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Designing an Accounting Information System According to the Production Cycle in Manual Accounting

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Abstract

In the management and operation of businesses in general and manufacturing businesses in particular, a management information system is indispensable, in which the accounting information system plays a key role. There are many aspects to organizing an accounting information system in an enterprise, but designing an accounting information system according to the production cycle in manual accounting is extremely necessary. The article summarizes the forms of production, thereby focusing on

designing a production accounting information system based on batch production. Building a system of batch production documents, including a production schedule, list of raw materials, technological process sheets, production orders, etc. At the same time, the article also builds a flow chart of batch production documents. Including: The planning and production department, the production department, inventory control, and the cost accounting department.

Keywords: Accounting Information System, Production Cycle, Manual Accounting

1. Introduction

An accounting information system is a structure that businesses use to collect, store, manage, process, retrieve, and report financial data. This helps businesses save time and minimize errors in the process of recording, classifying, and reporting financial information. It provides accountants and financial managers with accurate and timely data to support business decision-making. It also helps businesses meet financial and tax reporting requirements, ensure transparency, and comply with relevant legal regulations. In business, specially trained accountants work extensively with accounting information systems to ensure the highest level of accuracy in financial transactions and company record-keeping, as well as make financial data easily available to those who need to access it legally while keeping it intact and secure.

Designing an accounting information system according to the manual production process in an enterprise plays an important role. The production cycle in manual accounting is a series of repetitive activities that involve converting inputs, including raw materials, labor, and other resources, to create a finished product or service. The goal of the cycle is to ensure the cost of raw materials and other resources needed for the production process is lowest, production capacity is optimally exploited, and existing resources are utilized. Maximize, avoid wasting resources, and minimize errors in the production process. In addition, the production cycle also aims to ensure the best quality of products and services and to fully and accurately determine and calculate product costs for an order or an object. Calculate a specific price. In addition, through the production cycle, managers can perform cost fluctuation analysis to serve cost management in the enterprise.

2. Forms of Production

Depending on the type of product being produced, a company may use one of the following production methods:

Continuous production: creates uniform products through a consecutive series of standard procedures. Petrochemical products and cement are produced using this method. The characteristic of this method is that companies always try to maintain a necessary amount of inventory to meet expected sales demand. Consumption forecasting, along with information about available inventory, will drive this production process.

Form of production to order: This involves the production of individual products in accordance with the customer's technical requirements. Production is initiated by orders, not by inventory levels.

Batch production: production of a group of separate products (product batch). Each product category in the same batch is often similar in terms of raw material requirements and production organization. The number of products in each batch needs to be

large to accurately calculate the costs for set-up and re-equipment for each production batch. This is the most common production method and is used to produce products such as mobile phones, household appliances, canned products, tires, textbooks, etc.

3. Batch Production System

The Nature of the Batch Production System

The batch manufacturing system includes four basic processes: production planning and control, production execution, inventory control, and cost accounting. The data flow diagram (Fig 1) summarizes the concept of a batch production system.

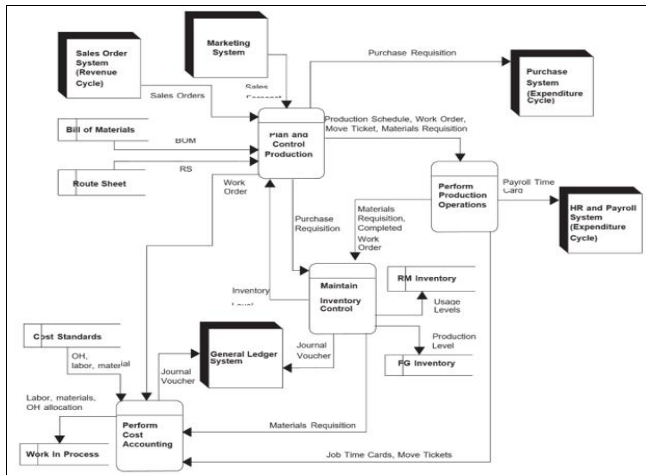


Fig 1: Batch production data flow diagram

Documentation of the Batch Production System

To implement a batch production system, the company can rely on different documents. For a production-to-order company, those are orders. For mass production companies, based on market demand forecasts.

A production schedule is a standard plan for starting production. This plan describes the specific products to be produced, the quantity of products to be produced in each batch, and the production schedule from start to finish.

The bill of materials gives details about the type of raw material, quantity of raw materials, and assemblies used in the production of each part of the product. The material requirement for the entire shipment is determined by multiplying the quantity of goods in this bill of materials by the number of items in the shipment.

The technological process sheet indicates the production process that a batch of products must follow during production. Conceptually, the "technological process sheet" is similar to the "materials list". While the bill of materials details material requirements, the process sheet details the sequence of operations (machining and assembly operations) and the standard time for each stage of work.

Production orders are made based on the raw materials list and technological process to detail materials and production activities (processing and assembly, etc.) for each shipment. These work orders, along with shipping tickets, kick-start the production process on the manufacturing floor.

Shipping notes record the work done at each production facility and allow the movement of work or batches of products from one production facility to the next.

The raw material purchase requisition form allows the warehouse keeper to issue raw materials to individuals or

production units during the production process. These slips usually only detail standard quantities. Materials needed that exceed the standard quantity require separate material requisitions that are clearly identified as excess material requisitions. This allows for tighter control by highlighting excess material usage. In some cases where less standard raw materials are used for production than expected, manufacturing plants will return unused materials back to the warehouse with a material return note.

Flow Chart of Production Activities in Batches

The flow chart of batch production activities is shown in Figures 2 and 3. The flow chart illustrates the departments involved, the tasks performed in each department, and the documents to initiate or receive after each task. The documents presented in the flow chart are hard copies. However, there may be many companies that transfer data digitally through computer systems using data entry screens or collect data by scanning barcode tags.

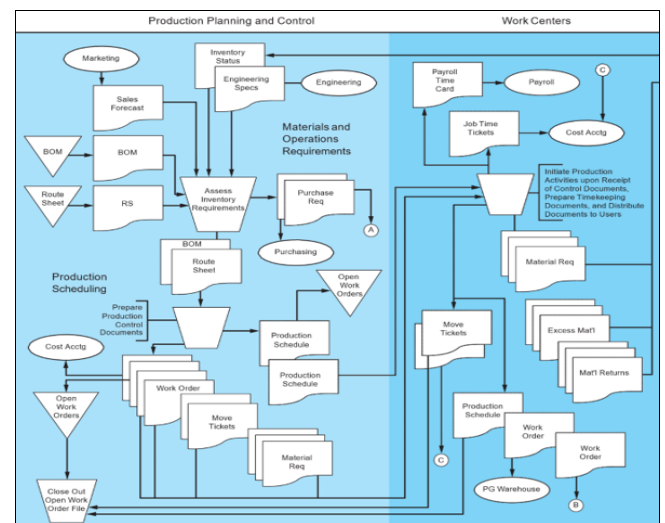


Fig 2: Flow chart of batch production cycle documents

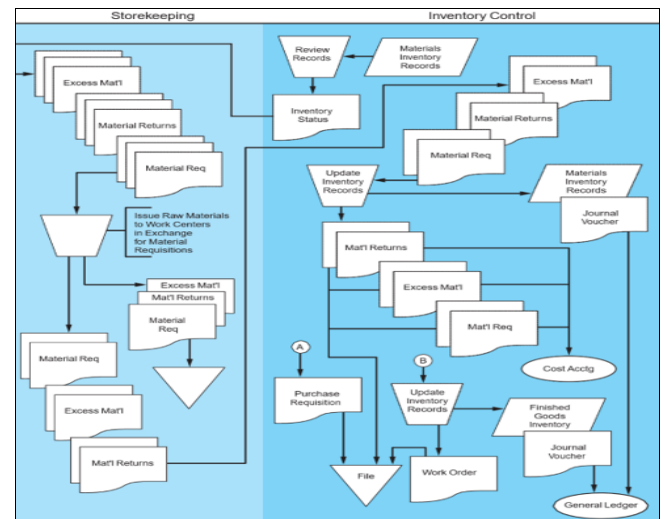


Fig 3: Flow chart of batch production cycle documents (continued)

1. Production Planning and Control Department: This department performs two main activities: (1) planning of materials and production activities; and (2) production planning. Raw material requirements and manufacturing operations:

attention and trust of investors and world agencies. At the same time, the business's reputation and ability to access new capital sources are improved. Advanced. Therefore, a scientific and reasonable accounting information system will increase the value of the business through improving operational efficiency, increasing operating efficiency, increasing competitiveness, and supporting control.

6. References

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