PDF - QUALITY CONTROL AS DETERMINANT FACTOR FOR EFFECTIVE AND EFFICIENT PRODUCTION. - researchcub.infoCHAPTER 1: Introduction

Efficiency is determined by the amount of time, money, and energy – i.e. resources – that are necessary to obtain certain results. In order to meet our daily production quota, we commit a specific machine that uses up energy, make operators and maintenance personnel available, and provide raw materials. For example, if we are able to meet our daily production with less energy and fewer operators, we have operated more efficiently. Effectiveness is determined by comparing what a process or installation can produce with what they actually produce; therefore, effectiveness does not tell anything about the efficiency – the amount of resources that have to be committed to obtain that output. If we are successful in manufacturing more good product in the same time period, effectiveness will increase. A valuable discussion could be whether 'good product' should be seen as 'Good product with customer demand' to prevent over-production. Productivity is determined by looking at the production obtained (effectiveness) versus the invested effort in order to achieve the result (efficiency); in other words, if we can achieve more with less effort, productivity increases. Arno Koch (2016)

1.1 Background of the Study

A definition of quality control is the process of inspecting products to ensure that they meet the required quality standards.This method checks the quality of completed products for faults. Quality inspectors measure or test every product, samples from each batch, or random samples – as appropriate to the kind of product produced. The main objective of quality control is to ensure that the business is achieving the standards it sets for itself. In almost every business operation, it is not possible to achieve perfection. For example there will always be some variation in terms of materials used, production skills applied, reliability of the finished product etc. Quality control involves setting standards about how much variation is acceptable. The aim is to ensure that a product is manufactured, or a service is provided, to meet the specifications which ensure customer needs are met. There are several methods of quality control. At its simplest, quality control is achieved through inspection. For example, in a manufacturing business, trained inspectors examine samples of work-in-progress and finished goods to ensure standards are being met. For businesses that rely on a continuous process, the use of statistical process control ("SPC") is common. SPC is the continuous monitoring and charting of a process while it is operating. Data collected is analysed to warn when the process is exceeding predetermined limits. The research seek to investigate quality control as determinant factor for effective and efficient production

1.2 Statement of the Problem

Quality control is the process of inspecting products to ensure that they meet the required quality standards. This method checks the quality of completed products for faults. Quality inspectors measure or test every product, samples from each batch, or random samples – as appropriate to the kind of product produced. The main objective of quality control is to ensure that the business is achieving the standards it sets for itself. In almost every business operation, it is not possible to achieve perfection. For example there will always be some variation in terms of materials used, production skills applied, reliability of the finished product etc. With quality control, inspection is intended to prevent faulty products reaching the customer. This approach means having specially trained inspectors, rather than every individual being responsible for his or her own work. Furthermore, it is thought that inspectors may be better placed to find widespread problems across an organization. A major problem is that individuals are not necessarily encouraged to take

responsibility for the quality of their own work. Rejected product is expensive for a firm as it has incurred the full costs of production but cannot be sold as the manufacturer does not want its name associated with substandard product. Some rejected product can be re-worked, but in many industries it has to be scrapped – either way rejects incur more costs, A quality control approach can be highly effective at preventing defective products from reaching the customer. However, if defect levels are very high, the company's profitability will suffer unless steps are taken to tackle the root causes of the failures. The problem confronting this research is to appraise quality control as determinant factor for effective and efficient production.

1.3 Objective of the Study

1 To determine the nature of effective and efficient production

2 To determine the nature of quality control

3 To determine quality control as determinant factor for effective and efficient production.

1.4 Research Questions

1 What is the nature of effective and efficient production?

2 What is the nature of quality control?

3 What is the nature of quality control as determinant factor for effective and efficient production?

1.5 Significance of the Study

The study shows the relative importance of quality control in the process of attaining effective and efficient production

It also serves as source of information on quality control issues.

1.6 Statement of Hypothesis

Ho quality control is not a determining factor for effective and efficient production

Hi quality control is a determining factor for effective and efficient production

1.7 Scope of the Study

The research focuses on the appraisal of quality control as determinant factor for effective and efficient production

1.8 Definition of Terms

Quality control defined

An aspect of the quality assurance process that consists of activities employed in detection and measurement of the variability in the characteristics of output attributable to the production system, and includes corrective responses.

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be seen as ‘Good product with customer demand’ to prevent over-production.
Productivity is determined by looking at the production obtained (effectiveness) versus the invested effort in order to achieve the result (efficiency); in other words, if we can achieve more with less effort, productivity increases.
Economic efficiency implies an economic state in which every resource is optimally allocated to serve each individual or entity in the best way while minimizing waste and inefficiency. When an economy is economically efficient, any changes made to assist one entity would harm another. In terms of production, goods are produced at their lowest possible cost, as are the variable inputs of production.

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