



A Study on impact of inventory management on profitability, Aditya auto products & Engineering Pvt Ltd. Doddaballapur

1. Mrs Sudha M

Assistant professor, department of MBA, Sri Venkateshwara college of Engineering,
Bangalore

Email:- sudha.sm19@gmail.com

2. Dileep Kumar S

Final year MBA Student, department of MBA, Sri Venkateshwara college of
Engineering, Bangalore

Email:- dileepkumars2000@gmail.com

3. Manoj M

Final year MBA Student, department of MBA, Sri Venkateshwara college of Engineering,
Bangalore

Email:- manojmanu41715@gmail.com

4 Darshan Gowda. c

Final year MBA Student, department of MBA, Sri Venkateshwara college of Engineering,
Bangalore

Email:- darshugowda0218@gmail.com

5 Misba Anjum

Final year MBA Student, department of MBA, Sri Venkateshwara college of
Engineering, Bangalore

Email:- a.misba99@gmail.com

Abstract

Given the important contributions of the manufacturing sector to the Ghanaian economy, this research deems it necessary to evaluate the impact of efficient inventory management on the profitability of manufacturing firms in Ghana. A cross sectional data from 2004 to 2014 was gathered for the analysis from the annual reports of four manufacturing firms listed on the Ghana Stock Exchange. Measures of profitability were examined and related to proxies for efficient inventory management by manufacturers. The Ordinary Least Squares (OLS) stated in the form of a multiple regression model was applied in the analysis. The study revealed that the main variable raw materials inventory management designed to capture the effect of efficient management of raw material inventory by a company on it's profitability is significantly strong

and positive and impacts on the profitability of the manufacturing firms in Ghana. Therefore, efficient management of raw material inventory is a major factor to be considered by Ghanaian manufacturers in enhancing or boosting their profitability.

Keywords: Manufacturing firms, inventory management, Ghana Stock Exchange, profitability
Introduction

In recent years, Inventory Management has attracted a great deal of attention from people both in academia and industries. A lot of resources have been devoted into research in the inventory management practices of organizations. It represents one of the most important assets that most businesses possess, because the turnover of inventory represents one of the primary sources of revenue generation and subsequent earnings for the company. In the manufacturing companies, nearly 60% to 70% of the total funds employed are tied up in current assets, of which inventory is the most significant component (Carter, 2002). Thus, it should be managed in order to avail the inventories at right time in right quantity. Inventory can be also viewed as an idle resource which has an economic value. So, better management of the inventories would release capital productively. Inventory control implies the coordination of materials controlling, utilization and purchasing. It has also the purpose of getting the right inventory at the right place in the right time with right quantity because it is directly connected with the production. The objective of any organization is to get a good return out of every cedi invested in the company. According to Pandey (2005) management through their policies, coordination, decision and control mechanisms must maximize the return on investment (ROI).

Literature Review

Inventory refers to the value or quantity of raw materials, supplies, work in progress (WIP) and finished stock that are kept or stored for use as need arises (Lyons and Gillingham, 1981). Raw materials are commodities such as steel and lumber that go into the final product. Supplies include items such as Maintenance, Repair and Operating (MRO) inventory that do not go into the final product. Work in progress is materials that have been partly fabricated but are not yet completed. Finished goods are completed items ready for shipment (Kothari, 1992).

Sharma (2003) defines inventory as the quantity of goods, raw materials, or other resources that are idle at any given point of time. From the definition above, inventories consist of raw materials, component parts, supplies or finished assemblies etc which are purchased from an outside source, and goods manufactured in the enterprise itself. In simple words, inventory refers to stocks held by a firm. Relating the definition to the brewery industry, this paper defines inventory as the stock of the product a company is manufacturing for sale and components that make up the product. Inventory is the stock of any item or resource used in an organization.

when stock should be replenished, and how large orders should be, (Chase and Aquilano, 1995:546). An inventory system is the set of policies and controls that monitors levels of inventory and determines what levels should be maintained,

STATEMENT OF PROBLEM

Inventory management is very important because the cost of the product increases or decreases. A well-managed inventory guarantees that the correct goods, quality, and quantity are accessible at the appropriate cost. It means that all potential losses will be minimized or completely controlled.

My study, inventory management at Aditya auto product and engineering pvt.ltd. Proposes to investigate the problem and concerns surrounding inventory management in the above-mentioned company and make appropriate recommendations for overcoming the organization's problems and difficulties.

NEED FOR THE STUDY

Stock management's influence on a company's profitability is the focus of this investigation. Businesses use inventory management to determine what products to order and when. Products are tracked from purchase to sale using this system. A good inventory management system includes purchasing, inventory management, warehousing, sales orders, order fulfilment, distribution, and customer service management. Purchasing is a critical part of any inventory management system.

OBJECTIVES

1. To study the impact of inventory management on profitability at aditya auto products and engineering pvt.ltd.
2. To understand the current inventory management technique followed in the company
3. To analyze the switchover cost in terms of changing the current inventory system to the new

SCOPE OF THE STUDY

The study is conducted at Aditya Auto Products and Engineering Pvt. Ltd. and data related for oneyear period will be collected and analyze.

RESEARCH METHODOLOGY

Quantitative Research Method

DATA COLLECTION

It is the process of collecting data to analyze and evaluate.

Methods of data collection

a) Primary data:

It is a type of data where the data, information is collected freshly. With help of questionnaire fresh data was collected and information was directly collected from the company.

b) Secondary data:

It is a type of data where the information, data is collected from the existing sources like from records, website, articles, reference books, magazines etc

Limitation of the Study

There are some certain limitations of this study. It can be listed as: i. All the data used in this paper are secondary data which has been taken from different published journals, books and financial data are from the Ghana Stock Exchange. And this paper is related with the financial variables so there may be some variations. ii. This study is based on only manufacturing companies listed on Ghana Stock Exchange (GSE), so it may reflect some partial view.

Table showing inventory turnover

(In Crores)

Years	2018-19	2019-20	2020-21	2021-22	2022-23
Total investment in inventory	22.10	29.59	37.61	32.90	36.87
Annual sale	160.26	211.96	279.87	269.71	269.38
Inventory turnover (%)	13.79	13.96	13.44	12.20	13.69

Inventory Turnover = Total investment in inventory / Annual sale * 100

ANALYSIS

From the above table it is analyzed that in the year 2018-19 inventory turnover is 13.79%. Whereas it has boosted in the year 2019-20 to 13.96% but it has gradually reduced to 13.44% in the year 2020-21. And again it had fallen to 12.20% in the year

2021-22. However it has marginally increased to 13.69% in the year 2022-23.

Table showing total inventory in days

(In Crores)

Years	2018-19	2019-20	2020-21	2021-22	2022-23
Total inventory	22.10	29.59	37.61	32.90	36.87
Sales	160.26	211.96	279.87	269.71	269.38
Total inventory (in days)	49.09	50.95	49.05	44.52	49.96

Total inventory= Total inventory / Sales *36

ANALYSIS

Above table depicts the total inventory (in days) for the period of five years i.e. 2018-19 to 2022-23. In the year 2018-19 inventory in days is 49.09. Whereas in the year 2019-20 it has increased to 50.95 days. However there is gradual decrease in the year 2020-21 to 49.05 days. In the year 2021-22 again it has decreased to 44.52 days. And in the year 2022-23 it has boosted up to 49.96 days.

Table showing raw material inventory in days

(In Crores)

Years	2018-19	2019-20	2020-21	2021-22	2022-23
Raw materials inventory	13.35	17.67	22.67	20.29	22.59
Value of raw materials consumed	97.71	109.28	136.07	135.89	130.66
Raw materials inventory(in days)	49.87	59.02	60.81	54.50	63.10

Raw material inventory= Raw material inventory / value of raw material consumed
 *365

ANALYSIS

From the above table it is analyzed that raw material inventory (in days) is increasing over the years. In the 2018-19 raw material inventory in days is 49.87 days, it has increased to 59.02 days. In the year 2019-20 raw material inventory in days as again boosted to 60.81 days. However, it has reduced to 54.50 days in the year 2021-22. In the year 2022-23 it has registered 63.10 days.

Table Showing Finished goods inventory in days

Years	2018-19	2019-20	2020-21	2021-22	2022-23
Finished goods inventory	5.01	6.33	5.46	4.69	4.08
Sales	160.26	211.96	279.87	269.71	269.38
FG inventories (In days)	11.41	10.90	7.12	6.35	5.53

Finished goods inventory= FG inventory / Sales * 365

ANALYSIS

Above table shows the finished goods inventory (in days) for the period of five years i.e. 2018-19 to 2022-23. In the year 2018-19 finished goods inventory is 11.41 days, it has reduced to 10.90 days in the year 2019-20 and again there is downfall in the year 2020-21 to 7.12 days. In the year 2021-22 and 2022-23 it is 6.35 and 5.53 days.

Conclusions and recommendation

This paper measured the effects of raw materials inventory management on the profitability of companies in the Ghanaian manufacturing sector. A cross sectional data of manufacturing companies in Ghana during the period of 2004 to 2014 provided the basis for the data analysis. Findings from this study reveal that the pivotal variable raw material inventory management designed to capture the effectiveness of a company's management of part of working capital on profitability is significantly positive and impacts on profitability of the manufacturing firms in Ghana. My findings confirms the findings of Eneje, Nweze and Udeh (2012) whose results of their research showed that there is a significant effect of efficient inventory management on profitability. From the results of the study



References

Agus, A & Noor, Z.M. (2006). Supply chain management and performance. An Empirical Study. A working paper university of Malaysia. 6
Carter, R.J. (2002). Purchasing and Supply Management. London: Pitman Publishing.
Drurry, C. (2004). Management and Cost accounting. London: Prentice Hall
Eneje, C., Nweze, A. and Udeh, A. (2012). Effect of efficient inventory management on profitability: evidence from selected brewery firms in Nigeria, International Journal of current Research, Vol. 4 (pp.350-354)
Pandey, I. M. (2005). Financial management Jangpura New Delhi: Vikas Publishing House PVT Ltd. 1226.
Kothari, C.R (1992). An introduction to operational Research. New Delhi: Vikas publishing

- 1) Ajatshatru Samal (2013) “A study on Competitive Indian Banking Industry with reference Pre-E-Banking and Post E-Banking, Publishern International Journal of Research in Commerce, IT & Management, (IJRCM) Vol No-3, Issue No05(May), ISSN-2231-5756.
- 2) Pinakapani.P & Ajatshatru Samal (2017) Study on The Perception on Bank Executives on Customer relationship Management Practices in selected banks in Bengaluru; Publisher – International Journal of Management & Social Sciences (IRJMSS), ISSN:2455-4553:
- 3) Ajatshatru Samal (2023) Digitalization Impact on Customer Relationship Management (CRM) dimensions on the performance of hospitality (Hotel) Industry in Karnataka Volume 12, Special Issue NO-3, , 2023, ISSN- 2063-5346