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**Applying Effective Audit Methodology To Enhance Productivity**

**& Quality Improvements**

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**Abstract**

Many organizations implementing their Management Systems are not fully aware of the distinctive difference between Audit Plan and Audit Program in managing the actual detected inefficiencies or potential non-conformities / non-compliances by taking consideration the status and importance of their processes. Furthermore, the effectiveness of the Management Systems is not properly determined through an accurate and systematic assessment of the Key Performance Indicators (KPI) by applying the Six Effective Points of Audit Methodology with a view to enhance continual improvements.

Plan-Do-Check-Act (PDCA) Cycle adopted in managing the Audit Program will be illustrated with reference to ISO 19011:2011 to clarify the misconception between Audit Plan and Audit Program. The Six Effective Points of Audit Methodology (i.e. Audit Objective-Audit Scope-Audit Criteria-Audit Evidence-Audit Findings-Audit Conclusion) will be deployed to determine the effectiveness of the management systems by conducting quantitative assessment of the Key Performance Indicators (KPI). Cost of Quality (COQ) Model will be used to illustrate the conceptual understanding of the Audit Methodology in assessing Key Performance Indicators (KPI). Attention will be made to the analysis of Input & Output Data affecting the result of Key Performance Indicators (KPI). Further illustration will be made to integrate the Productivity & Quality Indicators into the Monitoring and Measurement Activities of a Management System (E.g. ISO 9001:2008 Quality Management Systems) to demonstrate the effectiveness of an audit.

The competency of the appointed auditors in performing the audits is also crucial to the organization. In another words, ineffective audit will lead to loss of management resources, and opportunities for productivity and quality improvements.

**Keywords**

Audit Plan, Audit Program, Audit Methodology, Competency of Auditor, Continual Improvements.

**1. Introduction**

It is very essential to apply audit methodology effectively in order to enhance Productivity and Quality improvements in your organization.

Most of the organizations implementing their Management Systems are not fully aware of the distinctive difference between Audit Plan and Audit Program in managing the actual detected inefficiencies or potential non-conformities / non-compliances by taking consideration the status and importance of their processes. The

effectiveness of the Management System is not properly determined through an accurate and systematic assessment of the Key Performance Indicators(KPI) by the Six Effective Points of Audit Methodology with a view to enhance continual improvements.

The ability of an organization to determine the accuracy of the Non-conformity / Non-compliance against the Objective Evidence prior to the implementation of Correction and Corrective Action against the detected Non-conformity / Non-compliance is crucial to the on-going assessment of the Management System.

**2. Audit Plan versa Audit Programme**

**2.1 Audit Plan**:

Description of the activities and arrangement for an audit. Audit Plan is a subset of the Audit Programme

**2.2 Audit Programme :**

Arrangement for a set of one or more audits planned for a specific time frame and directed towards a specific purpose.

In another words, Audit Programme consists of a series of Audit Plans within a specific time frame (e.g. A Certification Cycle). Changes made to the individual Audit Plan in terms of audit duration and / or frequency could result in changes to Audit Programme when taking consideration the status and importance of their processes.

**2.3 Management of An Audit Programme**

The management of an Audit Programme should be carried out by First-Party, Second-Party or Third-Party Audits to stimulate continual improvements. Plan-Do-Check-Act (PDCA) Cycle can be applied in managing an Audit Programme effectively.

The main activities executed within the PDCA Cycle are briefly outlined below:

Plan: (a) Establishing the Audit Programme Objectives

 E.g. Determine the effectiveness of the Management System.

 Verify conformity with contractual requirements.

 (b) Establishing the Audit Programme

 E.g. Factors affecting the extent of the Audit Programme: Result of previous audits; significant

 changes in current operations, product failures or process deficiencies & etc.

Do : (c) Implementing the Audit Programme

 E.g. Competence and evaluation of auditors; Six Steps in performing an audits & etc.

Check : (d) Monitoring the Audit Programme

 E.g. Evaluate conformity with audit programmes, schedules and audit objectives.

 Evaluate feedback from top management, audittee, auditors and other interested parties.

Act : (e) Reviewing and improving the Audit Programme

 E.g. Assess the result and trends from Audit Programme monitoring.

 Consider alternatives or new auditing methods.

It is very important to implement the management of audit program when performing First-Party Audits in order to channel the audit programme review input to the continual improvement process of an organization.

**3. Six Effective Points of Audit Methodology**

The Six Effective Points of Audit Methodology (i.e. Audit Objective-Audit Scope-Audit Criteria-Audit Evidence-Audit Findings-Audit Conclusion) must be applied to determine the effectiveness of the management systems by conducting quantitative assessment of the Key Performance Indicators (KPI).

See Figure I : Six Effective Points of Audit Methodology.

 In addition, the Six Principles of Auditing (i.e. Integrity - Fair Presentation - Due Professional Care –Confidentiality – Independence - Evidence-based Approach) should be observed to make the audit an effective and reliable tool in support of management policies and controls.

Adherence to these principles is a pre-requisite for providing audit conclusions that are relevant to the audit criteria.

**4. Six Key Processes In Performing An Audit**

It is essential to apply the following Six Key Processes when performing an audit in accordance with the guidelines given in ISO 19011:2011 so as to demonstrate its effectiveness.

Step 1: Initiating the Audit

Step 2: Preparing the Audit Activities

Step 3: Conducting the Audit

Step 4: Preparing and Distributing the Audit Report

Step 5: Completing the Audit

Step 6: Conducting Audit Follow-up.

Productivity Audit can be carried out to evaluate the efficiency of the processes in terms of Input and Output Parameter based on Productivity Computation Formula.

E.g. Materials Efficiency: Product Output / Materials Input

**5. Ability To Draft The Accuracy of Non-conformity Against The Objective Evidence**

The ability to express the accuracy of non-conformity is vital to the audit findings. Follow the following steps to draft the non-conformance statement again a non-conforming Objective Evidence accurately.

Step 1: Identify the Non-conforming Incident

Step 2: Determine the Applicable Clause No.

Step 3; Determine the Specific Clause Requirements

Step 4: Modify and convert the specific conforming statement into non-conforming statement by adding

 “ Failure to”, or “Deviated from”, or “Did not”, or “was not / were not” & etc.

**6. Implement Correction and Corrective Action In response To Non-conformity**

The ability to implement appropriate Correction and effective Corrective Action to eliminate the root cause of the identified non-conformity to prevent recurrence is very important to the organization.

Follow the following steps to initiate the action properly:

Step 1: Correction: To eliminate the detected non-conformity from product.

Step 2: Determine the root cause of the non-conformity.

Step 3: Propose Corrective Action to eliminate the root cause of the non-conformity

Step 4: Review the effectiveness of the Corrective Action taken.

**7. Initiate Preventive Action In response To Potential Non-conformity**

It is important to identify any potential non-conformity detected in your operational activities

in order to develop Preventive Action to eliminate potential non-conformity.

Follow the following steps to initiate the action properly:

Step 1: Determine the root cause of the potential non-conformity.

Step 2: Propose Preventive Action to eliminate the root cause of the potential non-conformity

Step 3: Review the effectiveness of the Preventive Action taken.

**8. Competence and Evaluation of The Assigned Auditor**

Incompetent auditor is unable to conduct conformity assessment effectively to determine the degree of conformity against a given audit criteria. Assign trained and competent Internal Auditor to perform First-Party Audit to enhance operational performance is very essential.

The Organization must evaluate the effectiveness of the individual auditors involved in the Audit Process to ensure the achievement of the necessary competence. The methods for evaluating individuals’ competence can be summarized into five major categories: Review of Records, Feedback,

Interviews, Observations and Examinations. The Organization must evaluate the effectiveness of the

individual auditors involved in the audit process to ensure the achievement of the necessary competence.

It is vital to apply the audit methodology effectively at the workplace to determine the degree of conformance in relation to operational changes. We are therefore more confident to make sure that “Do The Right Thing Right At The First Time”.

**9. Conclusion**

The competency of the appointed auditors in performing the audits is very crucial to the organization. In another words, ineffective audit will lead to loss of management resources, and opportunities for productivity and quality improvements.

Quality Practitioners are advised to acquire professional auditing skills to enhance their abilities to detect actual or potential non-conformities effectively in order to eliminate loss.

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**Authors’ Biographical Notes**

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