Analysis of Production Planning and Control of Typical Process (Leather) Industry

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Abstract - **Production planning and control (ppc) is a process that comprises the performance of some critical; functions on either side, viz., planning as well as control. PPC is a coordination between Marketing and Production process and its ultimate goal is to customer satisfaction to increase the company profit or company output and this job of PPC are done by separate PPC department of an organization in effective manner. A Simple method to identify the Production Planning of control process of Tata international Ltd. Dewas. In this Process we have analysis the PPC process of an organization Tata international Dewas, In which we have studied of different department of Tata International Dewas where PPC process are going on and what is the factor effecting of PPC process in an organization.**

Keywords - **Customer satisfaction, Inventory control, Budget Planning, New Product development.**

I. INTRODUCTION

Production, planning and control (ppc) department essentially consists of planning production in a industrial undertaking before actual working starts. It establishes the exact sequence of operations of each individual item ,part or assembly. It sets starting and finishing dates for each important item, assembly. It covers the procedures of releasing necessary order for production and their follow up to see that they are completed in minimum adjustment. Thus it is a function of looking ahead, anticipating difficulties and taking steps to remove them before they materialize. In progressive industry, ppc department prepares maintains vital information through elaborate systems and prepares plans by using sophisticated planning techniques with the aim of bringing over all advantages to the company

II. PRODUCTION PLANNING AND CONTROL ORGANIZATION

It should be obvious that there is no single pattern for the organization of the production planning and control activity. In many small plants the routing, loading, and scheduling functions may well be included in the duties of the operating line; the shop manager, superintended, and foremen. But it is difficult to combine day-to-day work with adequate planning, and as a result it is often more feasible to break away the production planning and control functions and assign them to qualified specialists. These groups should be organized as staff sections normally reporting to the top manufacturing executive.

2.1 Centralized Production Planning and Control

Centralization or decentralization of duties of the production control staff depends upon the design of the production planning and control system. In a completely centralized setup, determination of shipping promises; analysis of sales, stock, and shop orders; preparation of routes, load charts, and schedule charts; and dispatching of work to the shop complete with job tickets and all other necessary paper would be accomplished by a central production planning and control unit. In addition, as work is completed, a careful analysis of the actual performance would be made, and if corrective action were required, it would be initiated by this group.

2.2 Decentralized Production Planning and Control

We have discussed at great length that no matter how general the planning may be in a central office, the plan must eventually be developed into a detailed

plan on the shop floor. Some companies are now endeavoring to make each foreman a manager of his own departmental operation. In these cases the foreman is furnished with a complete staff for the production planning and control of the activities in the department.

2.3 Planning Phase

We have already indicated in some details the duties involved in the production planning phase. Working from the basic data mentioned earlier, the personnel in this part of the activity routes and load and schedule charts.

2.4 Control Phase

The completed job ticket, or its equivalent, is the key to this phase of the production planning and control system. It is the means of reporting back from the shop floor that indicates that a job is completed; or if daily job tickets are turned in, the daily progress of a job can be determined.

2.5 Relation to Other Functions

Good relationships with all the other functions in the enterprise are essential to effective production planning and control. Full cooperation with the marketing group is necessary, particularly in view of the importance of market conditions and the goodwill of customers. Both product engineering and process engineering must keep production planning and control informed as to their plans to avoid the manufacture of goods either to incorrect specifications or by an improper method.

III. MEASUREMENT OF EFFECTIVENESS

In determining the effectiveness of a production planning and control system, there are quite a few problems. The key criterion might well be whether or not shipping promises are being kept – the percentage of the order shipped on time. This, however, would not be a true criterion if excessive overtime of expediting costs were involved in getting any of these orders shipped. The cost of the control system in relation to the value of goods shipped is another possibility. Again, however, this may not be sound: if markets slump, a bad ratio will develop. Many good production planning and control systems have been discontinued because of "high costs" under these conditions- and have never revived after business picket up. In a study of benefits and costs of computerized production planning and control systems, Schroeder et al. list the following performance criteria by which production

Planning and control systems might be judged:
1. Inventory turnover
2. Delivery lead time
3. Percent of time meeting delivery promises
4. Percent of orders requiring "splits" because of unavailable material.
5. Number of expeditors
6. Average unit cost.

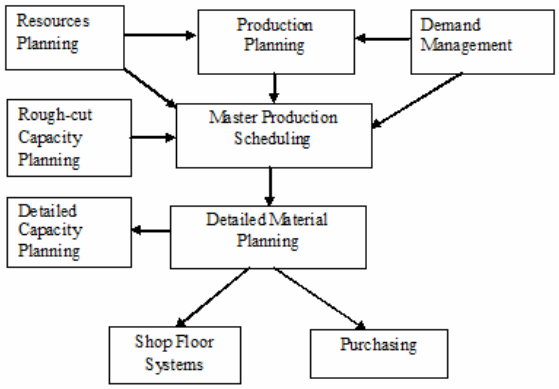

Fig.3

Fig.1 Production Planning and Control General

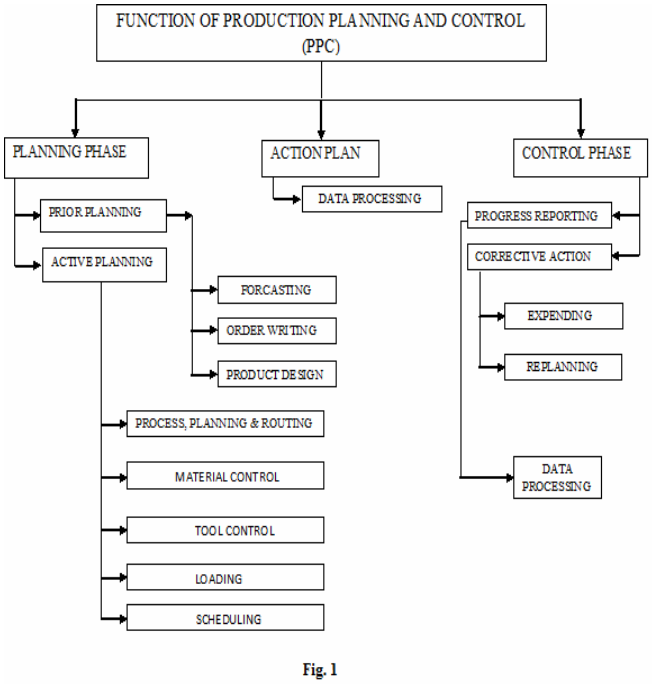

Fig. 1

Fig.2 Flow Chart Of PPC Process

IV. INVENTORY CONTROL BY PPC

Inventory control is a system which ensures the provision of the required quantity of inventories of required quality at the right time with minimum amount of capital investment. Thus the function of inventory control is to obtain the maximum inventory turnover with sufficient stock to meet all requirements. The efficiency of organization is known by the speed of material movement in production.

4.1 Objective and Importance of Inventory Control

Inventory control now-a- days has become unavoidable in any manufacturing process. The basic managerial objectives of inventory control are two fold : 1 to avoid over and under investment in inventories; and 2 To the right quality of goods of right quantity at proper time and at reasonable price the objective and importance of inventory control may be discussed as

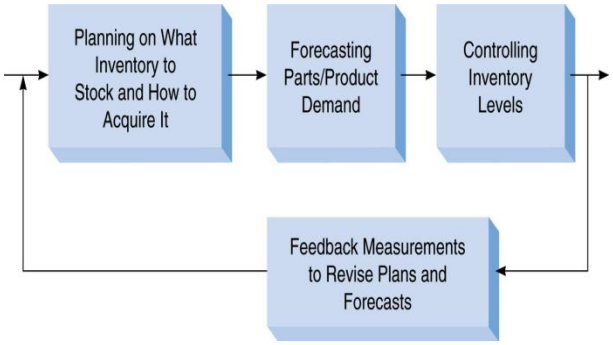

Fig.3 Inventory Planning Control

4.2 Assumption Of Inventory Control

1.Demand is known and constant
2.Lead time is known and constant
3.Receipt of inventory is instantaneous
4.Quantity discounts are not available
5.Variable costs are limited to: ordering cost and carrying (or holding) cost
6.If orders are placed at the right time, stockouts can be avoided

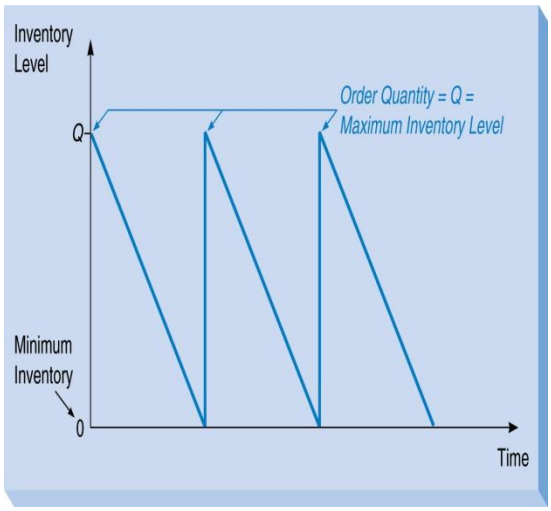

Fig 4.Inventory Level Overtime Based On Assumption.

4.3 Minimize Inventory Cost

Only ordering and carrying costs need to be minimized (all other costs are assumed constant) As Q (order quantity) increases:

1. Carry cost increases
2. Ordering cost decreases (since the number of orders per year decreases)

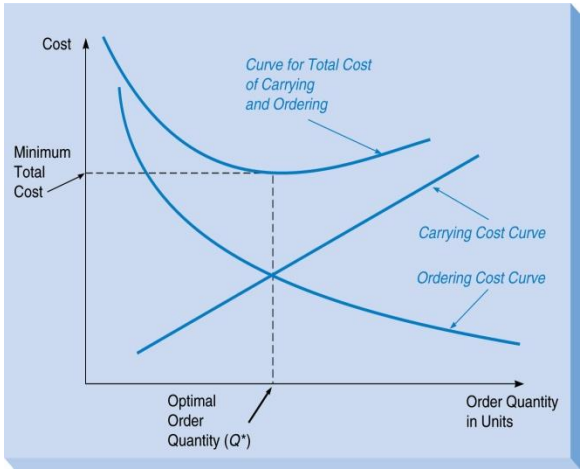

Fig 5 .EOQ Model Total Cost.

At optimal order quantity (Q*): Carrying cost = Ordering cost

ReorderPoint:
Determining When to Order

1.After Q* is determined, the second decision is when to order
2.Orders must usually be placed *before* inventory reaches 0 due to order lead time
3.Lead time is the time from placing the order until it is received
4.The reorder point (ROP) depends on the lead time (L)

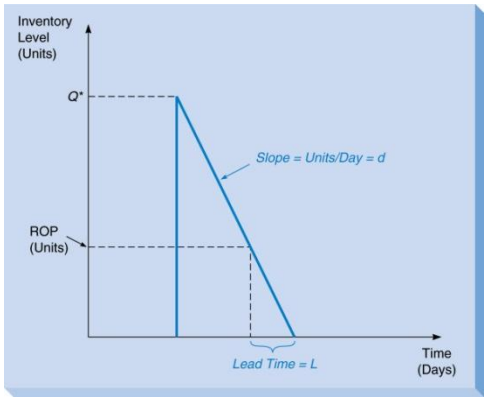

Fig 6. Reorder Point (ROP) ROP = d*L

Economic Producation Quantity Determine How Much To Produce:

1.The EOQ model assumes inventory arrives Instantaneously.
2.In many cases inventory arrives gradually.
3.The **economic production quantity** (EPQ) model assumes inventory is being produced at a rate of p units per day.
4.There is a **setup cost** each time production begins..

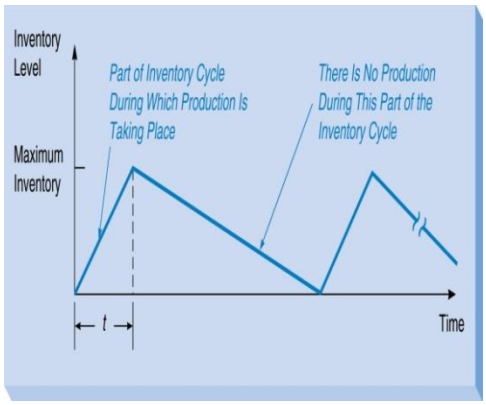

Fig 7.Inventory Control With Production.

VI. CONCLUSION

From the above Analysis we can Reduce the Inventory of the Company, Helpful to Deciding the Budgeting and Forecasting of the Company , Sales also Increases by the above Analysis and we can deliver the product to the customer in given period of time with their specification and also helping in developing in new product and last but not least it will increases the profit of the company.

REFRENCES

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3. MONTHLY & WEEKLY DESP PLAN
4. PENDING ORDER STATEMENT
5. DESPATCH PLAN V/S ACTUAL ANALYSIS
6. DAILY PRODUCTION REPORT
7. P&L STATEMENT INVENTORY STATEMENT
8. OUTSTANDING DEBTORS & CREDITORS
9. CATEGORY WISE GRINDERIES
10. PERPAIR GRINDERIES COST
11. PERFORMANCE SUMMARY
12. PLANNING MEETING PAPERS