0.0439X

Where,

Y – Monthly average share price of the company.
X – Monthly average sensex
Y is the dependent variable which is influenced by the independent variable X. The market has negative association with the company's share prices since the beta is -0.0439. Therefore it shows that increase in BSE sensex would result in decrease in share prices of the company.

4.8 SIMPLE LINEAR REGRESSION ANALYSIS OF SHARE PRICES OF TRIVENI ENGINEERING AND BSE SENSEX

The regression line for the market and the share price of the company is

Y= 230.66 - 0.0096X

Where,

Y – Monthly average share price of the company.

X – Monthly average sensex

Y is the dependent variable which is influenced by the independent variable X. The market has less support for the company's share prices since the beta is negative. Therefore it states that the market fluctuations affect the share price movements of Triveni Engineering in the opposite direction of the Index movements.

4.9 COMPARATIVE ANALYSIS OF SHARE PRICES OF SAKTHI SUGARS AND OTHER SUGAR PRODUCING COMPANIES LISTED IN BSE

The analysis is made between the sakthi sugars and the other sugar producing company, to understand the position of sakthi sugars in the market among its competitors. The beta value is the coefficient of the independent variable namely the BSE sensex which speaks about its influence on the share prices of the different companies taken here.

The beta value is found using the formula

$$b = \frac{\sum[(x_i - \bar{x})(y_i - \bar{y})]}{\sum(x_i - \bar{x})^2}$$

The beta value is the slope for the regression line. Beta value is used for comparison of influence of BSE sensex on share prices of different companies.

Table 4.9.1

NAME OF THE COMPANY	BETA VALUE
Sakthi sugars limited	0.0017
Bannari Amman sugars	0.0786
Dwarikesh sugars	- 0.0008
Rajshree sugars	0.0083
Rana sugars	0.0016
Shree Renuka sugars	- 0.0439
Triveni Engineering	- 0.0096

The rate of increase in share price of sakthi sugars limited, Bannari Amman sugars, Rajshree sugars and Rana sugars are positively associated whereas the share prices of Dwarikesh sugars, Shree Renuka sugars and Triveni engineering are negatively associated to the movements in the BSE sensex. Therefore the competitor's influence on the share price of the sakthi sugars is also comparatively less and the market influence is also very less. The share price movements have positive association with the sensex movements showing that the performance of the company in the share market is good.

4.10 CORRELATION ANALYSIS

The correlation analysis is a statistical tool to find out the relationship between the two variables. If the 'r' value is +1, the variables are perfectly positive correlated and if 'r' value -1, the variables are perfectly negative correlated.

The correlation coefficient is calculated using the formula

$$r = \frac{\sum XY - \frac{\sum X \sum Y}{N}}{\sqrt{(\sum X^2 - \frac{(\sum X)^2}{N})(\sum Y^2 - \frac{(\sum Y)^2}{N})}}$$

Table 4.10.1

NAME OF THE COMPANY	'r' VALUE
Sakthi sugars limited	0.14
Bannari Amman sugars	0.70
Dwarikesh sugars	- 0.03
Rajshree sugars	0.60
Rana sugars	0.60
Shree Renuka sugars	- 0.49
Triveni Engineering	- 0.81

The companies namely sakthi sugars limited, Bannari Amman sugars, Rajshree sugars, Rana sugars, are positively correlated which says that if the index goes up, the share price also increases and vice versa. Dwarikesh sugars, Shree Renuka sugars and Triveni engineering are negatively correlated saying that if index moves up, the share prices of those companies decreases and vice versa.

CONCLUSION

CHAPTER 5

CONCLUSION

5.1 RESULTS AND DISCUSSIONS

Share prices are not a major factor deciding the company's future but they have an impact on the company's reputation and the management. Share price move every fraction of a second in the market but taking its overall performance it is necessary to analyse the forces behind the stock price movement.

Sugar is one of the essential commodity and sakthi sugars is one of the largest producer of sugar in India. The share price movements of sakthi sugars is analysed with the help of the statistical tools like multiple regression analysis, simple linear regression analysis and correlation analysis. The values obtained from the above tests say that the share price movements of the company are influenced by internal and external factors to an extent of 50% approximately. The market support for the company is very less which implies the company will have fewer stimuli towards the market conditions which is both merit and demerit to the company. The company has to concentrate on the expenses and debt funds as these figures are at an increasing pace which might reduce the profit to the company. .The market share of the company is around 14% but still the share prices are not influenced by the market forces stating that the company's share prices is resistant to change in market conditions which is a good sign for the company.

In 2009/2010 the national sugar production of sugar has come down to a greater extent compared to 2008 because of the sugarcane crop failure and monsoon failure but still the company has kept up increasing its production with modernised sugar production mechanism. The sakthi sugars and its subsidiaries sale value has been constantly increasing because of the quality products manufactured by them.

5.2 RECOMMENDATIONS

- Sugar is one of the essential commodities in India as it is being used in day to day life of Indian households. With the increasing number of population in India the company has a profitable market scenario to capture. Not only in Tamil nadu, Sakthi sugars - is also having manufacturing units in other states where it can acquire a large market with its modern production technique.

- Although the company has quiet a good market shares. The share price seems to be resistant to market conditions. i.e., the market support for the company is insignificant. During unfavourable market conditions, this situation may be profitable for the company, but during favourable market condition, the company is losing its profit because of its resistance. So it is essential for the company to identify the favourable market condition and avail the situation in making profit.

- The company has been involved in unit expansion gradually since its inception, the expenses is also increasing on the other hand. The debt fund of the company is increasing year on year where the interest charge paid by the company is also increasing which will reflect on the company's share price.

- Since the company is globally integrated, it is essential for the company to concentrate in the global scenario in which the global production, exchange rate fluctuation, supply and demand, consumption rate are all affected.

- The share price movements are not determined and cannot be fixed to certain factors in the market. Thus the study has made way for further analysis in this field.

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APPENDIX

APPENDIX

WORLD PRODUCTION OF SUGAR

YEAR	Million Tonnes produced
2003 - 2004	141.1
2004 - 2005	145.2
2005 - 2006	151.1
2006 - 2007	166.1
2007 - 2008	169.8

NATIONAL PRODUCTION OF SUGAR

YEAR	In lakh Tonnes produced
2003 - 2004	139.58
2004 - 2005	130.00
2005 - 2006	191
2006 - 2007	257.54
2007 - 2008	286.30

SUGARCANE PRICE

Sugar Season	SMP (Rs. per quintal)
2003-2004	73.00
2004-2005	74.50
2005-2006	79.50
2006-2007	80.25
2007-2008	81.18