

LITERATURE SURVEY ON INVENTORY MANAGEMENT SYSTEM FOR RETAILERS

By,

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Problem Statement:

In today's world every business tries to strike a balance in inventory between what is needed and what is demanded, considering the major factor of cost cutting/reduction. This control is called Inventory management or inventory control. Inventory is basically assets (goods and materials) which are stock of any business. Inventory management focuses on the capacity of the inventory, the place in which it is located so that one can use it when needed, and the supply chain management of the raw materials and goods. Inventory management deals with the demand forecasting, asset management of the raw materials and goods, inventory carry cost, forecast, pricing of goods, validation of goods, to forecast the demand of future.

This helps the top level manager to understand and coordinate with the supply chain management or production management, and quality management.

Author - Pratap Chandrakumar, 2018

The term stock alludes to the merchandise or materials utilized by a firm with the end goal of generation and deal. It additionally incorporates the things, which are utilized as strong materials to encourage generation. There are three fundamental sorts of stock: crude materials, work-in-advance and completed merchandise. Crude materials are the things bought by firms for use underway of completed items. Work-in-advance comprises all things as of now during the time spent creation. These are quite made items. Completed products comprises those things, which have just been delivered however not yet sold.

This study contains proper observation of inventory management in the company. An efficient inventory management can control and make the company grow more and if in an inefficient way it will ruin the company business. Companies are always concentrated on domestic as well as international in order to increase the business globally based on trends. This study is on a leading brake manufacturing company conducting ABC analysis for items predicting the future demands which should be forecasted

by the company. From the study it is shown that buying of materials and shortage occurs due to improper ways of forecasting the demand.

Author-Nazar Sohail

Inventory management is a challenging problem area in supply chain management. Companies need to have inventories in warehouses in order to fulfill customer demand, meanwhile these inventories have holding costs and this is a frozen fund that can be lost. Therefore, the task of inventory management is to find the quantity of inventories that will fulfill the demand, avoiding overstocks.

Inventory costs have a lot of impact on the profitability of the firm and its success. Inventory management and its optimized decisions are depending on the identification of key success factors and right decisions at the right moment. In a dynamic market environment, it is necessary to focus on the decision making and the factors influencing decision making in order to optimize the results of inventory function. The survey approach can bring a light on the variables and these have a lot of biased information. Testing the factors' influence on inventory decisions by using scientific methods can help to improve the reliability of the factors taken as key variables in decision making.

Future focuses

- I. Detailed study about all the material was not possible because of the time limit.
- II. Some of the information was kept confidential by the steel industries department.
- III. Study was confined only to the selected components in the stores department of the steel company.
- IV. Comparative study may be new research problem for the future work

Author - Anajali Mishra & Harshal Anil Salunkhe

The aim of the study is to examine the inventory management process. The significance of this research is based on the benefits that can be obtained by identifying the issues of inventory control. The methodology used are unstructured interviews, on-site study, and annual report analysis. Inventory management is an important area of the manufacturing industry. If a company fails to manage inventory, they will face failure. It is a challenge for the company to maintain fair inventory. There are various inventory management techniques available for maintaining fair inventory levels in the company.

The basic objective of this paper is to study inventory management techniques used in Linamar India Pvt. Ltd. and find out some measures for improvement on the inventory management process of the concerned company. The present system of inventory management of

the company is good. For improvement of the present inventory management system, companies should adopt other inventory management techniques.

Author - Vikas Mr Sandeep Malik

There is a growing emphasis on the importance of inventory management in the attainment of organizational goals. In manufacturing companies where stock of raw materials and other component parts consists of many different items, the task of maintaining a stock management on every individual item is obviously difficult if not impossible. Every organization needs inventory for smooth running of its activities. It serves as a link between production and distribution processes. 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. So, in order to understand the nature of inventory management of the organization, I took this Inventory Management as a topic for my thesis, to give findings and suggestions by adopting and analyzing different inventory control techniques.

Author-Punam Khobragade,Roshni Selokar,Rina Maraskolhe.

Inventory Management System is software which is helpful for the businesses that operate hardware stores, where the store owner keeps the records of sales and purchase. Mismanaged inventory means disappointed customers, too much cash tied up in warehouses and slower sales. This project eliminates the paperwork, human faults, manual delay and speed up process. Inventory Management System will have the ability to track sales and available inventory, tells a store owner when it's time to reorder and how much to purchase. Inventory Management System is a windows application developed for Windows operating systems which focused in the area of Inventory control and generates the various required reports.

Focuses:

The requirements from the shopkeeper to create backup inventory within limited time and in high accuracy makes us come up with an automation solution by using a desktop. At this time we think that this is the base solution. However it might need some improvement in the future based on the lesson learned so is the new requirement from the Shopkeeper.

Author-Amaneul Dereje

Inventory is carried out for many reasons, but the main reason is that operational risks require holding of inventory to guard against breakdown and production losses. Secondly, delivery cannot be exactly matched to daily usage. Sufficient inventory ensures that production is continuous and at an economic level,(DATTA (2003:136)

With this regard, the researcher has investigated the inventory management and control of Ries Engineering SCo for its supplying the maintenance\service department, the right parts at the right time so that machines can have little breakdown time. As per the information the researcher finds from service department personnel, higher breakdown time arising from inventory control results in higher breakdown time. This resulted in decline of sales and customer dissatisfaction. This leads to customer's shifting to other competitors for parts and service needs. Just in-time system (JIT):-JIT is defined as the philosophy of manufacturing based on planned elimination of all waste and continuous improvement of productivity. JIT is an approach that to eliminate all source of waste in production activities by providing the right part at the right place at the right time. JIT encompasses the successful execution of all manufacturing activities required to produce a final product, from design to delivery and including all stages of conversation from raw materials onward, Shridhara K:2003.

Conclusion

The company uses perpetual inventory management for management for spare parts. This approach is very appropriate for the company as spare parts can be misappropriate by people. The approach enables the company to check the inventory regularly and to take appropriate measures if spare parts may be missing. The method for inventory management mostly used by the company is Last-In, First-out (LIFO). It helps to manage price variations. Since parts are sold out in their entry order, their price can be quoted easily.

The company administers the physical counting of the inventory by an independent body to ensure parts listed in the record physically existed. This kind or cross check is very important for companies doing such business as goods may appear in record may not exist physically on shelf. So this physical counting helps the company to detect these parts that are recorded but not exist physically. It is also identified that company's spare parts are properly numbered and tagged for easy identification and accessibility.

Author-Darya Plinere, Arkady Borisovriga.

Inventory management is a challenging problem area in supply chain management. Companies need to have inventories in warehouses in order to fulfill customer demand, meanwhile these inventories have holding costs and this is a frozen fund that can be lost. Therefore, the task of inventory management is to find the quantity of inventories that will fulfill the demand, avoiding overstocks.

This paper presents a case study for the assembling company on inventory management. It is proposed to use inventory management in order to decrease stock levels and to apply an agent system for automation of inventory management processes.

Future work

Inventory management is essential to every company, having inventories. Companies need to have stock, but in such amounts to avoid out-of-stock and overstock situations. Inventory management can improve a company's inventory, control existing situations and decrease costs of the company. Agent system, in turn, proposes the automation of this process, it can support several forecasting methods and it reacts to changes in the environment. In this paper, the existing inventory management situation is analyzed, two fold improvement is proposed – to use inventory management with the aim to decrease company's inventory level and holding costs by avoiding overstocks and to apply the agent system in order to automate the inventory management processes and to timely react to demand deviations from the forecasted demand by making corrections in replenishment policies.

According to experiments, it can be concluded that timely reaction to changes in the environment can propose better results. This can be done by a human or decision support system comparing the forecasted demand with real and making corrections in orders, or this can be done by an agent as it is proposed here. The next step of the present research will be the application of achieved results of demand forecasts, safety stock and reorder points into simulation software in order to achieve more accurate results.

Author-Serhii ZIUKOV

Inventories are raw materials, work-in-process goods and completely finished goods that are considered to be the portion of a business's assets that are ready or will be ready for sale. Formulating a suitable inventory model is one of the major concerns for an industry. The earliest scientific inventory management research dates back to the second decade of the past century, but the interest in this scientific area is still great. Again considering the reliability of any process is an important feature in the research activities. Values of some factors are very hard to define or almost unreal.

In such cases, fuzzy models of inventory management take an important place. This paper analyzes possible parameters of existing models of inventory control. An attempt is made to provide an up-to-date review of existing literature, concentrating on descriptions of the characteristics and types of inventory control models that have been developed. The problem of inventory control is one of the most important in organizational management. As a rule, there is no standard solution – the conditions at each company or firm are unique and include many different features and limitations. An occurring task of mathematical models development and determining the optimal inventory control strategy is related to this problem.

Author: Thi Thu Ha Nguyen, Faculty of Economics and Business ,University of Pécs, Pécs Hungary(2017)

Description:

Aim/purpose – The main purposes of the paper are to analyze features creating a Wal-Mart's successful integrated supply chain that contributes its dominant position in the retail market and identifies issues existing in Wal-Mart's supply chain. Then some suggestions will be mentioned for Wal-Mart to establish the Triple-A supply chain.

Methodology – This paper is based on literature studies for reviewing Wal-Mart's integrated supply chain and designing an ideal Triple-A supply chain.

Findings – The key findings indicate that it is necessary to build the Triple supply chain for not only Wal-Mart but also firms in the 21st century and in order to achieve an ideal supply chain, firms need to redesign its supply chain towards an integrated supply chain with three capabilities (agility, adaptability and alignment) in which aligning incentives can be seen as the most important component.

Research implications/limitations – This research confirms that an integrated supply chain will be the first vital prerequisite for a firm to improve the supply chain performance and achieve an ideal supply chain. However, a main limitation is that findings are only based on the literature.

Contribution – It is suggested that in order to build a successful supply chain that enhances both short-run and long-run competitive advantages, firms should follow the idea of designing an ideal Triple-A supply chain with three capabilities including agility,

adaptability and alignment, in which aligning incentives among participating partners can be seen as the most important feature.

Research contribution :

The important finding is that in order to achieve a successful supply chain which enhances both the short-time and long-term competitive advantages, firms need to redesign its supply chains towards an integrated supply chain with three capabilities – “Triple A” (agility, adaptability and alignment) in which aligning incentives among participating partners is the most important feature.

Future Works

The main limitation is that findings are only based on the literature and how to build an ideal supply chain for firms in the 21st century is a debated topic among researchers. Hence, this topic will open a new research field for researchers in the future.

Author: Nazar Sohail, Krukshetra University Tariq Hussain Sheikh, Govt Degree college Poonch (May, 2018)

Inventory management is a challenging problem area in supply chain management. Companies need to have inventories in warehouses in order to fulfill customer demand, meanwhile these inventories have holding costs and this is a frozen fund that can be lost. Therefore, the task of inventory management is to find the quantity of inventories that will fulfill the demand, avoiding overstocks. This paper presents a case study for the steel manufacturing industry (Small Scale Industry) on inventory management. The relationship between the inventory management and company performance was determined based on inventory days and return on asset (ROA) analysis.

The research found that company X had a few inventory problems such as unorganized inventory arrangement, large amount of inventory days / no cycle counting and no accurate records balance due to unskilled workers. The study also proved that there was a significant relationship between return on asset (ROA) and inventory days. This paper also provides recommendations to the company and for further research.

Future Work

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Inventory management has to do with keeping precise records of finished goods that are ready for shipment. This often means posting 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[1]category contained in the finished goods inventory to account for any returned goods that are reclassified or second grade quality. Accurately maintaining figures on the finished 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.

The ROI of Inventory management will be seen in the forms of increased revenue and profits, positive employee atmosphere, and on overall increase of customer satisfaction. The next step of the present research will be the application of achieved results of demand forecasts, safety stock and reorder points into simulation software in order to achieve more accurate results.

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Construction materials constitute a large portion of the total cost in construction projects. It may account for 50-60% of the total project cost. Material management includes finding the availability, proper selection, procurement, inventory management and effective usage of materials at the right time. In this inventory management is one of the single largest components to improve the productivity, cost efficiency of a project and help to ensure timely completion of the project. On preparing inventory charts and analyzing the cost estimate, the proper cost control over material procurement has been achieved to avoid surplus expenditure and better field material control.

Future Works:

Inventory management deals with material procurement. From this study how to do inventory management for building structure is known. Where there may be deviations occur during construction, due to the quantities calculated are as per drawings but during execution many deviations occur on site. The main factors to be considered during the chart preparation are the site condition and the interlocking activities. While considering these activities the inventory chart is more effective. Inventory chart based on activities is basic chart for site engineers and management people to schedule the material procurement and allocate the cost according to it, to avoid surplus expenditure spend for the material.

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