



PROCESS OF SELECTION AND FACILITY

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INTRODUCTION

The overall banner of "operations management" is the strategic administration of manufacturing processes and workers to optimize performance , reduce mistakes and continuously improve product quality. Process selection and facility layout are two essential aspects of operations management. Understanding each of the fundamentals and their association will help you design more effective processes of production.

FACILITY LAYOUT DEFINITION

The layout of the facility refers to the manner in which work stations, equipment , machinery and personnel are arranged inside a work facility.

Business owners have a lot of choices to choose from, depending on the overall size of the houses, yards and other spaces they have to deal with, when it comes to designing their layouts of facilities.

Operations managers typically set up manufacturing facilities to reduce the travel or holding time of semi-finished items between various stations.

FACILITY LAYOUT DEFINITION

In some industries, noise and air pollution may be a major factor-while it may be easy to place a large number of work stations in a small area, to maintain a secure and healthy work atmosphere, you may need to spread things out.

Consider a car wash and wax company as a simple example. Washing cars in one building will waste time and involve two buildings rather than one, then driving them to an adjacent building for drying and waxing. It will be a more successful facility layout to place a dry and wax station directly after the wash station in a single house.

UNDERSTANDING PROCESS SELECTION

The architecture of the process involves strategically selecting which kinds of work processes are to be used in the development of a product. For starters, consider the process of sewing a garment. In a number of ways, each step in the production process may be completed.

The secret to the selection of processes is to balance each option 's costs, performance, output and quality to meet your production goals. For instance, some options can produce a higher production per hour while costing twice as much as other options, while other options are less expensive but create more mistakes.

UNDERSTANDING PROCESS SELECTION

An entire garment could be sewed by a single employee, then moved down to a packaging line; multiple employees could be set up next to each other, each sewing a single stitch or section before moving it on quickly, or a computer could handle the sewing. As another example, the finished garment could be sent off to the packaging line by an employee moving huge bins or through a conveyor belt stretching across the factory.

BOTH MUST WORK TOGETHER

The ultimate objectives of operations management can be to maximize production performance, minimize operating costs and improve product quality by selecting the right processes and setting out processes in the most effective way. In order to search for ways to save money or improve production quality, operations managers constantly re-evaluate their production setups.

CRITICAL PATH METHOD

You may help make educated process selection and facility layout decisions with the Critical Path Method or CPM. In order to display the flow of materials in a multi-step process, this production mapping technique utilizes a visual string of nodes representing individual tasks, thus conveying a variety of useful information about each activity, including its shortest and longest possible completion times, its needed inputs, expected outputs and labor needs.

Using CPM to map out the production processes will expose areas of slack time, tasks that do not add value and opportunities to streamline production processes.

THE END