



A Study on Material Management and Inventory Control on KS & DL Bengalore

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ABSTRACT

Inventory management system which is helpful for the business operators, where shopkeeper keep the records of purchase and sales. Mismanaged inventory means disappointed customers, too much cash tied up in slower sale and warehouses. This inventory is eliminate paper work, human faults, manual delay and speed up process. This inventory management system will have the ability to track sales and available inventory, tells a shopkeeper when it's time to reorder and how much to purchase. Inventory management system is windows application developed for windows operating systems which focused in the area of inventory control and generate. Materials management is related to planning, procuring, storing and providing the appropriate material of right quality, right quantity, at right place in right time so as to coordinate and schedule the production activity in an integrative way for an industrial undertaking. Most industries buy materials, transport them in to the plant, change the materials into parts, assemble parts in to finished products, sell and transport the product to the customer. The basic need of material management is to pay the lowest possible prices, consistent with quality and value requirement for purchasing of materials. Materials management integrates all materials functions i.e. demand estimation, procurement, receipt and inspection, storage, issue and use, maintenance and repair, disposal & accounting and information system.

INTRODUCTION

One of the most important aspects of life in the modern world is soap. It has a sizable market because it is a non-powerful buyer product. For a variety of factors, including the rise in raw material costs as a result of poor government relations and vitality difficulties, the entire cleaning business is undergoing changes. Dynamic advancement is also fueled by ever-evolving innovations and a persistent desire on the part of people and organisations to provide better goods at more reasonable rates. By displaying and retaining enough elements, more cleaner makers are attempting to catch the standard of the entire industry. The cleaning industry in India is flooded with foreign competitors and endures fierce competition. They also run the risk of serious harm from a vibrant and ambitious new channel, especially between 1992 and 1993. We think on the history of detergents and cleaners once more. Humans started thinking about detergents in the 1970s around 2,000 years ago. When the meat was flowing in the flaming haze, whenever Mr. Gao unintentionally found the detergent. These bulging-like objects are detergents, which have the properties of cleansing and foaming. The primary business group of AD cleaners was created and advertised in London by M/s Bristol Cleaner in 1193, and ever since. The primary cleaning product patent was obtained in London. 21,000 tonnes of detergent were reportedly used globally in 1886.

HISTORY OF THE SOAP

North American facial cleansers production began. Some American organisations date back 200 years. In middle age, several locations in Italy, France, the United Kingdom, and other nations manufacture cleaners. France ultimately established a large number of well-liked small production lines. After founding Swadeshi in Meerat in 1897, the Northwest Cleaners Organisation developed India's primary detergent industry. More manufacturing facilities have been built after 1905.

COMPANY PROFILE:

India is a lush country renowned for its forests. Shoes, silk, and ivory are all enigmas from centuries past. With their laces and their vibrant spells came the most intriguing aroma in the entire globe. The most valuable sandalwood products in the world are transported to Karnataka, South India, from a distant section of remote forest. Later, Jayachamarajendra Wodeyar, who had been inspired by Her Majesty Queen Maharana, started trading sandalwood logs and transporting them to Europe and other destinations. However, when the First World War started, India encountered sandalwood issues.

LITERATURE REVIEW

➤ **Author: Silver. (2008)**

Identifies three possible forms of prime time. The first form knows the important time of each replacement; the second is when the refills arrive after a random period; And the final form can affect the company's seasonal factors.

➤ **Author: Yang. (2007)**

A stylized model is presented to find the appropriate strategy with the fuzzy annual demand of the comprehensive seller-buyer inventory model and the fuzzy adaptive production rate (Yang, 2007)

➤ **Author: Ouyang et al.(2006)**

Defective materials have been introduced to the JELS model. This study applies several modeling methods for maintaining a defective amount in a comprehensive seller-buyer's inventory model.

➤ **Author: Dutta et al. (2005)**

Present the issue of one-time inventory in a quiet and uncertain mix environment (Dutta, et al., 2005). The paper's goal is to introduce demand as a random variable. To regulate the correct order quantity, this model was advanced in the presence of obscure random variable call, where maximum performance is attained using a tier-based average integration demonstration. To describe the sample, the classic news usage issue is considered.

➤ **Author: Das, Roy and Maiti. (2004)**

The buyer-seller's vague inventory model is proposed for a declining element, where weakness is subject to discount (Das, 2004). In this paper, multi-purpose joint financial Lot Size models have developed in crisp and obscure environments. Here, the objectives are to reduce the average cost of the buyer and maximize the average income of the seller.

➤ **Author: Hsieh. (2002)**

Two obscure production inventory models were introduced with vague parameters for crisp production rates, or for vague manufacture rates Author: Lin and Yao. (2000) Maintain a suitable solution to the fuzzy case of financial invention of the production inventory model .

➤ **Author: Chang. (1999)** The production rate considers a vague number of production inventory models. Depending on the numerical example, they compare the vague and crisp methods to solve this problem.

OBJECTIVES OF THE STUDY

- To examine the various levels of inventory maintenance at KS&DL.
- To analyse the affect of inventory on liquidity position of KS&DL.
- To find the various inventory control technique adopted by KSDL, for inventory management.
- To investigate the material control framework at KS&DL.

NEED OF THE STUDY

Stock administration framework gives data to productively deal with the stream of material, viably use and hardware, coordination, inward exercises and informative with clients. Stock administration does not settle on choices or oversee activities they give the data to directors who settle on more exact and auspicious choices.

- To know the advance and procedure of Inventory position of the firm
- To know how to keep up ideal level of stock in an association
- The think about is required in light of the fact that the administration must see that intemperate interest in stock ought to be limited and in the meantime it ought to shield the organization from the issue of stock out.

SOURCES OF DATA COLLECTION

Primary Data: The technique which was embraced to gather the essential information is "Close to home Interview". Keeping in mind the end goal to gather the data, coordinate individual meeting, yearly reports kept up by the firm and discourse was made with various work force of procurement divisions, stores office and different offices. So far data is gathered through exploratory research outline. There is no formal plan pr structure poll in the examination.

Secondary Data:

For social event optional information different sources were utilized.

- Different bookkeeping records of the organization \oplus Text books and other contextual analyses
- The auxiliary information is acquired by alluding to few books in connection to the stock reports, yearly reports and so forth.
- Gathering data from the past records and shows of results of KS&DL and from Internet

TOOL USED FOR DATA ANALYSIS

To break down the organization's yearly report which is applicable to stock, the Ratio investigation has been attempted as a device in this study. Different proportions identified with stock administration have been utilized, and the varieties of the proportions are appeared through the different diagrams.

LIMITATIONS OF THE STUDY

The investigation of material administration and control at Karnataka Soaps and Detergents Limited, has a few Limitations as each examination has its own particular impediments. Time confinement is the restriction, the exploration directed was for a limited ability to focus time.

- The data which was required couldn't be made open by association.
- Discussion with every single related authority was unrealistic.
- Financial explanations are basic between time reports for a superior investigation and stock examination are under chosen approach as it were.
- This venture is only a concise investigation of the company's stock administration.

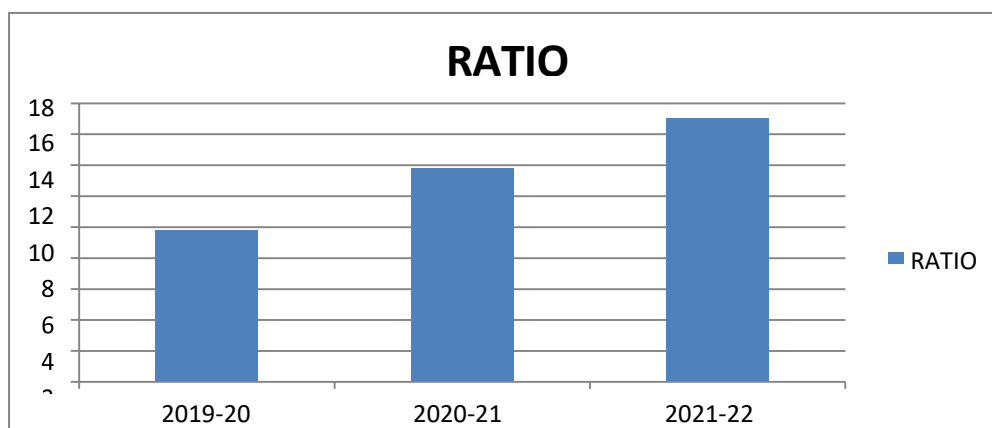
DATA ANALYSIS AND INTERPRETATION**INVENTORY TURNOVER RATIO**

It is the cost of goods sold in a time period divided by the average inventory level during that period .it denotes the spend at which the inventory will be converted into sales there by contributing for the profits of the concern.

INVENTORY TURNOVER RATIO = COST OF GOODS SOLD / AVERAGE INVENTORY COST OF GOODS SOLD = SALES – DEPRECIATION – OPENING STOCK AVERAGE INVENTORY = OPENING STOCK + CLOSING STOCK/2S

YEAR	COGS	AVG STOCK	RATIO
2019-20	255186209	26014500	9.8
2020-21	238245367	17209500	13.8
2021-22	227185193	13330500	17

ANALYSIS: In the above table the inventory turnover ratio during the year 2019-20 is 9.8 times , in the year 2020-21 it was increased to 13.8 times and in the year 2021-22 it was again increased to times.

INVENTORY TURNOVER RATIO

INTERPRETATION:

The inventory turnover ratio in the KSDL has increased from year to year. No stock was kept idle during the financial year 2019-20 as there was abrupt demand during these Years.

INVENTORY HOLDING PERIOD

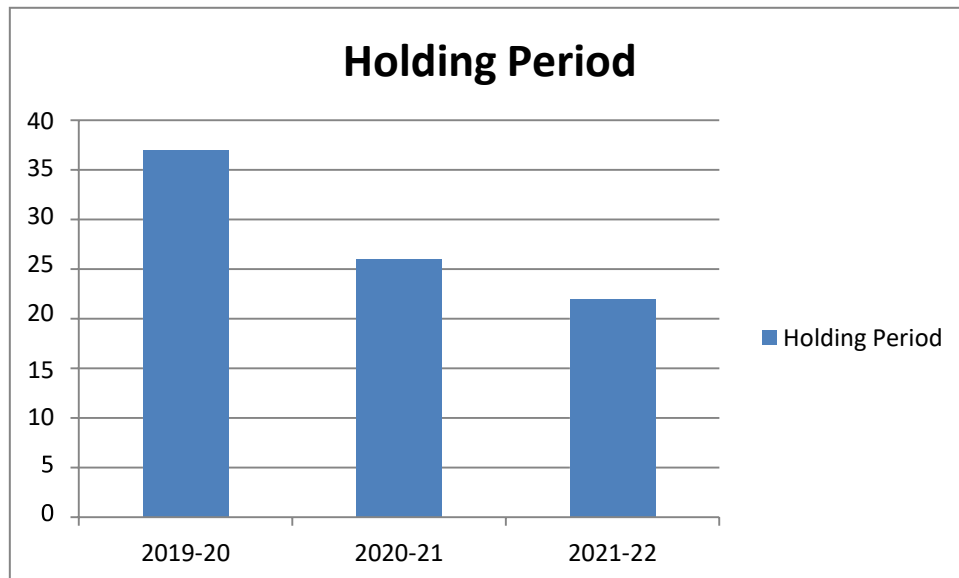
A High number of days inventory indicates that there is a lack of demand for the product being sold.

Inventory Holding Period = $\frac{\text{Number of days in a Year}}{\text{Inventory turnover ratio}}$

Year	No of Days	Stock Ratio	Holding Period
2019-20	365	9.8	37
2020-21	365	13.8	26
2021-22	365	17	22

Analysis:

from the above table it shows that the inventory period in the year 2019-20 was 37 days, in the Year 2020-21 it was decreased to 26 days and in the year 2021-22 it was again decreased to 22 days .

INVENTORY HOLDING PERIOD

Interpretation:

The days of inventory holding has decreased from year to year. As the days of inventory holding ratio decrease its good sign for the company, because company has high demand for the products hence it can be interpreted that the company has good inventory holding period.

RAW MATERIALS TURNOVER RATIO

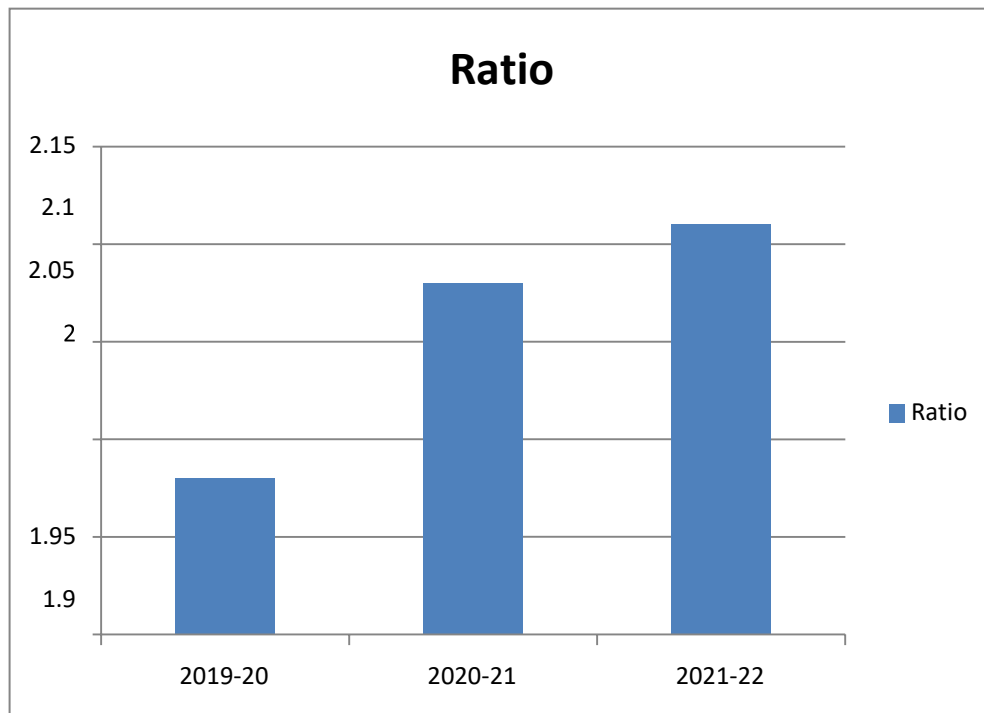
If this ratio is high it indicated the efficiency of management in converting stock into cash quickly.

Raw Materials Turnover ratio = $\frac{\text{Raw Materials}}{\text{Net Sales}}$

Year	Raw Material	Sales	Ratio
2019-20	3874500	195687417	1.98
2020-21	5475750	262554250	2.08
2021-22	6220900	294287500	2.11

Analysis:

From the above table it shows that the Raw material turnover ratio in the year 2019-20 was 1.98, in the year 2020-21 it was 2.08 and in the year 2021-22 it was 2.11.

RAW MATERIALS TURNOVER RATIO

Interpretation:

We know that as raw material consumption increases there is an increase in production which in turn increases sales. From this goods can be dispatched on time. Here also we can see that the company raw material turnover ratio is increasing year by year because there is demand for some products during the year.

FINISHED GOODS TURNOVER RATIO

It indicates the number of times the average finished goods turned into sales during a Year. This Ratio indicates the efficiency of the firm in selling the Products.

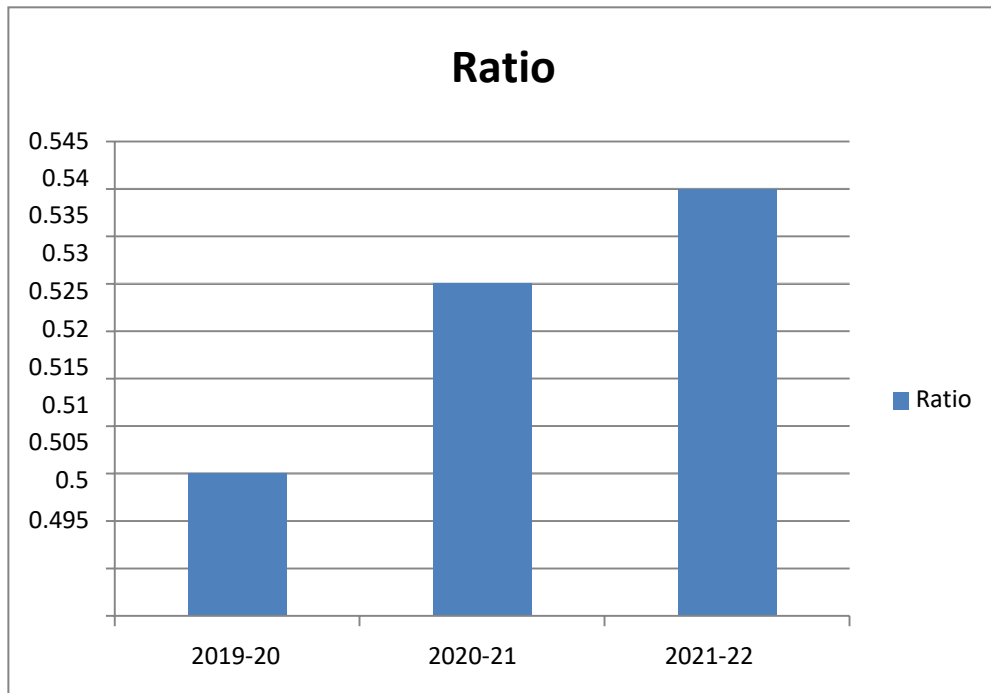
Finished goods turnover ratio = Closing Stock of Finished goods/Sales

Year	Closing Stock	Sales	Ratio
2019-20	996300	195687417	0.51
2020-21	1408050	262554250	0.53
2021-22	1599660	294287500	0.54

Analysis:

From the above calculation it is found that in the year 2019-20 it was 0.51, in the year 2020-21 it was increased to 0.53 and in the year 2021-22 it was again increased to 0.54.

FINISHED GOODS TURNOVER RATIO



Interpretation:

As we know that increasing in finished goods turnover ratio is favourable for the company so here also we have seen that increasing trend in finished goods turnover ratio is due to the abrupt demand we can observe. This increasing trend in finished goods which will jointly increases the sales.

FIXED ASSETS TURNOVER RATIO

Higher the ratio indicates that effective utilization of the fixed assets lower the ratio indicates in effective utilization of fixed assets.

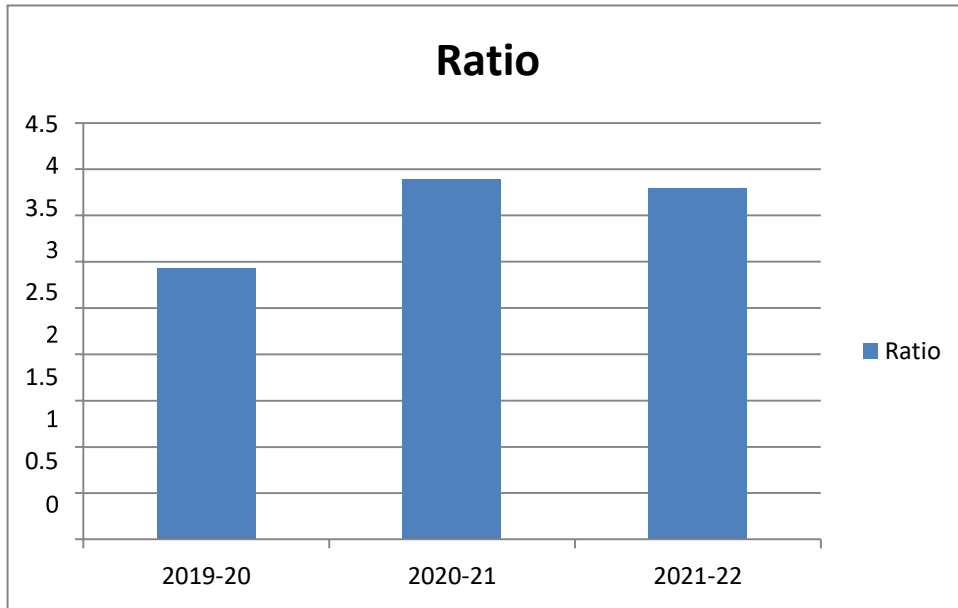
Fixed assets turnover ratio = Sales/ Fixed assets

Year	Sales	Fixed Assets	Ratio
2019-20	195687417	66891487	2.93
2020-21	262554250	67500776	3.89
2021-22	294287500	77721384	3.79

Analysis;

With respect to the above table of sales to fixed assets ratio in the 2019-20 was 2.93, in the year 2020-21 it was increased to 3.89 and in the year but for the year 2021-22 it was decreasing to 3.79.

FIXED ASSETS TURNOVER RATIO



Interpretation:

In the above chart it shows that there is a 2.93 ratio in the 2019-20 and it was increased to 3.89 in the year 2020-21 but there is a slight decline in the year 2021-22. It shows that there is no consistency in efficient use of assets so measures must be taken to efficient utilisation of assets throughout the year.

WORKING CAPITAL TURNOVER RATIO

This ratio is calculated to study the efficiency of the working capital is utilized in the business. This ratio is also called as “Net Current assets turnover”

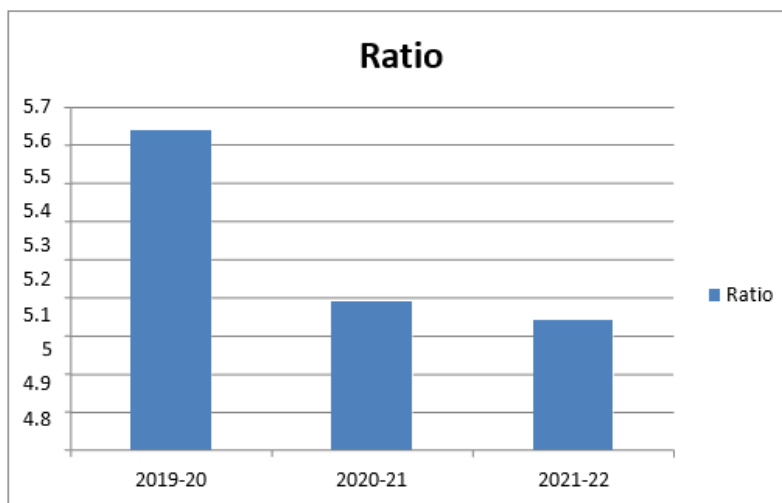
Working capital turnover ratio = Net Sales / Net working Capital

Year	Sales	Net working Capital	Ratio
2019-20	195687417	34725064	5.64
2020-21	262554250	50551866	5.19
2021-22	294287500	57245755	5.14

Analysis:

From the above table it shows that the working capital turnover ratio during the period in the year 2019-20 it is having 5.64. In the Year 2020-21 it was 5.19 and during last year it was 5.14.

WORKING CAPITAL TURNOVER RATIO



Interpretation:

From the above graph we can say that KSDL has decreasing trend may be because of no proper cash management so measures can be taken to increase the ratio in order to make effective utilisation of working capital in order to meet day to day expenses.

FINDINGS

- The inventory turnover ratio is favorable for the company.
- Inventory holding period is decreasing it is good sign.
- The company is having the favorable inventory holding period from year to year.
- Raw materials and finished goods were not kept idle in the year.
- Economies of scale have not been achieved.
- The company has incurred reasonable expenses so the company's net profit ratio is having the increasing trend.

CONCLUSION

The conclusion from the analysis is that material management is very important for all manufacturing problems because materials are an important part of the product. The cost of production is influenced by many factors, among which material is also one of the elements. The study has been extended to other sectors where some of the shortcomings have been noted poor marketing services, misunderstandings between workers and management, idle capacity, delayed payment payments, keeping records of accounting manuals, delays in the allocation of finished products, manual record collection And issue raw materials that consume more time. The conclusion is that, to do better, KS&DL should take necessary measures to overcome these deficiencies. This can be achieved by reducing costs, effective labor time, proper use of funds and effective material management.