

A
Project Report
On
“INVENTORY MANAGEMENT TECHNIQUE”
At
“Mahindra CIE Automotive LTD.”

Submitted To
University of Pune

Submitted By
Mr. Nikhil Gopal Wagh
MBA-II
(2017-2018)

Under the Guidance of
Prof. Mr. Tushar Savale

PUNE VIDYARTHI GRIGHA'S INSTITUE OF MANAGEMENT, MHASARUL,
NASHIK-04

DECLARATION

I here by declare that the information I have gathered during the period of field work report I have collected all these information is correctly in this particular period, which is to be completed as per rules of the Savitribai Phule Pune University for the time MBA-II course that I am pursuing at the P.V.G Institute Of Management Nasik.

I honestly express that the formation is not collected with any commercial intention and motivation. The sole motive is to Mahindra CIE Auto.Ltd, the INVENTORY MANAGEMENT TECHNIQUE practice and prepares fieldwork. Thus the sole object of collecting information is of academic purpose and I sure that collected information is of academic purpose shall be only for fieldwork report and nothing else.

P.V.G

Institute of Management Nasik

Signature of the student

ACKNOWLEDGEMENT

I am extremely thankful to Mr. **Sachin Dandavate HOD** of Stores, Mahindra CIE Auto. Ltd. Ambad, Nasik for giving me a golden chance to complete this project and guiding me by giving valuable suggestions at all stages.

I am grateful to our guide Mr. **Tushar Savale Sir (Collage Guide)** for his able guidance in systematic and successful completion of the project.

I also specially thanks to Mr. **S. Bhonge Sir** General Manager – HR & Admin. of Mahindra CIE Auto. Ltd, for giving me the opportunity to do the project work and also for his extended co-operation to make this project a success.

I sincerely thank those all who helped me to complete the project.

INDEX

1	INTRODUCTION	5-7
2	ORGANIZATIONAL PROFILE	8-12
	2.1 Introduction of the organization	8
	2.2 History of the organization	8
	2.3 Vision, Mission, Core Values	8
	2.4 Quality Perspectives	9
	2.5 Product Portfolio	10
	2.6 Customers	12
3	RESEARCH METHODOLOGY	13-15
	3.1 Objectives	13
	3.2 Scope of the project	14
	3.3 Limitations of the project	14
	3.4 Data collection technique	15
4	DATA ANALYSIS	18-30
5	FINDINGS	31
6	CONCLUSION	32-33
7	SUGGESTIONS	34
8	RATIONAL OF THE PROJECT	35
9	BIBLIOGRAPHY	36

1. INTRODUCTION

INVENTORY MANAGEMENT

Inventory management and supplychain management are the backbone of any business operations. With the development of technology and availability of process driven software applications, inventory management has undergone revolutionary changes. In any business or organization, all functions are interlinked and connected to each other and are often overlapping. Some key aspects like supply chain management, logistics and inventory form the backbone of the business delivery function. Therefore these functions are extremely important to marketing managers as well as finance controllers.

Inventory management is a very important function that determines the health of the supply chain as well as the impacts the financial health of the balance sheet. Every organization constantly strives to maintain optimum inventory to be able to meet its requirements and avoid over or under inventory that can impact the financial figures.

Inventory is always dynamic. Inventory management requires constant and careful evaluation of external and internal factors and control through planning and review. Most of the organizations have a separate department or job function called inventory planners who continuously monitor, control and review inventory and interface with production, procurement and finance departments.

INVENTORY MANAGEMENT TECHNIQUES

Managing inventory can be a daunting task, and if it isn't done properly it could cost company thousands of dollars. Inventory management grows more and more complicated with increase in sales volume and diversification of product assortment.

1. STOCK REVIEW

Stock review is a regular analysis of stock versus projected future needs. This can be done through a manual review of stock or by using inventory software. Defining your minimum stock level will allow you to set up regular inspections and reorders of supplies. Make sure to take into account certain situations that can arise, such as vendors taking longer than average to replenish stock. This will aid you in using just-in-time ordering, where the inventory is held for a minimum amount of time before it moves to the next stage in the supply chain.

In businesses where manual inventory management techniques are still in use, the primary inventory control methods include:

- *Visual control*
- *Tickler control*
- *Click-sheet control*

You shouldn't perform manual reviews because they can take a lot of time and possibly produce errors. Businesses are starting to invest in software to automate the review, and it will help organizations keep track of their inventory, ensure timely reorders, and avoid costly shortages.

2. ABC ANALYSIS

This is a popular way to analyze your inventory. Under this method, you classify the inventory into three categories, such as A, B and C. These categories are based upon the inventory value and cost significance. Also, the number of items and values of each category are expressed as a percentage of the total.

- *Items of high value and small in number are termed as "A"*
- *Items of moderate value and moderate in number are termed as "B"*
- *Items of small in value and large in number are termed as "C"*

To manage each category separately: The nice thing about group C is that it can be fairly hands-off, while group A requires special attention. You can use ABC analysis in conjunction with the just-in-time technique to help you get your reorder timing just right.

2.VED ANALYSIS:

VED analysis represents classification of items based on criticality. The analysis classifies the items into three groups called Vital, Essential, and Desirable.

Vital category encompasses those items for want of which production would come to halt. **Essential** group includes items whose stock outs cost is very high.**Desirable** group comprises of items which do not cause any immediate loss of production or their stock-out entail nominal expenditure and cause minor disruptions for a short duration.

4. SDE ANALYSIS:

SDE analysis is based on problems of procurement namely:

- Non-availability
- Scarcity
- Longer lead time
- Geographical location of suppliers
- Reliability of suppliers, etc.

SDE analysis classifies the items into three groups called 'Scarce', 'Difficult' and 'Easy'. The information so developed is then used to decide purchasing strategies.

5.JUST IN TIME:

The objective of JUST IN TIME method is to increase the inventory turnover and at the same time reduce the inventory holding cost. JIT inventory system also exposes the unwanted or the dead inventory held by the retailer/ manufacturer. This method is ideal for manufacturing organization and it is not used in Retail industry in general. This will also involve usage of Kanban card to track inventory movement.

5. VENDOR MANAGED INVENTORY:

As the name explains, it involved SKUs managed directly by the supplier. Inventory is replenished based on the sales on regular intervals by the vendor. The retailer provides shop floor space and the vendor is charged a consignment rate on every product sold at the location. The ownership of the items from receiving to sales and inventory loss if any will be with the supplier.

2. Organization Profile

2.1 Company Name: Mahindra CIE Automotive Ltd.

Address: D-2 MIDC, Ambad, Nasik, Maharashtra 422 010

2.2 History:

MCIE Group commenced its commercial production at Nasik, Maharashtra, India in the year 1984 as Sheet Metal Automotive Component manufacturing unit. Over the years the Group has broadened its product range to sheet metal stampings and its assemblies like Load Body (Cargo), Door Assemblies, Floor Assemblies, Machined Components like Salisbury Tube Assemblies, Banjo Beam Assembly and also Bus Bodybuilding, Tipper manufacturing and Roll forming.

Innovation has been on-going efforts at MCIE Group & as a result they have developed the competency to be a Product Development Group providing the “Art to Part” Solutions to their Customers.

Effective Mapping of Customer requirement and adhering to the Voice of Customer thereby paving a way to Total Customer Satisfaction and Delight is the major focus of the entire organization.

This undoubtedly makes them a proud supplier with a strong foothold on the market dynamics and thereby earning the goodwill of our Customers to the hilt.

2.3 Vision:

Vision:

- To be a leading organization committed to meet customers, employees & shareholders expectations adhering to the core values.

Mission:

- To manufacture world class quality automotive & allied engineering products for domestic & International markets.

- We are committed to on time deliveries at competitive price in challenging business environment which is driven by customer's expectations.
- We will be the leading organization while keeping our commitment to excellence & our dedication in meeting employees & shareholders expectations.

Core Values:

1. Customer satisfaction & Responsiveness
2. Entrepreneurship
3. Professionalism
4. Integrity & Ethics
5. Respect & Dignity to all the individuals.

2.4Quality Perspectives:

QUALITY POLICY

We at Mungi group are committed to manufacture and supply sheet metal, machined & fabricated components to meet "customer satisfaction". We shall achieve this by following quality management system confirming to ISO/TS 16949:2002 with emphasis on improvement in quality by doing right at the first time through team work and training to employees.

QUALITY OBJECTIVES

Customer Satisfaction:

- By supplying quality products.
- By reducing development time for new products.
- By minimizing rework
- ByContinual Improvement:
 - By reducing process time through introducing modern technology and equipments.
 - By improving housekeeping.

2.5 Product Portfolio:

- Heavy & Light Press Shop & Assembly Shop:

- Heavy press shop with heavy duty press of 1000T (H), 1000T (M)
And followed by various 600T, 500T, 400T & 300T (Mech) battery
of presses to cater light/medium and heavy sheet metal
Stamping with skin panel.

- Nasik plant is having semi automation assembly line with multi-
Spotters to assemble various types of Floor, Front doors, Back
Door, Fenders & Mainly Load Body Cargo etc



Figure Name: Indigenously Built Fixturized Assembly Line

- **Die Design & Manufacturing:**

- Our in house facilities include a complete suit of CAD/CAM/CAE
Software tools. We are fully capable of supporting accelerated
Product development through engineering analysis.

- Basic machining setup like CNC, VMC, Mono Milling etc.
- Tryout press setup.
- Trained & Experienced setup.

- Various tie up of sources.
- Capability of developing Automated/Semi Automated jigs & Fixtures to support assembly line.
- We associate with customer right from design stage to meet Quality, on time deliveries and meet development time lines.

2.6 OUR CUSTOMERS:

Mungi Group has an impressive track record of services for customers who are the leaders in their segments. The group has proven itself to give our customers a competitive advantage with our world class quality, outstanding customer service and competitive pricing.

- Mahindra & Mahindra Ltd.
- Ashok Leyland, Chennai
- TATA Motors, Pune
- Spicer India Ltd.
- Various State Transports Undertaking.
- Knorr Bremse India Pvt. Ltd.

3. RESEARCH METHODOLOGY

3.1 Objectives:

- 1) To Study the Inventory Management Techniques.
- 2) To Study the procedure of Implimentation of ABC Analysis.
- 3) To Study the Different types of Inventory Control techniques.

The main objective behind this project is to study the approach of Integrated Material Management for better Inventory Control; this in turn affects overall working capital efficiency in relation to Mahindra CIE Auto.Ltd. This can be achieved by

- a) Elimination of Non-Value added activities.
- b) Bench marking the best practices.
- c) Converting Fixed cost as Variable cost
- d) Import Raw Material substitution
- e) Better Inventory control
- f) Alternate Material without affecting the quality & features.
- g) Negotiation with Vendor/ Service providers.

To studythe role/importance of Inventory Management System in relation to Mahindra CIE auto.Ltd.

3.2 Scope of the Study:

Due to lack of facilities provided by organization, people are not working efficiently and it has indirect affect on their performance and outcome, so

- 1) Assessing their needs,
- 2) Working conditions,
- 3) Providing the development opportunities,
- 4) Helping skill development through training interventions and planning.

And through this the employee satisfaction level can be increases & productivity also increases.

3.3 Limitations of the Study:

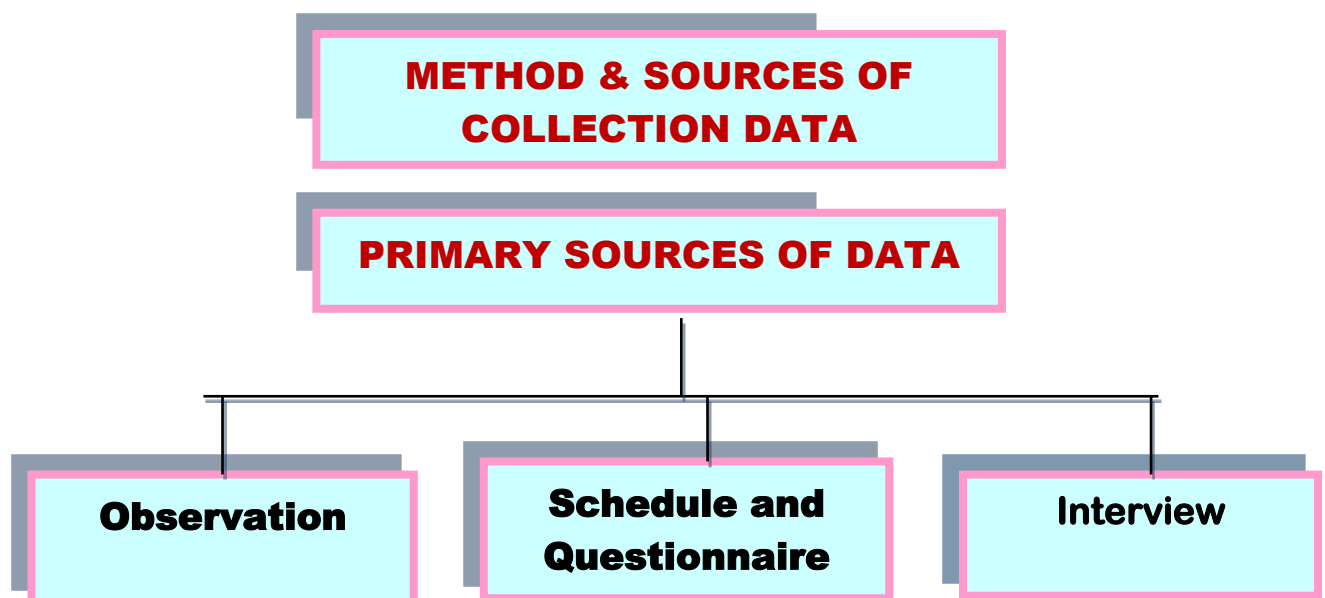
- 1) Work responsibility & daily works.
- 2) Process of planning & issue, ABC Analysis, Packing supplier wise rejection.
- 3) Just In Time.
- 4) Wastes.
- 5) Inventory Value of Plant & stores.
- 6) Commodity wise inventory value.
- 7) Types of Inventory.
- 8) The study of receiving process of material, issue process, dispatch process
inventory control the process for all items.
- 9) All the information regarding material was not disclosed due to Company policy.

3.5 Data collection technique

PRIMARY SOURCES OF DATA

Primary data are information collected or generated by the researcher for the purposes of the project immediately at hand. For example, an investigator wants to know about the level of job satisfaction enjoyed by the workers industry. He can prepare a schedule and meet a sample number of workers and ask for their opinions. This is going to be the information collected for the object of this study and therefore becomes primary in nature. When the data are collected for the first time, the responsibility for the processing of data also rests with the original investigators. Ordinarily, experiments and surveys constitute the main sources of primary data. For better understanding of the nature of primary sources of data advantages and disadvantages will have to be studied.

PRIMARY DATA



METHODS OF COLLECTING PRIMARY DATA

The Primary data are the information generated to meet the lesser specific needs of the investigation at hand. Thus, the investigator has to collect data separately for the study undertaken. The following are the three methods which are used to compile primary data.

(1) Observation (2) Schedule and questionnaire (3) Interview.

1) Observation

This is one of the cheaper and more effective techniques of data collection. This approach to the collection of information is as old as human race. Much of our knowledge about human beings, rounding is collected only through this process. Observation is indispensable not only in sciences but in social sciences research also observation has its own utility. It is not always possible to quantify the data and draw accurate conclusions on the basis of such data. Thus, the observation method is generally adopted for testing hypothesis.

Inventory Management system has observed by giving visit to the store department. Bin Card, Coding of Inventory, Inward and Outward of Inventory, ERP system, ABC technique all things related to Inventory Management has been observed.

2) Schedule and Questionnaire

The Most frequently used method of data collection is schedule and questionnaire. These methods are considered to have a particular relevance, if the researcher is to collect data on personal preferences, social attitudes, opinions, beliefs, feelings, etc. the increasing use of schedules and questionnaires is because of increased emphasis by social scientist on quantitative measurement of uniformly accumulated data.

Study of this project is done by discussing with store manager about ERP System and ABC technique of managing inventory in this company. By asking some questions to store manager and other persons in store this study is completed.

2) Interview

Interview is also useful technique of data collection through primary sources. It is a verbal method of securing data in the field surveys. Information is obtained by conversing with the respondents.

This Method is not applicable in this project.

SECONDARY SOURCES OF DATA :-

Secondary data refer to the information that has been collected by someone other than a researcher for purposes other than those involved in the research project at hand. There are various factors such as the nature of the study, status of the investigator, availability of financial resources, time and degree of accuracy of the results desired, that decided the choice of the sources of data that enriches the utility of the study.

The study of this project is made with the help of secondary data.

1. Internal Sources:

This data is collected from the organization.

1. With the help of storage data in the organization as well as information got from Store manager who gives fair idea of how inventory management is done in the organization.

2. By observing internal Inventory related Reports and Documents like Bin Cards, Purchase Order, Goods Receipt cum Inspection Note etc.

2. External Sources:

Company Website:

Some information is collected from company website.

Books:

Textbook of Logistics and supply chain management by D K Agrawal and Inventory Management by L C Jhamb is used during the study.

4. DATA ANALYSIS

One of the major operating difficulties in the scientific inventory control is an extremely large variety of items stocked by various organizations. These may vary from 10,000 to 100,000 different types of stocked items and it is neither feasible nor desirable to apply rigorous scientific principles of inventory control in all these items. Such an indiscriminate approach may make cost of inventory control more than its benefits and therefore may prove to be counter-productive. Therefore, inventory control has to be exercised selectively. Depending upon the value, criticality, and usage frequency of an item we may have to decide on an appropriate type of inventory policy. The selective inventory management thus plays a crucial role so that we can put our limited control efforts more judiciously to the more significant group of items. In selective management we group items in few discrete categories depending upon value; criticality and usage frequency. Such analyses are popularly known as ABC, VED and FSN Analysis respectively. This type of grouping may well form the starting point in introducing scientific inventory management in an organization.

In Mahindra CIE Auto. Ltd. ABC analysis is used for managing the inventory. So the study of ABC analysis is done in this project.

ABC ANALYSIS:

The concept ABC (Always Better Control) Analysis is based on 'Think on the Best and then on the Rest'. ABC analysis underlines a very important principle "Vital few: trivial many" Generally, companies are required to keep stock of large number of items used in production and distribution. In practice, it is not possible to maintain and control a similar/ proper level of inventory of all items, which is also not feasible due to resource constraints. Hence, the prevalent practice is that sincere efforts are made to have a proper control on the most circulating items and least on rare circulating once.

ABC analysis offers a basis for grouping of items on certain basis of annual/ monthly consumption value. In other words, of an item's unit price is very little but if it is a most circulating items and its monthly/annual consumption value is maximum, then closer and careful control will be done and vice versa. Hence, In ABC analysis, items are categorized in three broad groups, namely; A, B, and C, on the basis of their monthly/annual consumption value.

CONSUMPTION VALUE

1.A Category Items-

It is usually found that 20% of the total items account for 65% of the total money spent on the materials. These items require detailed and rigid control and need to be stocked in smaller quantities. These items should be procured frequently, the quantity per occasion being small. A healthy approach, however, would be to enter into contract with the manufacturers of these items and have their supply in staggered lots according to production programme of the buyer. This, however, will be possible when the demand is steady. Alternatively, the inventory can be kept at minimum by frequent ordering.

2.B Category Items -

Average monthly/annual consumption valued items are grouped in category B. Generally 30% items account for approximately 25% of the total sales or consumption value. This category of items needs a closer and more careful inventory management. These items cannot be overlooked but need a lesser degree of attention and control than those in class A but more than c category items.

3.C Category Items -

The low monthly/annual consumption valued items are grouped in C. Again, generally, 50% items account for approximately 10% of total sales or consumption value. This category of items needs the least attention for inventory management. No doubt, a loose control of C category items leads to a total inventory cost but this will not be so much to affect overall inventory cost.

• *Categories of Items*

<i>Category of Items</i>	<i>% of Items</i>	<i>%of Monthly/Yearly Consumption Value</i>	<i>Degree of Inventory Management</i>
A	15	74.5	Best
B	15	15.4	Better
C	70	10.1	Good
Total	100	100	

Table No-1

INVENTORY STUDY:

‘INVENTORY’ may be defined as ‘usable but idle resource’. If resource is some physical and tangible object such as materials, then it is generally termed as stock. Thus stock or inventories are synonyms terms though inventory has wider implications.

Or

Inventory is a detailed list of movable items, which are necessary to manufacture a product and to maintain the equipment and machinery in good working order. The quantity and the value are also mentioned in the list.

Broadly speaking, the problem of INVENTORY in inventory management is one of maintaining, for a given financial investment, an adequate supply of something to meet an expected demand pattern. This could be raw material, work in progress finished products or the spares and other indirect material.

INVENTORY system in inventory can be one of the indicators of the management effectiveness on the materials management front. Inventory turnover ratio (annual demand/average inventory) is an index of business performance. A soundly managed organization will have higher inventory turnover ratio and vice-versa.

Inventory management deals with the determination of optimal policies and procedures for procurement of commodities. Since it is quite difficult to imagine a real work situation in which the required material will be made available at hr point of use instantaneously, hence maintaining inventories becomes almost necessary. Thus inventories could be visualized as ‘necessary evil’.

Thus Inventory management/control during use of INVENTORY system is concerned with achieving an optimum balance between two competing objectives. The objectives are:

- To minimize investment in inventory
- To minimize the service levels to the firm’s customers and its own operating departments

Inventory Related Cost

An inventory as per INVENTORY system may be defined as one in which the following costs are significant-

- a) Cost of carrying inventories (holding cost)
- b) Cost of incurring shortages (stock out cost)
- c) Cost of replenishing inventories (ordering cost)

a) Cost of carrying inventories (holding cost)

This is expressed as Rs/item hold in stock/unit time. This is the opportunity cost of blocking material in the non-productive form as inventories. Some of the cost elements that comprise carrying cost are- Cost of blocking capital (interest rate); cost of insurances; storage cost; cost due to obsolescence, pilferage, deterioration, etc. It is generally expressed as a fraction of carrying charges in value of the goods stocked per year.

For example, if the fraction carrying charge is 20 % per year and a material worth is Rs. 1000 is kept in inventory for one year, the unit carrying cost will be Rs

200item/year. It is obvious that for items that are perishable in nature, the attributed carrying cost will be higher.

b) Cost of incurring shortages (stock out cost)

This is opportunity cost of not having an item in stock when one is demanded. It may be due to lost sales or backlogging. In the backlogging (or back ordering) case the order is not lost but is backlogged, to be consolidated as soon as the item is available on stock. In lost sales case the order is lost. In both cases there are tangible and intangible costs of not meeting the demand on time. It may include lost generally expressed as Rs/ item short/ unit time.

c) Cost of replenishing inventory (ordering cost)

This is the amount of money and efforts expended in procurement or acquisition of stock. It is generally ordering cost. This cost is usually assumed to be independent of quantity ordered, because the fixed cost component is generally more significant than the variable component. Thus it is expressed as Rs / order. Thus three types of cost are the most commonly incorporated in inventory analysis though there may be other costs parameters relevant in such an analysis such as inflation, price discounts etc.

Motives for Holding Inventories:

It is possible to identify three major motives for holding inventories

- The transactions motive propels a business to maintain inventories so that there are no bottlenecks in production and sales. It is natural for a business to plan inventory investment commensurate with the level of transactions in the business. The business seeks to ensure that on the shop floor production does not get stalled for want of materials, etc. and sales do not suffer on account of non-availability of finished goods.

- The precautionary motive is also at work. Inventories are held so that there is a cushion against unpredictable events. For instance there may be sudden and

unforeseen spurt in demand for finished goods or there may be sudden and unforeseen slump or delay in supply of raw material or other components needed for production. An enterprise would surely like to have some cushion to tide over such situation.

- Inventories may also be held so that advantage can be taken of price fluctuations. For instance, if the price of a particular raw material is expected to go up

rather steeply, an enterprise may decide to hold a larger necessary stock of this item (acquired prior to escalation)

- In Mungi Engineers Inventory is managed by following ABC Technique with the help of Tailor made ERP System.

ABC Sheets are generated from the system are attached below-

ASSEMBLY LINE PARTS MINIMUM / MAXIMUM LIST

Sr. No	Item Code	Part No.	Description	Unit	Class	Min. Qty.	Max. Qty.
1	010200100010	0029189	SKID BRACKET 0029189	NOS	C	800	1200
2	011000100350	G159809	SCREW PAN HD SLTD M/C #10	NOS	C	500	10000
3	011100100050	90010393	KIT LOCK BACK PLATE MB/FB/A05/007	NOS	C	200	400
4	011400100050	90010387	REINF.CS. MB BODY MTG. MB/FB/A01/018	NOS	G	2000	4000
5	011400100080	90010388	REF. HNG. PNL. SIDE MTGN. MB/FB/A02/008	NOS	C	400	800
6	011400100100	NW0114	HINGES TAIL GATE MB/FB/C09	NOS	C	400	800
7	011400100110	NW0115	R/F KIT LOCK PNL SIDE M.009	NOS	C	2000	4000
8	011400100130	NW0116	R/F HINGES FLOOR MTG.	NOS	C	4000	8000
9	011400100180	97549/L	TOGGL LOCK L	NOS	C	500	1000
10	011400100190	84582	LASHING HOOK - F/B	NOS	C	1000	8000
11	011400100210	0104CF0820N	SKID BKT. R.R. FLR.	NOS	C	300	600
12	011400100590	MB/FB/03/004	R/F KIT LOCK T/G PNL MTG	NOS	G	500	1000
13	011400100570	MB/FB/A02/010	L BRKT PNL SIDE MTG	NOS	C	4000	8000
14	012500100010	MB/MINISC/A05/05	HINGE MB/MINISC/A05/05	NOS	C	1000	2000
15	012800100010	0084828	LASHING HOOK - 094828 - 3.5 Jf.	NOS	C	1000	10000
16	012800100130	0104AF0860N/VE/R	REINF ASSY HINGE RH	NOS	C	2000	4000
17	012800100350	0101B,AN03150N	BRACKET RH - 0101BAN03150N (B/O)	NOS	C	800	2000
18	012800100390	0101B,AN03160N	BRACKET LH - 0101BAN03160N (B/O)	NOS	C	500	2000
19	012800100390	0104GF0820N	TAIL LAMP MTG BRKT - 0104GF0820N	NOS	C	1000	3000
20	012800101410	0104GF0820N	REINF SIDE PANEL LOWER	NOS	C	200	800
21	080100100010	G-138479C	LOCK WASHER #10	NOS	C	1000	10000
22	080100100020	0101GN0890N	BRACKET HIGH MOUNT LAMP	NOS	C	400	1600
23	080100100050	0074567	BACK DOOR RET. UNIT	NOS	C	500	1000
24	080100100060	0695370	ASSY. RET DOOR CHECK ARM	NOS	C	500	2000
25	080100100070	0W37222	REINF BACK DOOR INNER-A	NOS	C	500	2800
26	080100100080	0W37224	REINF BACK DR. O/PNG C	NOS	B	800	1800
27	080100100160	0067529	ASSY REINF DOOR HANDLE INR	NOS	C	4000	10000
28	080100100180	0067926	REINF BACK DR INR UPR	NOS	C	500	1000
29	080100100190	0027545	GUSSET BACKDR INR PNL	NOS	C	500	2000
30	080100100200	0029288	REINF BACK DOORS SUPPT.	NOS	C	1000	2000
31	080100100210	0067531	ASSY REINF DR. CHECK BELT	NOS	C	3000	6000
32	080100100250	0103AK0160N	TAPPING PLATE MIRROR	NOS	C	1000	6000
33	080100100260	0067532	ASSY REINF DOOR HINGE	NOS	C	4000	8000
34	080300100020	0101BD0070N	REINF ASSY RR FLOOR-A	NOS	A	150	450
35	080100100620	0101BN2280N	PLATE ASSY SEAT BELT ANCHORAGE	NOS	C	500	2000
36	080100100670	0101BN2240N	REINF CENTER FLOOR	NOS	C	800	2000
37	080100101890	010MCF1530N	ASSY SKID BRKT REAR - 010MCF1530N	NOS	C	100	200
38	080100102640	MB/FBVE/EF0010N/4	REINF FRT Z SECTION SIDE PNL RH	NOS	C	400	1600
39	080100102650	MB/FBVE/EF0010N/5	REINF Z SECTION SIDE PNL MIDDLE	NOS	C	200	800
40	080100102750	0104CF0420N	REINF CROSSMEMBER CENTER "A"	NOS	C	400	1200
41	080100102760	0104CF0430N	REINF CROSSMEMBER CENTER "B"	NOS	C	200	800
42	080100102770	0104CF0440N	REINF CROSSMEMBER CENTER "C"	NOS	C	200	600
43	080100102780	0104CF0450N	REINF CROSSMEMBER CENTER "D"	NOS	C	400	800
44	080100102820	0104CF0850N	BKT ASSY SKID FRT RH	NOS	C	100	200
45	080100102830	0104CF0880N	BRKT ASSY SKID FRT LH	NOS	C	100	200
46	080100102930	0104EF0120N	END CLOSER ASSY PANEL SIDE	NOS	C	200	500
47	080100102940	0104EF0210N	END CLOSER ASSY. PANEL SIDE	NOS	C	200	500
48	080100103020	0101BN2680N	REINF PNL REAR FLOOR	NOS	C	600	1200
49	080100108150	0104AAF01590N	BRKT ASSY. SIDE PANEL HOLDING B	NOS	C	500	1000
50	080100108160	0104AAF01580N	BRKT ASSY. SIDE PANEL HOLDING A	NOS	C	500	1000
51	080100108200	0104AAF01640N	ROD LOCK B - COATED	NOS	C	100	200
52	080100108210	0104AAF01630N	ROD LOCK A - COATED	NOS	C	100	200
53	080100108220	0104AAF01620N	BRKT ASSY LOCK PLATE U - COATED	NOS	C	100	400
54	080100108230	0104AAF01610N	PLATE LOCK B - COATED	NOS	C	1000	3000
55	080100108240	0104AAF01600N	PLATE LOCK A - COATED	NOS	C	1000	3000
56	080100108250	0101GN1140N	NUT RETAINER - 0101GN1140N	NOS	C	500	2000

Sr.No	Item Code	Part No.	Description	Unit	Class	Min. Qty.	Max. Qty.
57	080100110240	0104GAF01520N	REINFORCEMENT Z SECTION TAIL GATE	NOS	C	400	800
58	080100110260	0104GAF01540N	REINF Z SECTION TAIL GATE	NOS	C	400	800
59	080100110300	0104CAF02610N	REINFORCEMENT TOP FLR PANEL	NOS	C	1000	4000
60	080100110310	0104CAF02530N	PANEL SILL REAR	NOS	C	1000	2000
61	080100110320	0104CAF02540N	PANEL SILL FRONT	NOS	C	1000	2000
62	080100110350	0104EAF00950N	REINFORCEMENT SIDE PNL END A	NOS	C	1000	2000
63	080100110360	0104EAF00900N	REINFORCEMENT SIDE PNL CENTRE	NOS	C	500	2000
64	080100110370	0104EAF00960N	REINFROCEMENT SIDE PNL END B	NOS	C	1000	2000
65	080100110400	0104CAF02550N	REINFORCEMENT BOTTOM SILL SIDE	NOS	C	2000	6000
66	080100110410	0104CAF02570N	REINFORCEMENT BRACKET	NOS	C	2000	6000
67	080100110430	0104CAF02600N	REINFORCEMENT EXTN FLR FRT	NOS	C	300	600
68	080100110440	0104CAF02590N	PANEL EXTN FLOOR FRONT	NOS	C	300	600
69	080100110450	0104FAF00720N	PANEL CORNER CAP FRONT LH	NOS	C	200	600
70	080100110460	0104FAF00710N	PANEL CORNER CAP FRONT RH	NOS	C	200	600
71	080100120550	0068427	ASSLY R/F BACKDOOR LOWER - 68427	NOS	C	500	1000
72	080100121300	0067572	ASSY TAPPING PLATE - 0067572	NOS	C	800	1600
73	080100139320	0104CAF02780N	BRACKET ASSY SKID FRONT RH	NOS	C	200	400
74	080100139330	0104CAF02790N	BRACKET ASSY SKID FRONT LH	NOS	C	200	400
75	080100139340	0104CAF02800N	BRACKET ASSY SKID REAR RH	NOS	C	200	700
76	080100139350	0104CAF02810N	BRACKET ASSY SKID REAR LH	NOS	C	200	700
77	080100144250	0101BAN03770N	SILL PANEL FLOOR RR	NOS	C	500	1000
78	080100159400	0104GAF01580N	REINF TAIL GATE CARGO	NOS	C	400	800
79	080100159410	0104GF0660N	REINF TAIL GATE CENTRE	NOS	C	1000	3000
80	080100159420	0104GF0520N	REINF TAIL GATE RH - 0104GAF0520N	NOS	C	200	600
81	080100159430	0104GF0530N	REINF TAIL GATE LH - 0104GF0530N	NOS	C	200	600
82	080100161990	0111CAN00370N	GLASS RUN CHANNEL REAR FRONT DOOR (M)	NOS	C	1000	5000
83	080100162000	0111CAN00350N	GLASS RUN CHANNEL FRONT DOOR (S)	NOS	C	1000	5000
84	080100162010	0111CAN00360N	GLASS RUN CHANNEL TOP FRONT DOOR (B)	NOS	C	1000	5000
85	080100178430	0104EF0080N-SEMIFIN	FUEL LID ASSY-0104EF0080N-SEMI FINISH	NOS	C	400	1200
86	080300100120	01000K0060N	BRKT SCREW JACK HOLDING	NOS	C	600	1200
87	080900100080	0104GF0010N	PNL REAR F/B CARGO	NOS	C	100	400
88	080900100120	0104EF0020N	REF PNL SIDE CTR	NOS	C	200	400
89	080900100190	0104CF0240N	REF EXTN FLR FRT	NOS	C	300	600
90	080900100220	0104CF0130N	EXTN FLR RR END CLOSER LH	NOS	C	400	800
91	080900100240	0104CF0160N	REF BETN CRS MBR B	NOS	C	400	1200
92	080900100250	0104CF0170N	REF BETN CRS MBR A	NOS	C	400	800
93	080900100260	0104CF0180N	REF BETN CRS MBR C	NOS	C	400	800
94	080900100320	0104CF0080N	PNL EXTN FLR FRONT	NOS	C	300	600
95	080900100340	0104CF0210N	PNL FENDER F/B CARGO PART	NOS	C	500	1000
96	080900100350	0104CF0120N	EXTN FLR RR END CLOSER RH	NOS	C	400	800
97	080900100360	0104CF0400N	REF C SECTION CRS MBR	NOS	C	2000	4000
98	080900100380	0104CF0410N	REF C SECTION CRS MBR 0104CF0410N	NOS	C	1000	2000
99	080900100390	0104CF0360N	REF CRS MBR CENTER END RH	NOS	C	400	800
100	080900100400	0104CF0110N	CRS MBR CENTER	NOS	C	1000	2000
101	080900100410	0104CF0370N	REF CRS MBR CENTER END LH	NOS	C	400	800
102	080900100420	0104CF0300N	REF CRS MBR CENTER END	NOS	C	1000	3000
103	080900100480	0104GF0050N	BRKT ASY. T/L RH F/B CARGO	NOS	B	100	500
104	080900100490	0104GF0060N	BRKT ASY T/L LH F/B CARGO	NOS	B	100	500
105	080900100650	0104FF0210N	PLATE FRONT END	NOS	C	1000	3000
106	080900101000	0104CF0190N	REF BETN CRS MBR D	NOS	C	300	600
107	080900101230	0104GF0070N	PANEL TAIL GATE END CLOSER RH - MFG	NOS	C	200	400
108	080900101240	0104GF0080N	PANEL TAIL GATE END CLOSER LH - MFG	NOS	C	200	400
109	080900101480	0104FAF00610N	CAB PROTECTOR ASSY.-0104FAF00610N	NOS	A	50	450
110	080900102220	080900102220	KIT LOCK ROD ASSY RH (B/O)	NOS	C	500	1200
111	080900102230	080900102230	KIT LOCK ROD ASSY LH (B/O)	NOS	C	500	1200
112	080900200180	0104FF0060N-SH	R/F PNL FRT END RH (SH)	NOS	C	50	150
113	080900200190	0104CF0070N-SH	PNL EXTN FLOOR REAR (SH)	NOS	B	50	100
114	080900200200	0104FF0070N-SH	R/F PNL FRT END LH (SH)	NOS	C	50	150

Sr.No	Item Code	Part No.	Description	Unit	Class	Min. Qty.	Max. Qty.
115	080900200210	0104GF0110N-SH	R/F INLET PIPE ASSY (SH)	NOS	C	100	200
116	080900200220	0104CF0110N-SH	CROSS MBR CENTER (SH)	NOS	C	100	600
117	081000100040	0104FF0080N	CAB PROTECTOR ASSY	NOS	A	10	50
118	081000100140	MB/MPU/009	EXTN CROSS MEMBER	NOS	C	100	500
119	081000100150	0074112	RETAINER CAP (NUT RETAINER M10)	NOS	C	500	2000
120	081000100500	MB/MPU/012	REINF SIDE PANEL LOWER	NOS	C	500	2000
121	081000100650	0104EF0070N	BRKT FENDER PNL F/B CARGO	NOS	C	500	1000
122	081000101240	MB/MPU/096	NUMBER PLATE	NOS	C	1000	8000
123	081000101420	0068415	TAPPING PLATE SEAL BELT MTG (M&M)	NOS	C	100	500
124	081000101450	0101BK0190N04	PANEL CENTRE FLOOR - 0101BK0190N04	NOS	A	50	200
125	081000101460	0074157	ASSY RNF CTR.FLR.A	NOS	B	200	400
126	081000101970	MB/CON/17	L BRACKET CORNER - LH (BIG)	NOS	C	500	1000
127	081000101980	MB/CON/18	L BRACKET CORNER - RH (SMALL)	NOS	C	500	1000
128	081000103020	0101BN1280N	CROSS SILL ASSEMBLY (GURUDEV)	NOS	B	100	200
129	081000103040	0101BN1220N	PNL ASSLY REAR FLR FRT.	NOS	A	50	150
130	081000103060	0101BN1300N	C/SASSLY RR FLR. (GURUDEV)	NOS	B	100	200
131	081000103080	0101BN1330N	SILL ASSY. RR. FLR. FRT.	NOS	C	400	800
132	081000103100	0101BN1650N	ASSLY. R/F RR. FLR. (GURUDEV)	NOS	A	100	300
133	081000103180	0101BN1360N	R/F PNL. RR. FLR. FRT. (M&M)	NOS	C	500	1000
134	081000103480	MB/CON/07	R/F SEAT MTG. RR. FLR-A (232-L)	NOS	C	400	800
135	081000103550	MB/CON/09	SIDE CROSS SILL RH	NOS	C	300	600
136	081000103570	MB/CON/10	SKID BRACKET	NOS	C	600	1200
137	081000103610	0W35222	PNL. SILL RR. INNER	NOS	B	500	1000
138	081000103690	0101BN1270N/A	CROSS SILL REAR FOR A	NOS	B	200	400
139	081000103840	0098562	REINF. CENTER FLOOR FRONT	NOS	C	500	1000
140	081000103850	0098563	REINF. CENTER FLOOR REAR	NOS	C	500	1000
141	081000103860	0101BN0850N	PNL. CTR. FLR. - 0101BN0850N	NOS	A	50	200
142	081000104810	0087659	REINF GRIP HANDLE ASSY (SMALL)	NOS	C	1000	10000
143	081000300010	0101BG3430N	EXTN CLSR CROSS MBR PLR D OTR LWR RR RH	NOS	C	500	1000
144	081000300020	0101BG3440N	EXTN CLSR CROSS MBR PLR D OTR LWR RR LH	NOS	C	500	1000
145	081000400090	MB/MINISC/A01/004	PANEL EXTN FLOOR FRT- MB/MINISC/A01/004	NOS	C	100	300
146	081000400100	MB/MINISC/A01/005	REINF EXTN FLR FRT - MB/MINISC/A01/005	NOS	C	100	300
147	081000400120	MB/MINISC/A01/007	REINF A BETN C/S MBR - MB/MINISC/A01/007	NOS	C	100	400
148	081000400130	MB/MINISC/A01/008	REINF B BETN C/S MBR - MB/MINISC/A01/008	NOS	C	1000	4000
149	081000400140	MB/MINISC/A01/009	REINF C BETN C/S MBR - MB/MINISC/A01/009	NOS	C	100	400
150	081000400150	MB/MINISC/A01/010	R/F C SECTION C/S MBR-MB/MINISC/A01/010	NOS	C	2000	4000
151	081000400180	MB/MINISC/A02/02	REINF SIDE PNL CENTER - MB/MINISC/A02/02	NOS	C	200	600
152	081000400190	MB/MINISC/A02/03	REINF SIDE PNL END RH - MB/MINISC/A02/03	NOS	C	200	500
153	081000400200	MB/MINISC/A02/04	CORNER FRONT OUTER - MB/MINISC/A02/04	NOS	C	400	800
154	081000400210	MB/MINISC/A02/05	CORNER FRONT INNER - MB/MINISC/A02/05	NOS	C	600	1200
155	081000400220	MB/MINISC/A02/06	CORNER REAR OUTER - MB/MINISC/A02/06	NOS	C	400	800
156	081000400230	MB/MINISC/A02/07	CORNER REAR INNER - MB/MINISC/A02/07	NOS	C	600	1200
157	081000400240	MB/MINISC/A02/08	REINF SIDE PNL END LH - MB/MINISC/A02/08	NOS	C	200	500
158	081000400260	MB/MINISC/A03/02	REINF FRONT PNL CENTER-MB/MINISC/A03/02	NOS	C	400	1200
159	081000400270	MB/MINISC/A03/03	REINF FRONT PNL RH - MB/MINISC/A03/03	NOS	C	200	600
160	081000400280	MB/MINISC/A03/04	REINF FRT PNL LH - MB/MINISC/A03/04	NOS	C	200	600
161	081000400300	MB/MINISC/A04/02	R/F T/L GATE PNL CENTER-MB/MINISC/A04/02	NOS	C	100	200
162	081000400310	MB/MINISC/A04/03	R/F Z-SECT T/L GATE PNL-MB/MINISC/A04/03	NOS	C	100	400
163	081000400320	MB/MINISC/A04/04	PNL T/L GATE END CLOSER-MB/MINISC/A04/04	NOS	C	400	800
164	081000400330	MB/MINISC/A04/04A	R/F T/L GATE PNL END RH - MINISC/A04/04A	NOS	C	100	300
165	081000400340	MB/MINISC/A04/05	R/F T/L GATE PNL END LH-MB/MINISC/A04/05	NOS	C	100	300
166	081000400800	0104GF0110N	REINF INLET PIPE ASSY	NOS	C	400	800
167	081100100110	0W31322	REINF RR FLR - B	NOS	C	500	1000
168	081100100120	0067534	CROSS SILL RR FLOOR	NOS	C	500	1000
169	081100100150	0098449	FRONT SILL REAR FLOOR PANEL	NOS	C	1000	2000
170	081100100220	0101BN0720N	ASSY. RISER BOX BOLERO XL & XLS	NOS	A	50	200
171	081100100250	0076344	TAPPING PLATE SEAT BELT MTG	NOS	C	100	500
172	081100100310	0074158	ASSY REINF CTR FLR - B	NOS	B	200	500

Sr.No.	Item Code	Part No.	Description	Unit	Class	Min. Qty.	Max. Qty.
173	081100100420	MB/MPU/010	FRONT FLOOR END CLOSER FRONT	NOS	C	500	1000
174	081100100650	0104CF0260N	REF PNL EXTN FLR REAR LH	NOS	C	500	1000
175	081100100680	0104CF0220N	REF BETN EXTN FLR RR CRS MBR	NOS	C	400	800
176	081100100690	0104CF0230N	REF BETN CRS MBR FRT PNL	NOS	C	600	1200
177	081100100700	0104CF0250N	REF PNL EXTN FLR REAR RH	NOS	C	500	1000
178	081100100720	0104FF0180N	PNLFRT END CLOSER RH	NOS	C	200	700
179	081100100730	0104FF0190N	PNL FRT END CLOSER LH	NOS	C	200	700
180	081100100750	0104EF0040N	REF PNL SIDE END LH	NOS	C	800	1600
181	081100100770	0104EF0030N	REF PNL SIDE END RH	NOS	C	600	1200
182	081100100810	0104FF0060N	REF PNL FRT END RH	NOS	C	200	800
183	081100100820	0104FF0070N	REF PNL FRT END LH	NOS	C	200	800
184	081100100880	0104GF0030N	REF Z SECT TAIL GATE PNL	NOS	C	1000	3000
185	081200100020	0101GK0120N	REINF ASSY REAR FLOOR C	NOS	A	100	300
186	081200100030	0067605	ASSY X SILL RR FLR	NOS	C	500	1000
187	081300100020	0W37221	REINF ATT SPARE TYPE	NOS	B	400	1200

Above parts procure as per line requirement and store directly on line.

A Class - 01 Day

B Class - 02 Day

C Class - ~~More than 02 Days~~ (1 week)

Prepared By

Chaitan

Approved By

Shiv Me

In the above generated Reports:

Total Number of Items is 187.

In which,

A Items – 9

B Items -11

C Items - 168

Here,

A Items are 5-10% of the total quantity.

This 5% Items covers 70-75% of cost.

B Items are near about 10-15% of the total quantity.

This 10-15% Items covers 10-15% of cost.

C Items are 80-85% of the total quantity.

This Items Covers 5-10% of cost.

Hence, Pareto Law proved.

- **Conducting ABC Analysis:**

To conduct ABC analysis, following steps are necessary:

- a) Prepare the list of the items and estimate their annual consumption(units)
- b) Determine unit price (or cost) of each item.
- c) Multiply each annual consumption by its unit price (or cost) to obtain its annual consumption in rupees (annual usage).
- d) Arrange items in the descending order of their annual usage starting with highest annual usage down to the smallest usage.
- e) Calculate cumulative annual usages and express the same as cumulative usage percentages. Also express the number of items into cumulative items percentage.
- f) Graph cumulative usage percentages against cumulative item percentages and segregate the items into A, B and C categories.
- g) Decide the policies of control for the three categories.

4. Questioner

1. How do you determine ordering frequency ?
2. What is your inventory counting procedure?
3. How do you eliminate excess or obsolete inventory?
4. Is your storage area well-staffed?
5. Do you apply the above practices to all parts of your inventory (finished goods, raw material, works in process and spare parts) and in all organizational entities?
6. Who determines the optimal frequency for producing or ordering products?
7. Who manages the on-site inventory?

5. Findings

1. It is found that some items are misplaced.
2. Keeping every item in its assigned place.
3. It is found that there are some codification errors.
4. Easy and prompt issue and receipt of items.
5. Keeping items in an orderly fashion.
6. Providing production against damage and pilferage.
7. Issuing oldest material first.
8. Inventory is managed by ABC analysis, problem is occurred as stock of A items is less as it carries more amount, Sometimes if Supplier is not available at time of requirement of A items it may lead to stop whole production line also.
9. Inventory is managed following ABC analysis;it is based on monetary value of the items in use. So the other important factors one ignored.
10. Providing enough space and storage equipment like alarmist, shelves, racks, bins etc.
11. Having regular programmer of inspection, physical verification and maintenance of Store.
12. Employing and training reliable men in store.
13. Keeping records and inventory of store up to date above are the importance recommendations.

6. Conclusion

To study the role/importance of INVENTORYsystem in relation to Mungi Brothers organization.

Today's market is a customer oriented market and customer satisfaction is the most important goal of every organization therefore it is inevitable to adopt integrated Inventory Management approach for new product development strategy. Financial – Material management for any product is a dynamic decision making process involving a series of inter-related activities.

In today's dynamic market "Every Bench marks are dynamic, challenge them for continual improvement". In order to remain in market any organization needs to define the process, Benchmark for the excellence, endeavor to achieve it by strategizing & creating environment, providing required resources & effective monitoring.

INVENTORYsystem is an extremely important problem area in the management of materials handling. It is quite susceptible to control and a very large amount of scientific models are available in the literature to enable us to choose an optimal inventory policy. Buying the optimal quantity can result only from a sound inventory control system that is achieved by judicious reconciliation of conflicting costs and departmental objectives. However, inventory is only an indicator of performance of materials management function and to cut down inventories we use not only scientific inventory management principles but also models along with it also take long-term measures to reduce inventories through strategies such as variety reduction and standardization, source development and optimization, and vendor rating, lead-time reduction through improvement in the systems and procedures of procurement. It is obvious that scientific inventory management has to be practiced selectively rather than indiscriminately to make it cost-effective. It is also important to have

Informational inputs like demand forecast, lead-time estimate, and other cost estimates to be realistic to make effective use of inventory models.

7. Suggestion

1. Recording level is not proper. This leads to increased inventory on shop floor. Proper monitoring and reordering of data is to be done on shop floor.
2. Inventory Management should be done not only on the basis of cost or monetary value of items in use other factors should also be considered like availability, lead time, sources of supply etc.
3. Company should search Local Supplier.
4. The Delivery Schedule must be transparent.
5. Company should follow Vendor Development Techniques.
6. Stock records must be reconciled periodically with physical balance.
7. Effective implementation of FIFO for raw material and finished goods.
8. Optimize inventory levels through effective deployment of system like KANBAN/ JIT.

8. Rational Of the Project

Rationale of study refers to the worth and utility of the study from the future point of view. Following are the worth and utility of the study from the future point of view:

The study of the project has helped me in gaining practical knowledge and insight into one of the significant inventory management system.

The project work will help me in my future job prospective, as it will guide me to give Better work satisfaction to employee.

The recommendations and suggestions by this project work will guide the Organization.

Workers can facilitate high standards and a safe and nurturing environment.

It is useful for organization to know how employees view the workplace, pay and benefits their supervision.

For the improvement of the organization, summer training can provide the data for future policies and strategies.

9.BIBLIOGRAPHY

1. Logistics and Supply Chain Management - D K Agrawal
2. Inventory Management - L C Jhamb
3. www.fishbowlinventory.com/articles/inventory-management/inventory-management-techniques/
5. <http://www.managementstudyguide.com/inventory-management.htm>