

A Review on Production Planning and Management System

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Abstract - Production Development and Management is the leading management approach that companies employ to improve their product and service quality with the aim of improving typical measures of business performance (e.g. increased profits, increased market share, reduced costs and best quality). Customer requirement management entails various issues related to requirement elicitation, analysis, and specification, as well as the requirement management process. Creation arranging and control (PPC) is critical for the serious situation of assembling firms. For more than thirty years an enormous number of PC helped PPC frameworks have been on offer, the vast majority of them dependent on the notable MRP rationale. Since these frameworks regularly lead to unsuitable outcomes, various new ideas for PPC frameworks have been created. In this paper we initially portray the customary PPC idea and its study, at that point we survey the new PPC ideas which are accessible for handy application (outstanding burden control, MRP II, OPT, JIT-Kanban, dynamic figures) along with OR models which are pertinent to these new ideas.

Keywords: Production Management, profit, performance, Kanban.

1. INTRODUCTION

Production is the process by which raw materials and other inputs are converted in to the finished goods. Operations management has been recognized as an important factor in a country's economic growth in service sector which become more famous. Rapid changes posed numerous opportunities and challenges. Our general aims in this study are to bring new experiences and knowledge on requirement management in the production and its development. This system has major challenges in the global competitive environment. Today's effective product development is not a characterized on the creativity, but it depends on the management. This paper, review the production Management and launching to improve the productivity and represents the relationship between top down and bottom up approach to achieve goals. We refer to as requirements management, involve several disciplines and extend through all development phases. The activities which are involved in manufacturing is called as production management. If same concept involved in services management is called as operation management.

1.1 Ways of production

1. Production by Disintegration: By separating the contents of Crude oil or a mixture by which the desired products are produced. For example the crude oil is disintegrated into various fuel oils. Similarly salt production is also an example for.

2. Production by Integration: In this type of Production various Components of the products are assembled together to get the desired product. In this process, Physical and Chemical Properties of the materials used may change. The examples are: Assembly of Two wheelers, four wheelers and so on.

3. Production by Service: Here the Properties of materials (Chemical and Mechanical) are improved without any physical change.

Example:-Heat Treatment of metals.

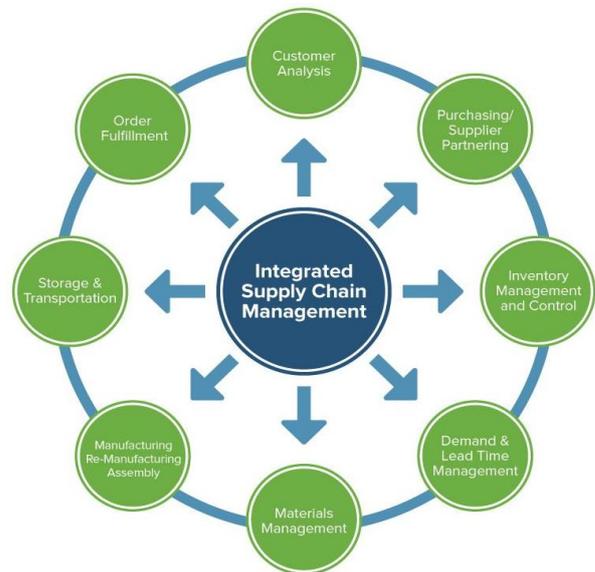


Figure 1.1: Production-Aligned ways for integration and other

1.2 Production Planning System:-

1.3 Characteristic of production Planning system:-

- Planning Independent Requirement (PIR)
- MPS/MRP Running
- Production Planning

- Receive raw material
- Production confirmation
- Production Order close and settled

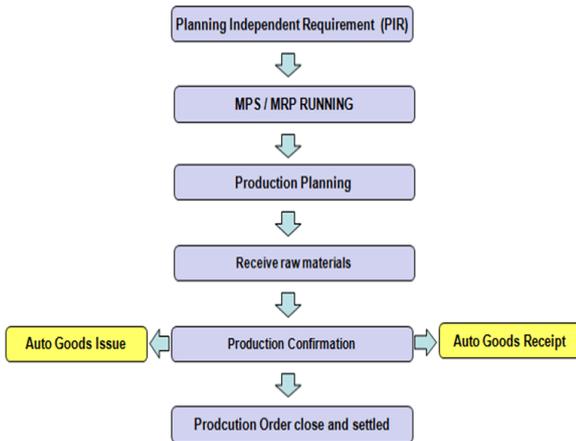


Figure 1.2: Production- Planning System

1.4 Types of production:-

1. Continuous Production
2. Batch Production.
3. Mass Production
4. Unit Production

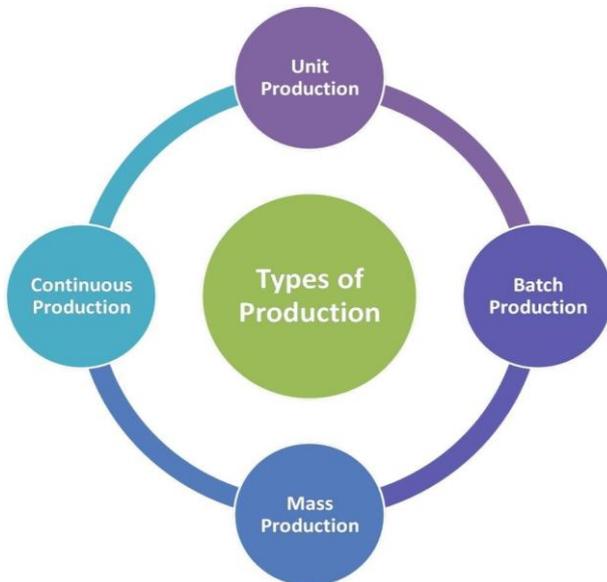


Figure 1.3 Types of production

II. LITERATURE SURVEY

Kehoe et. al (2001a) encourage a network-based approach by suggesting that through the use of Internet-based technologies, a mindset closer to Supply chain Resource Planning (SRP) can emerge. Thus web- or e-based Supply Chain Management (e-SCM) technology is a major growth area, with the lead taken by large companies.[1]

Cagliano et al. (2003) suggest that the Internet is also feasible for SMEs and identify ‘e-purchasing’ as an area where SMEs use these capabilities, but that companies can draw benefits from the use of Internet tools only by defining a clear e-business strategy.[2]

Quayle et. al [2002] considers e-commerce strategy to be missing from SME business plans, but agrees that SMEs could benefit from e-commerce, both as a strategic business tool and to facilitate purchasing consortia.[3]

Hunter et al. [2004] acknowledge that the use and benefits to be gained from e-business vary with buying circumstances. The degree of customization present in the MTO industry means that customers cannot take full advantage of e-purchasing at the customer enquiry stage, only by, for example, confirming previous tenders at the job entry level. [4]

Machuca et. al [2004] explain that EDI can reduce ordering costs allowing more frequent ordering in smaller batches, reducing the distortions in demand information in the supply chain that create the bullwhip effect.[5]

Kristina Säfstenet. al [2010] With the practical experiences from industrial development of production systems in Chap. 4 as a foundation, a theoretical exposition now follows. By way of introduction the knowledge area and the meaning of a number of relevant concepts is explained. After that the development process and thereby included activities are described. One of the core activities, evaluation, is more thoroughly described in a section on its own. Furthermore, production development is discussed from its position in the product realisation process. A long-term ability to develop production systems is essential for success and in the concluding section some approaches to achieving successful development from a long-term perspective are presented.[6]

Rose Chepchumba et. al [2016] The underlying premise of the theory of constraints is that organizations can be measured and controlled by variations on three measures: throughput, operational expense, and inventory. Inventory is all the money that the system has invested in purchasing things which it intends to sell. The operational expense is all the money the system spends in order to turn inventory into throughput. Throughput is the rate at which the system generates money through sales. Before the goal itself can be reached, necessary conditions must first be met. These typically include safety, quality, legal obligations .[7]

Bradley et. al. , [2017] Production Planning (PP) is the lifeblood of any manufacturing firm. It entails finding the delicate tradeoff between satisfying customers and managing suppliers A company can have a dynamic business model and waste hours of time (Bradley, 2017) and naira on redundant processes when its production system is on guesses instead on a careful analysis of the

market/customers' demand. Furthermore, when a firm's production planning is being carried out without adequate forecasting, it may cost the organization its life as a corporate entity. Winning in this competitive era lies in the ability of a manufacturing firm to know what, how, when, where, and how much to produce.[8]

Okah Vincent et.al [2018] Any production planning done without adequate forecasting or inventory management, for the purpose in achieving effectiveness may cost the organization its life as a corporate entity. Winning in this competitive era lies in the ability of a manufacturing firm to know what, how, when, where, and how much to produce. This study investigated the effect of Production Planning on organizational effectiveness of the beverage industry in South-East Nigeria. In this respect organizational effectiveness is measured in the areas of inventory cost minimization, customers' satisfaction, and sales volume. The study formulated four research hypotheses, and questionnaires distributed to 212 respondents in the two sampled manufacturing firms. One hundred fifty (150) copies of the questionnaires were retrieved. From its findings based on the application inferential statistical method of Chi-square, the study revealed that production planning has a significant effect on inventory cost minimization, customer's satisfaction, and sales volume of the Nigerian beverage industry. This finding implies that production planning significantly affects the organizational effectiveness of firms. Based on these, the study recommends among others, that for an organization to be committed to meeting customers' satisfaction, such an organization must be ready to implement material requirement planning (MRP) and demand forecasting. Such implementation will enable them in knowing what their customers' want, how they want it, and when they want it.[9]

2.1 RESEARCH FINDING

A. Example which implement it

2. 1.1 WEGMANS FOOD MARKETS

Wegmans Food Markets, is one of the premier grocery chains in the United States, Wegmans have more than 70 stores. The company has annual sales of over Rs. 2.0 billion. It has a strong reputation for offering its customers high product quality and excellent service.

2.2.1 Toyota Motor Company: Toyota evolved a unique manufacturing system which main aim is zero defects .As per example it implement Kanban technology. Kanban is a technique that's used to bring about an action .Toyota introduced and refined the use of kanban to standardize the flow of parts in their production and development to ensure that inventory was based on actual customer orders rather than managerial forecasts. Kaban is a card with an inventory number, attached to a part before

the part is installed and manufacture that part for which card is given.

2.3 SIX RULES

which characterize the "KANBAN"

1. Downstream processes may only withdraw on the specified amounts.
2. Upstream processes may only send items
3. Without a kanban no items are made or moved .
4. 4 For each item, a kanban must accompany at all times.
5. Defects and incorrect amounts are never sent.
6. For improvement the number of kanbans should be monitored carefully to allow something hidden to be seen the problems.

2.4 Techniques of "KAIZEN"

Safety Kaizen is a system of continuous improvement in quality, technology, processes, company culture, productivity, safety and leadership. Kaizen is based on making little changes on a regular basis always improving productivity, and effectiveness while reducing wastage .

2.4.1 Kaizen

5S Principle

1. SEIRI - Sort, Clear Out
2. SEITON - Set Things in Order
3. SEISO - Clean and Shine
4. SIEKETSU – Standardize
5. SHITSUKU - Self Discipline

III. OBJECTIVES

3.1 OBJECTS OF PRODUCTION MANAGEMENT

1. Right quality
2. Right quantity
3. Right time
4. Right Manufacturing Cost
5. Main aim is to adopt six sigma.

And most important thing is to produce the desired product or specified product by specified methods. Production management as a function of manufacturing, retailing, transportation, whole selling.

IV. CONCLUSION

Production management focuses on carefully managing the process to produce and to distribute products and services. We believe that product lines present an opportunity for increased efficiencies and economies, more

reliable and predictable and higher quality production, a more robust relationship with a production, launching and management in current and new markets A great deal of focus is on efficiency and effectiveness of processes development .It improve the productivity and represents the relationship between top down and bottom up approach to achieve goals. Therefore production development and management often include substance measurement and analysis of all the internal activity .This paper will help more organizations make the attempt .At last we concluded that management is not only a important key but also play a vital role in before the production and after it also.

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