Total quality management assignment management essay

Gap analysis is a self assessment practice by an organization directly or through some consultant to match its current Quality Management System (QMS) with the requirements of ISO 9001: 2008 and to find the opportunities to improve the deficiencies in future. If an organization is interested in compliance its QMS with ISO 9001, an effectively done gap analysis can help even the requirement of infrastructure, required documentation, finances needed and approximate time it will take to implement changes and getting certified.

Metro Hi-Tech started motorcycles manufacturing in 2003 and so far is not an ISO 9001 certified company. The gap analysis shows the current status of QMS implementation and the gap yet to be filled if the company wants compliance with the requirements of ISO 9001-2008

Introduction of ISO 9000 family

ISO 9000 series of standards addresses the Quality Management in organizations. This requires from organizations to fulfill customers' requirement of quality, applicable statutory and regulatory requirements, to enhance customer's satisfaction and achieve continual organizational performance improvement.

In ISO 9000 family, ISO 9001: 2008 is the only standard against which the organization may be certified. This standard is generic in its nature and gives set of standardized, requirements for a quality management system and with global consensus on these requirements.

The organization, regardless of this size, type, being public or private, manufacturing or service oriented can be certified against this standard. The

standard lays down what requirements any QMS should meet and leave it on the organization that haw they meet. This gives enormous flexibility for implementation in any organization.

ISO 9000 series of standards is based on Eight Quality Management System Principles namely;

Customer Focus

Leadership

Involvement of People

Process Approach

System Approach to Management

Continual Improvement

Factual Approach to decision making

Mutually beneficial supplier relationship

These principles can be used as guiding frame work for performance improvement and implementing ISO 9001: 2008 with maximum effectiveness.

The operating principle of ISO 9000 standards system is famously known PDCA cycle.

This cycle provides guideline to process every task, improve any process or service any activity by first planning, then implementing the plan, checking the status and then act to improve it.

Check

Act

Do

Plan

PDCA Cycle

In ISO 9000 series there are two types of standards

Quality Management Systems Requirements e. g. ISO 9001: 2008 the only standard for certification.

Guidelines e. g. ISO 9000: 2000 and ISO 9004: 2000 these are general guidelines for understanding requirements. There are also sector specific guidelines standards such as ISO TS-16949 for automotives, IWA 2: 2007 for education and IWA 1: 2005 for health services organizations.

Companies interested in certification of ISO 9001: 2008 are audited by certification bodies and if found complying with the given requirements are given certifies valid for these years.

Effectively implemented and maintained QMS can certainly benefit on organization whether it is customer satisfaction, process improvement, better quality of product, reduction in wastes and increased profit margins.

Process Based Model of Motorcycle Assembling

Customer (Requirements)

Customer (Satisfaction/ Feedback)

Output

ACT

CHECK

PLAN

DO

Gap Analysis

ISO clause

Key Requirement

Yes/No

Current Status/Gap

Improvement required

5. 4. 1

Quality objectives of production, procurement & QC are established.

Yes

5. 4. 1

Quality objectives are measurable and quantifiable.

Not all objectives are measurable

Some of the Objectives need to be quantified.

5. 5

Responsibilities & authorities are clearly defined & communicated.

Yes

5. 5. 3

Appropriate communication processes and means are established.

Yes

5. 6

Do the performance measured reviewed & reported against quality objectives.

No

No regular review

A formal procedure for monitoring of performance against quality objectives should be followed

6. 2. 1

Is the required competence of personnel, performing jobs affecting quality of work, is defined.

Yes

6. 2. 2

Are the trainings are provided based on training needs

Yes

Internal On-Job Training are provided

Off the shelf trainings for specialized work should also be provided.

ISO clause

Key Requirement

Yes/No

Current Status/Gap

Improvement required

6. 2. 2

Trainings effectiveness is evaluated through the results

Formal Evaluations are not performed

Need to formalize this procedure for effectiveness

6. 3

Is the departmental work space, process equipment and supporting services are established

Yes

6. 4

Is the required work environment is determined & maintained in various sections to achieve conformity of the product e. g. cleanliness & dust free environment in engine shop & paint shop, controlled humidity & temperature in paint shop etc.

Yes

7. 1

Is the quality plan for product established

No

No quality plans

There is need to establish a formal quality plan addressing all requirement for manufacture of product.

7. 2

Is the requirements of product (customer, regulating or other) specified and being followed

Yes

7. 2. 2

Do the production has ability to meet these requirements

Yes

ISO clause

Key Requirement

Yes/No

Current Status/Gap

Improvement required

7. 2. 3

Is there any established means of communication to and form customer

Yes

Daily Feedback Reports from Market.

Free Service Camps

7. 4. 1

Is there a system of supplier evaluation implemented

No

No formal system

There is need to establish such system

7. 4. 1

The criteria of selection and evaluation and a list of approved supplier available.

No

No criteria exists

There should be a criteria for evaluation and approval of suppliers

7. 4. 2

Do purchasing requirements properly communicated to purchase department

Yes

Manual Requisition on Paper

Requisition through Software

7. 4. 2

Are purchase requirements communicated to vendors / suppliers in documented from

Yes

Purchase Orders

7. 4. 3

The purchased products are properly inspected against requirements

Yes

All incoming supplies are subject to inspection

7. 5. 1

Is proper information regarding the specification & characteristics of product available

Yes

Drawings and/or Check Sheets

ISO clause

Key Requirement

Yes/No

Current Status/Gap

Improvement required

7. 5. 1

work instructions for personnel performing work are available

No

No written Work Instruction

Written Work Instruction should be there

7. 5. 1

is the equipment suitable to perform work available

Yes

7. 5. 1

The monitoring and measuring equipment is available.

Yes

7. 5. 3

during realization process the product status is identified w. r. t monitoring & measurement

Yes

Job Cards etc

7. 5. 5

the preservation of product is ensured during internal processing and delivery to maintain conformity to requirements

Yes

Designated areas for in-process and finished products

Specialized delivery vehicles.

7. 6

the measuring and monitoring equipment is calibrated and/or verified at specified intervals

Yes

Periodic Calibration of all equipment is made.

7. 6

Measuring equipment is identifiable and protected from damage during handling, maintenance & storage

Yes

8. 2. 3

Measurement & monitoring of processes is carried out during realization process

Yes

Viscosity of paint

Oven Temperature in Paint Shop etc

ISO clause

Key Requirement

Yes/No

Current Status/Gap

Improvement required

8. 2. 4

The product is monitored and measured during realization processes is done

Yes

Torque testing

Engine testing

Bike testing at simulation bench

8. 3

Product which does not conforms to requirement is readily identifiable to prevent its unintended sue.

Yes

The Status on Job Card Provides info.

OK Sticker is pasted to only conforming products.

8. 3

A documented procedure is established to define the control & responsibilities for dealing with N. C product

No

No documented procedure

A well established procedure is required

8. 3

When Non Confirming Product Is Corrected It is again verified.

Yes

The product again goes through the inspection process

8. 4

Appropriate data to demonstrate the suitability and effectiveness of system is collected & maintained.

Yes

PDI section data

Daily feed back

Production reports

Inspection reports

Rejection analysis

8. 5

Corrective actions, preventive actions are taken to eliminate the cause of non conformities & any potential defects.

Yes

8. 5

A documented procedure is established for corrective & preventive actions.

No

No formal procedure

There should be a formal procedure for corrective and preventive actions being taken

Conclusion

Although Metro-Hi Tech is not ISO-9001 certified but the gap analysis shows that there may be significant improvements in production by focusing on monitoring of process and product and standardization of procedures.

Like other Pakistani organizations the biggest challenge for Metro is to properly define its strategic direction and the objectives to be achieved with a defined time line and reviewing the progress on regular basis.

Lack of standardized procedures is another weak area which results in non-standardization of process, inspections and reporting. The criteria for evaluation, selection and re-evaluation of the suppliers can minimize many of the problems of late, inconsistent and wrong supplies with reducing the number of defective parts.