

# **SHRI PRABHULINGESHWAR SUGARS AND CHEMICALS LIMITED**

**Registered Office & Factory Address:**

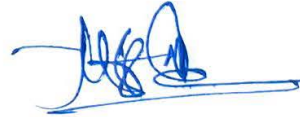
**At Post : Siddapur - 587 301**

Tq: Jamkhandi, Dist. Bagalkot, Karnataka State, India  
CIN: U85110KA1995PLC017861, ISO 14001:2004 Certified

## **CERTIFICATE**

This is to certify that **Mr.Shankar Malaganvi** a student of IVth semester MBA studying in Acharya Institute of Technology Bangalore. Has undergone In-plant training on “**Inventory Management**” in our Organization during the period 15<sup>th</sup> January 2018 to 24<sup>th</sup> March 2018

His interest, sincerity and hard work shown during the training period was satisfactory.



**MAHENDRA B HORAGINAMANI  
COMPANY SECRETARY CUM GM (F&A)**

Place:- Siddapur  
Date:- 29-03-2018





# ACHARYA INSTITUTE OF TECHNOLOGY

(Affiliated to Visvesvaraya Technological University, Belagavi, Approved by AICTE, New Delhi and Accredited by NBA and NAAC)

Date: 19/05/2018

## CERTIFICATE

This is to certify that **Mr. Shankar A Malaganvi** bearing USN **1AY16MBA72** is a bonafide student of Master of Business Administration course of the Institute 2016-18 batch, affiliated to Visvesvaraya Technological University, Belagavi. Project report on “**A Study on Inventory Management**” at **Shri Prabhulingeshwar Sugars and Chemicals Ltd, Siddapur, Jamakhandi** is prepared by him under the guidance of **Prof. Swarupa Ranjan Panigrahi** in partial fulfillment of the requirements for the award of the degree of Master of Business Administration, Visvesvaraya Technological University, Belagavi, Karnataka.

Signature of Internal Guide

Signature of HOD

Head of the Department  
Department of MBA  
Acharya Institute of Technology  
Soldevanahalli, Bangalore-560 107

Signature of Principal

PRINCIPAL  
ACHARYA INSTITUTE OF TECHNOLOGY  
Soldevanahalli Bangalore-560 107

**DECLARATION**

I **SHANKAR ASHOK MALAGANVI** hereby declares that the project report entitled on “**A study on inventory management**” with reference to **SHRI PRABHULINGESHWAR SUGARS & CHEMICALS PVT LTD SIDDAPUR** prepared by me under the guidance of **Mr. Swarupa Ranjan Panigrahi** faculty of MBA Department in **ACHARYA INSTITUTE OF TECHNOLOGY** and external guidance by **MAHENDRA HORAGINMANI Finance Manager, SPSC Pvt Ltd**. I also declare that this project work is towards the partial fulfillment of the university regulations for the award of degree of Master of Business Administration in Visveswaraya Technological University, Belgaum. I have undergone the project for the period of 10 weeks. I further declare that this project is based on the original study undertaken by me and not has submitted for the award of any degree/ diploma from any other university or institution.

Place: Bangalore

Date: 29-05-2018

  
Signature of the student



## ACKNOWLEDGEMENT

I deem it a privilege to thank our Principal Dr. Sharanabasava Pilli, Dr. Mahesh, Dean Academics and our HOD Dr. Nijaguna for having given me the opportunity to do the project, which has been a very valuable learning experience.

I am truly grateful to my external guide Mahendra horaginmani, company secretary, Shri Prabhulingeshwar sugars & chemicals ltd Siddapur, and my internal research Guide Prof. Swarupa Ranjan Panigrahi, MBA, Acharya Institute Of Technology, for their research guidance, encouragement and opportunities provided.

I wish to thank all the respondents from the firms who spent their valuable time in discussing with me and giving valuable data by filling up the questionnaire.

My sincere and heartfelt thanks to all my teachers at the department of MBA, Acharya Institute of Technology for their valuable support and guidance.

Last, but not least, I want to express my deep appreciation to my parents for their unstinted support.

**SHANKAR A MALAGANVI**





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## **Executive summary**

The project report was carried on at SPSCL, on the topic “the study of inventory management with reference to SPSCL“.

The research mainly focused on the inventory involved that the firm need to be faced while maintain stock and have to frame the strategies and methods to reduce the inventory

The information regarding the finance is been derived from financial statement such as balance sheet and profit and loss account of SPSCL. Analysis of data is made for four years that is from 2014 to 2017 is been collected from the annual report of the firm.

The managers its inventory in appropriate manner can be found as there is no much loss to the firm because of stock. Firm has a well planned mechanism and strategies for managing the inventory.



## Chapter – 1

# INTRODUCTION

## CHAPTER 1

### INTRODUCTION

The parents study is based on the : “ Inventory Management” with reference to the Shri prabhulingeshwar sugars and chemicals Limited, Siddapur.

Material is very important factor of production in a manufacturing company. It is first and the most important element of cost. Direct and indirect materials purchased for stock purpose to be issued to different jobs, work orders or departments are required are treated as stock.

We may also refer to the commodity used term “Inventory” which includes the stock not only of raw materials but also stores & spares, work in process, and finished goods.

Legitimate control of materials is vital from the time orders for buys of materials are put with provisions until the point when they have been devoured. The question of material control is to assault material cost exertion with the goal that cost of material when it is bought, put away and utilized.

Inventory is the physical stock of item that a business or production oranzation keeps in hand in hand for effacing of affairs of its production inventories consist of raw materials, component parts supplies and finished assemblies which an organization purchase from an outside source and parts assemblies and finished products which the company manufacturing itself.

Stock control is the task of consistently organizing receipts and issued in such route in order to protect that stock in amount or esteem are sufficient to help the present rate of utilization ever due respect to economy.

## 1.1 WHY THIS STUDY IS NEEDED:

The aim of this is to know different department of inventory management. study on inventory as a name ‘management in shri prabhulingeshwar sugars & chemicals Ltd, siddapur.

Here the problem is to analyses the inventory controlling technique used in shri prabhulingeshwar sugars & chemicals Ltd,siddapur the study is undertaken to have glance over the meaning, definition, importance, objectives, components and techniques inventory management are applied in SPSCS Siddapur.

### **Objective of the study**

Stock administration has turned out to be unavoidable in the guardians day fabricating process.

The essential administrative goals of stock control are as following.

- To avoid the wastage of raw materials in SPSCS
- To know the inventory management methods of SPSCS
- To study the inventory management techniques of the SPSCS.
- To know whether continues supply of raw materials to carry out uninterrupted production in SPSCS

## 1.2 SCOP OF THE STUDY:-

the scope of the study can be analyses as follows:

- To know use of inventory management to achieve better working capital result and reduction in working capital.

The study inventory management will be useful to know that technique of working capital.

- Used by financial managers in determining the optimum level of capital in the organization
- The study covers 5 years of information
- The study also covers the findings and the suggestions given based on the study

## **METHODOLOGY**

Is the way in which the data is collected, analysed, and interpreted The tools for collection of data for present project are the primary data and secondary data the information furnished in this report has been collected from primary data as well as secondary data.

### **a) Primary data**

The primary data is a data collected directly by the researcher for first time is collected by interview and observation al department members and other officials of the company.

### **B) secondary data**

The secondary data however obtained from annual reports of the company statements of a company And web ,text books.

## **LI1MITATIONS**

- 1) The collection of data for analysis restricted to SPSCL, Siddapur.
- 2) The accuracy of result depends upon the information provided by the company. some information was taken on for during the discussions with the key personnel; therefore, it cannot be taken to bi true in entirety.
- 3) It is difficult to collect more information about finance due to the secrecy and confidentiality maintained by the employ

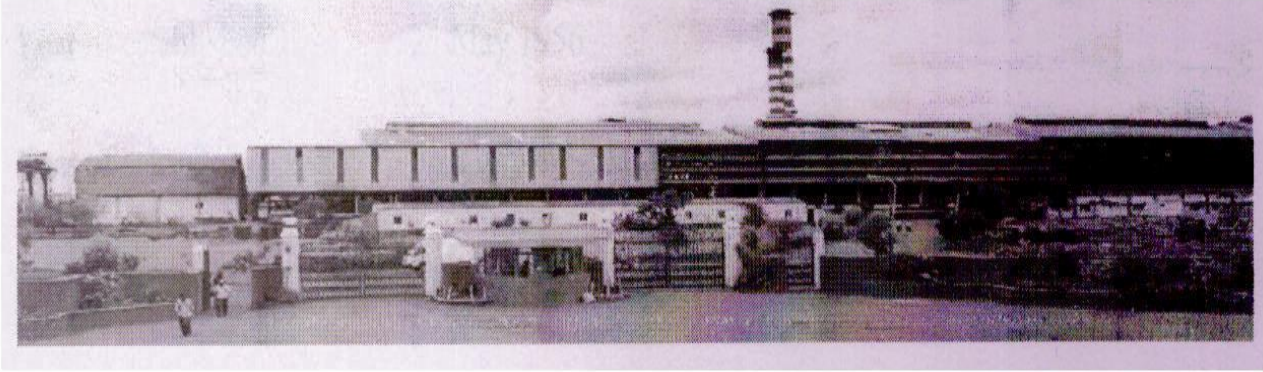
**CHAPTER-2**

**COMPANYPROFILE**

## CHAPTER-2

### INTRODUCTION ABOUT THE COMPANY:

#### HISTORY OF SPSCL



Shri Prabhulingeshwar Sugars and Chemicals Ltd., established by Mr. Jagadeesh S Gudagunti is a coordinated organization fundamentally occupied with the assembling of sugar and unified items. from an unassuming start in 1999,when we dispatched our first plant limit of 2500 TCD and 17.5MW cogeneration plant in siddapur town, jamakhandi Taluka, bagalkot District. Today plant is quickly developing modern gathering with a limit of 8500TCD and 38.5MW a solid nearness in expanded fields, for example, sugar assembling, power and ethanol/mechanical liquor generation. It isn't just making commitment in sustainable power source and including income there from as additionally by offering CER (carbon emanation reduction).the organization is required to its record. Organization enrolled office at Siddapur Taluka Jamkhandi and District Bagalkot State Karnataka, India.

Shri Prabhulingeshwar Sugars and Chemicals Ltd has numerous clenched hands shockingly. Lead by a group of dynamic experts the organization endeavors to set up itself as a market pioneer in the sugar business. prabhulingeshwar steady Endeavor to go that `extra mile` to contribute in making the earth eco-accommodating (planting 10,000 condition benevolent trees in the premises as well as in the encompassing zones) has won it numerous shrubs. The organization energizes a moral situation and advances straightforwardness in its managing. Shri prabhulingeshwar sugars and synthetic Ltd has been reliably thinking of amazing figures on all parameters including creation back and control sends out positions. Our devastating and recuperation rate are developing all the time with higher end.

## COMPANY PROFILE

<b>Name of Company</b>	Shri Prabhulingeshwar Sugars and Chemicals Ltd.
<b>Business Type</b>	Manufacturing
<b>Initial Investment</b>	186 Crore
<b>Land</b>	200 Acres
<b>Chairman and MD</b>	Shri Jagadeesh.S.Gudugunti
<b>Main Product</b>	Sugar
<b>Location</b>	At Post Siddapur, Tq: Jamakhandi, Dist: Bagalkot
<b>Registered office</b>	Siddapur Village-587301
	Tq: Jamakhandi, Dist: Bagalkot, Karnataka State, India
	Tel.No: 08353-238200, 238004 (Factory Site).
<b>First Crushing On</b>	29 <sup>th</sup> December 1999
<b>Phone</b>	08353-238147, 238200
<b>Fax</b>	08353-238164, 238166
<b>E-mail</b>	<a href="mailto:prabhusugars@gmail.com">prabhusugars@gmail.com</a>
<b>Number of Employee</b>	760

### Certification Board:



### Plant Details and Location:

1	Registered office	Siddapur Vilege-587301, Tq: Jamkhandi, Dist: Bagalkot, Karnataka State, India. Tel .no.08353-238200,23800
2	Year of establishment	A public limited company registered under companies Act 1956 at Bangalore U/No. 17861 on 25.05.1995
3	Factory code	50301 (Issued by chief Director of sugars industry New Delhi)
4	Commencement of first crushing operation	29 <sup>th</sup> December 1999
5	Geographical Location position	60km from Bagalkot 70kms from Vijaypur 135kms from Belagavi 160kmsfromHubliDharwad 170kms From Sholapur 300km from goa 360kms from pune
	Nearest Railway station	Vijaypur, Bagalkot, Kudachi, Miraj and Hubli
	Nearest Harbour	Karawar (360kms)
	Nearest Airport	Belagavi airport-135kms Hubli Airport -160kms



6	Climatic condition	a) Elevation	from	M.SL
		b) Temperature		:Max:41Deg.C
		Min:17Deg.C		
		c) Average		rainfall
		:579mm		
		d) Humidity	:0 to 76	

**BOARD OF DIRECTORS:**

Shri. Jagadeesh S. Gudagunti	Chairman and Managing Director
Shri . Rajendrakumar S Gudagunti	Executive Director (Cane)
Shri . Dharmalingayya J. Gudagunti	Executive Director (Administration) & CFO
Shri . Nagappa G Sanadi	Director
Shri . Deval Desai	Director
Shri . M.C. Hipparagi	Independent Director
Shri . S.P.Hiremath	Independent Director
Shri . Sudheer S Gudagunti	Director
Shri . Sateesh S Gudagunti	Director
Smt . Ishwari A Gudagunti	Director

Key Managerial Persons:

Sl. No	Name	Occupation
1	Shri. Mahendra. B. H	Company Secretary & GM (F & A)

Company operating team:

Name	Qualification	Designation
Shri .M.B.Horaginamani	ACA & ACS	Company Secretary & General Manager (F&A)
Shri . B. S. Kandeker	B. Sc.	Sr . General Manager (Cane)
Shri . S. S. Holeppagol	M .Sc. AVSI,PGDCA	Chief Chemist
Shri . S. C. Hipparagi	B .E. (Elec. & Communication)	General Manager (Elec. &inst.)

**Factors behind Establishment:**

- Fertile soil and irrigation facilities.
- Abundant supply of sugar cane.
- Because of this maximum sugar cane was to factories of Maharashtra.

**Future Plans of SPSCL Sugars**

- To promote lift irrigation project.
- Company wish to buy sugar factory in Srilanka and abroad.

## **Product Profile:**

### **Prabhu Sugars:**

The sugar plant having its licensed capacity of 3500 TCD and crushing capacity up to 8500 TCD with a capacity utilization of 228% and producing export quality white sugar, using latest techniques. Robust and reliable equipment of latest design, high efficiency and less power consuming have been installed for continuous operation. The factory is one of the most advanced sugar factories in India and has adopted steam, water and energy conservation system.

Due to abundant cane availability in the area of operation, a minimum duration of season of 09 – 10 months is assured. About 9 lakhs tonnes of sugarcane will be crushed during season to produce about 11 lakhs quintals of sugar. The sugar turnover would be Rs.140 core per year with this capacity. The company is focusing towards expanding its crushing capacity to 10,000 TCD in the near future with 55 MW power generation unit and also to establish downstream project for manufacture of alternative liquid fuel, chemical and the related products in a phased manner.

Bagasse based co – generation power plant is being registered under Clean Development Mechanism (CDS) projects which entitles carbon Credit.

### **Prabhu Power:**

The company has established a mega project to generate power using non – conventional energy fuel, i.e., bagasse which is a by – product coming out of sugarcane. The bagasse is used as fuel in high pressure traveling gate, multi fuel boilers to generate steam at 67 watt 485 degree celsius. The factory is has two turbo generator sets, one of 11.5 MW extractions cum back pressure turbine skoda make and one of 6 MW BHEL condensing turbine with minimum specific steam consumption. Out of 17.5 MW power generation about 12 MW is exported to HESCOM though the year under 10 Year power purchase agreement. The power purchase is being fixed as per the MNES guidelines and the expected revenue from power export is Rs.24 core per year at present. The company is planning to make their power production capacity near about 50MW.

M/s. Indian Renewable Energy Development Agency Ltd, (IREDA), New Delhi, a Government of India undertaking has highly considered this company as a ‘Model Co – generation Plant’ in Karnataka and has financed towards establishment of this project way back.

**Area of Operation:**

In a business with diverse manufacturing, there is a premium on production, process and capacity selection leading to competitiveness.

Shree Prabhulingeshwar Sugars and chemicals LTD Siddapur has Maharashtra and Karnataka as their operation area. They are mainly focusing on the following area:

- 18 Villages in Jamakhandi Taluq
- 32 Villages of Mudhol Taluq
- Southern region of Maharashtra

**Competitors Information:**

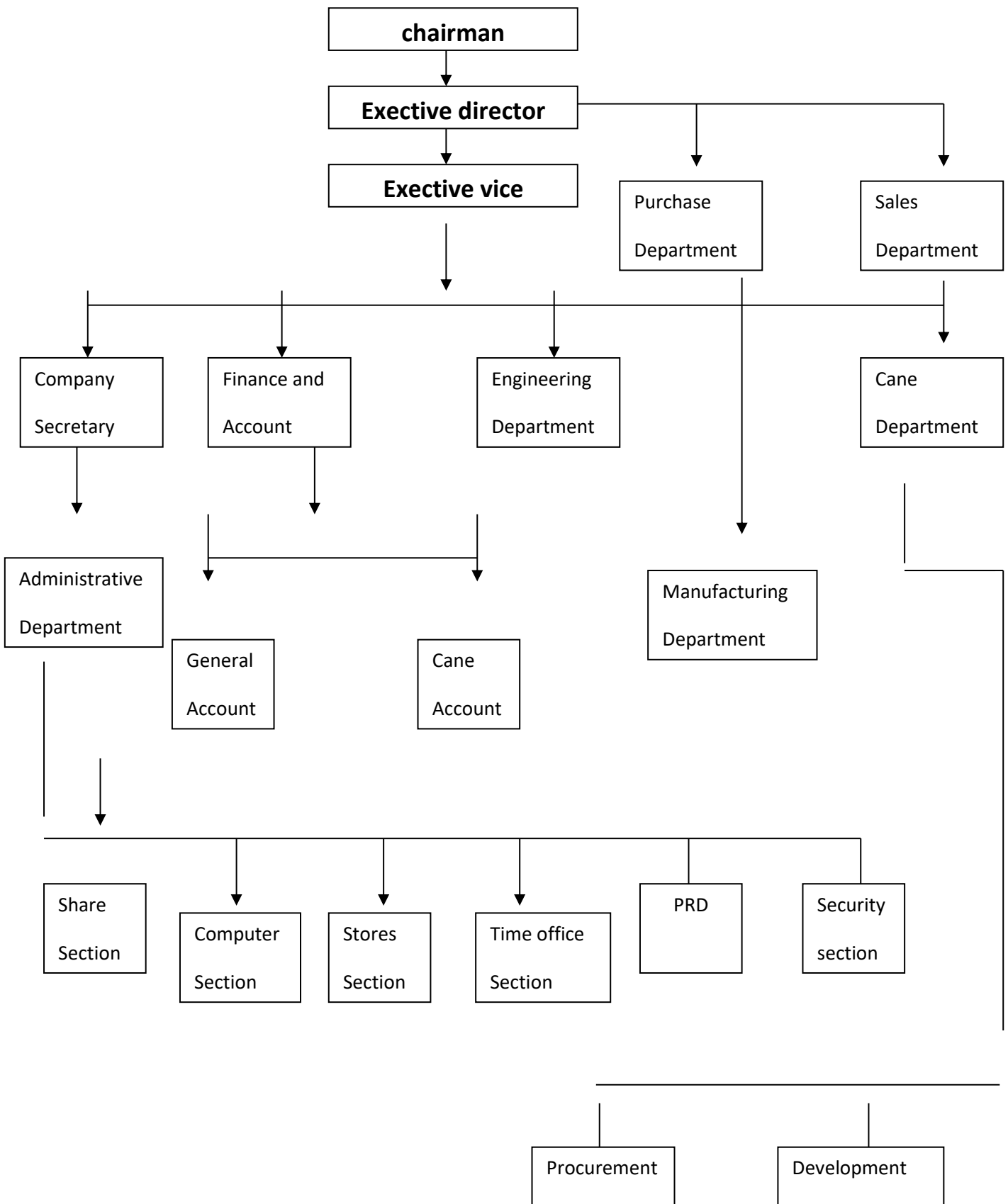
The Competitors for this industry are the sugar companies surrounding in the area there are.

Godavari Sugar Factory Sameerwadi

Nirani Sugars Pvt. Ltd. Mudhol

Nandi Co-op Sugars, Ltd. Galagali

# ORGANISATION CHART



## FINANCIAL PERFORMANCE:

PERFORMANCE	2011-12	2012-13	2013-14
CANE Crushed In MT	11,03,485	9,69,600	11,72,534
Recovery %	12,08	10,98	11,56
Sugar production Quintals	13,32,500	10,64,700	13,55,550
Duration of the person (in Quintals)	150	142	140
Power exported ( in Quintals )	5.56.97.75 0	5.67.37.95 0	7.86.69.50 0
7.86.69.50 Sugar exported ( in Quintals)	1,47,550	26,540	3,38,174
TURN OVER		Rs . in lakhs	
Sale of sugar and molasses	35082.27	35092.00	38,563.62
Export of power	2603.60	3164.54	3371.12
Sale of steam	72.43	71.35	56.06
Total	37758.48	38327.89	41,990,80
Prafit / loss	455.23	40.52	(971.78)
Net worth	4967.95	5039.09	4,094.73

## VISION & MISSION:

Prabhulingeshwar has its own particular extraordinary method for advancing on way to achieving its vision the way we have diagrammed keeping in mind the end goal to

- Produce a sugar rush quality and be the benchmark for the business so take after
- Achieve development consistently with ideal specialized productivity and least cost of generation
- Ensure most extreme consumer loyalty and worker/rancher welfare
- Protect the ecological and maintain the most elevated standard of uprightness, values alongside enthusiasm for magnificence report and regard for all while striding towards achieving our straightforwardness
- To set up itself as a stamped pioneer in the sugar business To be throb sort of universal quality standard

## OBJECTIVES OF SPSCCL, SIDDAPUR

- To utilize maximum man power and product capacity and utilities of raw materials to produced sugar and development of the irrigation project
- To manufacture sugar and it's bye products out of sugar cane grown and supplied by the society and to sell to sum to best
- To acquire lands either by way of sale, lease are otherwise for cultivation of sugar cane and other crop and for reaction of building, machinery etc.
- To install machinery for the utilization of by product and raw materials and finished products in the course of utilization and marketing the by products
- To give good product rate to the farmer who supply sugar cane to their factory
- To provide large scale employment

## **FUTURE PLAN**

1. planning for the further automation
2. expansion of co-generation of power
3. improving the infrastructural facility and contribution of more quarters.
4. Processing of refinery sugar i.e., Exportable quality
5. Listing the shares of company in the stock exchange

## **PROMOTER'S GROUP INSTITUTIONS:**

- Shri Prabhulingeshwar Sugars & Chemicals Ltd, Siddapur ( Karnataka )
- Siddapur distilleries limited, Siddapur ( karnataka )
- Extract Engineers (India) private limited, ahmednagar Maharashtra.
- Gudagunti project Engineers private limited Dharwad Karnataka.
- Shri Prabhulingewhar Sikshan Samsthe, Siddapur

## **SWOT ANALYSIS**

### **STRENGTHS:**

- High level of quality
- It is located in the place where good infrastructure is available
- Technological standard company
- Good sources of raw materials
- Power of generation
- Modern equipment
- High production efficiency
- Large supply of fertilizer

### **WEAKNESS:**

- More number of competitors



## Opportunities:

- All the project will give reasonable profit to the company
- Expansion of project like paper unit, ethanol production, Bio-fertilizer & power generation

## THREATS :

- Government intervention
- Strong competition with Godavari sugars & Nandi sugars

## Facility of the employees

### Leave facilities to employees

- Casual leave : 10days per year
- Sick leave : 10days per year
- Earned leave : 20days per year

The factory runs 3 shifts in reason:

Shift	Time
First shift	5am to 1pm
Second shift	1pm to 9pm
Third shift	9pm to 5am
General shift	8:30am to 5:30pm

## 1)Employment Generation

- |                                |                  |
|--------------------------------|------------------|
| ➤ Directors employment         | 756 persons      |
| ➤ Indirect employment          | 200 persons      |
| ➤ Harvesters on contract basis | 10000 persons    |
| ➤ Transports on contract basis | 1600 persons     |
| ➤ Cane growing families about  | 140000 persons   |
| ➤ Total                        | 1,54,400 persons |

## 2) Benefits to the EMPLOYEES

- More than 350 accommodation with free power, water facilities to employees
- A temple
- Play ground
- Lush green garden
- School with guarding up to 10<sup>th</sup> level
- Ambulance van etc.

## 3)Benefit to the society

- Identify and supply health sugarcane seed and also providing financial assistance to the farmers
- Distribution of fertilizes to the sugarcane growing farmer
- Company conduct many show to educated the farmer about better sugarcane management

## Competitor's information

The competitors for this industry is located near by sugar industry named as

1. Godavari sugar
2. Nandi sugar
3. Jamakhandi sugar ltd
4. Ranna sugar
5. Nirani sugar
6. Gem sugar
7. Satish sugar
8. India can sugar power ltd Uttar

## ACHIVEMENT OF SPSCCL

1. For the year 2002-2003, company has been awarded "SVP memorial award" for its best performances by south Indian "sugarcane and sugar Technologist Association" (SISSTA)
2. For the season 2009-10 the company has been awarded first price for best sugarcane development by "south Indian sugarcane and sugar Technologist Association" (SISSTA)

3. For season 2011-12, the company has been awarded first price for best sugarcane development by “south Indian sugarcane and Sugar Technologist Association” (SISSTA)
  4. For the season 2013-10, the company has been awarded first price for best sugarcane development by “South Indian Sugarcane and Sugar Technologist Association” (SISSTA)
- And several others.

## ABOUT THE PRODUCT

### **Main Product- White Crystal Sugar:**

#### **Sugar:**



ShriPrabhulingeshwar is known for its high quality, hygiene and good taste. Sugar manufacturing process at plants takes place under strict quality control measure and produced sugar is now here touched by hands. They are always among the first to adopt latest equipment technology to ensure that product quality is nothing but the best. ShriPrabhulingeshwar is crystal clear and is known to be sweeter and healthier than many other sugar brands.

The main product of the sugar manufacturing process is white crystal sugar. This white sugar is categorized in the following grades:

S1-30 (Small size sugar)

S2-30 (Medium size sugar)

M-30 (Large size sugar)

The white plantation white sugar is produced at Prabhusugars by Double sulphitation followed by syrup clarification by phospho floatation process. The polarization of sugar produced is 99.8%. The icumsa (color value) of sugar one of the main quality criteria. Sugar is used not as

constituent in goods produced at home and industrially foods, but also as the raw material in fermentation to produce ethyl alcohol butyl alcohol, glycerin and citric acid. Sugar is also an ingredient in some transferentsoaps and it can be converted to esters which yields tough insoluble and infusible resins.

Sale of white crystal sugar is done through a central government process in which quota of free sale sugar is allotted to individual sugar mills. For now, sugar mills are not allowed to sell at on go the part of the production which they can sell in the open market. This is expected to change. The sugar mills can 90 percent of their total production in the open market, compared with 60-70 percent earlier. The rest has to be sold the government at levy prices it decides.

Gunny Bag Without Liner	100Kg
PP Bag	50Kg
Jute	50Kg
Gunny Bag With Liner	100Kg

### **By Products:**

**Power:** The bagasse is the raw material to generate the power. Power generation increase the 38.5 MW to 41.5MW. Know SPSCCL generate 55MW power they use only 16.5MW and remaining 22MW sold to Indian Energy Exchange (IEX).

### **Bagasse :**



Bagasse is the one of the by products obtained during the process. It is used as fuel for boilers to produce steam through which electricity is obtained. The bagasse produced after extracting the juice from sugar cane as fuel to generate stem in factories. Increasingly large amounts of bagasses are being made in to paper, insulating board, and hard board, as well as furfural, a chemical intermediate for the synthesis of furan.

- Power Generation
- Paper Production

### **Molasses:**



Molasses is a delicious by product which extracted during the sugar cane refining process used to make sugar crystal. The sugar cane is crushed to remove the juice which is then boiled vigorously. Machines utilize centrifugal force to extract the sugar crystal from the syrup. The remaining syrup becomes molasses. It is used in the production of industrial alcohol, organic and chemical. Molasses used as measure content in production of wines and other alcoholic products.

- Yeast
- Industrial alcohol

### **Press Mud:**



Press mud is given to farmers to use it as fertilizer to grow sugar cane at lower cost. It is prepared by the remaining by product after the production of sugar. Press mud is also called as filter cake. It is the suspended impurities separated during the process of cane juice clarification by the sulphitation process. The material is used as manure and the factory manages to sell the filter cake to the cane growers at concessional rates & achieves recycling of the matter back to fields.

## TECHNICAL EXCELLENCE

1	Crushing capacity	8500 Tone's of sugar cane per day
2	Sugar production	White crystal exportable quality sugar with ICUMSA about 100 as per method – G10 more than 9000 tons/day
3	Duration Of Crushing	200 day approximately

## CO – GEN POWER PLANT

1	Generating Capacity	41.50MW/Hr.
2	Captive Consumption	16.50MW/Hr.
3	Export Of excess Power	25.0W/Hr.

**CHAPTER 3**

**THEORITICAL BACKGROUND OF**

**INVENTORY MANAGEMENT**

## **THEORITICAL BACKGROUND OF INVENTORY MANAGEMENT**

### **MEANING OF INVENTORY**

Materials or then again stock control might be characterized "orderly control and direction of procurement, stockpiling of materials in such away to as to keep up as broiler floor of generation at the whole time helping over the top venture inventories. Proficient of material control cutlasses and waster of materials that generally pass unnoticed.

### **BACKGROUND OF THE STUDY**

Each venture needs stock for smooth running of its exercises its few as connection between the acknowledgment of a need and its few as a connection between the creation and the dispersion procedure there. Is for the most part time to time between the acknowledgment of a need and its satisfaction the grater the time slack the higher the prerequisite of stock it additionally gives pad to future variance

The speculation constitutes the most noteworthy piece of a present resources/working capital on a large portion of the endeavors. Accordingly it is exceptionally fundamental to have a move control and administration is to guarantor accessibility of materials in adequate quality as and when required and furthermore to limit venture inventories. Stock speaks to the second biggest resources class for assembling organizations

The extent of stock to add up to resources for the most part different between 15-30 choices relating the inventories are taken fundamentally by administrators underway buying and making division thus, the significance of stock administration can't be over underlined.



## INTRODUCTION TO INVENTORY MANAGEMENT

INVENTORY means a building contracted for the materials proper strong of goods is very essential for effective production materials when received are to be properly examined tested and kept in a proper place is known as storeroom store keeping is a physics strong of material in the storeroom in a scientific and systematic manner with view the saving from all type of damages proper strong of material also helps in minimizing the cost of production

The word INVENTORY was first recorded in 1601. The French expression INVENTORY or itemized rundown of merchandise goes back to 1451 the cost of INVENTORY make up a colossal segment of spending in many business (60%-70) inability to screen and control those cost stick make genuine income issue

In present day aggressive world in of rising issue of each business and ventures that of cost control and cost diminishment an all inescapable exertion for cost control and cost decrease is per sum vital MANAGEMENT as logical gadget for controlling stock cost and taking out wastage is currently viewed as an essential piece of mechanical administration the cost stock is the biggest routinely consumption in many business alongside compensations having enough providers accessible to benefit the greater part of your clients is basic to you business achievement requesting an excessive number of providers can put in a genuine income emergency

As chief we have to understanding that stock control is tremendous factor is your prosperity we have to painstakingly adjust stock levels requires great prepared individuals and is territory you need to ration to spare a couple of dollars.

### **What are inventories?**

As per the accounting standards to issue bt ICAL ( Indian character accounting institution) inventory are assets.

- Held for sale in ordinary course of business
- In the process for production for such sale
- In the formers of materials or suppliers to be consumable in the production process are rendering of services.
- A manufacturing firm general carries following 6 major kids of inventories:
- Raw materials
- Work-in-process

- Finished goods
- Tools
- Suppliers
- Machinery spares

#### A) RAW materials

RAW materials are the major input into an organization and from the bulk which gets converted into finished products. Any break in the supply of raw material will determine the size of material inventory. One is the consumption rate and other is the mature of the item.

##### a) Work – in progress

The work- in –progress is the stage of the stock, which is in raw material and finished goods. The raw material enters entire the process of manufacturing but they ate yet to attain a shape final of the finished goods. The quantum of work in progress depends upon the time taken. In the manufacturing the more will be the amount of work- in- progress

##### b) FINISHED GOODS

FINISHED GOODS act as the before between the protection department and the marketing department the input rate is quite predictable because of production schedule but the consumption of inventory depends on the depends on the behave of the market the purpose of finished goods inventory is to assure the market constant supply in the distribution channel in majority of the organization the marketing department controls finished goods inventory

##### c) Consumables

Consumables are the materials while act as catalysts in the production process and are not directly associated with the finished product there may be many instances where a consumable like fuel oil has encountered much greater value than a raw material normally these materials do not create any supply problem but their shortages can some time hyper the production process.

#### d) Spares

The consumption patterns of raw materials consumable finished goods are different from of spares the stocking policy is different from industry some industrials like transport will required more spare then order concern the costly spare parts like ready position for future use all decision about spares

Objectives of inventory management:

The basic managerial objectives of inventory management are

- 1) To keep adequate amount of inventory
- 2) To provide the right quality & quantity of inventories required by the Organization at proper time
- 3) To prevent or minimize loss due to obsolescence, deterioration theft
- 4) To ensure effective control over purchases, storage & use of material.

Broadly speaking the problem of inventory managements one of the Marinating for a given financial investment, an expected demand Pattern. Management this could finish products or the spares and other Indirect materials. Inventory can be one of the indicators of the management font. Organization will have higher inventory turnover ratio and vice versa. Stock administration manages the assurance of ideal arrangements Furthermore, strategies for acquisition of items, since it is very Hard to envision a genuine accessible at the purpose of utilization stock. Subsequently keeping up stock turns out to be relatively vital.

#### FUNCTIONS OF INVENTORY MANAGEMENT:

Inventory exist due to distinction in free market activity process rates any importance full reason for their reality will be established in either the attractive quality or the need that these two rate contrast. Inside this general casing work capacity of the stock can be distinguished.

- a) To guarantee constant supply of materials, space and completed merchandise so generation ought not endure whenever and the clients request ought to likewise be mer.
- b) To maintain a strategic distance from both over stocking and under stocking of stock.
- c) To keep up interest in inventories at the ideal level as required by the operational and deals exercises.

- d) To monitor material costs with the goal that they contribute in decreasing expense of generation of general expenses.
- e) To wipe out duplication in requesting or recharging stocks. This is conceivable with the assistance of concentrating buys.
- f) To limit misfortunes through deterioration, pilferage, wastages, and harms.
- g) To plan legitimate association for stock administration. Obvious responsibility ought to be settled at different level of association.

#### WHY DO WE HAVE INVENTORIES?

- To gain economy in purchasing
- To satisfy demand during period of replenishment
- To carry reserves stocks to avoid stock outs
- To stabilization of production
- To continuous production and reduce cost

#### INVENTORY COST MEANING

The goal of inventory management is to provide the inventories requirement to sustain operation at a minimum cost.

#### TYPES OF INVENTORY COST:

##### 1) **Ordinary cost:**

a) Cost of submitting a request with merchant of materials,

- Preparing a buy arrange
- Processing installment
- Receiving and reviewing the materials

b) Ordinary from plant:

- Machine shop
- Start – up scrap creating from kicking a generation keep running off.

2) Carrying expense:

a) Cost associated specifically with materials

- Storage
- Obsolescence's
- Deterioration
- Pilferage

b) Financial costs:

- Taxes
- Insurances
- Interest (according to the cost of capital obtained to gain and keep up the venture)

3) Capital cost

- Interest on cash in stock
- Inventory on cash put resources into land and working to hold stock
- Inventory on put resources into stock holding and control gear.

Stock administrations cost:

- Taxes and protection on hardware
- Labor cost in dealing with and looking after stock
- Clerical costs in keeping records
- Employee advantage for product house and authoritative individual

4) Handling hardware cost:

- Taxes and protection on hardware
- Deprecation on stock
- Cost of support and repairs

5) Inventory hazard cost:

- Obsolesce of stock
- Insurance of stock
- Cost of support and repairs

6) Out of stock cost:

- Back requesting
- Lost deals

7) Capacity cost:

- Oner time installment when limit is too little
- Layoff and sit time when limit is too huge.

Some of components of inventory cost are conflicting Ordering costs ate more carrying costs are less and vies versa. Further identification and assisting son items of cost process difficulty

#### NEEDED TO HOLD INVENTORIES

- 1) Transaction motives- Emphasizes the need to maintain inventories to facilitate smooth production and sales
- 2) Precautionary motives- Necessitates holding of inventories to guard against the risk of unpredictable changes in demand and supply forces and factor
- 3) Speculative motives-influence the decision increase or decreases the inventory levels to take advantages of price fluctuation.

#### **Advantages of stock administration and control**

Legitimate administration and control of inventories will bring about the accompanying following advantage to an association

- 1) Inventory controller issues a sufficient supply of material stores and so on least stocks out and capacity and stays away from expensive interference in the activity.
- 2) It keep down venture the inventories, stock conveying expense and oldness lose to the base.

- 3) It facilitates acquiring financial matters through the estimation of prerequisite of the bases of recorded understanding.
- 4) It dispenses with duplications all together or in recharging stocks by controlling the source from which buy essentials radiate
- 5) It gave a superior use of accessible stocks by encouraging enter office move which can in go with.
- 6) It give a check against loss of material through remissness or pilferage.
- 7) It facilitates cost bookkeeping exercises by giving a way to apportioning materials expenses to product division or working record.
- 8) Perpetual stock qualities gives a steady and dependable reason for getting ready monetary explanations.

### **Advantages of holding inventories**

1. holding of sufficient Inventory facilities in continuous production and these reduce the cost of productions
2. Another advantage of holding sufficient Inventories is that in enables the company to enjoy the benefit of discount facility by purchasing the Inventories in large quantity
3. Large order can be executed by the company quickly efficiently and economically by holding large stock of Inventories
4. By holding sufficient stock of Inventories the business enterprise can prevent the scarcity of finished goods
5. It enables the company to supply the better and cheaper goods to costumer and by create the good will of the concern

### **NEED FOR INVENTORY CONTROL**

Counting imports lead time stockpiling taking care of bookkeeping deficiency stock outs decay and out of date quality the business office needs a decent load of outfitted greatest

Costumer benefit the back division may item to ensure feel that inventories are taking a gander at capital which ought to be Increased specialization and refined innovation have carried with go material prerequisite the vast of range is more noteworthy the multifaceted nature and issue and speculation obtainment

I winning an arrival along these lines every office albeit aware of its own cost may unfit to see the aggregate cost it is there four obvious than an incorporated approach for the control the inventories is fundamental without appropriate control the inventories have inclination to past financial points of confinement tie up store and increment the cost upkeep are the conveying cost in the meantime no accessibility inventories includes the cost of stock outs re-requesting cost and extra travel cost the center of materials administration in stock control.

## COMPUTERISED INVENTORY ACCOUNTING

Since the volume of document involved in inventory accounting as quite large this area is computerized in most of the units of SPSCCL when inventory accounting area is computerized the only source for inventory information within the unit is the master file maintained on the computer no other manual record is genially maintained information of provided by the computerized system whether it is for accounting planning and day to day operation of the stores are inventory control it is therefore necessary to process the inventory transaction day to day basis to have control on date preparation wise batches are prepared daily and total quantity column are established for each batch. After the preparation the computer

Generates the last totals for each and these are checked with the batch total already established. Batches where the total does not agree ate listed out for security and correction. Extensive validation of item code, check on quality, sequence number of check eta. Errors are listed out for scrutiny and correction indicated is carrier concerned. The correction indicated are carried out in the transaction records already created before further processing.



### 1.3. REVIEW OF LITERATURE

Sugar industry is especially identified with financial matters of normal man since sugar is a product of day by day need. It is a multi-faceted industry and in this manner is a testing subject of study and research. And, after its all said and done there has been not really any exhaustive investigation on imperative parts of the business including the Country. Indeed, even the aggregate quantities of studies are restricted by number and by scope. They are either as contextual investigations covering one or on the other hand a couple of factories or a locale. Indeed, even with this constraint they find information, actualities and patterns in this industry that has helped in definition of arrangements at State and additionally at National level.

Agarwal<sup>2</sup> examined working capital administration based on test of 34 huge assembling and exchanging open constrained organizations in ten ventures in private division for the period 1966-67 to 1976-77. Applying similar procedures of proportion investigation, reactions to poll and meeting, the examination presumed that the working capital per rupee of offers demonstrated a declining pattern throughout the years yet at the same time there showed up an adequate extension for lessening in interest in every one of the sections of working capital. An upward pattern in real money to current resources proportion and a descending pattern in real money turnover demonstrated the amassing of sit without moving trade out these businesses. All the ventures had overloading of crude materials appeared by increment in the offer of crude material to add up to stock while offer of semi-completed and completed merchandise descended. It additionally uncovered that long haul subsidizes as a level of aggregate working capital enlisted an upward pattern, which was mostly because of confined stream of bank credit to the businesses.

Amin<sup>3</sup> centers consideration around the development of sugarcane by little agriculturists in Gorakhpur area. He examinations the financial and social conditions, under which these little agriculturists ended up subordinate upon brokers, landowners and different mediators for advertising sugarcane for the creation of precious stone sugar.

Anekar.R.B.<sup>4</sup> examined different of co-agent sugar processes in his proposal titled "Monetary overview of the Cooperative Sugar processes in Maharashtra". He included 20 co-agent sugar

processes in his investigation. Sugar processes, their capital structure, cost structure, showcasing techniques what's more, work rehearse were the main considerations that were talked about by him. He expressed that sugar factories have significantly in-fluenced the social structure of the State and have given various financial and word related chances to the general population in the region. He has looked at hones in helpful sugar factories with those of business entities.

Anitha S.Kantawala<sup>5</sup> , in his investigation on budgetary execution of non-keeping money back organizations (NBFCs) in India, has reasoned that there existed a huge variety in the benefit proportions, use proportions and liquidity proportions of different classifications of NBFCs. She reasoned that the investigation of change alongside the subtle elements the normal proportion may turn into a helpful manual for organizations in order to choose for continuation or generally in same line of business considering the general gainfulness inside the administrative edge work.

Appavadhanulu <sup>6</sup> perceiving the absence of consideration being given to interest in working capital, broke down working capital administration by looking at the effect of technique for generation on interest in working capital. He stressed that diverse creation methods require diverse measure of working capital by influencing merchandise in-process in light of the fact that diverse methods have contrasts in the length of creation period, the rate of yield stream per unit of time and time example of significant worth expansion. Diverse procedures would likewise influence the load of crude materials and completed products, by influencing lead-time, ideal part measure and promoting slack of yield transfers. He, consequently, estimated that decision of creation method could decrease the working capital needs. He assessed the proportion of work-in-advance what's more, working funding to net yield and net yield in material weaving done.

Ardekanian<sup>7</sup> considered the connection between working capital administration and productivity. The creator connected distinctive money related proportions, for example, Account Collection Period (ACP), normal stock period, Average Payment Period (APP) and Cash Conversion Cycle (CCC) to investigate working capital administration. To gauge productivity, one of gainfulness proportions was used. 110 organizations in 17 enterprises were chosen utilizing screening strategy and were considered in 6 years. The information required for look into were assembled from Tehran Stock Exchange what's more, Pearson connection coefficient and relapse investigation were connected to break down information. The comes about demonstrated that there was a negative connection between working capital administration and productivity. Negative connection implies that emphatic strategies in working capital administration increment productivity while moderate systems will prompt chop down of benefit.

Asiya Siddiqi<sup>8</sup> in his an Analyzing the impacts of mid nineteenth century survey settlements, has remarked that the subsistence component in (the worker) economy was undermined and

adaptation was actuated, not on the grounds that (the worker) had a surplus to trade but since of the need of paying his portion of income constrained him to offer even his nourishment and stock have featured the linkage of local generation of indigo, cotton and sugar to the abroad and a developing home market in the primary portion of the nineteenth century.

Attwood Donald<sup>9</sup> examined another measurement "Capital and the Transformation of Agrarian Class System. A Case Study of Sugar Production in India". In this paper the creator has raised two issues: (I) Why do some agrarian frameworks create more monetary development than others and (ii) Why do some experience auxiliary change prompting further development, while others stagnate? These issues have been talked about as far as various types of agrarian class frameworks which either advance or repress financial developments, and monetary powers as far as diverse levels of capital speculation and administrative aptitudes required for various levels of creation and conveyance frameworks. His decision is that proprietorship control of land isn't significant to the efficiency of sugarcane cultivate in Maharashtra while R.K. Gupta feels that it is the landed intrigue which could expand sugarcane development and thus sugar creation in Birbhum region of West Bengal.

Basavraj S. Benni<sup>10</sup> contemplated the physical and monetary execution of twelve helpful sugar industrial facilities amid 2001-02 with the assistance of Ratio Analysis and Multivariate Econometric Technique Method. The investigation uncovered that the physical and money related execution markers impacted the aggregate execution of sugar co-agent plants and closed with a comment that in the aggregate sugar creation cost, stick transformation cost was more noteworthy than the stick cost.

Baviskar. B.S.<sup>11</sup> has made a broad and escalated investigation of Kisan Co-agent Sugar Processing plant, Kopergaon. He has talked about the criteria of estimating accomplishment of agreeable sugar factories and based on these determinates has assessed the accomplishment of the said industrial facility.

Rise of agreeable sugar plants has gotten an essential change the way of life of individuals in country Maharashtra. Co-agent sugar factories have additionally acquired a change the character and style of legislative issues in country Maharashtra.

Chakraborty<sup>12</sup> moved toward working capital as a portion of capital utilized rather than a minor cover for loan bosses. He accentuated that working capital is the reserve to pay all the working costs of maintaining a business. He called attention to that arrival on capital utilized, a total measure of general productivity in maintaining a business, would be unfavorably influenced by

exorbitant working capital. Also, too small working capital may decrease the acquiring limit of the settled capital utilized over the succeeding time frames. For knowing the fittingness of working capital sum, he connected Operating Cycle (OC) Concept. He ascertained required money working capital by applying OC idea and contrasted it and money from asset report information to discover the ampleness of working capital in Union Carbide Ltd. furthermore, Madura Mills Co. Ltd. for the years 1970 and 1971. He stretched out the examination to four organizations over the period 1965-69 out of 1974 study.<sup>13</sup> The investigation uncovered that money working capital prerequisite were not as much as normal working capital according to accounting report for Hindustan Lever Ltd. furthermore, Guest, Keen and Williams Ltd. showing the requirement for compelling administration of current resources. Money working capital prerequisites of Dunlop and Madura Plants were more than normal asset report working capital for all year's proficient business of assets. For Union Carbide Ltd., money working capital necessities were more in starting years and afterward began diminishing in the later years when contrasted with ordinary working capital demonstrating the endeavors to better deal with the working capital. Chakraborty underlined the handiness of OC idea in the assurance of future money necessities on the premise of evaluated deals and expenses by inner staff of the firm. OC idea can likewise be effectively utilized by banks to evaluate the working capital needs of the borrowers.

Chenhall<sup>14</sup> and others ,Survey construct experimental research in light of administration bookkeeping can be partitioned into two primary sorts of studies. The primary gathering of studies alludes to administration bookkeeping as the free factor. Such studies inspect in which way administration

Book keeping significantly affects result factors which vary with the particular contemplates. A portion of these result factors are the utilization separately the helpfulness or the effectiveness of the data produced by administration bookkeeping, the impact of changes in the MAS on stock costs or the effect of the structure and complexity of the MAS on corporate performance. The second gathering of studies alludes to administration bookkeeping as the ward variable. These examinations are driven by the inquiry whether there are logical elements which have a noteworthy commitment to clarify the extensive variety of structures, complexity and utilization of instruments of administration bookkeeping frameworks saw practically speaking. Such a look for logical variables is frequently gone before by fundamental contemplations of the possibility hypothesis. This hypothesis recommends that uncommon hierarchical highlights of organizations and establishments are for the most part caused by certain outer and interior components Contingency hypothesis initially alluded to the impact of relevant factors on the association in

general. Exchanged to administration Book keeping, this prompts the presumption that structure, association and elements of particular MASs rely upon certain logical factors. The most imperative factors to which previous thinks about property a noteworthy effect on administration bookkeeping contain the outer condition, particularly its vulnerability, generation innovation, the hierarchical structure, the organization estimate, the vital introduction and national culture. Besides in different examinations an impact of IT and the review of enhancement could be recognized.

## **METHODOLOGY**

The Cross-Sectional descriptive research design was used for conducting this research work. The data for this study had been taken from Secondary data collected from fifteen Co-Operative sugar mills of Tamil Nadu in operation during the year form 2002-03 to 2011-12. And the Research Methodology includes design of the study, collection of data and tools of analysis of the study.

## **TECHNIQUES OF INVENTORY CONTROL**

Stock control methods are utilized by the stock models by means of, settled request amount framework or foxed arrange period framework. Stock control method speak to the operational part of stock administration and control a few procedures of stock control are being used and rely upon the comfort of the firm to receive any of the strategies what ought to be pushed anyway is the expected to cover all things of the stock and all phase of receipt from providers to the phase of their utilization systems most usually utilized are the accompanying:

1. Always better control (ABC) classification.
2. High Medium and low (HML) classification .
3. Vital Essential Desirable (VED) classification.
4. Fast-moving , slow-moving and Non-moving(SN)
5. Economic order quantity(EOQ)
6. Just-in-time(JIT)
7. Pricing of materials.

### 1) ABC Analysis:

One of broadly utilized procedure for control of inventories in ABC investigation constantly better control and examination the goals of ABC examination is to change the express connected with keeping up suitable control to the potential reserve funds related with a legitimate levels of such control. Sensibly we anticipated that would keep up solid controls over the `A` things taking whatever unique activities expected to keep up accessibility of these things hold stocks at the most minimal conceivable levels predictable with taking care of requests, visit requesting consumption and so on. In view of the low sum here along these lines with the `c` aggregate we may keep up some what higher wellbeing strict requested more long stretches of supply master bring down levels of client administrations.

ABC investigation empowers to practice particular control when the materials chief is affirmed with an extensive number of things the meaning of this examination is that is spot light thoughtfulness regarding be given in regard of zones of like;

- Loss
- Wastage
- Scrap
- Quality
- Price variance
- User variance
- Inventory turnover

It also helps to determine stock frequently of ordering preparing of control statement sources from which materials is to be procured etc. hence ABC analysis is one the best techniques of inventory control.

Determination of safety stock

This is extremely important the size of an order of an item which is most Economic depend on the value of consumption of that item; its safety cushion depends on the Variation in the time it takes to produce the item I.e. the lead time and degree of production desired.

Purchasing:

ABC analysis applies to purchasing policy also in fact there should be the closest possible coordination between the policy and procedure for acquiring and holding costs etc. and at the same time ensuring a continuous supply at minimum inventory costs thus regular purchases should also be analyzed according to the ABC analysis.

Stock taking and store according The ABC concept is also applicable to stock taking and store According to items are subjected to frequent stocks check and Each transaction is posted on the stores account year, on the Other hand 'B' items are physically counted at infrequent Intervals and transaction has even done away although with Physical check and maintenance of stores accounts for 'O'

Maintaining their inventory in this form only.

## **2)HML classification**

The high, medium and low classification only difference is that HML classification unit value is the criterion and not the annual Consumption value the items of inventory should be listed in Descending order of unit value and it is working-in-process to the Management to fix limits for the three categories. the HML analysis is Useful for keeping control over consumption at department levels, for deciding frequently of physical verification and for controlling purchases. This system is not always useful. And this system can't be practiced by SPSCI Ltd.

### 3) VED Classification

The term VED stands for vital essential and desirable. The Method control is primary for the control of spare parts. Are Usually classified into vital Essential and Desirable categorization. The VED analysis is done to determine the critically of on item and its Effect on production and other service it especially used for Classification of spare parts.

Vital:

The spare which are so vital that stock out will stop production For quite some time and either the cost of stock out is very high are

Essential:

The spares whose absences cannot be treated for more than few hours or a day and the cost of lost production to continue are known as essential spares

Desirable:

The spare which are need but there absence evince a week are soon will not affect production are know and desired spares The vital spare are very important although the value may small and hence require constant attention

### 4) SDE analysis

This analysis depends upon the availability is scare difficult and easily availability to item which gives due importance to the stock whose stock out solution cannot ruled out therefore if an item is scare one has to procure and store it irrespective of its value volume and frequency of movement so avoid the critical situation of holding the production also the seasonal availability of an item should be viewed properly and decision has to be taken accordingly

### 5) FSND technique

F stands for fast moving items and stock of such items are consumed in short span of item  
S stand for slow moving items existing stock of which would last for two year are more  
N stand for non-moving items and such items are existed over period of item D stands for dead stock and it is dead for its existing stock no further demand can be foreseen.



## 6) Economic order quantity

THE EOQ is the size of ordering representing standard quality of material and it is the one for which the aggregate of costs processing the inventory and the cost of holding the inventory is minimum the EOQ may be defined as the level of inventory ordering that minimize total cash in the inventory management. EPQ is one of the oldest model control techniques, that technique Relatively easy to use but it does not make no of assumption which Are:

Demand wage rate is deterministic, that is known with Certainly and is constant over time Inventory is replenished immediately as the stock level researchers Exactly equal to Zero, consequently these are not stock Shortage or advantages.

Lead time is known, fixed and and equal greater than Zero.

Ordering cost line ring related to the no of orders per year.

## 7) Just-in-time(JIT)

In a JIT system material or the manufactured components and part arrive to the manufacturing sites or stores just few hours before they are put to use. the delivery of material is synchronized with the manufacturing cycle and speed. JIT system eliminates the necessity of carrying large inventories. And Thus saves the carrying and other related costs to the system requires the perfect

Understanding and co-ordination between the manufacture and suppliers in term of timing of delivery and quality of material. poor Quality material or components could half the production. the JIT Inventory system components the total quality management. the success of system depends on how well a company manages its suppliers. the system puts tremendous pressure on suppliers. They will have to develop adequate system and procedure to satisfactory meet with needs of manufacture.

### Pricing of materials

Pricing of materials is an important aspect for the issue of materials, as materials are frequently purchased at different prices. these materials are issued to production department from store as And when required. Materials are purchased and held in stores. Generally the time gap between purchased date and issue dates differ and naturally prices also differ. The problem is that whether the storekeeper should charge the coat price or market price.

If the materials are changed to production department at cost price usually of production will be low and profit is inflated when the profit is more than the company should pay more tax.

If the market prices are changed to production profit will be reduced but credit worthiness of the company will decrease in the eyes of the public

# **CHAPTER-4**

# **DATA ANALYSIS AND INTERPRETATION**

## CHAPTER-4

### DATA ANALYSIS AND INTERPRETATION

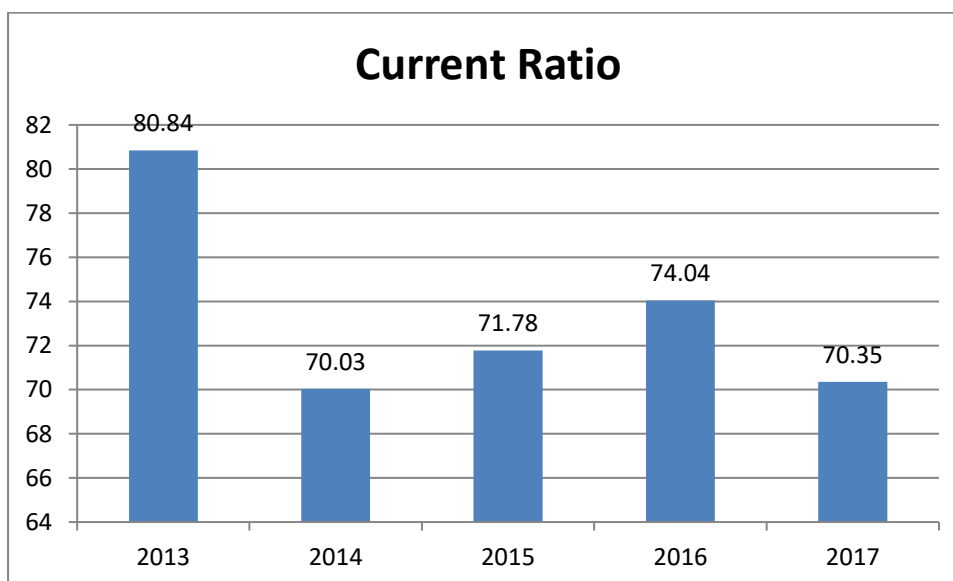
#### MEANING OF RATIOS

The quantitative relation between two amounts showing the number of times one value contains or is contained within the other. An analysis of inventory management with the help of ratio may be termed “Financial Ratio resale with inventories”. In other words inventory management implies the process of computing Determining and presenting the relationship of items and group of items of financial statement. Let us study different ratios relating to inventories.

#### CURRENT RATIO:

A liquidity ratio that measuring a company’s ability to pay short term obligation. The current ratio can give a sense of efficiency of a company operating cycle or its ability to turn its product into cash.

Year	Current asset	Current liability	Current Ratio
2013	20,31,020	25,12,446	80.84
2014	24,94,646	35,62,032	70.03
2015	32,07,088	44,68,113	71.78
2016	25,42,798	34,34,162	74.04
2017	30,08,299	42,76,070	70.35



**Interpretation** The standard norm for current ratio is 2:1 which means for every 1 repayable the company must have 2Rs in hand. In SPSCCL current ratio In the year 2011 was 0.81, in the year 2012 it was decrease 0.70 and in The year 2014 it was little increase to 0.72 and 0.74 but in the year 2015 it was little decrease to 0.70. So the company has not maintained Sufficient investment the form of current asset and it is not able to meet Its obligation a timely manner.

**1) QUICK RATIO:**

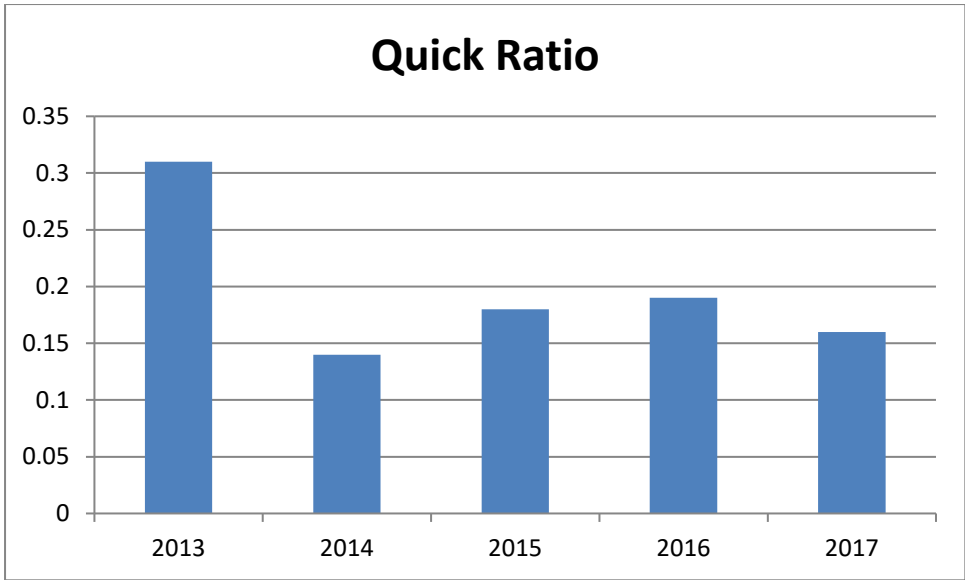
Quick ratio is concerned with the relationship between quick asset and Liabilities It is intended to supplement the information furnished by a current ratio. A ratio of 1:1 is concerned as an ideal one. It shows a measure the firms ability to off short term obligation.

Quick ratio = quick assets/quick liabilities

Quick current assets = Quick asset - inventory

Quick ratio = quick assets / quick liability - bank over draft

Year	Quick assets	Quick liability	Quick Ratio
2013	7,90,457	25,12,446	0.31
2014	4,87,832	35,62,032	0.14
2015	8,02,537	44,68,113	0.18
2016	6,64,041	34,34,162	0.19
2017	6,87,590	42,76,070	0.16



**Interpretation:**

Generally quick ratio 1:1 is considered to represent

Satisfaction current financial condition of company. Here ratios are less

Than 1:1 so debtor are less.

**2) Inventory turnover ratio:**

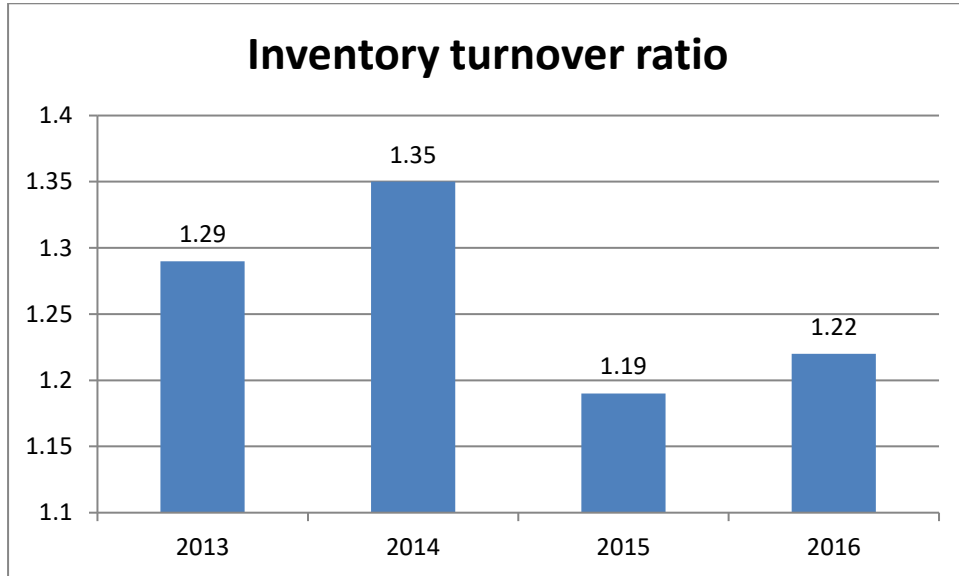
This ratio indicates the number of times inventory is replaced during Year. It measures the relationship between costs of goods sold and Inventory level. Inventory turnover reflects how frequently a company Flush from it system within a given financial reporting period.

Inventory turnover ratio=cost of goods sold/average inventory

Cost of goods sold=sales-gross profit

Average inventory=opening stock + closing stock

Year	Cost of goods sold	Average total inventory	Inventory Turnover Ratio
2013	37,12,739	28,78,092	1.29
2014	35,41,862	26,27,096	1.35
2015	38,15,372	32,09,090	1.19
2016	40,88,536	33,43,930	1.22
2017	37,34,987	30,39,112	1.23



**INTERPRAETION:**

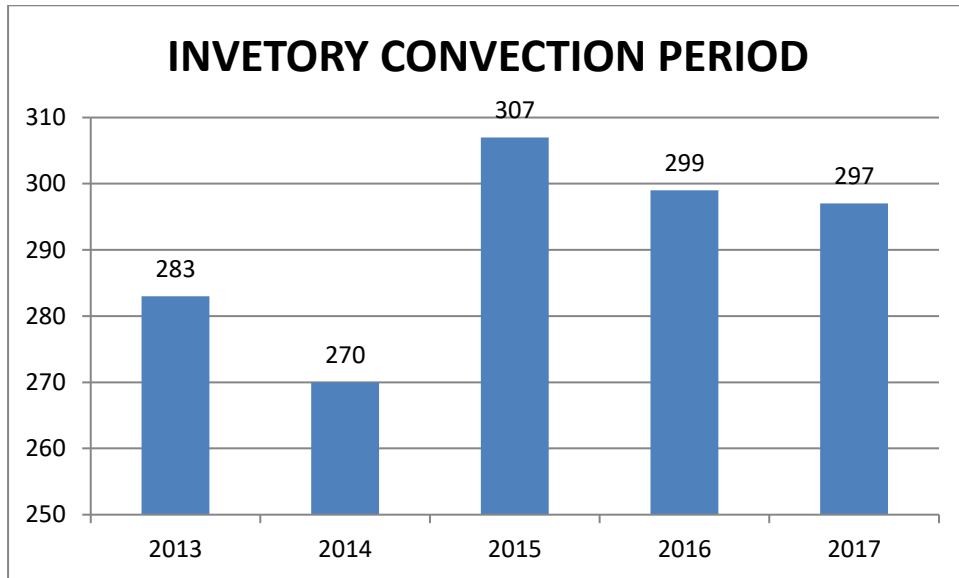
In the year 2011 ratio was 1.29 in year 2012 it is was 1.35 it is increase but in 2013 decreased to 1.19 & in next to year in increased consistently it shows that firm in converting raw material into finished goods

**3) INVETORY CONVECTION PERIOD**

Inventory convection period means the average time taken for clearing the stock it helps in deciding the firm's efficiency

Ration

Year	Days	Inventory turn Over ration	Inventory Convection Period
2013	365	1.29	283
2014	365	1.35	270
2015	365	1.19	307
2016	365	1.22	299
2017	365	1.23	297



#### Interpretation

In the year 2011 it was 283 days in 2012 it was 270 days but in 2013 it was 307 there is increase in conversion period but in the year 2014 & 2015 there was fluctuation in days of conversion in 2013 it take more time to conversion it shows that stock taking more time to sold in marked

#### 4) DEBTORS TURNOVER RATION

The computations of average collection period also help in determination quality` receivable as it point towards the rapidity are there collect ability the shorter collection period the better the quality of consumers and lower and collection expenses  
 Debtor and lower=sales / average debtors

#### INTERPRATIONS

IN EVERY financial year company debtors turnover ratio is consistently high to present 2011 & 2015 DTR is constant like 22.27 in year 2013 it is 42.95 in 2011,2014&2015 these low ration show that receivable are not going to collect rapidly in 2013 its very high (42.95) so it take some period to collect.

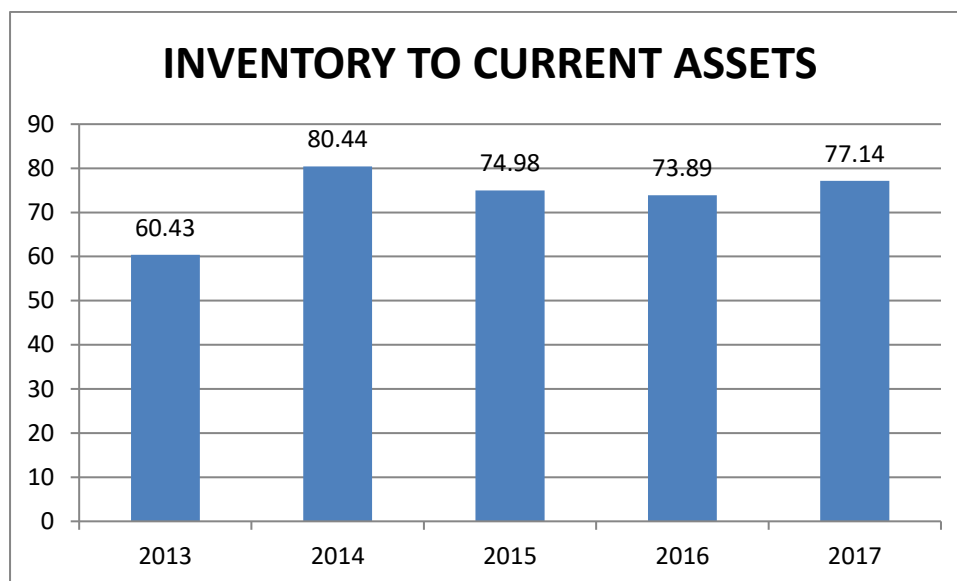
#### 5) INVENTORY TO CURRENT ASSESTS



This ratio indicates the amount Inventory which forms a part of current assets In indicates the Inventory of raw materials finished products work in progress which are the part of the gross current assets the other part of current asset would be debtors and receivables

**6) INVENTORY TO CURRENT ASSETS =INVENTORY TO CURRENT/ASSETS**

Years	Inventory	Current assets	Inventory To Current Assets
2013	12,40,563	20,52,966	60.43
2014	20,06,814	24,94,966	80.44
2015	24,04,551	32,07,088	74.98
2016	18,78,757	25,42,198	73.89
2017	23,20,709	30,08,299	77.14



**INTERPRATIONS**

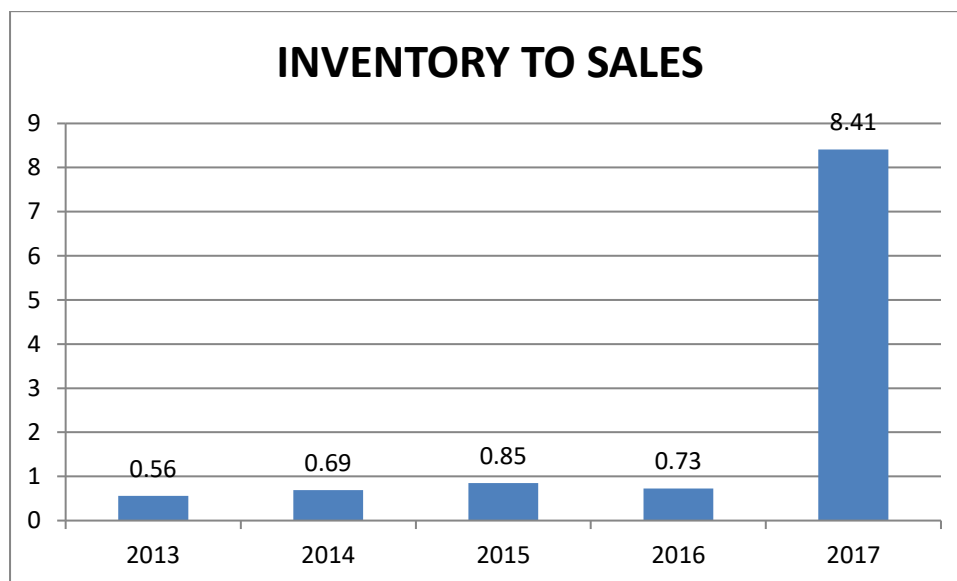
The Inventory to current assets in year 2011 is 60.43% in the year 2012 it was 80.44% but in next 3 year like 2013,2014 &2015 it was fluctuating slightly so in year 2012 these was huge increase In the percentage that was not favorable for company as more inventories is piled up in form of idle stock & the inventories in current assets or not converted into liquid cash efficiently

## 6) INVENTORY TO SALES

This ratio shows the total inventory in relation to total revenue. It shows how much of inventory is lying in stock at end of the given period. Higher the ratio indicates that lot of inventory is idle and sales efforts need to be made.

Inventory to sales = Average inventory / sales

Years	Average Inventory total	Current assets	Inventory To Sales
2013	21,03,377	37,81,153	0.56
2014	26,27,096	37,58,185	0.69
2015	34,07,958	39,87,271	0.85
2016	30,81,033	30,81,033	0.73
2017	32,60,088	38,76,668	8.41



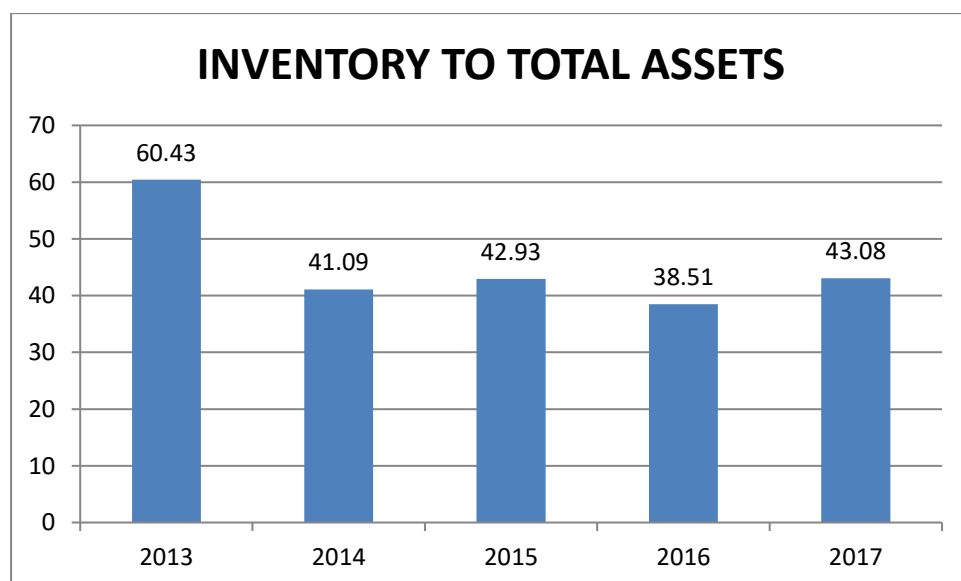
**Interpretation:**

This ratio indicates firm efficiency in selling product. In year 2011 it was 0.56 in the year 2012&2013 it was increasing manner but in 2014 it was decrease to 0.73 & again in the year 2015 there was an increase in Ratio 8.41 due to sales pattern there inter plant transfer of goods it has to sell at cost of product. This reduces the sales revenue & ultimately increase ratio.

### 7) INVENTORY TO TOTAL ASSETS

Inventory to total assets =  $\frac{\text{inventory}}{\text{total assets}}$

Year	Inventory	Total assets	Inventory To Total Assets
2013	12,40,563	20,52,966	60.43
2014	20,06,814	48,82,866	41.09
2015	24,04,551	56,01,064	42.93
2016	18,78,757	48,78,152	38.51
2017	23,20,709	53,86,864	43.08



**CHAPTER – 5**  
**FINDING,SUGGESTION**  
**& CONCLUSION**

## CHAPTER-5

### FINDINGS,SUGGESTIONS & CONCLUSIONS.

#### FINDINGS:

- ❖ Inventory conversion period at SPSCL in year 2011 is 283 days. In 2012 is 70 days and 2013 it was 307 days. But in next two years it was little Decrease in conversion period.
- ❖ Inventory turnover ratio indicates the efficiency of firm in producing and Selling its products. A high turnover indicates fast moving materials; low Ratio it means dead stock. The ratio is in fluctuating trend.
- ❖ The inventory to current asset ratio of SPSCL is fluctuating. The inventory To current asset for year 2011-12 is 60.43. But here higher increase in 2012 by 80.44 and for next three years there was little increase in next three years.
- ❖ This ratio indicates the firm's efficiency in selling its products. This ratio Indicates how fast inventory sold .In year 2011-12 it was 0.56 in year 2012 it was 0.69 and next 3 years it was increase in ratios. There is Interplant transfer rather than direct sales.
- ❖ In the year 2011 inventory to total assets is 60.43% and in next three Year it is decreased gradually. But year 2015 there was little increased to 43.08%.
- ❖ In every year company debtor turnover ratio is consistently high. In 2011, 2014 and 2015 ratio are low it shows that receivables are not going To cost rapidly. In 2013 it's very high it shows that it take more time to collect
- ❖ The standard norms for current ratio is 2:1 which means for every 1 Repayable the company must have 2 Re in hand. Here in this there is Fluctuation year by year so company has no maintained sufficient Investment in form of current asset. It is not able to meet its obligation in A timely manner.

## **SUGGESTIONS**

- The unit should take effective measure to control and manage the investment made in inventories the reduction in investment reduces the working capital requirement and reduction cost of capital
- Unit has to about other selective investment management techniques
- The company make use of advanced technology which aids in managing store more efficiently
- Regular cross check of store should be made by the outside agency so that there is no scope for discrepancy

The company should use bar coding for tracking inventory position at store which gives extract information less chance of discrepancy it also save time in physical counting and the number every time the material are issued.

## **Conclusion:**

SPSCL Siddapur is well managed factory earning profits. the overall study shows that the factory is maintaining are good inventory system and also trying to increase its efficiency in managing the funds. This I came to know by analyzing different type of ratios.

Thus the study indicate that the SPSCL, Siddapur is functioning very well and trying to adopt new techniques in order to increase its efficiency in the management.

## **Bibliography**

- 1- K. ashwatappa and k. shrdar bhat: “ production and operation management”
- 2- M.Y. Khan and P. K. Jain

## **Website**

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[www.scribd.com](http://www.scribd.com)

**Balance sheet of SPSCCL, SIDDAPUR from the year 2012-2016**

**BALANCE SHEET AS AT 31 MARCH 2011-2012**

<b>Particulars</b>	<b>Amt at 2011-2012</b>
<b>EQUITY AND LIABILITIES</b>	
<b>Shareholders' fund</b>	
a) Share capital	460,259,820
b) Reserves and surplus	36,535,573
<b>Non-current liabilities</b>	
a) Long term Borrowings	432,020,764
b) Deferred Tax Liabilities (Net)	174,764,541
c) Other long-term Liabilities	185,931,768
d) Long term Provision	31,323,975
<b>Current Liabilities</b>	
a) Short-Term Borrowings	1,092,805,003
b) Trade Payables	1,764,895,986
c) Other Current Liabilities	648,269,883
d) Short-Term Provision	56,063,551
<b>TOTAL:</b>	<b>4,882,870,864</b>
<b>ASSETS</b>	
<b>Non-Current Assets</b>	
a) Fixed assets	2,333,995,191
1) Tangible Assets	6,448,792
2) Capital work in progress	26,917,273
a) Long term loans and advance	20,860,800
b) Other Non-current assets	
<b>Current Assets</b>	
a) Inventories	2,006,814,860
b) Trade Receivables	83,813,855
c) Cash and Bank Balance	161,490,169
d) Short –Term loans & advances	242,529,924
<b>TOTAL:</b>	<b>4,882,870,864</b>



**BALANCE SHEET AS AT 31 MARCH 2012-2013**

<b>Particulars</b>	<b>As on 31<sup>st</sup> march 2013</b>
<b>EQUITY AND LIABILITIES</b>	
<b>Shareholders' fund</b>	
a) Share capital	46,43,120
b) Reserves and surplus	4,04,66,519
<b>Non-current liabilities</b>	
a) Long term Borrowings	28,40,15,410
b) Deferred Tax Liabilities (Net)	19,12,22,467
c) Other long-term Liabilities	11,82,38,383
d) Long term Provision	3,55,64,603
<b>Current Liabilities</b>	
a) Short-Term Borrowings	168,39,97,174
b) Trade Payables	240,94,40,341
c) Other Current Liabilities	34,23,11,272
d) Short-Term Provision	3,23,65,034
<b>TOTAL:</b>	<b>560,10,64,323</b>
<b><u>ASSETS</u></b>	
<b><u>Non-Current Assets</u></b>	
a) Fixed assets	230,88,16,765
Tangible Assets	5,30,11,058
Capital work in progress	79,90,025
b) Long term loans and advance	2,41,55,800
c) Other Non-current assets	
<b><u>Current Assets</u></b>	
a) Inventories	2,40,45,51,842
b) Trade Receivables	9,52,02,445
c) Cash and Bank Balance	16,71,01,960
d) Short –Term loans & advances	54,02,34,398
<b>TOTAL:</b>	<b>506,10,64,323</b>

**BALANCE SHEET AS AT 31 MARCH 2013-14**

<b>Particulars</b>	<b>As on 31<sup>st</sup> march 2014</b>
<b>EQUITY AND LIABILITIES</b>	
<b>Shareholders' fund</b>	
a) Share capital	46,61,85,950
b) Reserves and surplus	5,67,12,166
<b>Non-current liabilities</b>	
a) Long term Borrowings	84,45,47,199
b) Deferred Tax Liabilities (Net)	13,01,20,465
c) Other long-term Liabilities	2,21,69,476
d) Long term Provision	3,42,68,935
<b>Current Liabilities</b>	
a) Short-Term Borrowings	125,53,39,055
b) Trade Payables	188,06,76,215
c) Other Current Liabilities	26,93,17,406
d) Short-Term Provision	3,22,39,957
<b>TOTAL:</b>	<b>48,781,52,492</b>
<b><u>ASSETS</u></b>	
<b><u>Non-Current Assets</u></b>	
a) Fixed assets	220,39,79,770
Tangible Assets	7,87,83,114
Capital work in progress	3,59,10,200
b) Non-current investments	1,54,41,901
c) Long term loans and advance	3,06,52,984
d) Other Non-current assets	
<b>Current Assets</b>	
a) Inventories	187,87,57,494
b) Trade Receivables	21,88,09,245
c) Cash and Bank Balance	12,81,99,753
d) Short –Term loans & advances	28,76,18,031
<b>TOTAL:</b>	<b>487,81,52,492</b>

**BALANCE SHEET AS AT 31 MARCH 2014-15**

<b>Particulars</b>	<b>As on 31<sup>st</sup> march 2015</b>
<b>EQUITY AND LIABILITIES</b>	
<b>Shareholders' fund</b>	
a) Share capital	46,61,85,950
b) Reserves and surplus	13,18,65,011
<b>Non-current liabilities</b>	
a) Long term Borrowings	61,29,15,000
b) Deferred Tax Liabilities (Net)	11,31,98,699
c) Other long-term Liabilities	0
d) Long term Provision	5,03,48,950
<b>Current Liabilities</b>	
a) Short-Term Borrowings	1,33,26,24,000
b) Trade Payables	2,47,88,26,437
c) Other Current Liabilities	42,63,25,758
d) Short-Term Provision	3,82,95,988
<b>TOTAL:</b>	<b>5,386,864,771</b>
<b><u>ASSETS</u></b>	
<b><u>Non-Current Assets</u></b>	
a) Fixed assets	222,34,63,915
Tangible Assets	75,06,245
Capital work in progress	2,57,49,500
b) Non-current investments	1,51,36,406
c) Long term loans and advance	3,91,52,984
d) Other Non-current assets	
<b>Current Assets</b>	
e) Inventories	232,07,09,445
f) Trade Receivables	11,65,71,547
g) Cash and Bank Balance	10,00,34,481
h) Short –Term loans & advances	47,09,85,248
<b>TOTAL:</b>	<b>5,386,864,771</b>

**BALANCE SHEET AS AT MARCH 31, 2015-2016**

<b>Particulars</b>	<b>As at 31-03-2016</b>
<b>Equity and liabilities:</b>	
a) Share capital	46,61,85,950
b) Reserve and surplus	(10,88,24,191)
<b>Non-current liabilities</b>	
a) Long Term Borrowings	44,59,70,000
b) D	9,81,49,793
c) Other Long-Term Liabilities	0
d) Long Term provisions	5,74,54,162
<b>Current Liabilities</b>	
a) Short-Term Borrowings	189,60,22,312
b) Trade payables	200,02,91,221
c) Other Current Liabilities	8,57,025,191
d) Short-Term provisions	3,30,88,562
<b>TOTAL:</b>	
<b>ASSETS:</b>	<b>574,53,63,000</b>
<b>Non- current Assets</b>	
a) Fixed Assets	
(I)Tangible Assets	217,07,06,734
(ii)Capital work-in-progress	23,90,09,456
b) Non – Current Investments	2,74,89,500
c) Long – Term Loans and Advances	2,03,87,865
d) Other Non- current assets	4,05,43,777
<b>Current assets</b>	
a) Inventories	251,59,31,071
b) Trade Receivables	20,43,30,578
c) Cash and Bank balances	14,33,54,370
d) Short – Term loans and advances	38,30,09,649
<b>TOTAL:</b>	
	<b>574,53,63,000</b>

**BALANCE SHEET AS AT 31 MARCH 2016-17**

<b>Particulars</b>	<b>Amt at 2016-2017</b>
<b>EQUITY AND LIABILITIES</b>	
<b>Shareholders' fund</b>	
a) Share capital	46,61,85,950
b) Reserves and surplus	10,88,24,191
<b>Non-current liabilities</b>	
a) Long term Borrowings	44,59,70,000
b) Deferred Tax Liabilities (Net)	9,81,49,793
c) Other long-term Liabilities	-
d) Long term Provision	5,74,54,162
<b>Current Liabilities</b>	
a) Short-Term Borrowings	189,60,22,312
b) Trade Payables	200,02,91,221
c) Other Current Liabilities	8,57,025,191
d) Short-Term Provision	3,30,88,562
<b>TOTAL:</b>	<b>574,53,63,000</b>
<b>ASSETS</b>	
<b>Non-Current Assets</b>	
a) Fixed assets	217,07,06,734
Tangible Assets	23,90,09,456
Capital work in progress	2,03,87,865
b) Long term loans and advance	4,05,43,777
c) Other Non-current assets	2,74,89,500
d) Non-current investments	
<b>Current Assets</b>	
a) Inventories	251,59,31,071
b) Trade Receivables	20,43,30,578
c) Cash and Bank Balance	14,33,54,370
d) Short –Term loans & advances	38,36,09,649
<b>TOTAL:</b>	<b>574,53,63,000</b>



ACHARYA INSTITUTE OF TECHNOLOGY  
DEPARTMENT OF MBA

PROJECT WEEKLY REPORT (16MBAPR407)

Name of the Student ; SHANKAR A M

Internal Guide: SWAROOP

USN No: 1AY16MBA72

Specialization: Finance & Marketing

Title of the Project: A Study on INVENTORY MANAGEMENT

Company Name : SHRI PRABHULINGESHWAR SUGARS & CHEMICALS Ltd.

Week	Work Undertaken	External Guide Signature	Internal Guide Signature
15-1-2018 to 20-1- 20018	Introduction about Rittal Ind pvt ltd and its operation		
22-1-2018 to 27-1- 20018	Learning about the different operation and services by Rittal ind pvt ltd.		
29-1-2018 to 3-2- 20018	Orientation and gathering information about the growth of the company		
5-2-2018 to 10-2- 2018	Analysis of the market position of the company		
12-2-2018 to 17-2- 2018	Research problem identification		

# Inventory Management at SPSCCL, Siddapur

19-2-2018 to 24-2- 2018	Preparation of the research instrument for data collection	<u>Neelendra</u>	<u>SPK</u>
26-2-2018 to 3-3- 2018	Theoretical background of the study	<u>Neelendra</u>	<u>SPK</u>
5-3-2018 to 10-3- 2018	Data collection and analysis	<u>Neelendra</u>	<u>SPK</u>
12-3-2018 to 17-3- 2018	Interpretation of the data gathered during the survey	<u>Neelendra</u>	<u>SPK</u>
19-3-2018 to 24-3- 2018	Final report preparation and submission	<u>Neelendra</u>	<u>SPK</u>



*[Handwritten Signature]*

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