



ಕರ್ನಾಟಕ ಸಾಬೂನು ಮತ್ತು ಮಾರ್ಜಕ ನಿಯಮಿತ
(ಕರ್ನಾಟಕ ಸರ್ಕಾರದ ಸ್ವಾಮ್ಯಕ್ಕೆ ಒಳಪಟ್ಟಿದೆ)
Karnataka Soaps & Detergents Limited
(A Government of Karnataka Undertaking)



KSDL/HRD/59[C]-A/2018-19/ 31

Date:07.04.2018

CERTIFICATE

This is to certify that **Ms.Radhika.M.R**, Student of MBA, USN:1AY16MBA54, of Acharya Institute of Technology, Acharya Dr.Sarvepalli Radha Krishna Road, Soldavanahalli, Bengaluru-560 090. Affiliated to Visveswaraya Technological University, Belagavi, has done Project work "A Study on Inventory Management" at Karnataka Soaps & Detergents Limited, Bengaluru-560 055, from: 16.01.2018 to 24.03.2018.

During her Project work in our Company, we found her Character & Conduct is Good.

We wish her success in Life and Career.

ASST.GENERAL MANAGER
[Human Resource & Development]

Karnataka Soaps & Detergents Limited
27, Industrial Suburb,
Bengaluru-Pune Highway,
Rajajinagar, Bengaluru-560 055



ACHARYA INSTITUTE OF TECHNOLOGY

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

Date: 17/05/2018

CERTIFICATE

This is to certify that **Ms. Radhika M R** bearing **USN 1AY16MBA54** is a bonafide student of Master of Business Administration course of the Institute 2016-18 batch, affiliated to Visvesvaraya Technological University, Belgaum. Project report on "A Study on Inventory Management" at **Karnataka Soaps & Detergents Ltd Bangalore** is prepared by her under the guidance of **Prof. Mallika B K**, in partial fulfillment of the requirements for the award of the degree of Master of Business Administration, Visvesvaraya Technological University, Belgaum, Karnataka.

Signature of Internal Guide

Signature of HOD

Head of the Department
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Signature of Principal

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Soladevanahalli, Bangalore-560 107

ACHARYA

DECLARATION

I Radhika MR, hereby declare that the project report entitled "A study on inventory management at "Karnataka Soaps and Detergents Limited, Bengaluru" prepared by me under the guidance of Assistant Prof. Mallika B K, faculty of MBA Department, Acharya Institutes of Technology and external assistance by Mr. G Ravi, Accounts manager at Karnataka soaps and Detergents Limited.

I also declare that this project work is towards the partial fulfilment of the university regulations for the award of degree of Master of Business Administration by Visvesvaraya Technological University, Belgaum.

I have undergone a summer project for a period of Ten weeks. I further declare that this project is based on the original study undertaken by me and has not been submitted for the award of any degree/diploma from any other university/institution.

Date: 26 May 2018
Place: Bangalore

Radhika MR
Signature of the student

Acknowledgement

I am truly grateful to my external guide Mr. G Ravi, Accounts manager and my internal guide Assistant Prof. Mallika B K, 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.

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.

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.

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Executive Summary

The project involves the manufacturing inventory management procedure. It includes a simple advent to inventory management, agency profiles, industry profile, product profile, visions, missions and KSDL regulations.

It also explains the employer's destiny boom and prospectus. There are some sorts, technology and objectives of inventory management to explain. The literature evaluation discussed the employer's inventory guidelines and manipulate measures in detail.

The equipment used in this model are ratio analysis and interpretation. Use time collection analysis to observe the efficiency of stock management. The project additionally proposed a future movement plan for the organization to enhance inventory.

In order to analyze a study on inventory management in Karnataka Soaps and Detergent limited, five years financial data has been measured.

1.1 Introduction

Inventory is the maximum vital asset owned by way of maximum organizations due to the fact stock turnover approach one of the primary assets of earnings and next profits for the agency's shareholders. The end is that better coordination among the shopping, advertising, production and finance departments will help to gain the performance of stock control.

Inventory is held through the manufacturer or employer for future use or sale. Inventories include raw substances, packaging substances, standard stores and elements, device spare components, parts bought or manufactured for inventory, work-in-system and completed products. Inventory management refers to the time period material that is frequently utilized in production worries and refers back to the uncooked materials used to supply subassemblies and make parts. The phrases materials and stores can be used interchangeably. Inventory is the second largest asset elegance for production groups, 2nd only to plants and equipment. The proportion of stock is necessary to keep away from large losses because of leakage, theft and waste. Holding inventory prices for inventory relationships, stock management will minimize stock charges. Changes in inventory will even have an effect on the internet working capital level of the organization and the working fees of stock management. These running costs are the end result of storage, coverage, transportation, scrap, waste and stock deterioration.

1.2 Industry Overview

The complete soap enterprise is experiencing adjustments due to the innumerable values of the authorities, inclusive of environmental and strength troubles, which increase raw cloth charges.

The ever-converting technologies and the desire of people and organizations to provide satisfactory merchandise at more economic speeds have additionally been used as a catalyst for dynamic change procedures. More and greater cleaning soap makers are looking to seize market share through introducing and retaining desirable merchandise. The Indian cleaning soap industry faces excessive market competition, whilst multinational corporations dominate

the marketplace. Especially all through 1991-1992, they also confronted an extreme chance from the dynamic and enterprising new entrance. If we appearance returned on the history of soaps and detergents, people knew soap nearly 2,000 years ago, that is, whilst Mr. Elder by accident observed cleaning soap in AD 70, while roast meat flowed inside the ashes. The block of this type of product is cleaning soap, which has the characteristics of foaming and cleaning. In 1192, the primary industrial lot of soap was made and sold with the aid of the London m/s Bristol soap market place. From 1662 AD, the primary soap-making patent changed into filmed in London. It is stated that the cleaning soap shop in 1884 fed on 20,000 heaps in the world.

The Records of Soap

Soap manufacturing started in North America. The names of a few well-known American corporations began 200 years ago. During middle age, soaps are synthetic in exclusive parts of Italy, France, Britain and different nations. France have become famous and installed many small factories there.

In India, the first cleaning soap enterprise become established by way of the Northwest Soap Company in 1897 after Meerat observed Swadeshi. From 1905, almost no greater factories were installed.

They may be:

- Mysore Soap Factory in Bangalore
- Godrej Soap in Mumbai
- Bengal Chemicals
- Tata Oil Factory
- Leverage Brothers in 1930

The Indian cleaning soap industry situation

The Indian soap enterprise has been dominated through a few corporations

Hindustan Lever Co., Ltd.

Tata Oil Factory

Godrej Soap Private Limited

The maximum current contestants consist of Colgate-Palmolive Ltd.

- Proctor & Gamble Ltd.,
- Nirma Soap Factory,
- Wipro Ltd.,

The Indian cleaning soap industry persisted to thrive until 1967-98, but it began to stagnate. It quickly started out to recover, and experienced a short growth in 1974. This increase in call for may be attributed to:-

- Populace growth
- Increased earnings and consumption.
- Speed up the manner of urbanization
- The increase of private hygiene.

Soap makers are divided into organized and unorganized sectors. KSDL is in an organized branch.

Market state of affairs

India is a great market for cleansing merchandise. The U.S.'s consistent with capita detergent and bar consumption is 1.6 kg and cleaning soap is 543 grams. Hindustan's levers usher in the cleansing business and the sale of the cleansing commercial enterprise, but behind the settlement.

In August 2004, India's annual 7.4lakh tones soap marketplace rose more than 4%. The wish is to boom the value of the rupee due to the fact the Indian marketplace is basically a pseudo-cleaning soap, and it is very complicated, so its ability is high, no longer best based totally on the advantages of fee, but also consists of a sequence of emotions inside the framework.

1.3 Company Profile

India is the rich land of forests, ivory, silk and sandalwood; valuable gemstones are the charm of magic for hundreds of years. The maximum charming fragrance within the global has been unusual with sandalwood. The richest sandalwood sources within the international come from an impartial wooded area in southern India, Karnataka

The origins of Sandalwood and its crude oil used inside the manufacture of Mysore sandalwood soaps in Karnataka are well known, because the Indian perfume ambassadors and sandalwood oil are virtually known as “liquid gold”.

Inspired via Her Majesty Maharaja, Late Jayachamarajendra Wodeyar exported sandalwood logs to Europe and new destinations, but because the First World War in India, the sandalwood commercial enterprise changed into facing a critical disaster.

This situation brought about the birth of an industry that produced price-added products, particularly: sandalwood oil. His Maharaja, Mysore’s Royal Highness, created the possibility by way of seeding the authorities Sandalwood Oil Factory, which is now the KS&DL. The assignment has top engineering competencies and understanding. Late Mr. M. Visveswaraya, the great engineer, became in the back of the task.

The reputation of cutting-edge famous Mysore Sandalwood soap comes from Sri Sosale Garalapuri Shastry, who makes use of sandalwood oil for soap making. He is a distinguished scientist in the discipline of labor on the Tata Institute in Bangalore. He was dispatched to Britain to master the first-class aspects Soap manufacturing.

Lord of Mysore and Divan. M. Visveswaraya installed a government cleaning soap factory in 1918. The plant started out manufacturing close to K.R.Circle in Bangalore with a capacity of a hundred tons of PA. In November 1918, Mysore sandal soap made a sincere attempt and experiment to enter the market for soap evolution.

The manufacturing facility covers a place of 39 acres (masking the Soap, Detergents and Fatty Acids Division) vicinity at the Bangalore-Pune Highway and may be effortlessly reached through transportation offerings and communications. Another sandalwood oil area turned into set up in 1994 in Shimoga, Due to loss of sandalwood, it stopped its business in 2000.

The manufacturing unit began in a modest scale in 1916. The first product changed into soap washes similarly to soap in 1918. The business enterprise's cleaning soap is made from sandalwood oil. In 1950, the authorities decided to amplify the primary section of the enlargement of the manufacturing facility to boom production to 700 heaps according to yr. and entire it in an old constructing in 1952.

The next segment of growth carried out in 1954 became to meet the developing demand for Mysore to this quit, the Indian government has permitted the production of 1500 tons of soap and seventy five tons of glycerin each yr. The Rs. 2,10,000 rupee enlargement challenge included the switch of the manufacturing facility to a newly finished business suburb in Bangalore.

The manufacturing facility started operating on July 1st, 1957 below this new premise (the present day one). From the start of this 12 months to the manufacturing unit, we have never seemed lower back. It has achieved boom and development of production scale and income.

The industry has two divisions in Shimoga and Mysore respectively, one is the department that extracts sandalwood oil. The Mysore branch started working in 1917 and it became only in 1984 that it began to fabricate aromas and agar of desired excellent. From the primary log of sandalwood in 1916 rolled into the boiler room, the organization has been striving for excellence. The task underneath the leadership of Mr. Sir fashioned the engineering competencies and knowledge with pinnacle-level teams. M. Visveshwaraya, Prof. Watson and Dr. Sudbrough. Just like a small unit at the start of this cleaning soap plant, it has now grown to a big scale.

The Founder of Mysore Sandal Soap

The authorities Sandalwood Oil Factory changed into set up via Maharaja Mysore. In Mysore in 1916, Nalwadi Krishna Raja Wodeyar and Diwan Sir, Mr. Visvesvaraya extracted sandalwood oil from sandalwood. Lord Mysore is eager to promote Mysore's launch of "The WORDL's Best Natural Liangshan Oil" on the global map, and regards it as "the Indian cigarette ambassador". Under the management of Prof. Suddourough and Prof. Watson, the first test to extract sandalwood oil from Sandalwood was performed on the Bangalore Institute of Science in India. The British Pharmacopoeia's extremely good sandalwood oil turned into imported from the Mysore authorities soap manufacturing facility.

In 1918, a rare present bag made from sandalwood oil produced with the aid of a foreign visitor to my U.S. Became dispatched to His Majesty the Maharajas. This caused the idea of making cleaning soap from existing natural sandalwood oil in Mysore's hometown. Sri SG Shastry is a qualified commercial chemist who changed into sent to London to acquire superior schooling on soap and perfume generation. As SG Shastry lower back from London, the Mysore sandalwood era began. Sri SSG Shastry's first neighborhood SANDAL cleaning soap primarily based on Sandal Note based spices and different natural crucial oils (along with Vetivert, Patchouli, Geranium, Palm Rosa, Orange, Petitgrain, and many others.) has been marketed under the emblem call MYSORE 1918 SANDAL SOAP.

The birth of the legend:

At the beginning of the 20th century, a magical formula was born. This formula is made from the best and purest sandalwood oil. It is called "liquid gold" and it is exclusively in our state of Karnataka - Mysore. The distillation of the department. An aromatic gift from the First Government of India soap factory to the world. This unique soap was bred by King Mysore and is full of all the advantages of natural sandalwood oil. This unique soap captures the heart and the market at home and the rights around the world, creating a fragrance for Karnataka. Heritage. Karnataka Soap and Detergent Co., Ltd. (KS&DL) is the true successor to this golden heritage of India. KS&DL has inherited a tradition of excellence for more than 80 years, using only the highest grade sandalwood oils in its product line. Today KS&DL has become one of the world's largest producers of sandalwood oil and sandalwood soap.

Rename:

KARNATAKA SOAPS&DETERGENTS LTD

(A GOVT. KARNATAKA UNDERTAKING)

On October 1st, 1980, the government soap factory was restructured into "Karateka Soap and Detergent Co., Ltd.". The company has registered as a public limited company. Today, the company uses a variety of products in toilet soaps, detergents, Agarbathies and cosmetics.

1.3.1 Vision Statement:

- Sync with globalization, global trends and national policies for the use of technology in all aspects of governance.
- Ensure the global presence of Mysore sandalwood products while leveraging its unique strengths to leverage current technology solutions through intelligent and selective diversification.
- Ensure all aid and excellent status of the Indian government and all technology alliances.
- In addition, ensure that Karnataka's position as a supporter and provider of technical services to the public and private sectors of the world, countries, and other countries.
- Provide technical products and services to the general public at the most affordable prices in accordance with the policies of the welfare state.
- Do our best to maximize our profits.
- The most important thing is to earn valuable foreign exchange for either the country or the country and the country.
-

Mission Statement:

- To serve the national economy
- To achieve self-reliance.
- Promote purity and high quality products.
- Maintain customer loyalty.
- Established the reputation of Mysore Sandalwood soap based on pure sandalwood oil.

KS&DL policy:

- Seek environmental responsibility suppliers to purchase goods and services.
- Communicate its environmental policies and best practices to all employees.
- Set goals and monitor progress through internal and external audits.
- Work hard to design and develop products that have a friendly impact on the environment during the manufacturing process.
- Reuse and recycle materials as much as possible to minimize energy consumption and waste.

KS&DL Trademark

"SHARABHA"

It is adopted as the official symbol of KS&DL's official logo.

Therefore, Sharaba symbolizes the elimination of imperfect and unchanging power. Mysore Maharaja adopted it as his official symbol. It quickly took pride in its position as a quality symbol for government soap factories, reflecting the excellent standards of Karnataka Soap and Laundry Co., Ltd.

Slogan

"Natural products and exotic spices"

The global demand for its products is very large and regularly exported to UAE, Buren, Saudi Arabia, Kuwait, Qatar and South America. KS&DL's entire soap is made from raw materials plant-derived materials, completely free of animal fats.

Company Status:

The company mainly relies on the South market. The availability of retail outlets, especially Mysore sandalwood soaps, is comparable to that of other similar industries in the high end of the South. In other parts of the market such as the eastern and northern markets, the penetration rate of KS&DL products is relatively poor, depending on the company's distribution structure, the best talents and the strength of on-site personnel.

With the increase of trust in distribution, the company did not foresee any problems with the predicted sales through redistribution schemes.

In the future, the Indian government's policy also sees public sector companies entering the industry in large quantities by offering products to consumers at reasonable prices.

The government soap factory in the central region of South India claims that it will prioritize the expansion process in view of the availability of exotic natural sandalwood oil.

1.3.2 Product Introduction:

KS&DL is the real successor to India's golden heritage. Continue the tradition of excellence over 80 years and use most effective the fine East Indian sandalwood cleaning soap inside the global. Products produced with the aid of KS & DL are soaps, detergents, and Agarbathies and sandalwood oils.

Products Manufactured by KSDL

NAME OF THE PRODUCT	UNITS OF GRAMS
Mysore Sandal Soap	75,125
Mysore Sandal Classic Soap	75
Mysore Sandal Gold Soap	75.125
Mysore Sandal Baby Soap	75
Mysore Special Sandalwood Soap	75
Mysore Rose Soap	100
Mysore Sandal Herbal Care Soap	100,125
Mysore Jasmine Soap	100
Wave Soap	100
Mysore Lavender Soap	150
Mysore Sandal Bath Tablet	150
Mysore Sandal Classic Bath Tablet	150
Mysore Jasmine Bath Tablet	150
Mysore Special Sandal Tablet	150
Mysore Sandal Rose Tablet	150
Mysore Sandal Guest Tablet	17

GIFT RANGE
SBT
SJR
06 IN 01
GOLD SIXER

OTHERS
Washing Half Bar
Washing Sandal Baby Wash

DETERGENTS:

NAME OF THE PRODUCT	UNITS IN GRAMS
Mysore detergent powder	1000
Mysore detergent powder	500
Mysore detergent cake	125
Mysore detergent cake	250

TALCUM POWDERS:

NAME OF THE PRODUCT	UNITS IN GRAMS
Mysore Sandal Talc	20, 50, 100, 300
Mysore Sandal Baby Talc	100, 200, 400

AGARBATHIES:

NAME OF THE PRODUCT
Mysore Sandal Premium
Mysore Sandal Regular
Mysore Rose
Nagachampa
Suprabhatha
Mysore Jasmine
Parijatha
Sir M.V.100
Bodhisattva
Venkateshwara
Durga
Ayyappa
Alif Laila
Meditation

1.3.3 Areas of Operation

Global Income Is Good For Them

Its products are in fantastic call for international and are frequently exported to UAE, Bahrain, Saudi Arabia, Kuwait, Qatar, Southeast Asian international locations, and North and South America. Of course, sandalwood oil is enjoyed very plenty after the arena's leading perfumery. All KS&DL lavatory soaps are crafted from vegetable oils and fats and are completely freed from animal fats.

1.3.4 Infrastructure Facilities

- Canteen centers
- Library
- Frame
- Ready room

1.4 Competitors of KS&DL

KS&DL is facing fierce competition in domestic and worldwide markets. Some of its predominant competitors are: -

- ❖ M / s. Hindustan Unilever Co., Ltd.,
- ❖ M / s. Godrej Soap Private Limited,
- ❖ M / s. Proctor & Gamble
- ❖ M / s. Wipro
- ❖ M / s. Nirma Soaps Private Ltd,
- ❖ M / s. Jyothi Laboratories

1.5 SWOT ANYALSIS

STRENGTHS

- This is the handiest cleaning soap in India that incorporates pure sandals and almond oil
- Passed ISO 9002 and ISO 14001 certifications.
- The first sandalwood soap Production Company.
- The brand name of the soap marketplace for many years.
- In the South, there's a superb dealer network to make certain that products cowl every patron.

WEAKNESS

- Weekly sales network in northern and eastern India.
- Summer cleaning soap.
- Defective marketing techniques, i.e. lack of effective advertising and promoting.
- It changed into synthetic after which manufactured in Karnataka after Andhra Pradesh and Tamilnadu.
- Excessive exertions fees result in high charges.

OPPORTUNITIES

- Traditional traditions trust that sandalwood oil is good for the skin.
- Skin care is triumphing the eye of clients.
- Government guide and large manufacturing potential.
- Long-term benefits in the industry.
- There is a huge marketplace and huge demand.

THREATS

- Government rules might also reduce the boom capacity.
- Plants and machines want to be updated.
- Other sandalwood soaps available on the market.
- Other competitor products inclusive of Rexona, Moti, Santoor, and many others.
- Entering a new multinational business enterprise in a cleaning soap organization.

1.6 Future Growth and Prospectus

1. Introduction Antibacterial, herbal transparent soap made with 33 crucial oil-Based perfumes, Aloe Vera, diet E and different additives, suitable for all types of skin and all seasons.
2. Improvements to Existing Products Mysore Sandals Classic improves moisture and skin circumstance.
3. Introduce 50 grams, 100 grams of sandalwood powder to meet developing spiritual needs.
4. Launched a new high-performance laundry detergent for sale in bulk packaging establishments.
5. Get market leadership.
6. Introduce new alternate plans to increase sales.
7. Positive marketing and promoting are part of the advertising.
8. Reduce distribution expenses.
9. Reduce prices in all regions.
10. Make instantaneous choices in certain purchasing sports.
11. Promptly launch and implement market selections.
12. Ensure effective inner controls.

1.7 Financial Statement

Profit and loss account as on 31-3-2016 to 31-3-2017

Particulars	Amount in Rs	
	2016	2017
Revenue from operations	4,11,86,92,228	4,55,14,24,227
(-)Excise Duty	4511,22,681	499425579
Net Revenue from operations	3667569547	4051552130
Other Income	66185101	72539873
	3733754648	4124538521
Expense:		
Cost of material consumed	1565420225	2336112863
Purchased of stock in trade	28126768	27408943
Change in inventory of finished goods, WIP & stock in trade	91497342	(461808294)
Employee benefit ex	553741174	576036096
Finance cost	-	823879
Depreciation	13824174	9582530
Other expenses	625711494	736598741
Total expenses	3016685042	
Profit before exceptional And extraordinary items and tax	717069606	
Provision for taxation		
Current tax	2395736787	293573687
Prior period tax	20600537	66941733
Deferred tax liability	(14109355)	(14862385)
Profit or loss after tax	471004737	471004737
EPS	1480	1719

Balance Sheet of 31-3-2016 to 31-3-2017

Particulars	Amount (Rs) as at 31-3-2016	Amount (Rs) as at 31-3-2017
LIABILITIES		
Shareholders fund		
Share capital	318221000	318221000
Reserves and surplus	1723591979	2195859837
Revaluation of land	775891370	7758591370
NON-CURRENT LIABILITIES		
Long term borrowings	35000000	35000000
Other non-current liabilities	47836024	97525385
Long term provisions	287296043	277156830
CURRENT LIABILITIES		
Short terms borrowings	-	-
Trade payables	79704737	38070798
Other current liabilities	354004874	382742711
Short term provisions	338224146	465763092
TOTAL	10942470173	11568931023
ASSETS		
NON CURRENT ASSETS		
Fixed assets	780164745	8036322785
Non-current investments	71729359	71729359
Deferred tax	52260065	67122450
Long term loans and advances	291568365	256033090
Trade receivables	16923848	15054017
CURRENT ASSETS		
Inventories	1053863184	1815626392
Trade receivables	252260569	227542169

Cash and cash equivalents	1051439256	821869852
Short loans and advances	272260782	329360168
Other current assets	-	-
TOTAL	10942470173	11568931023

Ratio Analysis

Stock turnover Ratio= $\frac{\text{Cost of goods sold}}{\text{Average Inventory}}$

$$= \frac{28077018567.00}{806819926.00}$$

$$= 3.47$$

Raw materials turnover Ratio= $\frac{\text{Net Sales}}{\text{Average raw materials}}$

$$= \frac{2336112863}{806199266.00}$$

$$= 2.89$$

Work in progress turnover Ratio= $\frac{\text{Net Sales}}{\text{Average WIP}}$

$$= \frac{2807718567}{3566348884}$$

$$= 7.87$$

Finished goods turnover Ratio= $\frac{\text{Net Sales}}{\text{Average finished goods of inventory}}$

$$= \frac{2807718567}{538952800.00}$$

$$= 5.2$$

2.1 Theoretical Background of the Study

Introduction

Inventory refers to the products and materials held by means of the corporation for final resale. Inventory control is a science this is mostly worried with specifying the shape and percentage of stock objects. It is needed that distinct places inside the facility or many websites of the supply community be carried out before the normal and deliberate manufacturing fabric stocks.

Sink inventory management and strategies, discover stock necessities, set desires, offer replenishment strategies, record actual and projected stock status, and cope with all features associated with fabric tracking and management.

Materials which can be considered to be part of the company property, semi-finished and absolutely completed merchandise are ready or geared up for sale. Inventory is one of the most crucial assets. Inventory turnover is one of the important assets of shareholders' income and comply with-up earnings.

Inventory is likewise not top due to the fact stock is simply too small because of the ability income and capacity sales of the enterprise and the hazard of potential marketplace share.

Meaning of Inventory

The time period "inventory" comes from the French word "Inventaire" and the Latin word "Inventarium" which includes a sequence of things. Inventory refers back to the stock that the organization offers for promoting products and the components that make up the product. In other phrases, stock includes belongings with the intention to be offered in the path of each day commercial enterprise operations.

His stock has an essential financial effect and the monetary manager is chargeable for ensuring that inventory is properly monitored and managed. He have to emphasize the monetary perspective and begin the plan in order that others can participate in and take part inside the powerful control of stock.

The definition of inventory:

It can be used to refer to tangible property that may be visible, measured, and counted at positive times in uncooked substances, manufactured products, finished products, bought items on the market, and so forth. .. With regard to economic statements and associated facts, reference may be made to the amount of all goods stocks which might be allocated to the business enterprise at a given time.

Reasons for inventory management:

1. **Time:** The time lag represents the deliver chain, and from the dealer to the user requires you to maintain a certain quantity of inventory for "shipping time".
2. **Uncertainty:** Inventory is maintained in buffer stocks to meet demand, deliver, and transport uncertainty.
3. **Economies of scale:** The idle country of a unit is imperative on every occasion the person wishes it and in which he desires it, and often brings many expenses in phrases of logistics. So quite a few buying, transferring and storage brings economies of scale, so inventory.

The purpose of stock control:

1. Raw fabric shares are reserved for later conversion to semi-completed or completed merchandise. Raw material shares must exist as it isn't always economically feasible to either buy or arrange the shipping of uncooked materials wished within the manufacturing technique.
2. Ensure continuous deliver of uncooked materials and materials to sell uninterrupted manufacturing keep enough finished products to reap easy income, operations and green customer service.
3. Inventory lets in reasonably-priced bulk purchases of raw materials and the processing of those raw substances into finished products is the most reasonable quantity, referred to as "economic batch".
4. Reduce every other's dependencies so that the business enterprise can set up its operations independently of some other enterprise.
5. Inventory management allows to lessen material handling prices.
6. It helps to rationally observe employees and system.

7. Facilitate product show and service to clients.

The Benefits of stock control

1. Experience has shown that with a systematic stock manipulate device, inventory may be decreased everywhere among 15% and 16%, and excessive shortages are often decreased. Rupee inventories of Rs 10 lakh discount can be equivalent to 2 Rs rupees in keeping with 12 months, whilst a intense shortage may be extra conducive to continuous stock and emergency procurement.
2. Ensure that sufficient items are available to consumers and avoid shortages as tons as feasible at the lowest price.
3. Utilize available price range within the only way and keep away from more expenditures such as excessive inventory.
4. Risk of loss because of modifications in stock charges when inventory is decreased.
5. Provide buffers among paintings centers to ensure easy and green operation of the business enterprise.
6. Quantity cut price gain for bulk purchases.
7. In different phrases, it ensures that the fabric in the marketplace isn't always scarce.
8. Estimate the opportunity of reordering.
9. It allows to limit losses because of deterioration, scrap, damage, and many others.
10. When demand for items fluctuates or seasonal, help keep the economy by way of soaking up a few fluctuations.
11. Controlling the buildup and minimization of the closing stocks, and removing as a great deal of the seen death inventory as possible.
12. Use the benefits of price fluctuations.

Types of Inventory

1. **Raw substances:** Raw materials are inventory gadgets used to supply additives, subassemblies or completed products all through the conversion process of the manufacturer.

2. **Work-in-method:** The paintings-in-technique includes all materials, elements (additives), additives, and subassemblies which might be processed in the gadget or ready to be processed. This generally includes all substances in the uncooked fabric which are applicable to the initial procedure until the fabric has been fully processed and is expecting final inspection and popularity previous to adding the finished product.
3. **Finished product:** The finished product is a finished part that can be ordered through the customer. Work in technique and completed product stock. From this factor of view, the completed product can be sold at once to quit users, sold to shops, offered to wholesalers, dispatched to distribution facilities, or scheduled in step with client orders.
4. **Transit Inventory:** Transit stock is because of the need to move gadgets or substances from one location to every other, and from one vicinity to another requires a sure transit time. Sometimes this is known as pipeline inventory.
5. **Buffering inventory:** As stated earlier, stock is sometimes used to save you deliver and demand uncertainty, in addition to unpredictable events which include terrible shipping reliability or terrible supplier product exceptional. These stocks are regularly called safety stocks.
6. **Predict inventory:** Because of the anticipated destiny events, businesses frequently purchase and store stock that exceeds modern-day call for. Such occasions may additionally consist of growing costs, seasonal demand for boom, and even an upcoming strike. This method is normally utilized by stores, who generally set up inventory the primary few months of unusually high call for for his or her merchandise. For producers, the expected inventory permits them to construct inventory while demand is low, so that after stock is accelerated when call for is drawn, stock will be decreased, and agencies do not should reply via increasing production time. As a result, the business enterprise has averted each the increase in demand due to multiplied demand and beyond regular time for recruitment fees.

7. **Decoupled inventory:** If something, few humans will see a manufacturing facility wherein the processing of each gadget is precisely the equal. In fact, a device can be several times quicker than machine processing components in the front of or at the back of it. However, if a person walks via the manufacturing facility, it appears that all machines can run efficaciously on the equal time. It is likewise possible that several machines are being repaired or a few shape of preventive upkeep is being finished even as passing thru the manufacturing facility. Even so, this doesn't seem to interrupt the gadget's drift of merchandise.

8. **Cycle inventory:** People familiar with the concept of monetary order amount (EOQ) understand that EOQ is a try to stability stock holding charges or preserving expenses with the charges of ordering or putting in place machines. When big portions are ordered or produced, stock maintaining expenses boom, but ordering/setting fees lower.

Interview control capabilities:

1. **Always better manipulate (ABC) category:**

ABC evaluation is a commercial enterprise time period used to define inventory type strategies that are often used in fabric management. It is likewise referred to as selective inventory manipulate. Policy primarily based on ABC evaluation.

Very strict controls and accurate records.

Less strict controls and top records.

The simplest manipulate and the smallest record.

2. **High medium & low (HML) category:**

The (HML) category follows the equal process used in the ABC category. The only distinction is that inside the case of (HML) high, medium and coffee, the taxonomic unit fee is the usual rather than the yearly intake price. The stock items ought to be listed in descending order of unit price, and the three limits should be decided by way of control.

3. **Vital Essential Designable (VED) evaluation:**

These substances may be categorized in keeping with their key capabilities. The criticality can be expressed as whether or not the material is crucial to the production system, or is important to the production manner or applicable to the manufacturing technique. This classification is known as VED analysis. V stands for important, E stands for simple, and D stands for ideal task. VED analysis is normally used for spare elements.

4. SDE Classification:

The SDE class is based at the availability of substances. It is very beneficial inside the case of a shortage of inventory. The 'S' here refers to the panic stock objects which might be normally imported and the objects referred to as 'D' Difficult Inventory Items within the deliver scarcity class, which might be available regionally but are hard to gain. 'E' refers to items which might be simply to be had and to be had on the nearby marketplace.

5. FSN type:

In this technique, inventory is classified according to the form of stock. Here 'F' stands for instant movement, 'S' for gradual movement, and 'N' for no motion. This method can also involve a beneficial list to avoid scrapping. In order to determine whether a selected stock is moving fast, or the date of receipt or the overdue date of transport, it's far taken from the later who has handed since the ultimate transaction. These items are normally divided into 12 months. Items that don't move can be in addition tested and their disposal may be considered.

6. Order circulation system:

In this system, each inventory object is checked frequently and an order is launched to restore the stock deliver stage for every stock in inventory. What is the frequency of the evaluate? The frequency of overview depends basically on stock gadgets. At every review date, the specified amount of fabric will bring the inventory to the predicted deliver level.

Inventory machine approach: There are two trendy methods for stock systems, together with

- a) Fixed Order Quantity System (Q System)

b) Fixed Order Cycle System (P System)

7. **Fixed Order Quantity System:** The machine orders a certain amount of fabric for every foreign money stage study to the logger degree. This is just EOQ. Periodically evaluation the constant order cycle system stock vicinity for every item. The distinction from organization to organization relies upon at the importance of the fabric.

8. **Timely (JIT):**

From the attitude of uncooked fabric procurement, because of this there is no stock at any level of production, and the exact call for is purchased at each successive level of each manufacturing on the proper time. In other phrases, the uncooked substances that hold the bottom level through the inventory wearing costs may be minimized, and the threat of loss resulting from the out-of-stock position can be properly averted. Judging from the production of products JIT way that the products are best finished when the order is acquired, and no finished product storage can avoid the price of the finished product. JIT is likewise referred to as Zero Stock Production System (ZIPS) Zero Inventory (ZIN) Material (MAN) or Time Period (NOT).

9. **Economic Order Quantity (EOQ):**

EOQ is used as a non-stop part. The Economic Order Quantity (EOQ) is the variety of devices that the company need to upload to each inventory to reduce overall inventory expenses (e.g., keeping fees, order prices, and out-of-stock charges). The inventory system constantly video display units stock levels inside the stock machine and orders a hard and fast amount every time the stock stage reaches a particular reorder factor. EOQ offers a model for calculating the right reorder point and most suitable reordering

Quantity to make certain there may be no shortage of on the spot replenishment stock. It can be a precious tool for small enterprise owners who want to decide how tons stock they want to store, what number of objects are ordered every time, and the way generally they're reordered to limit costs.

EOQ components:

EOQ can be acquired with the aid of the usage of two techniques

- a) Test and blunders strategies and
- b) Simple or simple mathematical formulas.

Here, for you to calculate EOQ, we use a easy shortcut technique. The system is

$$EOQ = 2DC_0 / CC$$

D = annual call for, C_0 = ordering value, C_c = transportation value

S = price of setting an order

I = inventory incorporates a unit of value

EOQ model assumptions:

The following assumptions are implicit inside the calculation of EOQ:

- The call for products remains consistent at some point of the complete length.
 - Order time (the time from ordering to receiving will no longer exchange.
 - The charge in keeping with unit of product does no longer exchange.
- The inventory holding price is primarily based on the common stock.
- The ordering value is unchanged.
 - All necessities for the product will be met (no go back is authorized).

2.2 Literature Review

1. Risk Aversion in Inventory Management “David Simchi-Levi” (2007):-

In this text, we propose a framework for incorporating a couple of levels of hazard aversion. Inventory fashions and multi-phase fashions that coordinate stock and pricing techniques. We show that the structure of the surest method for decision makers with an exponential software function is basically similar to the shape of an most excellent chance-neutral stock strategy.

2. A review of inventory management research in major logistics journals: Themes and future directions “Brent D. Williams” (2008):-

It will provide reviews of stock control articles published at foremost logistics shops, discover topics in the literature, and provide future direction for stock management research with a purpose to be posted in logistics journals. Articles posted seeing that 1976 contributed to the stock control review and cataloging. The article is segmented primarily based on the primary topics extracted from the literature and the important thing assumptions made by way of extra inventory management models. Two important issues had been discovered in logistics studies especially that specialize in inventory control.

3. Inventory management –A case study by Dr. Angel Raphella. S (2014)

This study is about the process of analyzing the company's current forecasting model and the proposed inventory control model to help them solve the problem. Therefore, it is recommended to use economic order quantity and reordering points to help them reduce product out of stock.

4. A study on Relationship between inventory management and company performance by Nurul Nadia Suraidi (2016)

It particularly examines the relationship among stock control and employer overall performance, and conducts interviews with corporation control to determine the business enterprise's problems and systems. The dating between the two is primarily based on inventory days and go back on belongings ROA evaluation

5. Case Study on Inventory Management Improvement by “Darya Plinere and Arkady Borisov”(2015-18)

This is a challenging issue area in supply chain management. In order to meet customer needs, inventory should be in the warehouse. Inventory holding costs, and this frozen funds may be lost. Its task is to find out the amount of inventory that avoids excess inventory and meets customer needs

6. Inventory of inventory management practices on organizational competitiveness by Kamau Lucy Wangari (2015)

The main reason for holding inventory management measures is to provide regular raw materials when needed. To ensure they need to be delivered and measure quality standards, they need to be in place market trend.

7. Inventory management, cost of capital and firm performance by Ashraf Mohammad Salem Alrjoub (2017)

This study is the effect of stock type on the connection. This relationship is encouraged by way of a number of things, such as the fee of capital that isn't always considered. This is the law of the fee of capital. Using Pearson correlations and panel GMM estimates, the results of the have a look at reveal the kind of stock management that considers its lengthy-term impact on corporation overall performance.

8. Analysis of inventory control techniques by Akhilesh Jayakumar (2013)

Each corporation needs stock to run its activities smoothly. It acts as a component between production and distribution approaches. Inventory investment is the most crucial a part of most company liquidity and liquidity. Therefore, right manipulate and control of inventory is very essential. The purpose of inventory management is to make sure that an enough quantity of fabric is to be had on call for and to limit stock investment. Therefore, with a purpose to understand the character of organizational inventory control, this paper analyzes unique stock manage techniques to attain an efficient stock control system.

9. Research on optimal policy of single-period inventory management with two suppliers by Baimei Yang (2014)

We studied an unmarried-length stock manage trouble which include impartial suppliers. For the first supplier, the consumer generates high variable costs but the fixed expenses are negligible; for the second one supplier, the customer's variable price is lower, however the constant price is positive. At the identical time, the wide variety of orders is confined. When the conserving and absence price capabilities are prominent, we develop an ultimate inventory manipulate approach. We also carried

out a few numerical experiments to analyze the impact of constant placing fee K and sorting capacity Q at the finest manage strategy.

10. Spare parts inventory control by Jose Roberto do Rego (2011)

Inventory items are required for the maintenance and repair of final products, vehicles, industrial machines and equipment, which require high investment and significantly affect customer satisfaction. Due to the large number of different items and low requirements, inventory management is complicated. In general, the literature review identifies the following inventory management research opportunities: deciding whether inventory criteria, first and last order quantities, demand forecasting and inventory control model integration, and case studies are practical.

11. Inventory management practices and their implications on perceived planning performance by Patrik Jonsson & Stig- Arne Mattsson (2008)

This article focuses on the usage of the material planning method to control the glide of substances to the inventory of purchased objects in manufacturing and distribution organizations. The first sub-goal is to assess the perceived software performance of the fabric planning approach used to control exclusive stock kind fabric flows in production and distribution companies.

12. ABC Analysis for Inventory Management by Handan Hal Ravinder (2014)

ABC evaluation is a well-defined class technique based at the Pareto principle and is used to decide which gadgets must be prioritized in agency inventory management. In discussing this topic, present day operations management and deliver chain textbooks use the dollar amount as the sole criterion for acting type. The authors believe that the survival of modern organizations and supply chains in a capability to speedy deliver the right merchandise to particular markets is prime. With the emergence of providers, intermediaries, and clients round the sector, the energy of merchandise has progressively diminished, and this recognition on single requirements has been out of place. A huge quantity of studies are primarily based on multiple popular ABC analyses which have accumulated because the Nineteen Eighties and endorse that textbooks include their main findings and methods into their dialogue of this subject matter.

13. A multi criteria inventory management system for perishable & substitute products by Linh N K Duong (2015)

Perishable products are a crucial location inside the retail industry and in our day by day lives. However, while thinking about product substitution (presenting extra options), the quick life of perishable products poses a primary challenge to stock management (e.g., one-0.33 of the food is wasted). The principal question is: What are the appropriate "inventory techniques" while our products are each perishable and alternative? Propose suitable performance signs to evaluate the whole device and offer powerful answers which might be also easy for specialists to recognize and adopt. Therefore, this paper proposes a method of the use of multi-metrics, inclusive of order charge variance ratio, common stock and fill price.

14. Improvement of inventory control & forecast according to activity based classifications by Jui-Chan Huang (2017)

Inventory deliver is a major issue for all industries. Provide merchandise to clients who need inventory practice. This can reap fast delivery and decrease waiting time for clients in order that the employer can advantage from it. Any out-of-stock or shortage will bring about loss of clients due to the fact their desires can't be met. This will harm the organization's profitability and market competitiveness. Inventory manipulate is important to maintain liquidity and keep away from backlogs

15. Inventory management and the Bullwhip effect during the 2007-2009 recession by Kevin J. Dooley (2010)

The monetary recession of 2007-2009 caused a sharp drop in consumer call for. We use wholesale inventory and sales records to have a look at the impact of the recession on U.S. Production manufacturers, wholesalers, and outlets. We determined that the wholesaler's response changed into slow and violent, indicating the bullwhip impact, while the retailer reacted quick and conservatively, indicating a strong environment. Smooth call for and stock proved to be opportunity responses to good sized adjustments in call for.

16. Theory of Inventory management based on demand forecasting by Kot S., Grondys K., Szopa R. (2011)

The purpose for this is that the everyday purpose of this situation has extended. The place to begin for lowering stock tiers is to forecast marketplace demand through marketplace forecasts via running with all hyperlinks inside the deliver chain. Therefore, in terms of call for forecasting, the characteristics of facts go with the flow and the form of hyperlink cooperation are critical.

17. Inventory Management Practices and Operational Performance by Nsikan John (2015):

This observe plans the control practices of flour processing corporations and their effect on commercial enterprise overall performance. The look at used 5 flour processing businesses in Lagos. Structured questionnaires are the principle tools for gathering relevant raw statistics. Descriptive statistical strategies inclusive of mean and popular deviation are used to research the converged data. In addition to huge production businesses, maximum medium-sized flour agencies use one of a kind stock management techniques within the science and excellent practice models.

18. Consistent Inventory Control by Elvira Marie B. Aske (2009)

The most important contribution of this paper is to advise extra preferred neighborhood consistency guidelines for comparing stock control structures. Consistency manner that the constant kingdom mass balance (overall amount, components and levels) of each unit and the complete plant is glad. In addition, neighborhood consistency is a really perfect belongings, because of this that the nearby mass stability only meets the nearby inventory cycle.

19. Examined inventory management from an incentive and control perspective

“Baldenius and Reichelstein” (2000):- They display that the residual earnings performance indicators based totally on historic value accounting provide managers with incentives to make top of the line production and stock intake selections. Low-fee or marketplace rules display an impact while stocks might also come to be out of date due to surprising call for stocks.

20. “Inventory Management and Production planning and scheduling” “Moon likyeong” (2001):

He posted a paper on this challenge, that's the 1/3 version of era inventory manipulate and manufacturing released in 1979 and 1985. Bob Pyke have become the co-creator of this model, and has carried out a few vital variations, many deliver chain management Level inventory, timely and ERP.

3. Research Design

Research way attempting to find information, answering questions, and fixing problems. This is a practical investigation; that is an "organized research." It seeks to discover motives of unexplained phenomena to clarify doubts and correct wrong statistics.

Research layout method gathering relevant statistics and techniques for evaluation, deliberating the goals of the research and the supply of personnel, time and money. In fact, studies is of first-rate importance to the reliability of the consequences to reap the consequences, and this constitutes a strong basis for the complete observe.

Research layout is important as it facilitates smooth navigation of various research sports, in order that studies is as green as feasible, and spends the maximum data with minimum attempt, time, and money.

The type of research executed is PURE RESEARCH, i.e. it is carried out for knowledge and there may be no aim to apply it to exercise. This is a primary research or fundamental studies. This examine isn't trouble-oriented.

3.1 Statement of the Problem

Every size corporation need to keep funding, and it forms a crucial a part of running capital. It is envisioned that inventories within the Indian enterprise constitute a critical a part of the stock of liquid assets. Not best do they require a huge quantity of funding to achieve those stock, but in addition they require that they invest in stock this is stated to be idle, but in any organization production or transaction Inevitable, so inventory costs have emerge as essential.

As raw fabric expenses growth, the enterprise faces a few problems. The essential components inclusive of soda ash, linear alkyl benzene and sodium tripoly phosphate have many serious troubles in usability. The deliver and demand whole for vegetable oil is 1.5 to 20,000 lots and is met thru imports.

3.2 Need of the Study

Inventory is a critical a part of each corporation. Optimal inventory management is the remaining goal of stock planners.

1. Understand the materials used within the manufacturing system.
2. Understand stock price fluctuations.
3. Properly preserve inventory ranges based on consumer desires.
4. Understand inventory ranges to contribute to the agency's profitability.

3.3 Objectives

1. To have a look at the effectiveness of inventory control on the Soap and Detergent Company in Karnataka.
2. Assess the elements that have an effect on inventory.
3. Identify problems related to inventory control and locate appropriate measures to triumph over these troubles.
4. Propose techniques for improving stock management.

3.4 The scope of the Study

1. The look at of stock management led us to have a broad expertise of the troubles confronted via the limited soap and detergent in Karnataka.
2. This look at offers us with the limited capability of Karnataka soap and detergent.
3. This look at tries to discover the consumption of materials within the manufacturing manner.
4. The significance of this look at is to preserve stock.

3.5 Research Methodology

This is an analytical have a look at that determines the provision of inventory through tables and charts.

Primary Data

The data is collected through interactions and discussion with the executives working in division.

Secondary Data

The data is collected through annual reports, magazines, published through the required information.

3.6 Hypothesis

H0:- There isn't any sizeable relationship between low productiveness and bad stock management.

H1:- There is a huge relationship among low productivity and horrific stock control.

3.7 Limitations

1. The time supplied for the study is limited.
2. Due to the quick research time, it is restrained to KS&DL.
3. Due to the work schedule within the enterprise, interplay with employees is very restricted
4. Some of the records disclosed via employees may be stored personal.
5. It focuses only on inventory control and does not take into account lengthy-term financing or funding.

3.8 Chapter Overview:

Data collection, analysis, interpretation, etc. Are labeled inside the following order:

Chapter 1: Introduction

This is an introductory chapter of the take a look at and in short introduces "stock control." It offers an overview of the studies, and at the equal time, the reader can examine more approximately the organization's statistics, merchandise and manufacturing approaches.

Chapter 2: Conceptual Background and Literature Review

This chapter interrupts the theoretical framework and literature evaluation of various authors.

Chapter 3: Research Design

This bankruptcy introduces statistics series techniques, research objectives, studies boundaries, and studies scope.

Chapter 4: Analysis and Interpretation

This bankruptcy analyzes KSDL's inventory control and analyzes the cost elements.

Chapter 5: Summary of Findings, Conclusions and Recommendations

This chapter summarizes the undertaking report and includes a precis of the survey effects and pointers. These are drawn directly to the gaining knowledge of desires.

4. Analysis and Interpretation

Introduction:

Analysis and Interpretation is the process of identifying strength and weakness of a firm by properly establishing relationship between two items. It is useful for decision making and there are number of methods & techniques which are generally used in analysis of financial services.

Meaning of Analysis:

Analysis is the process by which the whole body of gathered data facts, figures and ideas is converted into meaningful & useable information. The data is placed on its appropriate setting & consistent relationship drawing general inferences.

Following are the procedure involved in the integrated operations of analysis of data:-

1. Classification of data.
2. Tabulation of data.
3. Statistical analysis of data.

Meaning of Interpretation:

Interpretation refers to the relationships with the collected data. It's the mechanism through which the factor that appears to explain what has been observed by researcher during the course of her research.

TABLE-1

Table showing the progressive base year percentage growth of inventory for this
2013 inventories is treated as Base year period 2017 Rs. in crores

Year	Inventory	Growth of inventory
2013	496456170	101.41
2014	808143158	162.78
2015	1059669174	131.12
2016	1053863184	99.45
2017	1815626392	172.28

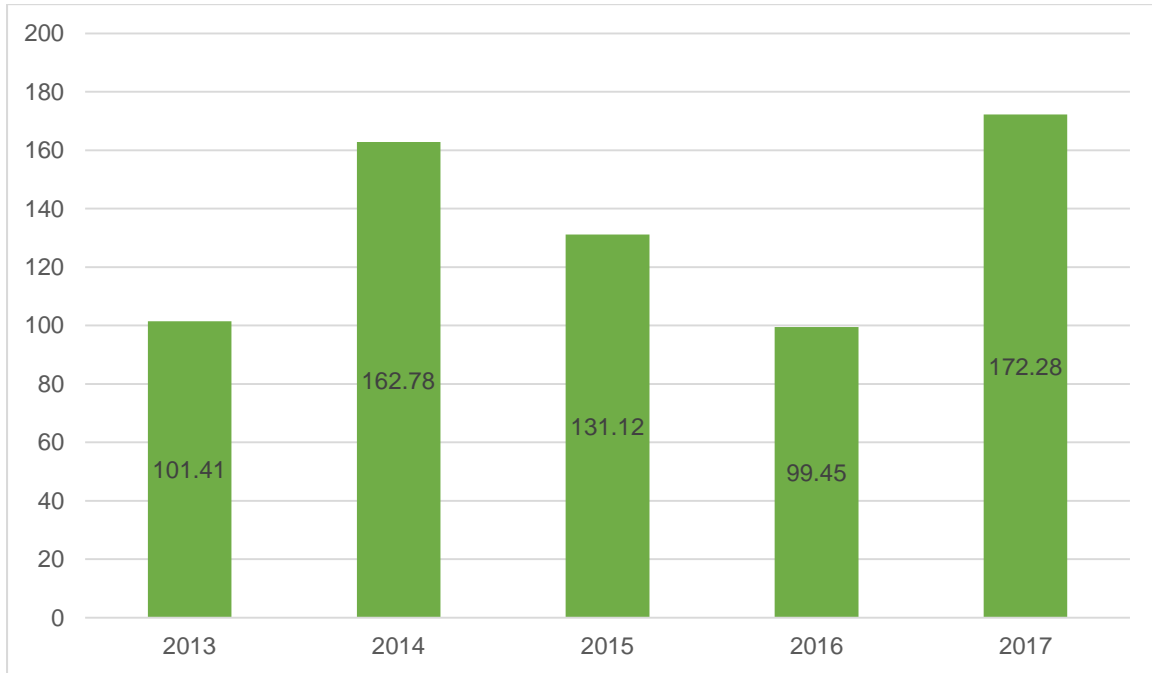
Percentage growth of total inventory = $\frac{\text{Current Year Inventory}}{\text{Base Year Inventory}} \times 100$

Analysis:

The above table shows the percentage growth of total inventory year 2012 is taken as the base year. 101.41 during the year 2013, 162.78 in the year 2014, there is a decrease in the year 131.12 in 2015 and 2016 decreases in 99.45 and the current year it was increased to 172.28.

GRAPH- 1

Graph showing the progressive base year percentage growth of inventory for the period 2013-2017



Interpretation:

In the graph the year 2016 the growth of inventory is 99.45 but in the current year the growth of inventory increased to 172.28.

TABLE NO- 2

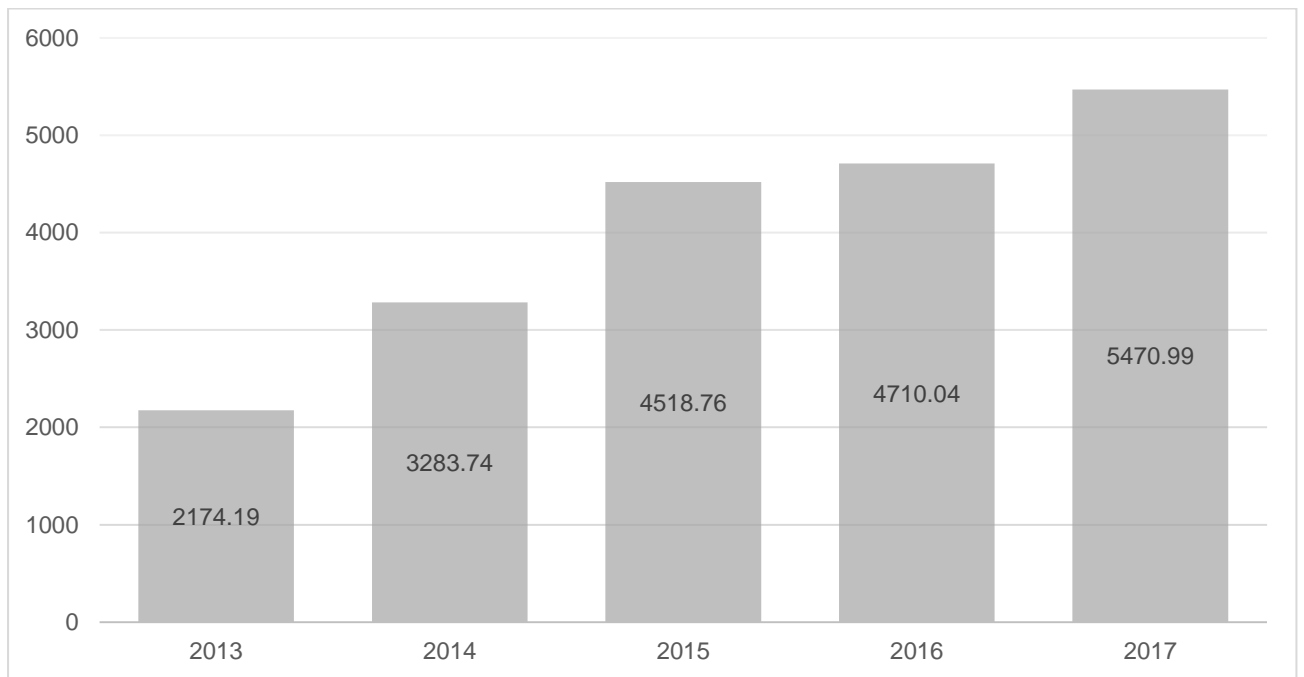
Table showing turnover of KSDL for past 5 years Amount in Rs

Year	Turnover	Profit before Tax	Profit after Tax
2012-2013	28621.32	3983.30	2174.19
2013-2014	31751.67	5627.70	3283.74
2014-2015	35687.97	6651.14	4518.76
2015-2016	41271.81	7170.69	4710.04
2016-2017	45514.24	8930.43	5470.99

Analysis

The Above table shows the turnover of profit before tax and profit after tax. In the year 2013 the profit was 2174.19 and in next preceding year the profit was increased to in 2014 it was 3283.74, in 2016 it was 4710.04 in the current year 5470.99.

GRAPH-2



Interpretation:

In the graph the year 2015 the profit was 4518.76 and in the year 2016 it was increased to the 4710.04 and the next year the profit was increased to the 5470.99.

TABLE-3**Percentage of inventory to working capital Rs in crores**

Years	Inventory	Working capital	Percentage
2012-2013	49,64,56,17,00	94,49,75,057,00	52.24
2013-2014	80,81,43,158.00	1,05,12,46,867.00	76.87
2014-2015	1,05,96,69,174.00	1,33,26,46,433.00	79.87
2015-2016	1,05,38,63,184.00	1,85,78,90,034.00	56.72
2016-2017	1,815,623,392.00	2,30,78,21,980.00	78.67

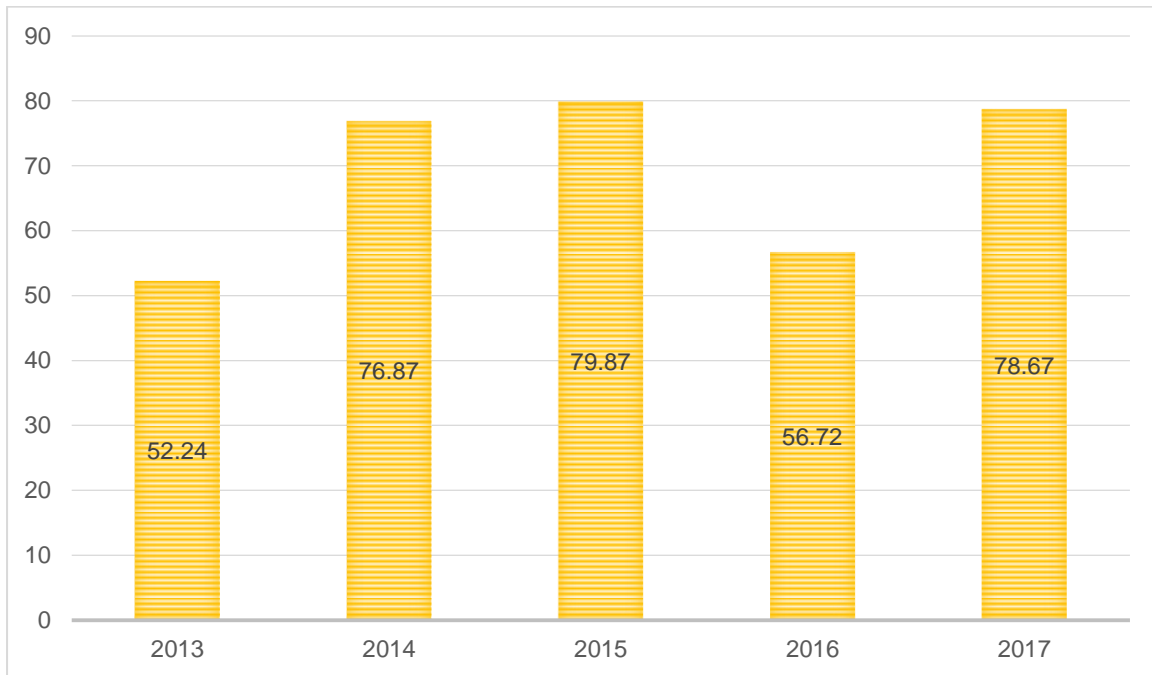
$$\text{Percentage of inventory to working capital} = \frac{\text{Inventory}}{\text{Working capital}} \times 100$$

$$\text{Working capital} = \frac{\text{Current asset}}{\text{Current Liabilities}}$$

Analysis:

The above table shows the percentage growth to working capital in the year 2012-13 Taken as the base year. 52.54 in during the year of 2013, increases of 76.87 in 2014 again increase 79.52 in 2015, and decreased to 56.72 in 2016, in the current year it was increased to 78.67.

GRAPH-3



Interpretation:

Inventory working capital which helps to measure the short term solvency of company. In the year 2013 the working capital was 52.24, in 2014 it was 76.87, in 2015 it was 79.87, in the year 2016 it was decreased to the 56.72 and in the current year it was increased to the 78.67 so the company will be in the good situation as compared to the last year.

TABLE-4

Table showing the percentage of Inventory in current assets Rs. in crores.

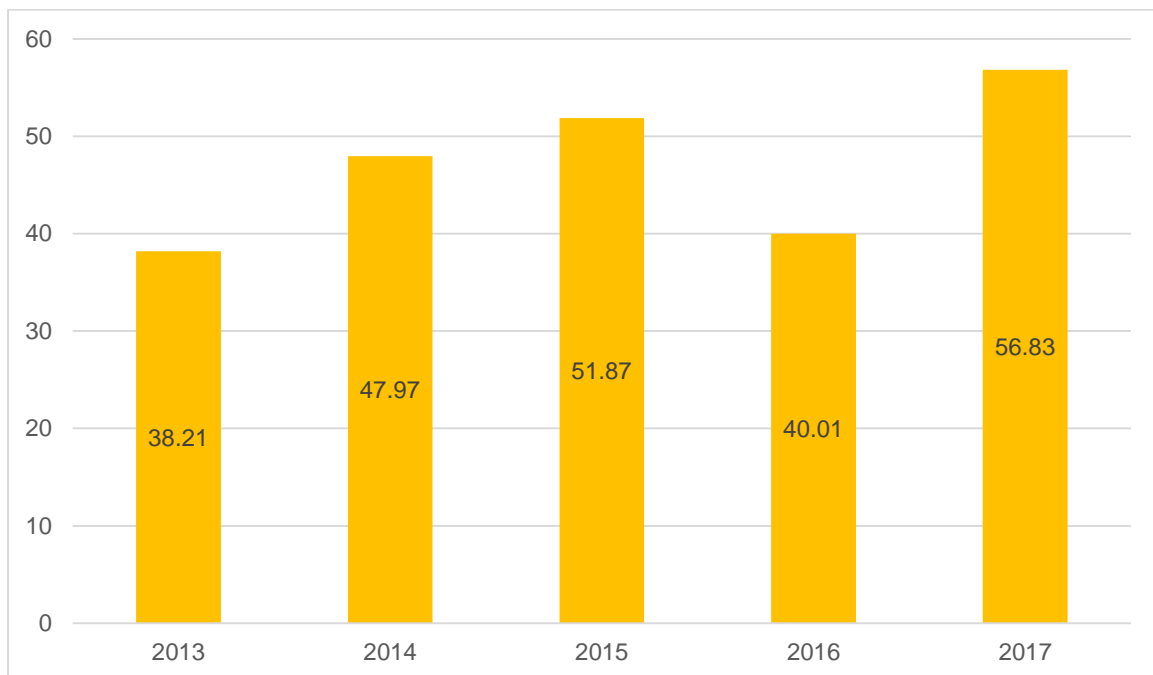
Years	Inventory	Current assets	Percentage
2012-2013	49,64,56,170.00	1,29,93,72,293	38.21
2013-2014	80,81,43,158.00	1,68,46,89,526	47.97
2014-2015	1,05,96,69,174.00	2,04,28,53,316	51.87
2015-2016	1,05,38,63,184.00	2,62,98,23,791	40.07
2016-2017	1,81,56,23,392.00	3,194,398,581	56.83

$$\text{Percentage of inventory to current assets} = \frac{\text{Inventory}}{\text{Current assets}} \times 100$$

Analysis:

The table shows the percentage of inventory in current assets. 2013 is taken as base year. 47.97 during the year of 2013-14 decrease in 51.87 in 2014-15, 40.07 in 2015-16, and there it increases 56.83 in 2016-17.

GRAPH-4



Interpretation:

This shows the proportion of inventory of current assets if fluctuating in cyclical variation ups & downs.

In the year 2013 the amount of inventory was 38.21 and in 2014 increase to the 47.97 next year increased to 51.87 in the year 2016 decreased to the 40.01 in the current year it was increased to the 56.83.

Ratios Analysis:

Inventory Turnover Ratio or Stock Turnover Ratio:

It indicates the number of time the stock is turned over (sold) during the year. It is a ratio between net sales and average inventory.

TABLE-5

Table showing the percentage of Inventory Turnover Ratio for the period 2013-17 Rs. in crores.

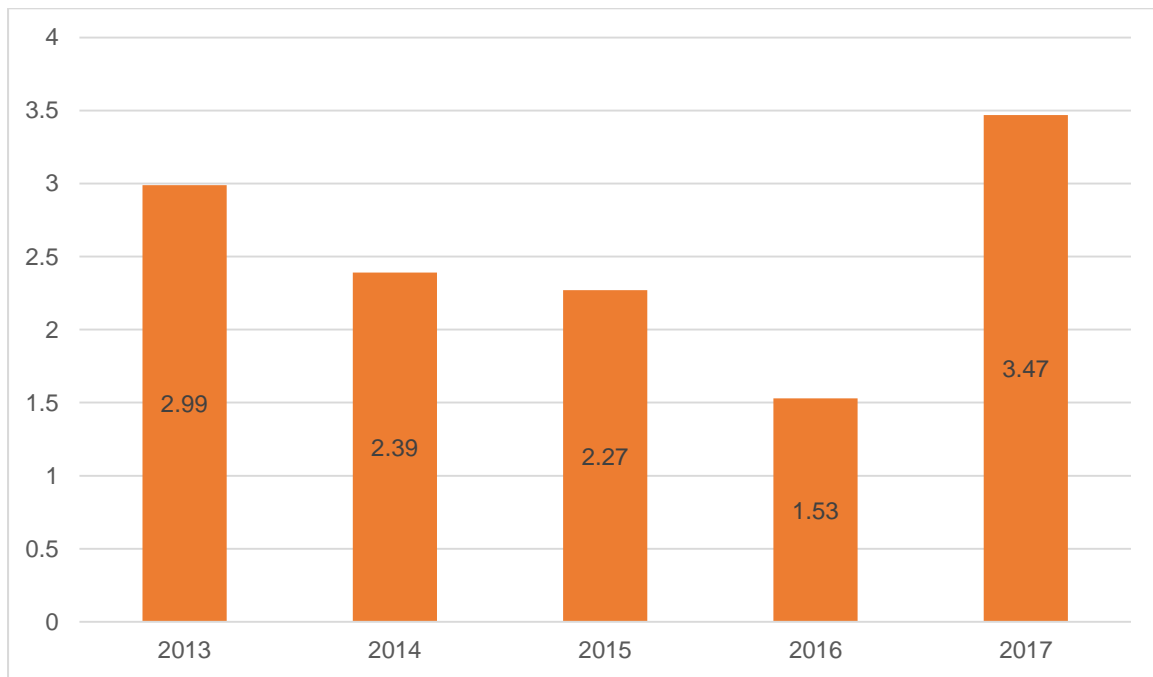
Years	Cost of goods sold	Avg. inventory	Turnover times
2012-13	1,47,37,54,991.00	49,29,85,245.00	2.99
2013-14	1,55,73,36,147.00	655,22,99,661.00	2.39
2014-15	1,55,73,36,147.00	93,39,06,163.00	2.27
2015-16	2,12,40,27,234.00	1,05,67,66,179.00	1.53
2016-17	2,80,77018,567.00	80,68,199,26.00	3.47

$$\text{Inventory Turnover Ratio} = \frac{\text{Cost of goods sold}}{\text{Average Inventory}}$$

Analysis:

The above table shows the inventory turnover ratio. Year 2006-07 is taken as base year 2.97times. In 2007-08 4.34 times, in 2008-09 3.76 and there is decrease in times for 1year. In 2008-09, 3.76 times and there is decrease in turnover time compared to year 2007-08 & once again 2010-11 reduced to 3.18 times in the current year.

GRAPH-5



Interpretation

The ratio reveals that number of time stock is turned over during a given accounting period. Higher the ratio, the better because it shows the finished stock is rapidly turned over. On the other hand a low stock turnover is not desirable because it reveals the accumulation of obsolete stock, or carrying of too much stock.

In the year 2013 the ratio was high as compared to the 2014 i.e. 2.39 in the year 2016 it was came down to the 1.53 and it was increased to the 3.47 in the year 2017.

TABLE-6

Table showing the Raw Materials Turnover Ratio Rs in crores

Year	Net Sales	Average raw materials	Ratios
2012-13	125,32,19,829	19,94,98,469.50	6.28
2013-14	127,55,74,042	31,51,74,533.00	4.05
2014-15	160,44,03,610	50,61,94,374.50	3.71
2015-16	156,54,20,225	60,96,95,969.00	2.57
2016-17	2,336,112,863	80,61,99,266.00	2.89

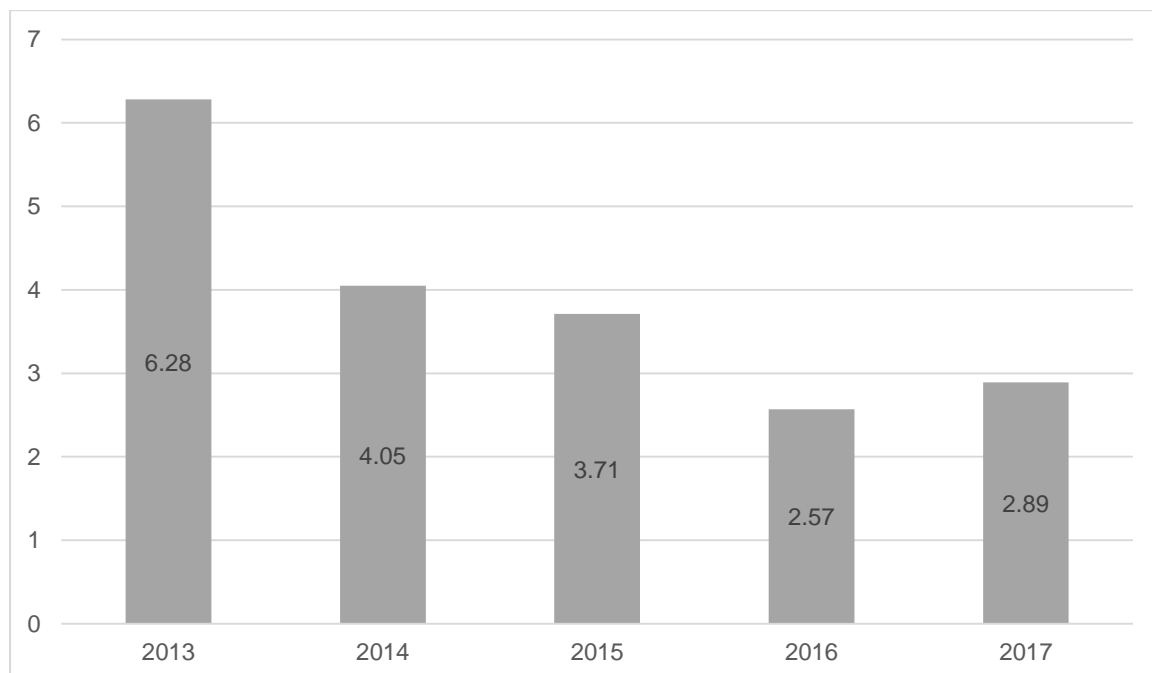
Average Raw Materials= $\frac{\text{Opening stock of raw materials} + \text{Closing stock raw materials}}{2}$

2

Analysis

The above table shows the Raw material turnover ratio. The raw material held for the year 2013 was 6.28 in the year 2014 it was decreased to the 4.05 in 2016 it was 2.57 in the current year it was 2.89.

GRAPH-6



Interpretation:

The Raw Material Turnover Ratio shows the number of items the Raw Material was replaced during the year. The Raw Material Turnover Ratio in the year 2013 recording best performance but later the company is not able to convert into quick raw material cycle in the current year.

Inventory Conversion of Period

This represents the number of days of which inventories remain before they are issued for production.

TABLE-7

Table showing the Inventory turnover conversion in number of days for the period 2013-17

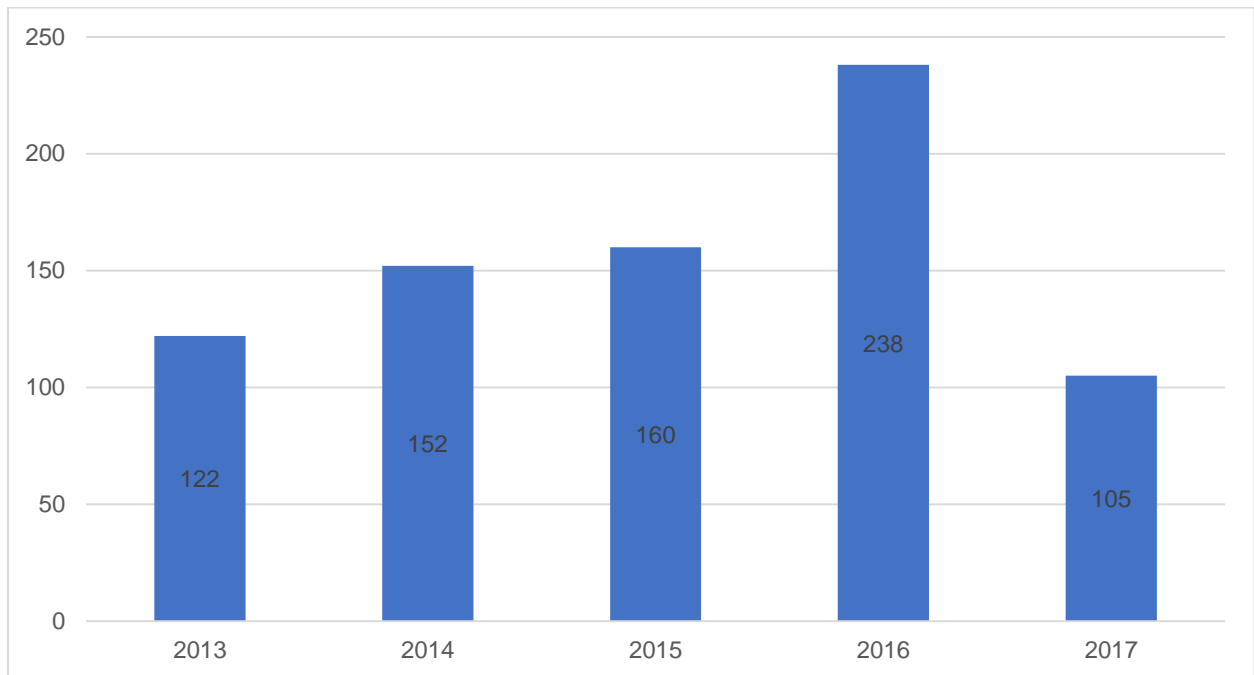
Years	No. of days in a year	Inventory turnover ratio	No. of days
2012-13	365	2.99	122
2013-14	365	2.39	152
2014-15	365	2.27	160
2015-16	365	1.53	238
2016-17	365	3.47	105

$$\text{Inventory Conversion Period} = \frac{\text{Days in a year}}{\text{Inventory Turnover Ratio}}$$

Analysis:

The Above table shows the inventory conversion period. Year 2012-13 is taken as base year 122 days. In 2013, 152 days. In 2014, 160 days. In 2015, 238 days and in 2016 it's in the current year it was 105 days.

GRAPH-7



Interpretation:

The inventory conversion period shows the increasing trend from 2013-2016 which indicates that the conversion period of inventories into sales is goods and there is good inventory management. But in the current year there is an decreased compared to the previous year.

Work in Progress Inventory Turnover Ratio

This indicates the number of times the work in progress inventory turned over (related to sales) during the year. It tells the firms efficiency in manufacturing & selling its product.

$$\text{Work in progress inventory turnover ratio} = \frac{\text{Net Sales}}{\text{Average WIP}}$$

TABLE-8

Table showing Work in Progress turnover ratio for the period 2013-17 Rs in crores

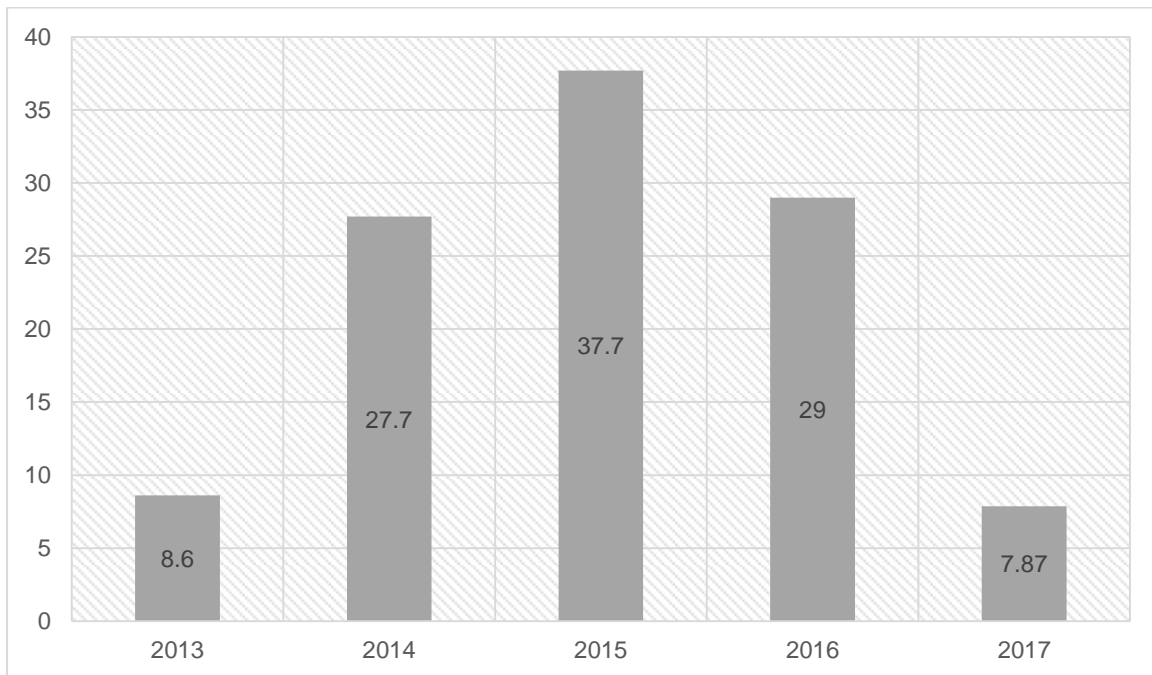
Year	Net Sales	Average work progress	Turnover Ratio
2012-13	1473754991	169756996	8.6
2013-14	1557336147	56063641	27.7
2014-15	2124027234	56241589	37.7
2015-16	1611820173	55644123	29
2016-17	2807718567	356634884	7.87

$$\text{Average W.I.P} = \frac{\text{Opening W.I.P} + \text{Closing W.I.P}}{2}$$

Analysis:

The above table shows the ratio of work in progress. Year 2013 is taken as base year, 8.6 times. In 2012-13, 27.7 times, in 2013-14, 37.7 times, in 2014-15, 29 times in 2015-16 its 7.87 times in the current year.

GRAPH-8



Interpretation:

The work-in- progress turnover ratio indicates a relationship between value of goods produced and the value of goods in process lying on the shop floor of the factory. In the current year there is huge decreases in the turnover ratio. So there will be increased inventory accumulated.

Finished Goods Turnover Ratio:

This represents the number of times the finished goods inventory turnover sales during a year. This ratio indicates the efficiency of the firm in selling its products.

TABLE-9

Table showing finished goods turnover ratio for the period 2013-17 Rs in crores

Year	Net Sales	Average finish goods	Turnover ratio
2012-13	1473754991	236489013.50	4.36
2013-14	1557336147	267343248.00	6.23
2014-15	2124027234	337947547.00	5.83
2015-16	1611820173	357402079.00	6.29
2016-17	2807718567	538952800.00	5.2

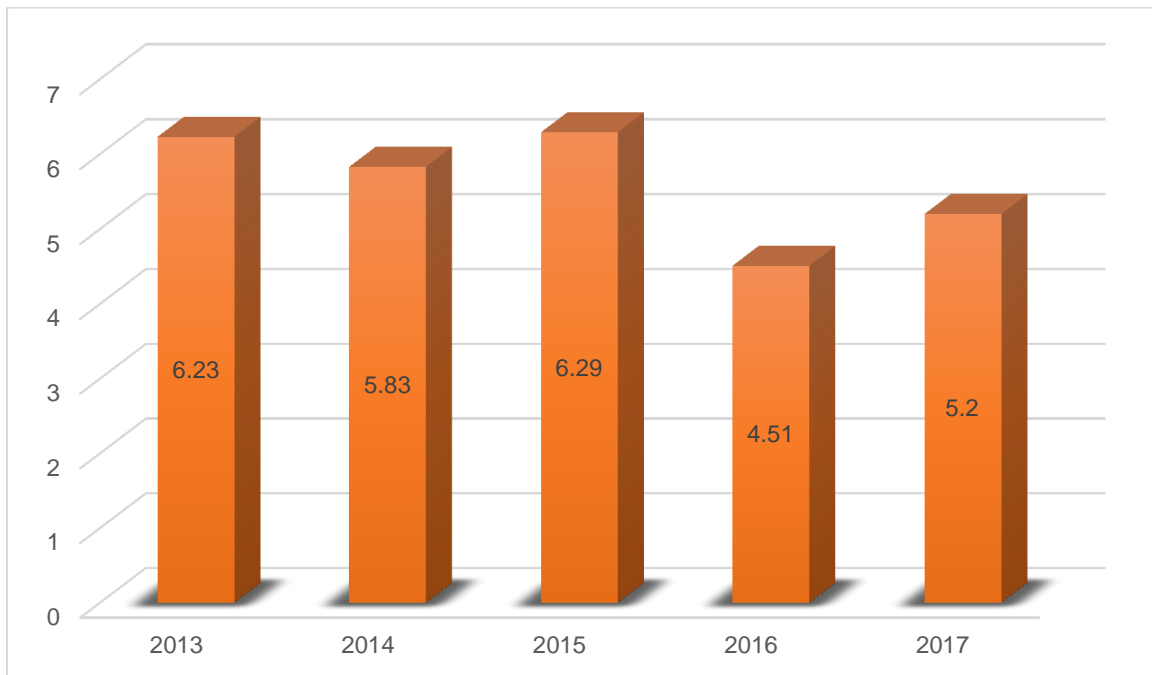
$$\text{Finished Goods Turnover Ratio} = \frac{\text{Net Sales}}{\text{Average Finished goods of inventory}}$$

$$\text{Average Finished Goods} = \frac{\text{Opening finished stock} + \text{Closing finished stock}}{2}$$

Analysis:

The above table shows the duration of finished turnover ratio. Year 2012-13 is taken as base year 4.36 times, in 2013-14, 56.23 times, in 2014-15, 5.83times, & in 2015-16, 6.29 times & in current year its 5.2.

GRAPH-9



Interpretation:

The duration of finished goods turnover ratio of 6.23 in 2013, 5.83 in 2014, again in the next year it was increased to the 6.29 in the year 2016 it was decreased to the 4.51 and in the current year it was increased to the 5.2.

5.1 Findings

1. The position of inventory percentage of growth of inventory in the 2017 increased to 172.28 when compared to the last i.e. 99.45. So the growth of inventory was increased to 72.83.
2. The position of turnover of KSDL the profit before and after tax the profit was totally increased in current year i.e. 5470.99 as compared to the previous year 2016 was 4710.04.
3. The percentage of working capital was decreased in the previous year i.e. 56.72 and the working capital was increased in the current year to the 78.67
4. The percentage of current assets the overall current assets was increase to the when compare to the previous year. The production was good in the current year.
5. The percentage of inventory turnover ratio the cost of goods sold and average inventory was increased in the current year. When compare to the previous year.
6. Raw material turnover ratio was increased in the current year as compared to the last year. In the current year 2.89.
7. Inventory turnover ratio was increased in the current year as compared to the previous year. In the current year the days was decreased the production was increases.
8. Finished goods turnover ratio was decreased to 5.2 in the current year.
9. The fund collected from various sources utilized for current and fixed assets.
10. The company very aggressive in maintaining inventory stock towards its total working capital showing a cyclical variation with ups and downs.

5.2 Conclusions:

The turnover of the company has been increased in the financial year.

In KSDL rate of inventory represents a very significant proportion of current assets, the Size of the inventory is increasing year after which indicates inefficient inventory management in KS&DL. Necessary steps have to be taken by management. They have to adopt the new techniques and new methods of production process in order to increase production of the company.

5.3 Suggestions:

1. The cash position has to be maintained adequately even in future which help Company to meet the short term commitments.
2. The company should follow EOQ to reduce overstocking of materials, purchase at the competitive prices to reduce the cost of production.
3. The management must think over new policy to generate income by sufficient utilization of existing assets.
4. In work in progress company has to maintain the same position by increasing turnover in relation work in progress.
5. Standardization of components should go way to reduce the variety of components to be stocked.
6. It highly recommended that the company has to increase inventory position, when if sales demand requires so.
7. Over stocking and under stocking of raw materials should be controlled by technical auditors, there should be co-ordination between production and inventory department.
8. The sales department should effective reduce the stocking in the finished goods components of inventory. New sales technique should be activated to increases the sales.

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WEBSITES

- ✓ <http://www.mysoresanda.com>
- ✓ WWW.SHODGANGA.COM

OTHER SOURCES

- ✓ Company Brochures
- ✓ Company magazines
- ✓ Company's Balance sheet and Profit and Loss account
- ✓ Official Reports and journals.

ANNEXURE

Profit and loss account as on 31-3-2013 to 31-3-2017

Particulars	Amount in Rs 2013	Amount in Rs 2014	Amount in Rs 2015	Amount in Rs 2016	Amount in Rs 2017
Revenue from operations	28,61,32,818	3,15,71,67,654	3,57,02,63,347	4,11,86,92,228	4,55,14,24,227
(-)Excise Duty	30,49,33,560	33,18,03,615	397,14,57,397	4511,22,681	499425579
Net Revenue from operations	2557199258	2825363739	3178805980	3667569547	4051552130
Other Income	30640704	91550963	42014368	66185101	72539873
	2587839962	2916914702	3220820347	3733754648	4124538521
Expense:					
Cost of material consumed	12,5,32,19,839	1,27,55,74,042	1604403610	1565420225	2336112863
Purchased of stock in trade	43491858	31680271	19651109	28126768	27408943
Change in inventory of finished goods, WIP & stock in trade	(70568751)	(12353006)	(129211487)	91497342	(461808294)
Employee benefit ex	445590312	493987163	4877220141	553741174	576036096
Finance cost	-	31358	-	-	823879
Depreciation	7341146	8062541	11688967	13824174	9582530
Other expenses	510435222	558161384	561953527	625711494	736598741
Total expenses	2189509615	2354143753	2555705866	3016685042	
Profit before exceptional And extraordinary items and tax	393830347	562770949	665114481	717069606	
Provision for taxation					
Current tax	108328122	189636054	221002485	2395736787	293573687
Prior period tax	38356890	55330221	-	20600537	66941733

Deferred tax liability	34225591	21749744	(7764455)	(14109355)	(14862385)
Profit or loss after tax	217419744	328374699	451876451	471004737	471004737
EPS	683	1032	1420	1480	1719

Balance Sheet for the year ended 2013-2017

Particular	Amount (Rs) as at 31-3-2013	Amount (Rs) as at 31-3-2014	Amount (Rs) as at 31-3-2015	Amount (Rs) as at 31-3-2016	Amount (Rs) as at 31-3-2017
LIABILITIES					
Shareholders fund	318221000	318221000	31822100	318221000	318221000
Reserves & surplus	686584676	954982316	1327419182	1723591979	21958598387
Revaluation of land	7758591370	7758591370	7758591370	775891370	7758591370
NON-CURRENT LIABILITIES					
Long-term borrowings	83506504	35000000	35000000	35000000	35000000
Other non-current liabilities	29118117	45898443	80980655	47836024	97525385
Long term provisions	260013594	256822474	263803932	287296043	277156830
CURRENT LIABILITIES					
Short term borrowings	-	-	-	-	-
Trade payables	29376509	49247570	41078706	79704737	38070798
Other current liabilities	163748690	314979855	357052094	354004874	382742711
Short term provisions	161272037	269215234	317376083	338224146	465763092
TOTAL	9490432497	10002938262	10494223022	10942470173	11568931023
ASSETS					

Non-current assets					
Fixed assets	7855306061	7852771403	7854703587	780164745	8036322785
Non-current investments	200000100	230000100	239600100	71729359	71729359
Deferred tax assets	19816230	30386255	38150710	52260065	67122450
Long term loans and advances	107825720	175441070	38150710	291568365	256033090
Trade receivables	8112093	29649908	3012271189	16923848	15054017
CURRENT ASSETS					
Inventories	496456170	808143158	1059669174	1053863184	1815626392
Trade receivables	210356224	232025566	203148049	252260569	227542169
Cash and cash equivalents	431911843	437757488	575242123	1051439256	821869852
Short term loans and provisions	160648056	206763314	204793970	272260782	329360168
Other current assets	-	-	-	-	-
TOTAL	9490432497	10002938262	10494223022	10942470173	11568931023



ACHARYA INSTITUTE OF TECHNOLOGY
DEPARTMENT OF MBA
INTERNSHIP WEEKLY REPORT (1AY16MBA54)

Name of the Student: RADHIKA MR

Internal Guide: Prof. MALLIKA B.K

USN No: 1AY16MBA54

Specialization: FINANCE AND HR

Title of the Project: A STUDY ON INVENTORY MANAGEMENT

Company Name: KARNATAKA SOAPS & DETERGENTS LIMITED

Company Address: #27, Industrial Suburb, Bangalore-pune Highway,
Rajajinagar, Bangalore-560055.

Week	Work undertaken	External Guide Signature	Internal Guide Signature
1 Week	Understanding structure, culture and functioning of the organization		
2 Week	Training period: understanding the financial products and services of the company		
3 Week	Training period: Knowledge about the performance of the live stock market		
4 Week	Presentation of the research instrument		
5 Week	Collecting the primary and secondary data required for the research		
6 Week	Data collection		

Karnataka Soaps & Detergents Limited
27, Industrial Suburb,
Bengaluru-Pune Highway,
Rajajinagar, Bengaluru-560 055

7 Week	Analysis of data collected by various statistical tools	T. K. K. K.	[Signature]
8 Week	Analysis interpret, findings, giving conclusion, suggestions	T. K. K. K.	[Signature]
9 Week	Preparation of the final report	T. K. K. K.	[Signature]
10 Week	Submission of final report	T. K. K. K.	[Signature]

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Internal guide

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HOD

Head of the Department
Department of MBA
Acharya Institute of Technology
Soldevanahalli, Bangalore-560 10.

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