

The Brief Analysis of Influence of MRP and JIT System on Traditional Accounting Elements

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Abstract. Although MRP and Jit are two kinds of production management modes produced in different cultural backgrounds, they are widely used in many enterprises. While these two production management models are adopted, few people will pay attention to their impact on accounting elements. In this paper, MRP and Jit are used to analyze the accounting elements of financial status and operating results of Chinese enterprises.

1. Introduction

In a large market with intense competition in manufacturing, whether it is discrete or process manufacturing, whether it is single-piece production, small-batch production, multi-variety production, or mass production of standard products, their internal management may encounter problems such as the untimely or insufficient supply of raw materials, a serious backlog of wip or unclear quantities, which are mainly caused by the enterprise's inadequate control over material requirements and plans, and therefore, we must establish a set of modern enterprise management technology to overcome these problems, in order to enable enterprises in the market competition in an invincible position.

So MRP and Jit models have been widely used in manufacturing enterprises. However, few people pay attention to the influence of these two models on traditional accounting elements. This paper analyzes the influence of MRP and Jit on traditional accounting elements in China from various angles.

2. Introduction of MRP and JIT System

2.1 Introduction of MRP System

Manufacturing Resource Planning (MRP) originated from the United States in the mid-1960s, is an important part of Enterprise Resource Planning, can effectively plan all kinds of limited resources and improve the competitiveness of enterprises. Its main content includes customer demand management, product production planning, raw material planning and inventory records.

2.2 Introduction of JIT System

Just In Time (Jit) , also known as Stockless Production and Zero Inventories, was born In the 1960s at Toyota Motor Corp. of Japan. It pursues the idea of "only when needed, in accordance with the quantity needed to produce the required products. ". As a production mode of pursuing perfection and continuous improvement, wip inventory is a waste of resources.

KANBAN system is a core program in Jit mode. The latter process takes goods from the former process according to Kanban. In addition, the role of balanced production can not be underestimated, in order to achieve balance, the use of monthly planning, day planning, and according to changes in demand for timely adjustment of the plan.

2.3 MRP versus Jit System

Firstly, the main difference between MRP and Jit is that MRP is a rigid push production and JIT is a

flexible pull production MRP is derived from the MPS of the final product the quantity and time of demand for the related materials (raw materials, parts, components, etc. and determines the start-up time of production (order) according to the time of demand for the materials and the production (order) cycle.

3. The Influence of MRP and JIT on Traditional Accounting Elements

Accounting Element is the concretization of accounting object, the foundation stone of accounting basic theory research, and the core of accounting standard construction. Accounting elements are composed of a set of basic concepts that have a great influence on financial accounting (financial statements) and are the most extensive and highest-level classification of the accounting system and financial statements. All aspects of financial accounting are more or less involved in the introduction of these concepts, they bring qualitative accounting information.

There are six elements in traditional accounting in China, which are Assets, Liabilities, Equity, Income, Cost and Profits. Among them, the accounting elements that reflect the financial status of an enterprise are assets, liabilities and owners'equity, and the accounting elements that reflect the operating results of an enterprise in a certain period are income, expenses and profit. Next, we will analyze the influence of MRP and Jit on accounting factors from the above two aspects.

3.1 The influence of MRP and JIT on Accounting Elements of Enterprise Financial Status

3.1.1 The influence of MRP on Accounting Elements of Enterprise Financial Status

MRP is a kind of production mode which makes the production plan according to the market demand forecast and the customer order, and then forms the material structure table and the stock status of the product based on the production schedule Since there is no guarantee that the lead time will be fixed in practice, it is necessary to add some stock in stock in order to cope with the change of the lead time and to prevent the materials from not arriving in time within the stipulated lead time Production can not be completed on time. In addition, the MRP system does not consider the status of production capacity, although the quantity and time of the order can be accurately determined, but if over a period of time, even if the ordered quantity of material arrives on time, but because the production capacity of the enterprise is limited, still can not meet the needs of customers, then need to maintain a certain inventory, to balance production capacity, so that equipment can maintain a balanced output in a certain period of time. Therefore, it will hold more inventories, and have a larger holding cost, resulting in the relative increase of asset factors. Because MRP system relies on the computer for data processing, it will increase the fixed assets and intangible asset to a certain extent, which leads to the increase of the asset factor.

3.1.2 The influence of JIT on Accounting Elements of Enterprise Financial Status

On the one hand, because JIT is a market demand-driven "Pull" production system, the so-called Pull production refers to the market demand information to determine the output, and then by the output-driven parts procurement and processing, per upstream processes all issue working instructions according to the requirements of the upstream processes, and the upstream processes are all produced according to the instructions. Pull production can effectively reduce the quantity of WIP, avoid overproduction, greatly reduce or eliminate inventory. So companies that adopt this kind of production model will hold fewer raw materials, in-products and inventory goods, which will reduce the enterprise's asset factor to some extent.

On the other hand, Jit advocates specialized object layout to reduce queuing time, shipping time and preparation time. A work cell consists of a variety of different types of equipment used to produce a product, which allows production to be done in a relatively fixed area without having to move to a distant location To a certain extent, it can reduce the area needed for production, thus further reducing the investment of enterprises in fixed assets such as factory buildings.

3.2 The Influence of MRP and JIT on Accounting Elements of Business Operation Results

3.2.1 The Influence of MRP on Accounting Elements of Business Operation Results

As mentioned above, an enterprise with MRP will have more fixed assets and intangible asset, and

with its depreciation and Amortization, the expense factor will increase, which will reduce the profit factor of the enterprise. In addition, because MRP will cause the enterprise to hold more inventory, on the one hand, the storage cost of inventory will rise, which will increase the cost of goods sold and reduce the profit of the enterprise, on the other hand, warehouse rental and the cost of the caretaker will also increase correspondingly, thus reducing the profit factor of the enterprise.

On the other hand, MRP, as a driving mode of production, can improve the production plan based on the anticipated demand, thus reducing the uncertainty of production. The accurate forecast of the consumption of raw materials can make the enterprise obtain the commercial discount of purchasing as much as possible, reduce the unit cost of inventory, and then reduce the cost of goods sold, and increase the profit factors of the enterprise. Bill of Materials is the core document of MRP, which can reduce the cost of out-of-stock to some extent, reduce the situation that the enterprise can not start work because of the shortage of raw Materials, improve the production efficiency, and benefit the increase of income factors.

3.2.2 The Influence of JIT on Accounting Elements of Business Operation Results

Enterprises Adopting Jit will have a relatively small number of suppliers or even a single source of supply, single source of supply refers to a certain raw material or purchased parts through only one supplier procurement, while the traditional procurement model is usually multi-source procurement. The number of suppliers is relatively large. In theory, it is better to adopt single-source supply than multi-source supply. On the one hand, it is more convenient to manage the supplier, and it can make the supplier obtain internal scale benefit and long-term order, so that the price of purchasing raw materials and purchased parts can be reduced. On the other hand, the single-source supply can make the manufacturer become a very important customer of the supplier, thus strengthening the interdependence between the manufacturer and the supplier. It is beneficial to establish long-term and stable cooperative relationship between supply and demand, and it is easier to guarantee quality, and will reduce the maintenance cost of suppliers, such as business entertainment costs and other related cost factors.

In addition, Jit improves the efficiency of production in enterprise purchasing, and reduces a lot of activities that do not increase the value of products, such as ordering, receiving, loading and unloading, invoicing, quality inspection, inventory, warehousing and operation, etc. Jit Procurement greatly simplifies the procurement process, thus eliminating these wastes, minimizing the time spent in the non-production process, thus improving production efficiency and reducing inventory storage costs. Thus reduced the cost of goods sold, increased the profit factor.

4. Conclusion

This paper analyzes the advantages and disadvantages of MRP and Jit Systems and their characteristics, and obtains the influence of MRP and Jit on the accounting elements of Enterprise Financial Status and Business Operation Results. It is proved that no matter which production mode is, it is a double-edged sword to the enterprise.

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