



BAHRIA UNIVERSITY, (Karachi Campus)

Department of Software Engineering

Assignment 4 - Spring 2022

COURSE TITLE: Engineering Management

COURSE CODE: **MGT-423**

Class: **BSE-IV (B)**

Shift: **Morning**

Course Instructor: **ENGR. TALHA BIN SAEED**

Time Allowed: **2 Week**

Submission Date: **16/06/2022**

Max. Marks:05

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Enrollment No: **02-131202-033**

[CLO4: 5 Marks]

QUESTION #01

Evaluate the QMS (Quality Management System) process to establish a quality system among organizations.

Answer:

Evaluating Quality Management System:

Quality Management System:

A quality management system (QMS) is a formalized system that documents processes, procedures and responsibilities for achieving policies and objectives. A quality management system (QMS) provides a basic cadre to meet customer requirements and legal requirements and improve the effectiveness and efficiency on a continuous basis, by not compromising on the productivity and loss of time. ISO 9001:2015, the international standard specifies the requirements for effective quality management systems and is the most prominent approach to quality management systems.

1. Monitoring, Measurement, Analysis and Evaluation:

The ISO standard emphasizes on process approach and the review or checking phase. The standard describes that what type of data is to be collected, how data is interpreted and what

actions to be taken against the data. ISO registration or internal audits based on quality costs, customer response or elimination of errors measure the effectiveness.

- **Quality Reports:**

Quality Management System effectiveness lies in the record of quality department for that purpose quality reports must be designed and implemented on regular basis. These reports must not be just a showoff rather for the analysis and must base on reality so that reality base decision making can be done.

- **Quantify the Quality:**

Value measurements that demonstrates a quality system's effectiveness in terms of rework or scrap costs clearly provides a cause and effect relationship between quality and profit. If scrap and rework costs are in defined limits then Quality Management System is working effectively.

- **Production Error Rate(Rejection Rate):**

Every production system involves the four factors (Man, Machine, Method, and Material) contribute potentially in quality. Product errors range from 2 percent to 5 percent. If the product error is in control limits then the System is working effectively otherwise some serious actions are needed to be taken.

- **Quality Defect Reports:**

Customer satisfaction can be used as a yardstick for measurement of effectiveness of Quality Management System. Feedback reports can help a lot in this manner from the consumer side. Highlighted issues must be resolved in proper and serious way.

2. Customer Satisfaction:

Data about the extent of customer satisfaction must be collected, analyzed and monitored to ensure that quality is aligned with customer's expectation. Data can be collected through surveys, quality defect reports, warranty claims, sales channel reports. On time delivery and order accuracy must be included in the data collection.

3. Analysis and Evaluation of data:

Collected data shows the performance of quality management system that's why data must be analyzed and evaluated to suggest corrective and preventive measures accordingly.

- **Internal Audit:**

Planned Periodic Internal Audit confirm that the efficacy of QMS. A formal internal audit program needs to be established and results of the internal audits are used to make corrections and improvements in the system.

- **Management Review Meetings:**

Management review meetings conducted periodically help to manage the change and to properly address the improvements suggested previously.

Benefits of quality management system:

Implementation of an effective quality management system has very significant impacts in every aspect of an organization's performance. Two important benefits of implementation of documented quality management systems are:

- **External benefits:**

- Improves: Product and service quality, Customer satisfaction, Repeat sales, Company Image, Market Value

- Reduces: Complaints, Warranty claims, rejection ratio,

- **Internal Benefits:**

- Improves: Management efficiency, Planning, Problem Solving, Supplier Control, Communications, Change Management, Discipline, Staff Morale, Training program, growth, Profit

- Reduces: Over processing, Over Production, Travelling, Rework, Waste, Costs(Direct or Indirect), Staff turnover, Absentees, Production Delays

References:

1. Quality management system:

SYNC RESOURCE: <https://sync-resource.com/quality-management-system-evaluation/>