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**IMPLEMENTATION OF JIT FOR ACHIEVING THE GOAL OF
CUSTOMER SATISFACTION IN SERVICE PROCESSING AND
DISTRIBUTION NETWORK**



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ABSTRACT

Just-in-time JIT, as the name implies, is to produce goods just-in-time for use or sale. It is a Japanese manufacturing management method developed by Taiichi Ohno, father of Toyota production system in the 1970s which had its motivation in the Japanese urge to develop better and efficient technique capable of rebuilding their economy after the 2nd World War by focusing on elimination of waste in all forms. In the case of service processing distribution network the customers always needs the right material at right time in right quantity and in right quality for achieving this goal for customer satisfaction the service processing distributors always tries to perform better and better by using new methodology. In this research we will tries to find the role of JIT for achieving customer satisfaction in service processing and distribution network.

Keywords:

Just – In – Time, manufacturing management, service processing distribution network, customer satisfaction.

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1. INTRODUCTION

In the service processing distribution network the distributors gets order from customer and then conveys to their manufacturing units later on manufacturing unit produce the order and then supply to the customer. Meanwhile in this process the customer don't have any direct contact with the manufacturing unit. In the whole system of service processing and distribution the customer always need the supply of raw material on time, at right quantity, in right price and in right quality but the supply of raw material are depends up on the ordering quantity and production load of the manufacturing unit and due to this factors the on time supply of raw material right form is always gets deviated, this step is create customer dissatisfaction. In this research we are applying JIT

philosophy for archiving the goal of customer satisfaction in the service processing and distribution network.

2. LITERATURE REVIEW

The primary goal for the any organization is customer's satisfaction and if organization cannot reach perfection in this area then all the processes are worthless. All parts of the value chain and everything in the enterprise must be healthy for realization of competitive business processes. If the company wants strong and long lasting value chain all the links within the chain must be prepared to overpass all existing problems. If the company wants to have a JIT concept it does not mean that everything must be done very fast. The most important thing for the company is to have good organized resource allocation. Also, the management and employees must have on their mind that this concept can help the organization to solve many problems in logistics. It is true that implementation and development of JIT is a long-lasting and expensive process, but if the company can manage with these difficulties it is possible to achieve high levels of workflow. [1]

JIT production system identifies the hidden problems in the value chain and reduces the production waste of the system while increasing the throughput (Sales-Raw Material Cost). Even though the JIT system seems to be interesting and less complicated it requires lot of coordination with supply chain to avoid delays in the production schedule. This article discusses in depth the implementation of JIT manufacturing. The objectives are twofold. The first objective is to acquaint the reader with the overall JIT concept and the factors necessary for its implementation; the concepts presented here represent the ideal principles and methods of implementation. [2]

Low inventory, or just-in-time (JIT) manufacturing systems, enjoy increasing application worldwide, yet the behavioral effects of such systems remain largely unexplored. Operations Research (OR) models of low inventory systems typically make a simplifying assumption that individual worker processing times are independent random variables. This leads to predictions that low-inventory systems will exhibit production interruptions. [3]

Many factors affect JIT implementation directly or indirectly. Factors such as product quality and lead time directly affect the implementation of JIT. On the other hand, factors such as work environment, working conditions, motivation, flexibility whether manufacturing or organizational affect JIT implementation indirectly, although their impact is no less important than those affecting directly. The present paper thoroughly explores these factors and discusses the extent to which they affect JIT and its implementation. [4]

Just-In-Time (JIT) manufacturing distances itself from the competition because no large capital outlays are required. Other methods promote complexity, large overheads, automation, and other "state-of-the-art" technologies, while JIT advocates simplifying and streamlining the existing manufacturing process. This text is to introduce basic JIT concepts and assure you that JIT can work in your company. The transition to JIT often is not easy, but it is almost always rewarding. All employees in the company - from top management to direct labor - must have a clear understanding of the benefits that JIT offers to them and to their company. JIT is not a cure-all for every manufacturing problem. But, if implemented properly, JIT is a no-cost or low-cost method for improving manufacturing process. [5]

3. CASE STUDY

Implementation of Just In Time Inventory Management in ESSAR Steel India Ltd. & through modification in the approach of service processing and distribution network.

4. METHODOLOGY

The methodology used similar to JIT in the steel sector but in different perspective which enhances & provide optimal usages of the facility as well the resources like, man, machine, material with respect to time. It also helps to convert the need into demand & supplies of same. The blank sizes which are standardized & machined for various auto manufacturing units.

Here, we also use the process optimization (minimization) & time reduction adds values in JIT philosophy of Steel Inventory Management. At glance major steel coils are brought at our end which is to be monitored by ageing, than SKU (stock keeping unit) wise categorized into RED, YELLOW & GREEN similarly to traffic signals.

The SKU consists of RM, WIP, WIM & FG stock of the mother coils subjected to process of slitting & shearing to serve the customer as per their schedules.

RM: Raw material is the mother coils which are of standard width size of 1250 & 1500mm respectively, which are converted to blanks & other standard sizes machined at Press shop for the manufacturing of Auto components.

WIP: Work –in –Process is the conversion of the mother coils into the different blank sizes required for the manufacturing of auto components.

WIM: Work –in –Manufacturing is the term here which is used by the secondary process of conversion of the mother coils into the different blank sizes required for the manufacturing of auto components

FG: Finished Goods are the final product which are ready to dispatch for the manufacturing of auto components.

As the RED is the category of stock at our end which is exist for more than 60 days, due to which quality of the material getting bad & than worst due to following factors;

- 1) Shifting of coils from yard to bay
- 2) Continuously loading-unloading.
- 3) Environmental moisture causes rusting
- 4) Cutting slits & sheets straightness as well as yield disturbances.

Similarly, as we move to Yellow category which is less than 30 days ageing of stock as per the projected or forecasted requirement of the customer & according to the production schedule of OEM's(Original Equipment manufacturer)& their ancillaries.

The material should be stock transferred or it would be process according to the OEM schedule itself respectively.

Now, we are on Green category which allows us to maintaining the stock between 15-30 days of duration of time.

ORDER PROCESSING

A) order entry in sap

Enquiry = Quotation = Sales Order

b) Properties constraints

Specifications = Chemical & Mechanical

c) MOQ minimum order qty. defined

Production = Order level = Supply level = Heat capacity = Feasible = Rolling

METHODOLOGY FLOW CHART

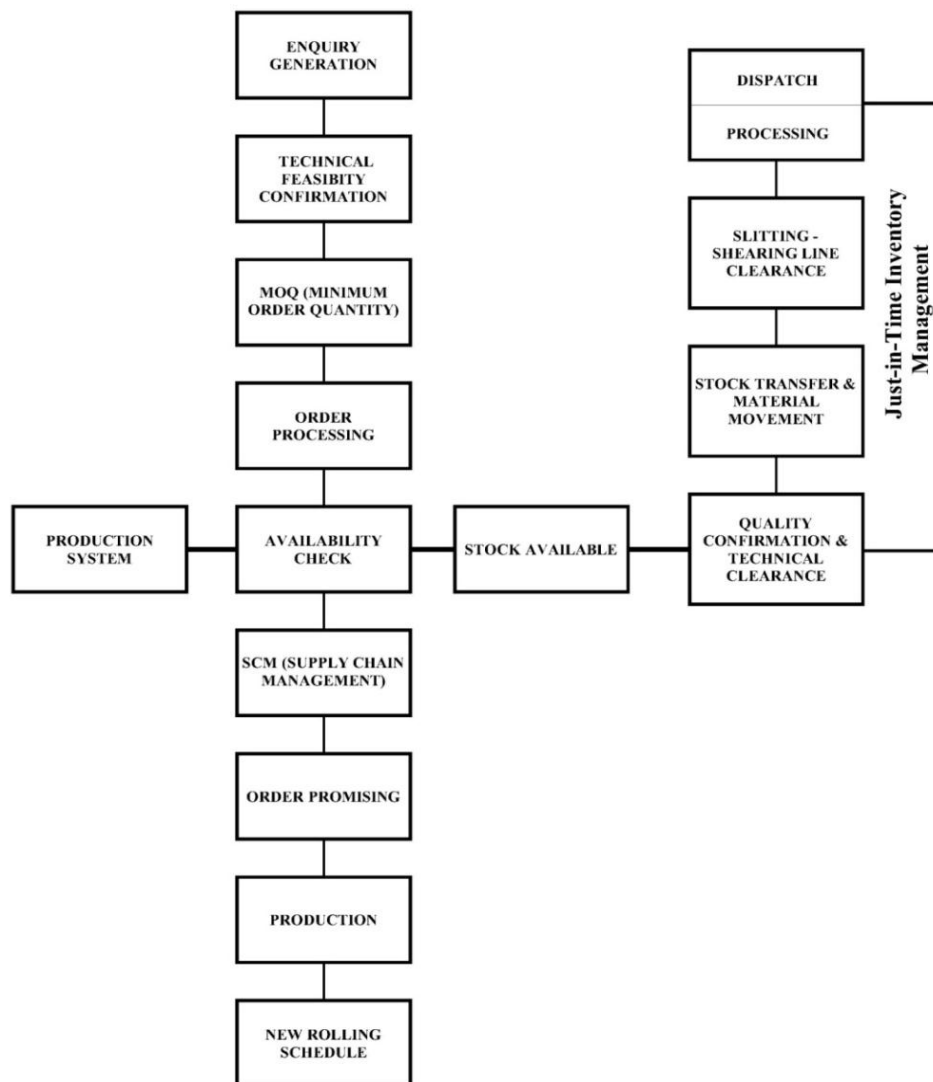


Figure 1: Just-In-Time Inventory Management

5. RESULTS & DISCUSSIONS

In any business, make it big or small, we must understand that taking good care of our inventory is very important. If we as managers do not understand the concept of good inventory management, we must learn to be familiar with it and its applications. One of the reasons for the failure of a business is its inventory management. There are many ways to fight failure, and we can start from here. There are new technology that can help us maintain and supervise our inventory. What we can do is learn, implement and evaluate our business. And you can start with your INVENTORY!

Following points can be concluded from this case study:-

- 1) Inventory cost reduces by 24% also effects on the overall cost by 8%.
- 2) Sufficient or it to be said that an average Inventory level is maintained in respective grade-sizes.
- 3) Major fluctuations are also sustainable & fulfilled accordingly with respect to market demand.
- 4) At customer point of view, there is a major beneficiary at their end on Inventory control.

6. CONCLUSION

In today's highly competitive work environment, companies have to find ways to be able to compete effectively with their competitors. They have to find ways to reduce cost, improve quality, and increase customer satisfaction. Just-In-Time system is among the tools that companies can use to become competitive. The implementation of Just-In-Time system will provide companies with competitive advantage; however the system requires companies to change radically. Cost accounting is among the areas that are affected by the implementation of Just-in- Time system and through it we can also achieve the goal of customer satisfaction.

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