

A STUDY ON THE INVENTORY MANAGEMENT ON HERO MOTOR CORPORATION LIMITED

Submitted in partial fulfillment of the requirement for the reward of

BACHELOR OF COMMERCE

By SUBHA.D

Register No-39740230



BACHELOR OF COMMERCE

SCHOOL OF MANAGEMENT STUDIES

SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY

(DEEMED TO BE UNIVERSITY)

Accredited with Grade “A” by NAAC | 12B Status by UGC | Approved by AICTE

Jeppiaar Nagar, RAJIV GANDHI SALAI, CHENNAI – 600119

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SCHOOL OF MANAGEMENT STUDIES

BONAFIDE CERTIFICATE

This is to certify that this Project Report is the bonafide work of **SUBHA . D (39740230)** who has done the Project work entitled **ASTUDYONTHE INVENTORY MANAGEMENT OF HERO MOTOR CORPORATION LIMITED** under my supervision from December 2021 to February2022.

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DECLARATION

I **SUBHA .D (39740230)**. Hereby declare that the Project Report entitled “**A STUDY ON THE INVENTORY MANAGEMENT ON HERO MOTOR CORPORATION LIMITED** ” done by me under the guidance of **Dr. THAMILSELVAN .R, M.Com, M.B.A, MPhil, B.Ed., Ph.D., Associate Professor, Department of Management Studies** is submitted in partial fulfillment of the requirements for the award of Bachelor of Commerce degree.

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SUBHA . D

Abstract

This research propose to get exposure in inventory and it is very important to the company. It is to ensure quality in business that control the transaction between the consumer goods. It is important to do proper inventory management and control in the production company. This project is to analyse the inventory control in the leading Two wheeler manufacturing company (Hero motor corp ltd.). In this project we will perform the inventory management of Tata steel Limited we will go through the financial statements of the company to diagnose inventory soundness

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CHAPTER 1

1.1 INTRODUCTION OF STUDY

THEORETICAL FRAMEWORK OF INVENTORY MANAGEMENT

Every enterprise needs inventory for smooth running of activities. It serves, as a link between production and distribution. For every process there is, generally, a time lag between the recognition of a need and its fulfillment. The greater the time lag, the higher the requirement for inventory. The unforeseen fluctuations in demand and supply of goods also necessitate the need for inventory. It provides a cushion for future price fluctuations.

The investment in inventories constitutes the most significant part of current assets/working capital in most of the undertakings. Thus, it is very essential to have proper control and management of inventories. The purpose of inventory management is to ensure availability of materials in sufficient quantity as and when required and also to minimize investment in inventories.

The investment in inventory is very high in most of the undertakings engaged in manufacturing, wholesale and retail trade. In India, a study of 29 major industries has revealed that the average cost of materials is 65paise and the cost of labour is 10 paise and overheads is 15paise of a rupee, 10% is profit. It is necessary for every management to give proper attention to inventory management. A proper planning of purchasing, handling, storing and accounting should form a part of inventory management.

An efficient system of inventory will determine,

- What to buy
- How to buy
- Where to buy
- Where to store

There are conflicting interests of different departmental heads over the issue of inventory. The finance manager will try to invest less in inventory because to him it is an idle investment, whereas the production manager will emphasize to acquire more inventory as he does not want any interruption in production due to shortage of inventory. The purpose of inventory management is to keep the stocks in such a way that there is over-stocking nor under-stocking. The over-stocking will mean a reduction of liquidity and starving of other production processes whereas under-stocking, on the other hand, will result in stoppage of work. The investments in inventory should be kept in reasonable limits.

MEANING AND NATURE OF INVENTORY

There are different meanings of inventory in different languages. In accounting language it may mean stocks of finished goods only. In a manufacturing concern, it may include raw materials; work in process and stores, etc., to understand the exact meaning of the word “inventory”

Inventory may include the following things:

1. RAW MATERIALS:

Raw materials form a major input into the organization. They are required to carry out production activities uninterruptedly. The quantity of raw materials required will be determined by the rate of consumption and the time required for replacing the supplies. The factors like the availability of raw materials and government regulations, etc., too affect the stock of raw materials.

2. WORK-IN-PROGRESS:

The work-in-progress is that stage of stocks, which are in between raw materials and finished goods. The raw materials enter the process of manufacturing but they are yet to attain a final shape of finished goods. The quantum of work-in-progress depends upon the time taken in the manufacturing process. The greater the time taken in manufacturing, the more will be the amount of work-in-progress.

3. CONSUMABLES:

These are the materials, which are needed to smoothen the process of production. These materials do not enter directly into production but they act as catalysts. Consumables may be classified according to their consumption and criticality. Generally, consumables stores do not create any supply problem and form a small part of production cost. There can be instances where these materials may account for much value than the raw materials. The fuel oil may form a substantial part of the cost.

4. FINISHED GOODS:

These are goods, which are ready for the consumers. The stock of finished goods provides a buffer between production and market. The purpose of maintaining inventory is to ensure proper supply of goods to the customers. In some concerns the production is under taken on order basis. In these concerns there will not be a need for finished goods inventory. The need for finished goods inventory will be more when production is undertaken in general without waiting for specific orders.

5. SPARES:

Spares also form a part of inventory. The consumption pattern of raw materials, consumables, finished goods are different from that of spares. The stocking policies of spares are different from industry to industry. Some industries like transport will require more spares than the other concerns. The costly spare parts like engines, maintenance spares etc., are not discarded after use. Rather they are kept in ready positions for further use. All decisions about spares are based on the financial cost of inventory on such spares and the cost that may arise due to their non-availability. efficiency, aggressively expand its reach to customers, continue to invest in brand building activities and ensure customer and shareholder delight.

1.2 COMPANY PROFILE

INTRODUCTION

Hero MotoCorp Ltd. (Formerly Hero Honda Motors Ltd.) is the world's largest manufacturer of two - wheelers, based in India.

In 2001, the company achieved the coveted position of being the largest two-wheeler manufacturing company in India and also, the 'World No.1' two-wheeler company in terms of unit volume sales in a calendar year. Hero MotoCorp Ltd. continues to maintain this position till date.

VISION

The story of Hero Honda began with a simple vision - the vision of a mobile and an empowered India, powered by its two wheelers. Hero MotoCorp Ltd., company's new identity, reflects its commitment towards providing world class mobility solutions with renewed focus on expanding company's footprint in the global arena.

MISSION

Hero MotoCorp's mission is to become a global enterprise fulfilling its customers' needs and aspirations for mobility, setting benchmarks in technology, styling and quality so that it converts its customers into its brand advocates. The company will provide an engaging environment for its people to perform to their true potential. It will continue its focus on value creation and enduring relationships with its partners.

STRATEGY

Hero MotoCorp's key strategies are to build a robust product portfolio across categories, explore growth opportunities globally, continuously improve its operational

Hero MotoCorp Limited was incorporated in the year 1984 with the name Hero Honda Motors Ltd. Led by Dr. Pawan Munjal Chairman, Hero MotoCorp, it has taken rapid strides to expand its presence to 40 countries across Asia, Africa, and South & Central America. Hero MotoCorp is a truly global enterprise with a workforce that comprises of people from different nationalities including India, Bangladesh, Colombia, Germany, Austria, Japan and France.

MANUFACTURING

Hero MotoCorp two wheelers are manufactured across 3 globally benchmarked manufacturing facilities. Two of these are based at Gurgaon and Dharuhera which are located in the state of Haryana in northern India. The third and the latest manufacturing plant is based at Haridwar, in the hill state of Uttarakhand.

DISTRIBUTION

The Company's growth in the two wheeler market in India is the result of an intrinsic ability to increase reach in new geographies and growth markets. Hero MotoCorp's extensive sales and service network now spans over to 6000 customer touch points. These comprise a mix of authorized dealerships, service & spare parts outlets, and dealer-appointed outlets across the country.

1.3 NEED FOR THE STUDY

- Inventory management helps companies identify which and how much stock to order at what time.
- It tracks inventory from purchase to the sale of goods.

The practice identifies and responds to trends to ensure there's always enough stock to fulfill customer orders and proper warning of a shortage

1.4 OBJECTIVES OF THE STUDY

PRIMARY OBJECTIVE

- To study inventory management system of Hero Motocorp Ltd..

SECONDARY OBJECTIVE

- To analyze the inventory position through various financial ratios .
- To understand the problems faced by company in handling inventory.

1.5 SCOPE OF THE STUDY

- The scope of an inventory system can cover many needs, including valuing the inventory, measuring the change in inventory and planning for future inventory levels.
- The value of the inventory at the end of each period provides a basis for financial reporting on the balance sheet.

1.6 LIMITATIONS OF THE STUDY

- The inventory details of company are collected for 5 years only
- The information taken from the company was limited
- In this study only limited ratios are used

1.7 CHAPTER FRAMEWORK

CHAPTER-1 First Chapter discuss introduction of the study, Industry Profile, Company Profile, Need for the study, Statement of the Problem, Objectives of the Study & Limitation of the study.

CHAPTER-2 Second Chapter Reviews previous studies.

CHAPTER-3 Third Chapter describes Research Methodology, Research Design, Data Collection, Statistical Tools used for the Study.

CHAPTER-4 Forth Chapter deals with data analysis and Interpretation

CHAPTER-5 Fifth Chapter enlists findings and conclusions

CHAPTER 2

2.1 REVIEW OF LITERATURE

1. **Amrit Raj** has reported that Hero Moto Corp Ltd is focusing on technology revamp by having tie ups with US based EBR racing and with Austria based engine maker AVL these moves are with an ultimate aim to extend arm in R&D as the company has decided not to run the existing brands on Honda engines.
2. **Abhijeet Singh and Brijesh Kumar** has mentioned that Hero Motors Ltd, is running a program With an objective to create an innovative environment for interaction between Hero Honda and its customers. Members of this program are given a magnetic card in which all information is stored and this card is swiped when using any service at a showroom or workshop and it works like a loyalty benefit card.
3. **Joseph George** is of the opinion about the hero tie up with Engines Engineering to improve design that while hero needs good research and development support, it should ensure it finds right partners, unlike Bajaj and TVS who pursued in house research and development, hero seeking outside help is fraught with risks as it could be tough for hero to synergize diverse inputs from variety of partners.
4. **Plinere, D. & Borisov, A.** (2015). concluded that. inventory management is necessary to every company, having inventories. Companies have stock, but so much as to keep away from overstock and out-of-stock situations. Inventory management can better company inventory control existing condition and reduce costs of the company.

5. **Jose, T., Jayakumar. A., &Sijo. M. T.** (2013) found the difference between EOQ & number of pieces purchased. It is observed that the company is not using EOQ for buying the materials. Therefore, inventory management is not reasonable. From estimate of safety stock. company can decide how much inventory the company can keep in back stock per annum.
6. **Mohamad. S. J. A. N. bin S., Suraidi. N. N., Rahman. N. A. A., &Suhaimi. R. D. S. R.** (2016) concluded that efficiency of inventory management is a major concern area of business. Suggestions are given to improve the performance of inventory management. demand forecasting, scattered inventory & cycle counting
7. **Lwiki et al** (2013) A survey conducted and established that there is generally positive correlation between each of inventory management practices. Specific performance indicators were proved to depend on the level of inventory management practices. They established that Return on Equity had a strong correlation with lean inventory system and strategic supplier partnerships. As such, they concluded that the performance of sugar firms could therefore be stated as being a function of their inventory management practices.
8. **Panigrahi** (2013) Undertook an in-depth study of inventory management practices. The study also investigated the relationship between profitability and inventory conversion days. The study, using a sample of the top five cement companies of India over a period of 10 years from 2001 to 2010, concluded that a considerable inverse linear relationship existed between inventory conversion period and profitability.
9. **Madishetti and Kibona** (2013) Found that a well designed and executed inventory management contributes positively to a small or medium-sized enterprises (SMEs) profitability. Regression analysis was adopted to determine the impact of inventory

conversion period over gross operating profit. The results cleared out that significant negative linear relationship occurred between inventory conversion period and profitability.

10. **Srinivas Rao Kasisomayajula**(2014) The study concluded that all the units in the commercial vehicle industry have significant relationship between Inventory and Sales. Proper management of inventory is important to maintain and improve the health of an organization. Efficient management of inventories will improve the profitability of the organization.
11. **Sunitha, K. V.** (2012) in her thesis. inventory management is vital for keeping costs down, when meeting regulations. It is difficult to balance demand and supply and inventory management to make sure that the balance is untouched. The trained inventory management and good quality software will help make inventory management a victory. The ROI of Inventory management has seen better revenue and profits, positive employee ambiance and increase in customer satisfaction.
12. **Atnafu. D. &Balda, A.** (2018) focuses on inventory management & explains the relationship between inventory management practices competitive advantage & organizational performance. The finding of the study on basis of data analysis is that there is a positive relationship between competitive advantages and inventory management performance. And better organizational performance gives a firm bigger capital to apply various inventory management techniques
13. **HongShen. Qiang. Deng. Rebbaca Lao, Simon Wu** (2016) focused on boosting the inventory management to improve the supply chain of the company. Drop in inventory is considered one of the most significant aspects of inventory management. In practice,

small Inventory level is not always a better solution, so manufacturers need to maintain the correct amount of inventory at the correct level

14. **Gaur and Bhattacharya** (2011) Attempted to study the linkage between the performance of the components of inventory such as raw material, work in progress and finished goods and financial performance of Indian manufacturing firms. The study revealed that finished goods inventory as inversely associated with business performance while raw material inventory and work in progress did not have much effect on same. They emphasised that instead of focusing on total inventory, an attempt should be made to concentrate on individual components of inventory so as to adequately manage the same. They concluded that managers not paying heed to inventory performance may become weak in combating competitors.
15. **Pradeep singh** (2008) In his study made an attempt to examine the inventory and working capital management of Indian Farmers Fertilizer Cooperative Limited (IFFCO) and National Fertilizer Limited (NFL). He concluded that the overall position of the working capital of IFFCO and NFL is satisfactory. But there is a need for improvement in inventory in case of IFFCO. However inventory was not properly utilized and maintained by IFFCO during study period. The management of NFL must try to properly utilize the inventory and try to maintain the inventory as per the requirements. So that liquidity will not interrupt
16. **Lal** (1981) his study focused on inventory management. He originated a model which involve price variable in inventory management; earlier price variable in inventory was not considered in that company. The analysis recommended solid policies, which would look after internal and external factors, ultimately it would help in bringing in efficient working capital management

17. **Farzaneh** (1997) Presented a mathematical model, to assist the companies in their decision to switch from EOQ to JIT purchasing policy. He defines JIT as “to produce and deliver finished goods just in time to be sold, sub-assemblies just in time to be assembled in goods and purchased material just in time to be transformed into fabricated parts”. He highlights that the EOQ model focuses on minimizing the inventory costs rather than minimizing the inventory. Under the ideal condition where all the conditions meet, it is economically better off to choose the JIT over the EOQ because it results in purchase price, ordering cost
18. **Rich Lavelly** (1998) Asserts that inventory means “Piles of Money” on the shelf and the profit for the firm. However, he notices that 30% of the inventory of most retail shops is dead. Therefore, he argues that the inventory control is facilitate the shop operations by reducing rack time and thus increases profit. He also elaborates the two types of inventory calculations that determine the inventory level required for profitability. The two calculations are “cost to order” and “cost to keep”. Finally, he proposes seven steps to inventory control.
19. **Gaur, Fisher and Raman** (2005) In their study examined firm-level inventory behaviour among retailing companies. They took a sample of 311 public-listed retail firms for the years 1987–2000 to examine the relationship of inventory turnover with gross margin, capital intensity and sales surprise. They observed that inventory turnover for retailing firms was positively related to capital intensity and sales surprise while inversely associated with gross margins. They also suggested models that yield an alternative metric of inventory productivity, adjusted inventory turnover that can be used in study of performance analysis and managerial decision-making.
20. **S. Singh** (2006) Analysed the inventory control practices of single fertilizer company named IFFCO. He statistically examined the inventory system with consumption, sales

and other variables along with growth of these variables and inventory patterns. He concluded that an increase in components of inventory lead to an increase in the proportion of inventory in current assets. A special focus was made on stores and spares in order to calculate excess purchases resulting in loss of profit.

21. **D.Hoopman**2003 In this article he said that inventory optimization recognize that different industry have different inventory profiles and requirements. Research has indicated that solutions are priced in a large range from tens of thousands of dollars to millions of dollars. In this niche market sector price is definitely not an indicator of the quality of solution, ROI and usability are paramount.

22. **Silver,EdwardA**2002(Articlefromproductionandinventorymanagementjournal)This article considers the context of a population of items for which the assumption underlying the EOQ derivation holds reasonably well. However as is frequently the cash in practices there is an aggregate constraint that applies to the population as a whole. Two common forms of constraints are:

The existence of budget to be allocated among the stocks of the items and a purchasing production facility having the capability to process atmost a certain number of replenishment per year. Because of the constraint the individual Ireplenishment quantities cannot be selected independently.

23. **DelaunayC,SahinE**,2007 A lots of work has been done but now if we want to go ahead we must have good visibility upon this field of research. That is why we are focused on frame work for an exhaustive review on the problemofsupplychainmanagementwithinventoryinaccuracies.Theauthorsaidthattheiraimi nthisworkisalsoto present the most important criterion that allow adistinction between the different types of managing the inventory.

24. **Charles Atkinson**, he explained the inventory management and assessment of inventory levels

.As per this study inventory management need to address two issues

Part I. How to optimize average inventory levels.

Part II .How to assess (evaluate) inventory levels.

This study tells about what the manager should do and not to do, and how much amount should be order in one placed orders.

25. **Bernat de William** 2008 This study tells that the main focus of inventory management is on transportation and warehousing. The decision taken by management depends on the traditional method of inventory control models. The traditional method of inventory management is how much useful in these days the author tell about it. He is also saying that the traditional method is not a cost reducing, it is so much expensive. But the managing the inventory is most important work for any manufacturing unit.

CHAPTER 3

3.1 RESEARCH METHODOLOGY

3.1 TYPE OF RESEARCH

The proposed study is of ANALYTICAL IN NATURE. Research design is needed because it facilitates the smooth sailing of the various research operations, thereby making research as efficient as possible. A research design for a particular problem usually involves the consideration of the following factors.

3.2 DATA COLLECTION

SECONDARY DATA

Secondary Data has been collected from the company's annual report, journal, magazine, and website.

PERIOD OF THE STUDY

Period of study 5 years from 2016-2017 to 2020-2021

TOOLS USED FOR THE STUDY

The following are major tools used in analysis and interpretation.

- Ratio analysis
- Comparative balance sheet statement.

CHAPTER 4

DATA ANALYSIS AND INTERPRETATION

4 1..1 Inventory turnover ratio

This ratio is an efficiency ratio which shows the efficiency of the firm in producing and selling its products.

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

Table 4.1.1 Inventory turnover ratio

Rs in Crores

Year	Cost of goods sold	Average inventory	Ratio (Times)
2016-2017	19095.33	819.58	23.29
2017-2018	22213.26	739.94	30.01
2018-2019	23355.90	864.34	25.86
2019-2020	11892.97	1081.68	10.99
2020-2021	21882.2	1280.76	17.08

Source of Data : Company annual report from 2016-2017 to 2020-2021

Interpretation

From the above table 4.1.1 shows that inventory turnover ratio of the company under study is increasing year by year from 2016-2017 to 2020-2021 except 2018-2019 and 2019-2020.

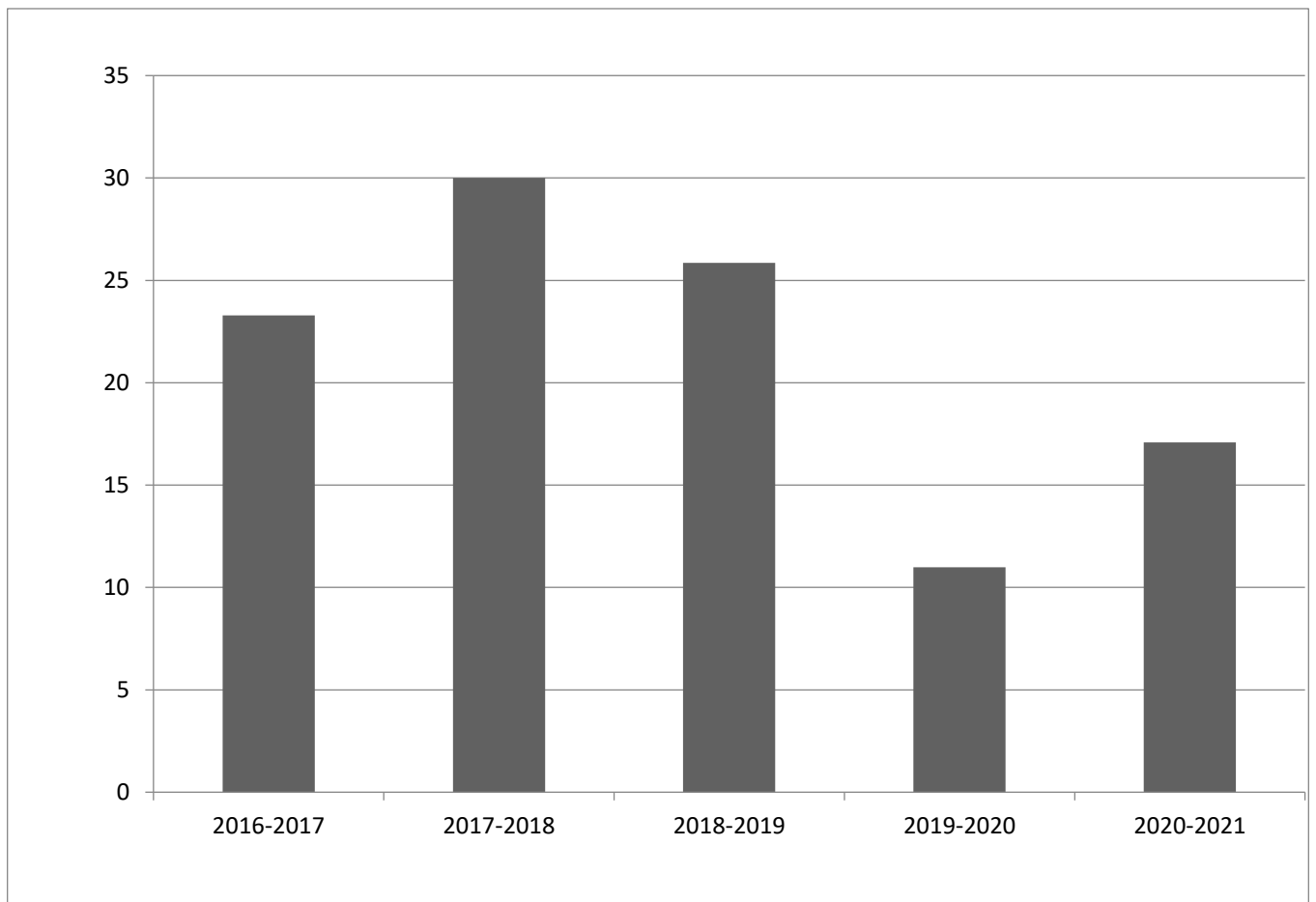


Fig 4.1.1 Inventory Turnover Ratio

4.1.2 Inventory holding period

The holding period refers to the time between an asset purchased and its sale. A short term holding period is defined as less than a year where as a long term holding period is more than a year.

$$\text{Inventory Holding Period} = \frac{365}{\text{Inventory Turnover Ratio}}$$

Table 4.1.2 Inventory holding period

Rs in Crores

Year	No of days in a Year	Inventory turnover ratio	Ratio (Days)
2016-2017	365	23.29	15.67
2017-2018	365	30.01	12.16
2018-2019	365	25.86	14.11
2019-2020	365	10.99	33.21
2020-2021	365	17.08	21.37

Source of Data : Company annual report from 2016-2017 to 2020-2021

Interpretation

From the above table 4.1.2 shows that inventory Holding period of the company under study is increasing year by year from 2016-2017 to 2020-2021 except 2017-2018 and 2020-2021.

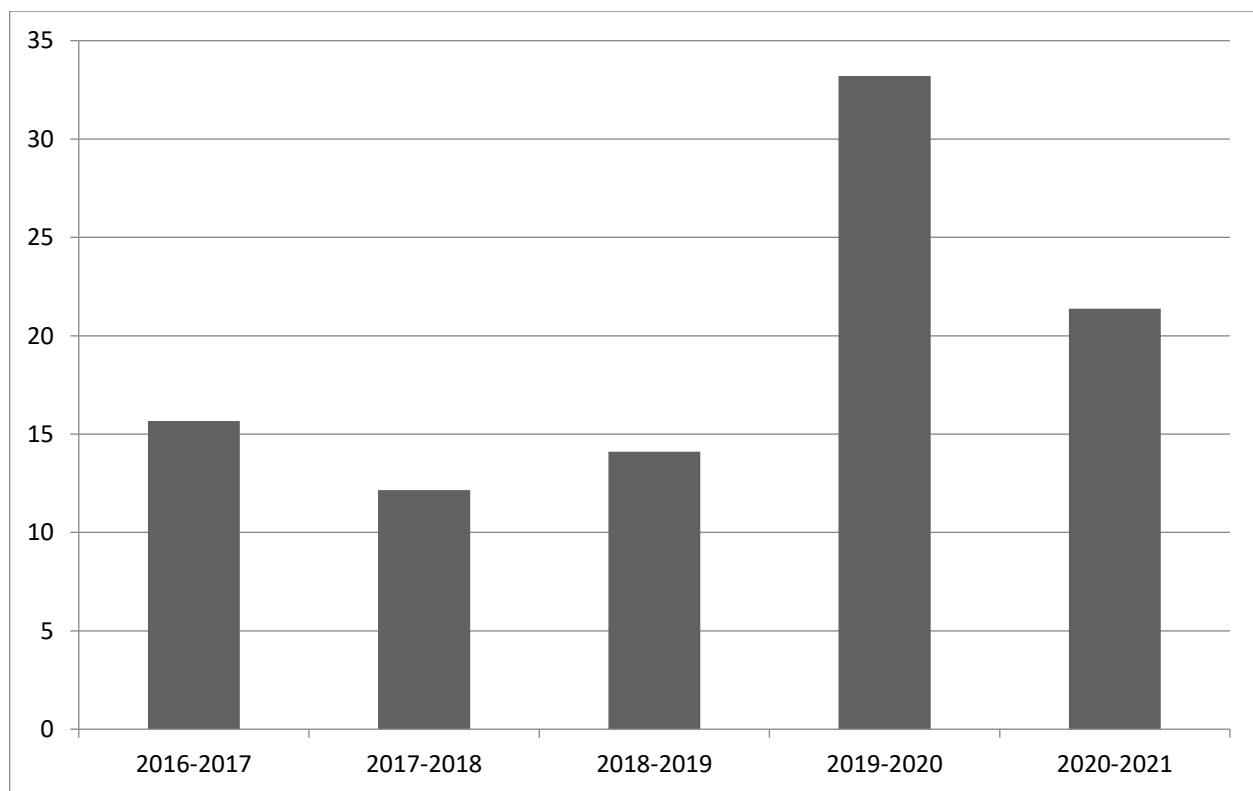


Fig 4.1.2 Inventory holding period

4.1.3 Inventory conversion period

This ratio shows that in how many days inventories are converted into net sales and it generate revenue for the company.

Inventory conversion period = Inventory /Sales *365

Table 4.1.3 Inventory conversion period

Rs in Crores

YEAR	Inventories	Sales	Ratio (Days)
2016-2017	823.58	33397.64	9
2017-2018	656.31	31368.55	7.63
2018-2019	1072.37	34341.79	11.39
2019-2020	1091.97	29614.43	12.70
2020-2021	1469.55	31380	17.09

Source of Data : Company annual report from 2016-2017 to 2020-2021

Interpretation

From the above table 4.1.3 shows that inventory conversion period of the company under study is increasing year by year from 2016-2017 to 2020-2021 except 2017-2018 .

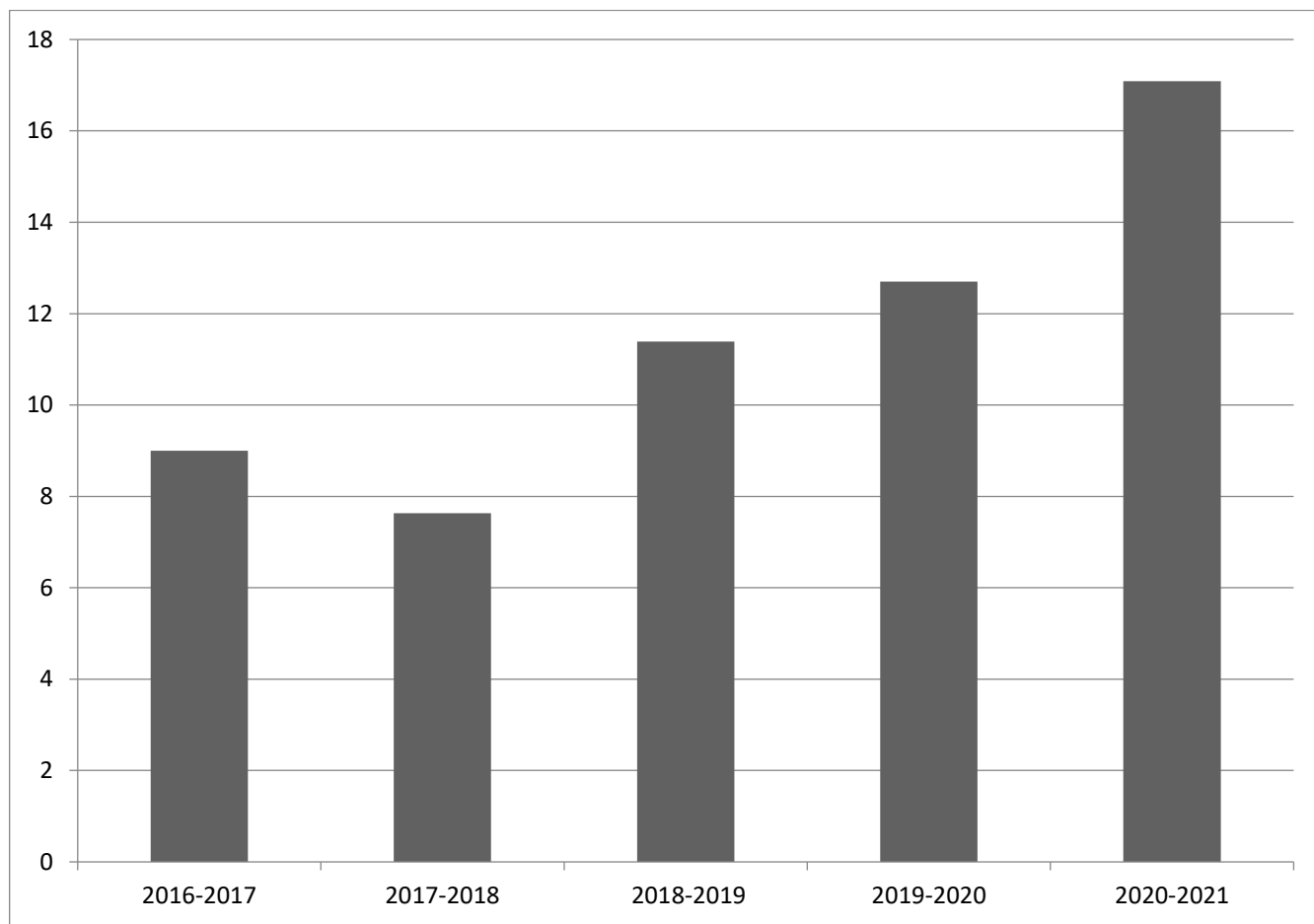


Fig 4.1.3 Inventory conversion period

4.1.4 Average day to sell inventory ratio

It is a financial ratio that indicates the average time in days that a company takes to turn its inventory, including goods that are working progress, into sales.

Average Days to Sell Inventory Ratio= Average inventory / Cost of goods sold * 100

Table 4.1.4 Average day to sell inventory ratio

Rs in Crores

YEAR	Average inventory	Cost of goods sold	Ratio
2016-2017	819.58	19095.33	4.29
2017-2018	739.94	22213.26	3.33
2018-2019	864.34	23355.90	3.70
2019-2020	1081.68	11892.97	9.09
2020-2021	1280.76	21882.2	5.85

Source of Data : Company annual report from 2016-2017 to 2020-2021

Interpretation

From the above table 4.1.4 shows that Average day to sell inventory ratio of the company under study is decreasing year by year from 2016-2017 to 2020-2021 except 2018-2019 and 2019-2020.

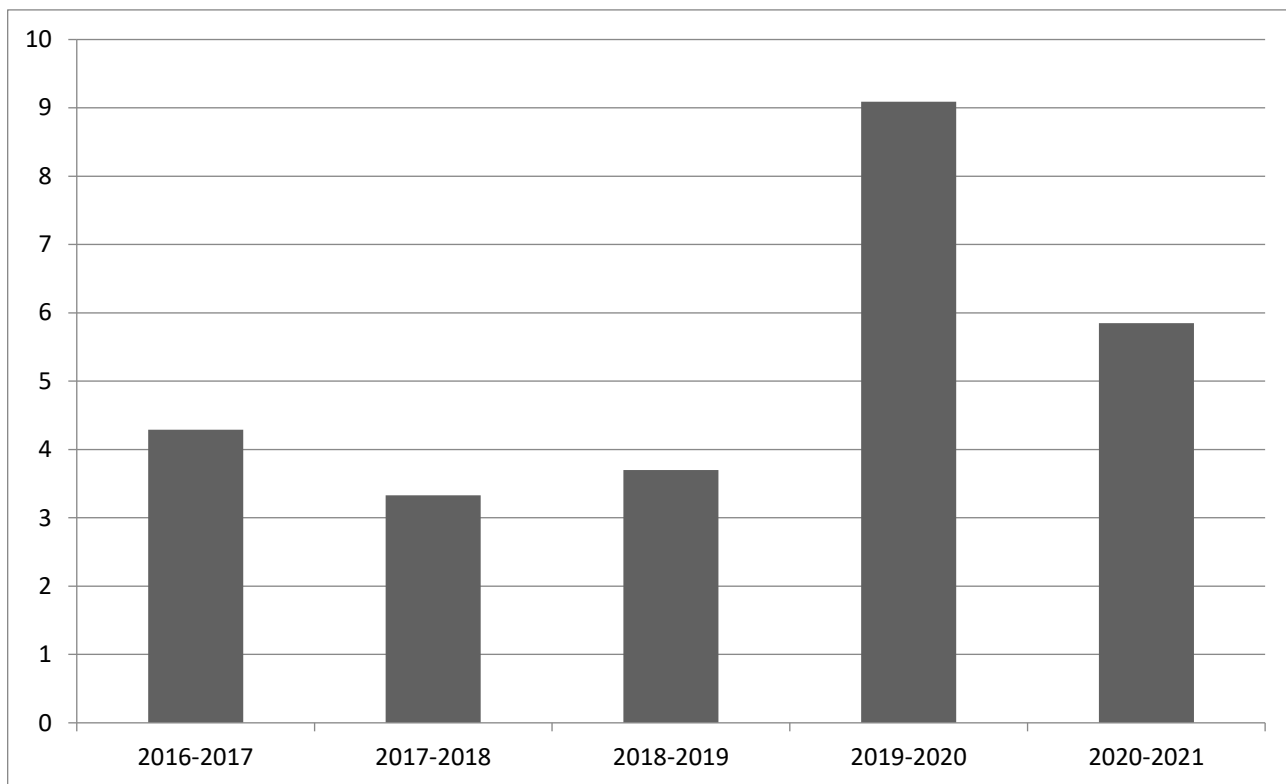


Fig 4.1.4 Average day to sell inventory ratio

4.1.5 Raw materials conversion period

This ratio states that for how much time (in terms of days) raw materials will be kept in the warehouse before it is sent to the production department for work-in-progress. Low raw material holding period indicates greater ability of a company to recover cost incurred in production were as high raw material holding period means increasing warehousing cost and thus less profit.

$$\text{Raw material conversion period} = \frac{\text{Raw material Inventory}}{(\text{Raw material consumption}/365)}$$

Table 4.1.5 Raw materials conversion period

Rs in Crores

YEAR	Raw materials inventory	Raw materials consumption/365 (Raw materials consumption in Days)	Ratio (Days)
2016-2017	395.02	86	4.59
2017-2018	442.21	60	7.38
2018-2019	615.99	64	9.63
2019-2020	567.65	54	10.42
2020-2021	740.2	60	12.35

Source of Data : Company annual report from 2016-2017 to 2020-2021

Interpretation

From the above table 4.1.5 shows that Raw materials conversion period of the company under study is increasing year by year from 2016-2017 to 2020-2021

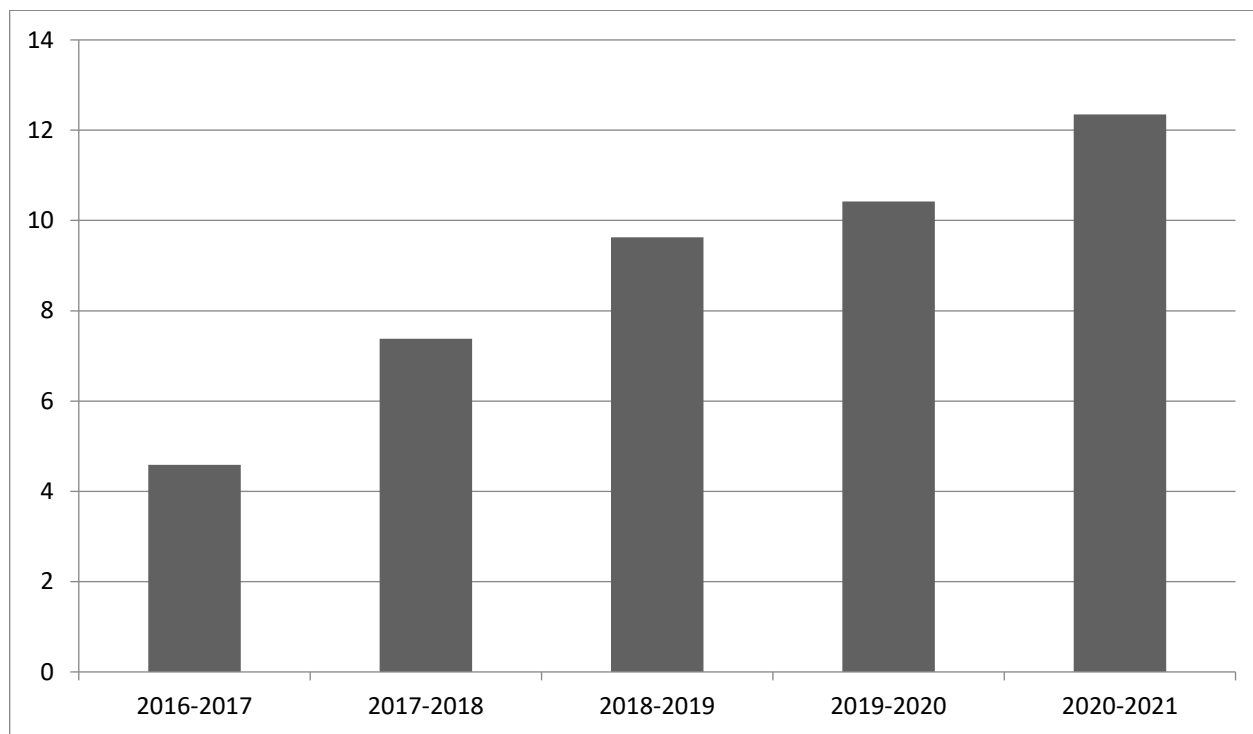


Fig 4.1.5 Raw materials conversion period

4.1.6 Work in progress conversion period; This ratio indicates the time period which the company takes to convert its work in progress into finished goods. Lesser the work in progress holding period, lesser will be the blockage of company's fund.

$$\text{Work in progress conversion period} = \frac{\text{Work in progress}}{(\text{Cost of production}/365)}$$

Table 4.1.6 Work in progress conversion period

Rs in Crores

YEAR	Work in progress inventories	Cost of production/ 365 (work in progress conversion period in days	Ratio (Days)
2016-2017	31.89	52	0.61
2017-2018	37.14	60	0.62
2018-2019	31.37	64	0.48
2019-2020	50.13	55	0.91
2020-2021	46.9	60	0.77

Source of Data : Company annual report from 2016-2017 to 2020-2021

Interpretation

From the above table 4.1.6 shows that inventory turnover ratio of the company under study is increasing year by year from 2016-2017 to 2020-2021 except 2018-2019 and 2020-2021.

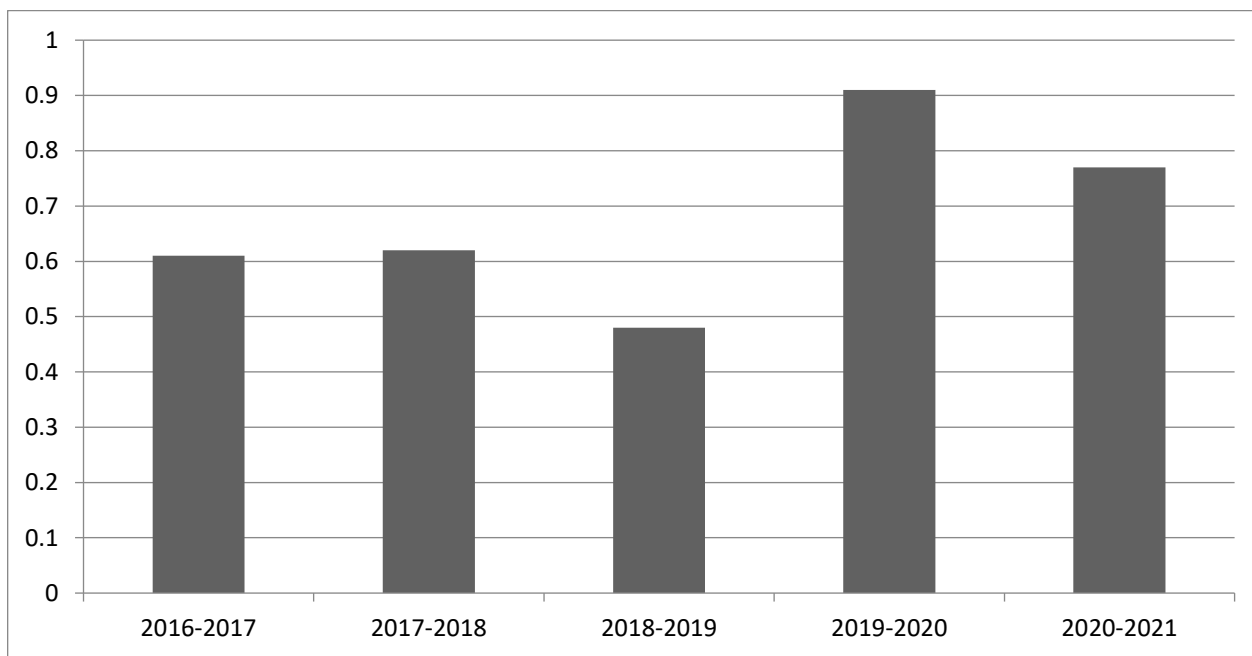


Fig 4.1.6 Work in progress conversion period

4.1.7 Finished goods conversion period

It refers to the time taken for the finished goods to be sold out or the time period between production and sales when the finished goods are kept in the warehouse before the actual sale is made.

Finished goods conversion period = Finished goods inventory / (Cost of goods sold /365)

Table 4.1.7 Finished goods conversion period

Rs in Crores

YEAR	Finished goods inventories	Cost of sales/ No of days 365	Ratio(Days)
2016-2017	98.76	53	1.88
2017-2018	106.66	60	17.54
2018-2019	150.81	63	2.36
2019-2020	301.83	32	9.26
2020-2021	448.53	60	7.48

Source of Data : Company annual report from 2016-2017 to 2020-2021

Interpretation

From the above table 4.1.7 shows that Finished goods conversion period of the company under study is increasing year by year from 2016-2017 to 2020-2021 except 2018-2019 and 2020-2021

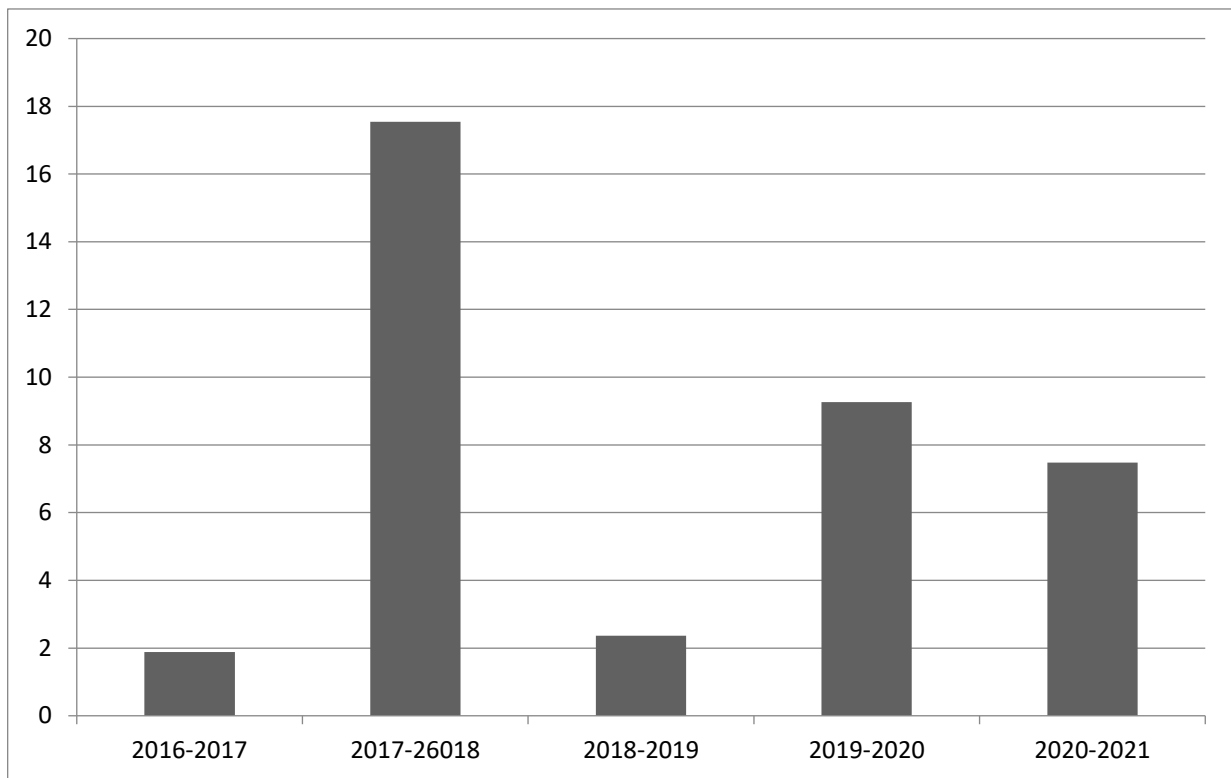


Fig 4.1.7 Finished goods conversion period

4.1.8 Days payable outstanding ratio

It is an efficiency ratio which measures the average number of days accompany takes to pay its suppliers.

$$\text{Days Payable Outstanding Ratio} = \frac{\text{Accounts Payable} \times 365}{\text{Cost of Sales}}$$

Table 4.1.8 Days payable outstanding ratio

Rs in Crores

YEAR	Trade payable	Cost of Sales	Ratio(Days)
2016-2017	2650.56	19095.33	50.66
2017-2018	3247.27	22213.26	53.35
2018-2019	3355.28	23355.90	52.43
2019-2020	3022.18	11892.97	25.41
2020-2021	5188.90	21882.2	86.55

Source of Data : Company annual report from 2016-2017 to 2020-2021

Interpretation

From the above table 4.1.8 shows that Days payable outstanding ratio of the company under study is increasing year by year from 2016-2017 to 2020-2021 except 2018-2019 and 2020-2021

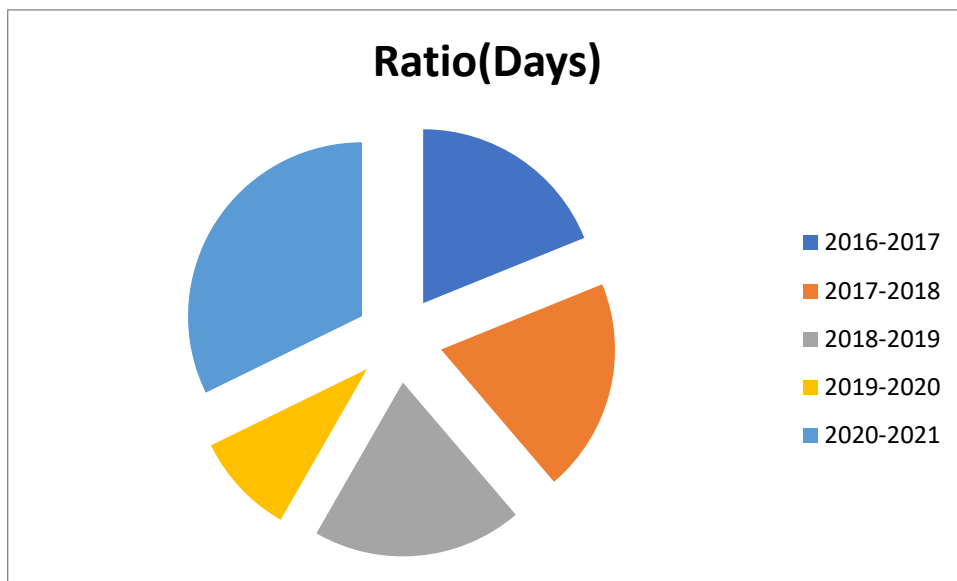


Fig 4.1.8 Days payable outstanding ratio

4.1.9 Current ratio

This ratio measures the company's ability to pay short-term obligations or those due within one year.

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Table 4.1.9 Current ratio

Rs in Crores

YEAR	Current Asset	Current Liabilities	Current Ratio
2016-2017	6151.22	3488.32	1.78
2017-2018	7453.18	4093.33	1.82
2018-2019	8115.64	4130.36	1.96
2019-2020	8288.56	3976.06	2.08
2020-2021	10952.79	6110.22	1.79

Source of Data : Company annual report from 2016-2017 to 2020-2021

Interpretation

From the above table 4.1.9 shows that current ratio of the company under study is increasing year by year from 2016-2017 to 2020-2021 except 2018-2019 and 2020-2021

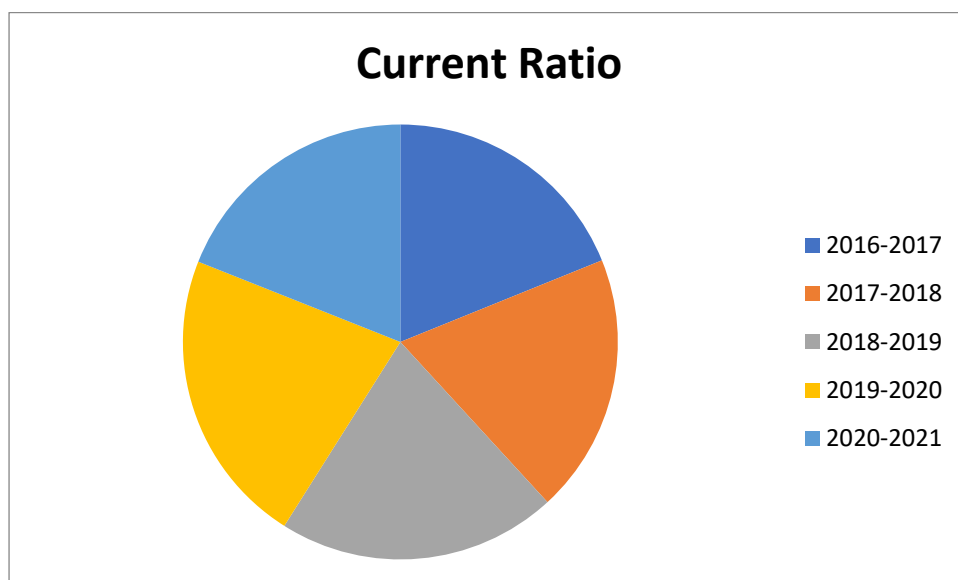


Fig 4.1.9 Current ratio

Table 4.2.1 Comparative balance sheet of the year 2020-2021

Particulars	Mar 21	Mar 20	INC/DEC	Percentage change
Assets				
Non-current assets				
Property, plant, equipment	5293.40	5,562.42	-269.02	-5%
Capital work in progress	177.86	160.25	17.61	11%
Right of use of assets	404.75	414.57	-9.82	-2%
Other intangible assets	290.26	140.09	150.17	107%
Intangible assets under Development	258.73	181.02	77.71	42%
Financial assets				
Investments	4308.18	3,528.17	780.01	22%
Loans	52.23	67.27	-15.04	-22%
Income tax assets (net)	368.19	310.13	58.06	19%
Other non-current assets	34.66	96.85	-62.19	-64%
Current assets				
Inventories	1450.55	1,091.97	358.58	33%
Financial assets				
Investments	6191.49	4,694.48	1497.04	32%
Trade receivable	2426.76	1,603.14	823.62	51%
Cash and cash equivalents	169.22	147.91	21.31	14%
Bank balances other than	87.93	93.95	-6.02	-6%
Loans	36.94	2236	-2199.06	-98%
Others	357.53	35461	35,103.47	99%
Others current assets	213.37	280.14	-66.77	-24%
Total current asset	10,992.79	8,288.56	2,704.23	33%
Total assets	22,161.05	18,749.33	3,411.72	18%
Equity and liabilities equity				

Equity share capital	39.96	39.95	0.01	
Other equity	15,158.47	14,096.45	1062.02	8%
Total equity	15,198.43	14,136.40	1062.03	8%
Liabilities				
Non-current liabilities				
Financial liabilities				
Lease liability	129.81	121.67	8.14	7%
Trade payables	Nil	Nil	Nil	Nil
Other financial liabilities	146.04	Nil		
Provisions	172.46	122.37	50.09	41%
Preferred tax liabilities(net)	404.09	392.83	11.26	3%
Total non-current liabilities	652.40	636.87	15.53	2%
Financial liabilities				
Lease liability	19.70	28.29	-8.59	-30%
Trade payable	Nil	Nil	Nil	Nil
Total outstanding dues of micro and small enterprises	15.71	8.33	7.38	89%
Total outstanding dues of creditors other than micro and small enterprises	5,188.90	3,022.18	2166.72	72%
Other financial liabilities	159.53	252.44	-92.91	-37%
Other current liabilities	566.01	518.26	47.75	9%
Provisions	160.37	146.56	13.81	9%

Table 4.2.2 Comparative balance sheet of the year 2019-2020

Particulars	Mar 20	Mar 19	INC/DEC	Percentage change
Assets				
Non-current assets				
Property, plant, equipment	5,562.42	4,477.53	1084.89	24%
Capital work in progress	160.25	360.67	-200.42	-56%
Right of use of assets	414.57	Nil		
Other intangible assets	140.09	141.05	-0.96	-1%
Intangible assets under development	181.02	181.19	-0.17	-1%
Financial assets				
Investments	3,528.17	2,801.51	726.66	26%
Loans	67.27	59.96	7.31	12%
Income tax assets (net)	310.13	839.26	-529.13	-63%
Other non-current assets	96.85	664.38	-567.53	-85%
Current assets				
Inventories	1,091.97	1,072.37	19.6	2%
Financial assets				
Investments	4,694.48	3,167.10	1527.38	48%
Trade receivable	1,603.14	2,821.57	-1218.43	-43%
Cash and cash equivalents	147.91	40.68	107.23	263%
Bank balances other than	93.95	95.78	-2	-2%
Loans	2236	25.03	2210.97	8833%
Others	35461	653.89	34807.11	5323%
24Others current assets	280.14	239.22	40.92	17%
Total current asset	8,288.56	8,115.64	172.92	2%
Total assets	18,749.33	17,641.19	1108.14	6%
Equity and liabilities equity				
Equity share capital	39.95	39.95	0	

Other equity	14,096.45	12,817.17	1279.28	10%
Total equity	14,136.40	12,857.12	1279.28	10%
Liabilities				
Non-current liabilities				
Financial liabilities				
Lease liability	121.67	Nil		
Trade payables	Nil	Nil	Nil	Nil
Other financial liabilities	Nil	Nil	Nil	Nil
Provisions	122.37	117.20	5.17	4%
Preferred tax liabilities(net)	392.83	536.51	-143.68	-27%
Total non-current liabilities	636.87	653.71	-16.84	-3%
Financial liabilities				
Lease liability	28.29	Nil		
Trade payable	Nil	Nil	Nil	
Total outstanding dues of micro and small enterprises	8.33	Nil		
Total outstanding dues of creditors other than micro and small enterprises	3,022.18	3,355.28	-333.62	-10%
Other financial liabilities	252.44	220.87	31.57	14%
Other current liabilities	518.26	495.18	23.08	5%
Provisions	146.56	59.03	87.53	148%

Table 4.2.3 Comparative balance sheet of the year 2018-2019

Particulars	Mar 19	Mar 18	INC/DEC	Percentage change
Assets				
Non-current assets				
Property, plant, equipment	4,477.53	4,485.89	-8.36	-1%
Capital work in progress	360.67	203.78	156.89	77%
Right of use of assets	Nil	Nil	Nil	Nil
Other intangible assets	141.05	168.65	-27.6	-16%
Intangible assets under development	181.19	114.61	66.58	58%
Financial assets				
Investments	2,801.51	1,934.08	867.43	45%
Loans	59.96	45.68	14.28	32%
Income tax assets (net)	839.26	379.26	460	121%
Other non-current assets	664.38	558.67	105.71	19%
Current assets				
Inventories	1,072.37	823.38	248.99	30%
Financial assets				
Investments	3,167.10	5,591.12	-2424.02	-43%
Trade receivable	2,821.57	1,520.18	1319.39	86%
Cash and cash equivalents	40.68	34.38	6.3	18%
Bank balances other than	95.78	106.96	-11.18	-10%
Loans	25.03	27.56	-2.53	-9%
Others	653.89	539.37	114.52	21%
Others current assets	239.22	205.03	33.97	17%
Total current asset	8,115.64	8,848.18	-732.54	-8%
Total assets	17,641.19	16,738.80	902.39	5%
Equity and liabilities equity				
Equity share capital	39.95	39.94	0.01	-1%
Other equity	12,817.17	11,728.94	1088.23	9%
Total equity	12,857.12	11,768.88	1088.24	9%

Liabilities				
Non-current liabilities				
Financial liabilities				
Lease liability	Nil	Nil	Nil	Nil
Trade payables	Nil	3,318.81		
Other financial liabilities	Nil	202.14		
Provisions	117.20	114.94	2.26	2%
Preferred tax liabilities(net)	536.51	511.66	24.85	5%
Total non-current liabilities	653.71	626.60	27.11	4%
Financial liabilities				
Lease liability	Nil	Nil	Nil	Nil
Trade payable	Nil	3,318.81		
Total outstanding dues of micro and small enterprises	Nil	Nil	Nil	Nil
Total outstanding dues of creditors other than micro and small enterprises	3,355.28	Nil		
Other financial liabilities	220.87	202.14	18.73	9%
Other current liabilities	495.18	762.58	-267.4	-35%
Provisions	59.03	59.79	-0.76	-1%

Table 4.2.4 Comparative balance sheet of the year 2017-2018

Particulars	Mar 18	Mar 17		
Assets				
Non-current assets				
Property, plant, equipment	4,485.89	4,310.73	175.16	4%
Capital work in progress	203.78	270.72	-66.94	-25%
Right of use of assets	Nil	Nil	Nil	Nil
Other intangible assets	168.65	84.86	83.79	99%
Intangible assets under Development	114.61	194.33	-79.72	-41%
Financial assets				
Investments	1,934.08	1,349.00	585.08	43%
Loans	45.68	48.36	-2.68	-6%
Income tax assets (net)	379.26	331.94	47.32	14%
Other non-current assets	558.67	651.14	-92.47	-1%
Current assets				
Inventories	823.38	656.31	167.07	25%
Financial assets				
Investments	5,591.12	4,540.85	1050.27	23%
Trade receivable	1,520.18	1,561.87	-41.69	-3%
Cash and cash equivalents	34.38	15.40	18.98	123%
Bank balances other than	106.96	121.33	-14.37	-11%
Loans	27.56	24.18	2.38	10%
Others	539.37	144.95	394.42	272%
Others current assets	205.03	388.29	-183.26	-47%
Total current asset	8,848.18	7,453.18	8103	108%
Total assets	16,738.80	14,694.26	2044.54	14%
Equity and liabilities equity				
Equity share capital	39.94	39.94	0	0%
Other equity	11,728.94	10,071.35	1657.59	16%
Total equity	11,768.88	10,111.29	1657.59	-1%
Liabilities				

Non-current liabilities				
Financial liabilities				
Lease liability	Nil	Nil	Nil	Nil
Trade payables	3,318.81	3,247.27	71.54	2%
Other financial liabilities	202.14	352.77	-150.63	-43%
Provisions	114.94	75.30	39.64	53%
Preferred tax liabilities(net)	511.66	414.34	97.32	23%
Total non-current liabilities	626.60	489.64	136.96	28%
Financial liabilities				
Lease liability	Nil	Nil	Nil	Nil
Trade payable	3,318.81	3,247.27	71.54	2%
Total outstanding dues of micro and small enterprises	Nil	Nil	Nil	Nil
Total outstanding dues of creditors other than micro and small enterprises	Nil	Nil	Nil	Nil
Other financial liabilities	202.14	352.77	-150.63	-43%
Other current liabilities	762.58	454.28	308.3	68%
Provisions	59.79	39.01	20.78	53%

CHAPTER 5

FINDINGS, CONCLUSION

5.1 FINDINGS

- 1.** Inventory turnover ratio of the company under study is increasing year by year from 2016-2017 to 2020-2021 except 2018-2019 and 2019-2020.
- 2.** Raw materials conversion period of the company under study is increasing year by year from 2016-2017 to 2020-2021
- 3.** Finished goods conversion period of the company under study is increasing year by year from 2016-2017 to 2020-2021 except 2018-2019 and 2020-2021
- 4.** Current ratio of the company under study is increasing year by year from 2016-2017 to 2020-2021 except 2018-2019 and 2020-2021
- 5.** Days payable outstanding ratio of the company under study is increasing year by year from 2016-2017 to 2020-2021 except 2018-2019 and 2020-2021

Conclusion

The overall performance of the company regarding inventory management is satisfactory in terms of efficient utilization of the inventories during the period under the study..Inventory management has to do with keeping accurate records of finished goods that are ready for shipment. This often means positioning the production of newly completed goods to the inventory totals as well as subtracting the most recent shipments of finished goods to buyers. When the company has a return policy in place, there is usually a sub-category contained in the finished goods inventory to account for any returned goods inventory makes it possible to quickly convey information to sales personnel as to what is available and ready for shipment at any given time. Inventory management is important for keeping costs down, while meeting regulation. Supply and demand is delicate balance, and inventory management hopes to ensure that the balance is undisturbed. Highly trained Inventory management and high quality software will help to make Inventory management a success. The ROI of Inventory management will be seen in the form of increased revenue and profits, positive employee atmosphere, and on overall increase of customer satisfaction. In relation to main objective of the study , it can be concluded from the above results that the company is efficient in management of inventory during the period of study and may required to maintain this level of efficiency in coming years

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APPENDIX

Balance sheet of Hero motocorp limited from 2017-2021

Particulars	Mar 2021	Mar 2020	Mar 2019	Mar 2018	Mar 2017
Assets					
Non-current assets					
Property, plant, equipment	5293.40	5,562.42	4,477.53	4,485.89	4,310.73
Capital work in progress	177.86	160.25	360.67	203.78	270.72
Right of use of assets	404.75	414.57	Nil	Nil	Nil
Other intangible assets	290.26	140.09	141.05	168.65	84.86
Intangible assets under development	258.73	181.02	181.19	114.61	194.33
Financial assets					
Investments	4308.18	3,528.17	2,801.51	1,934.08	1,349.00
Loans	52.23	67.27	59.96	45.68	48.36
Income tax assets (net)	368.19	310.13	839.26	379.26	331.94
Other non-current assets	34.66	96.85	664.38	558.67	651.14
Current assets					
Inventories	1450.55	1,091.97	1,072.37	823.38	656.31
Financial assets					
Investments	6191.49	4,694.48	3,167.10	5,591.12	4,540.85
Trade receivable	2426.76	1,603.14	2,821.57	1,520.18	1,561.87
Cash and cash equivalents	169.22	147.91	40.68	34.38	15.40
Bank balances other than	87.93	93.95	95.78	106.96	121.33
Loans	36.94	2236	25.03	27.56	24.18
Others	357.53	35461	653.89	539.37	144.95
Others current assets	213.37	280.14	239.22	205.03	388.29
Total current asset	10,992.79	8,288.56	8,115.64	8,848.18	7,453.18
Total assets	22,161.05	18,749.33	17,641.19	16,738.80	14,694.26
Equity and liabilities equity					
Equity share capital	39.96	39.95	39.95	39.94	39.94
Other equity	15,158.47	14,096.45	12,817.17	11,728.94	10,071.35
Total equity	15,198.43	14,136.40	12,857.12	11,768.88	10,111.29
Liabilities					
Non-current liabilities					
Financial liabilities					
Lease liability	129.81	121.67	Nil	Nil	Nil
Trade payables	Nil	Nil	Nil	3,318.81	3,247.27
Other financial liabilities	146.04	Nil	Nil	202.14	352.77
Provisions	172.46	122.37	117.20	114.94	75.30
Preferred tax liabilities(net)	404.09	392.83	536.51	511.66	414.34
Total non-current liabilities	652.40	636.87	653.71	626.60	489.64
Financial liabilities					
Lease liability	19.70	28.29	Nil	Nil	Nil
Trade payable	Nil	Nil	Nil	3,318.81	3,247.27
Total outstanding dues of micro and small enterprises	15.71	8.33	Nil	Nil	Nil

Total outstanding dues of creditors other than micro and small enterprises	5,188.90	3,022.18	3,355.28	Nil	Nil
Other financial liabilities	159.53	252.44	220.87	202.14	352.77
Other current liabilities	566.01	518.26	495.18	762.58	454.28
Provisions	160.37	146.56	59.03	59.79	39.01

Profit and loss account of Hero motocorp limited from 2017-2021

Particulars	Mar2021	Mar2020	Mar2019	Mar2018	Mar2017
Revenue from operations	30,800.62	28,836.09	33,650.54	32,871.82	30,871.59
Other income	579.85	778.34	691.25	525.82	522.43
Total income	31,380.47	29,614.43	34,341.79	33,397.64	31,394.02
Expense					
Cost of raw materials consumed	19,867.19	21,875.33	23,356.10	21,857.79	18,974.11
Purchase of stock in trade	Nil	30.46	Nil	Nil	Nil
Change in inventories of finished goods, stock-in-trade and work in progress	(143.46)	(169.78)	(28.38)	(23.15)	63.17
Employee benefit expenses	1,898.72	1,841.70	1,730.24	1,540.13	1,396.01
Finance costs	21.84	22.02	8.60	6.25	6.05
Depreciation and amortization expense	676.87	817.96	602.01	555.60	492.73
Other expenses	3,120.33	3,339.02	3,672.49	3,575.53	3,432.36
Total expenses	27,480.09	25,718.11	29,331.06	28,153.48	26,735.56
Profit before exceptional item and tax	3,900.38	3,896.32	5,010.73	Nil	Nil
Expectation item-NCCD income	Nil	737.48	Nil	Nil	Nil
Expectation item-VRS expenses	Nil	(60.11)	Nil	Nil	Nil
Profit before tax	3,900.38	4,573.69	5,010.73	5,244.16	4,658.46
Tax expenses	Nil	Nil	Nil	Nil	Nil
Current tax	924.92	1,084.11	1,601.02	1,446.95	1,082.08
Deferred tax charge/credit	11.26	(143.68)	24.84	99.85	199.26
Total tax expenses	936.18	940.43	1,625.86	1,546.80	1,281.34
Net profit after tax	2,964.20	3,633.26	3,384.87	3,697.36	3,377.12
Other comprehensive income	Nil	Nil	Nil	Nil	Nil
Items that will not be reclassified subsequently to profit or loss	Nil	Nil	Nil	Nil	Nil
Re-measurement losses on defined benefit plans	(28.14)	(42.47)	(27.38)	(7.24)	(21.53)
Income tax effect	7.08	10.69	9.57	2.53	7.45
Net other comprehensive incomenot to be reclassified to profit or loss	(21.06)	(31.78)	(17.81)	(4.71)	(14.08)

Total comprehensive income for the year, net of income tax	2,943.14	3,601.48	3,367.06	3,692.65	3,363.04
Earnings per share (nominal value of RS. 2 each) in RS	Nil	Nil	Nil	Nil	Nil
Basic	148.39	181.91	169.48	185.14	169.12
Diluted	148.37	18191	169.47	185.13	169.12