

**INTERNAL AUDIT QUALITY ROLE IN IMPROVING EFFECTIVENESS OF  
QUALITY MANAGEMENT SYSTEM ISO 9001:2000  
(Case Study PT INTI Bandung)**

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**ABSTRACT**

*Companies that have implemented quality management system ISO 9001:2000 will get. The company has been awarded ISO 9001:2000 certification required to conduct internal quality audits on the activities of the company. Internal quality audit is a systematic examination and assessment, objective and documented and independently to determine whether the quality management system activities and related results are in accordance with the planned arrangements whether these arrangements are implemented effectively and in accordance with the commitments, policies, objectives and quality objectives that have been planned or set out to achieve the goal. One company that has received ISO 9001:2000 certification is a PT INTI (Limited).*

*The research was carried out to prove whether internal quality audit role in improving the effectiveness of the quality management system ISO 9001:2000. The method used is descriptive analysis case study approach. Data obtained from the distribution of questionnaires to obtain internal quality auditor and coordinator of the quality management system ISO 9001:2000 in each division at PT INTI (Limited).*

*The data was then processed using SPSS 14.0 with simple regression analysis. From the data processing has been done, the obtained results that the significance value of 0.031 which is smaller than the value of the real rate of 0.05. It can be concluded that  $H_0$  is rejected and  $H_a$  accepted, which means: "Audit of internal quality have a significant role in improving the effectiveness of Quality Management System ISO 9001:2000."*

*Keywords: Internal Quality Audit, Effectiveness of Implementing Quality Management System ISO 9001:2000*

**INTRODUCTION**

Quality gave an impetus to the customer to establish a strong relationship with the company. Ties like this, in the long run allow the company to thoroughly understand customer expectations and needs, so companies can improve customer satisfaction. Customer satisfaction or loyalty can create customer loyalty in the long term to a company

that provides a satisfactory quality. Customer satisfaction is a condition in which the needs, wants and expectations of customers are met through products consumed (Nasution, 2001). Quality-oriented company, must implement a quality system. Companies that implement quality management system needs to conduct an evaluation in order to exercise control over the quality or the quality of the output. The evaluation is done in a systematic and continuous so that the performance and management activities can be improved and can be immediately known causes of errors that were quickly taken action to reduce the risks that could hurt the company.

Companies are assessed has implemented a quality management system properly will receive recognition from international bodies such as ISO 9001:2000. ISO 9001:2000 is an international standard for quality management systems. ISO 9001:2000 establishes requirements and recommendations for the design and assessment of a quality management system, which aims to ensure that the organization will provide products (goods or services) that meet the stipulated requirements.

Audit quality management system is an element required under ISO 9001:2000 to ensure that the quality management system has been carried out in accordance with the requirements, and has been effectively implemented and maintained. Internal quality audit is a systematic and independent examination to determine whether quality activities and related results comply with the quality that has been planned and whether the rule effectively and are suitable to achieve the company's goals (Tunggal, 2003:92). The audit was conducted in accordance with procedures documented and provide assurance that the implementation and maintenance of quality management system in accordance with the policies, goals, planning, and quality procedures that have been established. Internal quality audit is one of the most important activities in the implementation of quality management systems.

With the implementation of internal quality audits are organized and planned, then the mismatch and the potential incompatibility of the quality system can be detected, so that corrective and preventive action is right to do. Besides, the results of internal quality audits are inputs which is very useful in the implementation of management review, so that the effectiveness and suitability of the quality system owned by an organization can be maintained (Indaranata, 2006:2). Internal quality auditor as implementing internal quality audits has the task to assist management in the implementation of a quality management system based on ISO 9001:2000. The role of internal quality auditor must be run by an independent position in the organization. Once the system quality management procedures and istruksi work, the system is carried out by employees in each work unit. Internal quality audits will provide optimal benefits and positive contribution in improving organizational performance, especially in the aspects of quality and customer satisfaction. Internal quality audits can provide benefits to: (1). Top leadership, (2). Operating units, (3). Quality management unit, (4). Employees, (5). Auditor, (6). Customer, (7). Supplier. Internal quality audits conducted by the internal useful to look at the effectiveness of the implementation of the quality management system and is a management tool in improving (Indaranata, 2006:4).

As a company that has been certified ISO 9001:2000 quality management system, PT. Indonesia Telecommunications Information / CORE need to see if the quality management system implemented in the company has been running well or not. This can be achieved by conducting internal quality audits, given that this internal quality audit has an important role in improving the effectiveness of the quality management system ISO 9001:2000. The writer intends to raise the topic in a study titled "The Role of Internal Quality Audit Effectiveness in Improving the Quality Management System ISO 9001:2000. ' (Case Study at PT. Telecommunications Industry Indonesia / Bandung).

## **LITERATURE REVIEW**

### **Internal Quality Audit**

#### **Understanding Internal Quality Audit**

According Indranata (2006:1) definition of internal quality audits are:

"Examination and assessment in a systematic, objective and documented and independently to menentapkan whether the quality management system activities and related results are in accordance with the planned arrangements whether these arrangements are implemented effectively and in accordance with the commitments, policies, goals and quality objectives planned or set out to achieve the goal.

Understanding internal quality audit by Chatab (1997:137), namely:

"Systematic and independent testing to determine whether quality activities and related results comply planned arrangements and whether these arrangements are implemented effectively and accordingly, in order to achieve the goal".

Meanwhile, according to the Gaspers (2005:52) defines internal quality audit as follows:

"Internal quality audit is an audit of the quality management system to ensure that the quality management system complies with the requirements, and has been effectively implemented and maintained."

Other internal quality audit definition given by Priyadi (1996; 138) as follows:

"Internal quality audit is an examination conducted so detailed planning and implementation is to be systematic and carried out independently by personnel ".

From the above it can be concluded that the internal quality audit is an independent examination process carried out in a planned and detailed to assess the effectiveness of the quality management system. Internal quality audits carried out in an objective, systematic and documented. Objective means auditors as possible to minimize the element of subjectivity or confuses facts with opinions. Systematic means done methodically and apply management principles. Documented means that everything done in the audit process from planning, execution, reporting and follow-up results of the auditee should be recorded and the records maintained properly so easily traced and found at any time when needed. (Indranata, 2006:25-27)

#### **Internal Quality Audit Activity**

According Indranata (2006:41-67), internal quality audit activities divided into four stages, namely:

##### **1. Planning and preparation of audit**

Planning stage of auditing is very important and is a process of phasing out internal quality audits as a whole that begins by setting the election of members of the team and chief auditor, audit schedule, making checklists, notification to the auditee, the audit team conducted adequacy.

##### **a. Selection of Team Member / Chief Auditor**

##### **b. Prepare Schedule**

Before the implementation of the audit process, it must first be defined audit schedule and audit frequency. Schedule audits are time-sharing arrangements and quality audits for all functions organized in a specified period, usually a year. Set the number of times each division / section affected quality audit within one year. The frequency of the audit depends on the stability of the organization's quality system are audited.

### c. Creating Document Checklist and Work

Checklist (checklist) that has been prepared by the audit team, at the time of the audit, should be used effectively. User goals checklist is to assist the implementation of the audit to the audit in accordance with the plans that have been made. The checklist is a very useful tool in the implementation of the audit, such as:

- To measure and control the time of the audit.
- To manage and control the scope of the audit to conform to plans and schedules are made.
- To provide guidance in the search for the necessary reference documents.
- As a tool in the preparation of the audit results.

If there is not sufficient time to conduct an audit of all aspects listed on the checklist, the auditor must decide whether the audit is still within the scope of the audit or not. Checklist alone can not complete a process audit checklists nature as merely a tool of the auditor to gather preliminary information.

### d. Notice To Auditee

Notice to the auditee should be done at least one week prior to the audit. If the auditee has approved the date of the audit, the auditor head of detailed plans and then discuss the audit with the auditee for approval.

## 2. Implementation of the Audit Process

Implementation of internal quality audit is the process of realization of all yng has been thought and written in the planning of internal quality audits. Implementation of the audit focused on the verification of compliance with the rules implemetasi been documented. Evidence of conformity of quality system implementation is what to look for in the audit. Given the evidence of compliance it will guarantee the achievement of quality in accordance with a predetermined to be obtained.

Implementation of the audit can be grouped into:

- a. Opening of the meeting
- b. Implementation Audit
- c. Closing the meeting

In an audit conducted after the closing meeting, will be presented audit results obtained, both in the form of positive findings and nonconformity during the audit. The meeting was attended by all personnel cover the same at the time of the opening of the meeting. It is also done to prevent the impression terhadinya unilateral assessment process due to misunderstanding or misconception auditor in view of the current process. In closing the meeting also conveyed his gratitude to the auditee for all the cooperation and assistance, the circulation list of attendees and discussion as well as the follow-up audit confirmed period for mismatch repair.

## 3. Reporting Audit Results

Internal quality audit report is the work of a quality auditor, presented to the auditee for further action. Quality audit reports containing factual information, significant and relevant systematically arranged in a language that is easily understood. All statements contained in the audit report quality actually been selected so that depict truth, and it is important to note, are directly related to the reported problems and does not cause doubts.

Quality audit report containing a set of potential value to be realized tangible value to the organization. Internal quality audit reports are usually presented in a format that has been

designed first. Auditor enough columns to fill the form provided. At a minimum, there are four main things that are always remembered by the internal auditors when preparing the audit reports, the essence, systematic, form and language.

There are at least seven important things that need to be included in the audit report quality, namely: policy (policy), location, activities, clauses / elements, evidence of the criticality scale (scale of criticality), recommendation and completion time limit (time of completion). Auditor head responsible for the manufacture of the final audit report. The report can be prepared by the chief auditor or a team under the supervision of the head of chief auditor. After that MR (Management Representative) must review and approve the audit report.

#### 4. Follow-up Audit

##### a. Ensuring Follow-up Audit

Follow-up is implementing corrective actions based on the recommendations set out in the auditor's audit report based on data from test results. On the basis of an agreement for the auditor and auditee menyelesaikan inconsistency, the auditor will verify corrective actions. Verification of corrective actions based on objective evidence of improvement, to verify whether corrective action taken was appropriate and could prevent the recurrence of the same nonconformity, the auditor akan follow up in accordance with the agreed time schedule and request written in the follow-sheet corrections. If the results of the follow-up audit concluded that the corrective action taken was appropriate, then the mismatch written on sheets of corrective action requests may be closed, but if the follow-up does not meet the auditor shall publish the same corrective action requests

##### b. Stages in the Process Follow-Up

In more detailed follow-up should be carried out by the auditee activities include:

- Making Improvements Plan
- Implement Repair and Prevention
- Conduct Evaluation Repair and Prevention

### **Quality Management System ISO 9001:2000**

#### **Definition of Quality Management System**

According to Susilo (2003:9) quality management system are:

"A systematic effort through the planning, implementation, inspection, or control and follow-up on all companies, both internal and external dimensions of the material covered. Methods, machines, money, people, environment and information to realize the commitment, policy, quality objectives that have been established in order to give satisfaction to the customer for the present and in the future ".

Definition of the ISO 9000 standard for quality management systems are:

"The organizational structure, responsibilities, procedures, processes, and resources for the implementation of quality management. "

According Gaspers (2005, 10) quality management system is a set of documented procedures and practices of standardized management system that aims to ensure the suitability of the process and the products and services specific to the needs or requirements. Needs or requirements are determined or specified by the customer and the organization.

So it can be concluded that the quality management system is an integrated strategic management system involving all staff and using methods of qualitative and quantitative methods to continuously improve the processes within the organization to meet the needs, desires, and expectations of customers.

### **Understanding ISO 9001:2000**

The International Organization for Standardization, known as ISO, is an international federation of standards bodies around the world who come from 100 countries, one from each country, to which Indonesia is included. ISO based in Geneva, Switzerland and is a government organization established in 1947. The mission of ISO is to improve the development of standardization and related activities in any company in the world.

According Gaspers (2005:1) definition of ISO 9001:2000 is an international standard for quality management systems. ISO 9001:2000 establishes requirements and recommendations for the design and assessment of a quality management system, which aims to ensure that the organization will deliver results that meet the stipulated requirements. Requirements specified may be specific requirements of the customer, where the organization's contract is responsible for ensuring the quality of certain products, or is the market needs as defined by the organization.

ISO 9001:2000 is not a standard product, because it does not state the requirements that must be met by the products and services. No product acceptance criteria in ISO 9001:2000, so we can not inspect the product to the product standards. ISO 9001:2000 is the only standard quality management system.

### **Understanding Effectiveness**

Anthony (2000:109), defines effectiveness as follows:

"Effectiveness is the relationship between a responsibility center's output and its objectiveness".

Meanwhile, according to Komarudin (1994:269), the notion of effectiveness is as follows:

"Effectiveness is a situation that shows the level of success (or failure!) Management in achieving its intended purpose."

Based on the definition above it can be concluded that the definition of effectiveness is the relationship between the output (output) of a responsibility center with the objectives to be achieved. The larger contribution to the achievement of the outputs generated target value, it can be said to be effective seemakin also a part.

### **Effectiveness of Implementation Quality Management System ISO 9001:2000**

According Gaspers (2005:33-56), the effectiveness of the implementation of the ISO 9001:2000 quality system within an organization can be seen with the implementation of quality management systems in accordance with established standards. The standard requirements of ISO 9001:2000 quality management system are summarized in the clauses, determined by various indicators and subindikator namely:

#### 1. Quality Management System

##### a. General Requirements

This clause is more emphasis on the need for continuous improvement (continual improvement). Management should establish measures for the implementation of ISO 9001:2000 quality management system and the need for continuous improvement.

##### b. Documentation Requirements

→ General; clause states that require documentation of a quality management system. Documents in ISO 9001:2000 is defined as information and its supporting medium.

→ Manual quality is a description of the sequence and interaction of the processes

included in the quality management system.

- Control of documents; This clause states that the organization shall establish and maintain written procedures for controlling all documents required for the management of these processes.
- Control of quality records; clause states that the organization shall establish and maintain written procedures to control all quality records required for the management of these processes.

## 2. Management Responsibility

### a. Management Commitment

Management organizations must give a commitment to the development and improvement of quality management system ISO 9001:2000

### b. Plan

- Management of the organization should set quality objectives, at relevant functions and levels within the organization implementing the quality management system ISO 9001:2000. Quality objectives should be specified: specific, measurable, achievable, results-oriented achievement, timely goals.
- Top management shall ensure that the planning of the quality management system is carried out in order to meet the stipulated requirements. Quality planning should be ie: realistic, humanistic, can be understood by all members of the organization, have the measures clear, actionable and achievable if the plan is implemented.

## 3. Responsibility, Authority and Communication

### a. Responsibilities and Authorities

This clause states that the organization's management should consider the following:

- Identify the functions and relationship linkages to facilitate the achievement of the effectiveness of the quality management system.
- Identify the composition of the management of the organization.
- Creating organizational structures that explicitly and clearly identify the relationship functional.
- Identify the responsibilities and authority and communicate to those involved in the operation of the quality management system ISO 9001:2000.

### b. Management Deputy

This clause explicitly states that top management must formally appoint a member of management, who bebasdari other responsibilities, and has clearly defined authority and clear, to ensure the effectiveness of the quality management system ISO 9001:200.

### c. Internal Communication

This clause is a new clause which states that top management should ensure that communication processes are established within the organization and that communication is related to the achievement of the efforts of the effectiveness of the quality management system ISO 9001:2000.

## 4. The review-Re Management

### a. Re-Supplied Input

Input-A management review should include current performance and opportunities for continual improvement with respect to:

- The results of the audit.

- customer feedback.
- process performance and product conformity.
- The status of corrective and preventive actions.
- Follow-up review of the management re-ago.
- Changes that could affect the quality management system.

#### b. Re-review of Output

Output-A management review should include measures relating to:

- Improved ISO 9001:2000 quality management system and its processes.
- Increased product related to customer requirements.
- The resources required.

### 5. Human Resource Management

#### a. Provision of Resources

An organization shall determine and provide the resources necessary to properly implement and maintain a quality management system ISO 9001:2000 and continually improve the effectiveness and increase customer satisfaction.

#### b. Human Resources

Personnel who are responsible for carrying out the task should be defined within the quality management system ISO 9001:2000 and has competence, relating to relevant education, training, skills and experience.

#### c. Infrastructure

Management organization shall establish, provide and maintain the infrastructure needed to achieve conformity to product requirements. Infrastructure includes: buildings, workspace and appropriate facilities, process equipment, and support services (such as transport and communications).

#### d. Work Environment

Organizations should define the working environment by establishing and managing the work environment to achieve to product requirements.

### 6. Product Realization

#### a. Planning of Product Realization

#### b. Processes Associated with Customer

#### c. Design and Development

#### d. Terms of Production and Service

#### e. Measurement Control and Monitoring Equipment

### 7. Measurement, Analysis and Improvement



a. Measurement and Monitoring

→ The organization shall monitor information relating to customer perception in order to determine whether the organization has met customer requirements.

→ The organization shall conduct internal audits of the quality management system, to ensure that the quality management system complies with the requirements and has been effectively implemented and maintained.

→ The organization shall establish appropriate methods for the measurement and monitoring of product realization processes necessary to meet customer needs.

b. Control Products Non conformance

Organizations should consider the following aspects :

→ Establish written procedures that define the processes involved in the control of nonconformans.

→ Ensure that the product does not comply with the requirements is identified and controlled to prevent unintended use or delivery.

→ non conforming products are refurbished, then the results of repeated improvement was verified again to ensure compliance.

→ Ensure that appropriate action is carried out, with regard to the consequences of such a discrepancy.

→ If necessary, report to obtain concessions to customers, end users, law agencies or other institutions related to the proposed improvement of the products that are not suitable.

c. Data Analysis

Organizations need to analyze the data to provide information on:

→ customer satisfaction.

→ Conformity to product requirements.

→ The characteristics and trends of processes and products.

→ suppliers.

d. Enhancement

→ The organization shall continually improve the effectiveness of the quality management system through quality policy, quality objectives, audit results, analysis of data and re peninjauan manajeme.

→ The organization shall establish written procedures for corrective action with the requirements specified.

→ The organization shall establish written procedures for preventive action by the requirements that have been set.

### **THOUGHT AND DEVELOPMENT FRAMEWORK HYPOTHESIS**

Companies that have implemented or implemented quality management system ISO 9001:2000, to review the appropriateness and effectiveness of the quality management system is carried out in the company by conducting internal quality audits. According Indranata (2006:1) internal quality audit is a tool that is very important and effective way to see the implementation of a quality management system and the system implemented in the organization. Internal quality audits carried out in an objective, systematic and

documented. The process of internal quality audits serve as a management tool for self-assessment of processes or activities designated in the quality management system.

Recognizing the importance of the role of internal quality audits to improve the effectiveness of the quality management system ISO 9001:2000, the authors propose the following hypothesis:

- a. Ho: internal quality audit is not a significant role in improving the effectiveness of the quality management system ISO 9001:2000.
- b. Ha: internal quality audit a significant role in improving the effectiveness of the quality management system ISO 9001:2000.

## **METHODS**

### **Research object**

The experiment was conducted at PT. Telecommunications Industry Indonesia / CORE (Limited) engaged in the solution provider of engineering services, particularly information and communication systems and technology integration, or better known as isti (Infocom Systems & Technology Integration), and as one of the company achieved ISO 9001: 2000 in the implementation of quality management system does.

Research subjects were made by the author for the study is the internal auditor who has conducted internal quality audits and divisions that have implemented quality management system ISO 9001:2000.

### **Research Methods**

#### **Operational Variables**

According Sugiyono (2008:60), the research variables are all things that shape what is defined by the researchers to be studied in order to obtain information about them, and then drawn conclusions. This study discusses the relationship between the two classes of variables, the independent variable (independent variable) or variables that influence, as well as the dependent variable (dependent variable) or a variable that is affected.

Under the title "The Role of Internal Quality Audit Effectiveness in Improving Implementation of ISO 9001:2000 Quality Management System", then there are two variables in this study. These variables are:

1. Independent variables or independent variable (X), the variables that affect the variable which is not free. The independent variable in this study is the internal quality audit.
2. Dependent variable or dependent variable (Y) is the variable that the circumstances are influenced by other variables that are independent. The dependent variable in this study is the effectiveness of the quality management system ISO 9001:2000.

The variables mentioned above are fully supported by the dimensions and indicators that influence, which dimensions and indicators serve as clues to whether a variable is successful or not. If the dimensions of the fully executed properly, it can be concluded that the variable is effective, but if the dimensions are not executed properly, the destination variable is not reached.

To measure the independent and dependent variables, it is done distributing questionnaires to a number of respondents. The questionnaire was prepared based on the indicators that are used to determine whether the internal quality audit role in improving the effectiveness of the quality management system ISO 9001:2000.

### **Simple Regression Analysis**

Simple regression analysis was used to determine how the effects of independent variables on the dependent variable. From these equations can be determine the contribution of the variable X (independent) to variable Y (dependent). The relationship is expressed in terms of mathematical formulation that has a functional relationship between two variables is defined as follows:

$$Y = a + b X$$

Where:

Y = the predicted value

a = constant

b = regression coefficients

X = the value of the independent variable

## RESULTS AND DISCUSSION

### Research

Based on research conducted by the author, the author has received a number of quality data about the role of internal audit in improving the effectiveness of the quality management system ISO 9001:200 at PT INTI (Limited). One method of data collection conducted by the authors is by distributing questionnaires to the respondents of the company. The questionnaire consisted of 25 questions distributed to the independent variable (X) and 25 questions for the dependent variable (Y), so the total questions there are 50 questions. Respondents in this study are the internal quality auditors and the coordinators of the ISO 9001:2000 quality management system that is in every division in the company. The number of questionnaires collected by the author is as much as 20 questionnaires. This is because the respondents were not in accordance with the criteria expected.

### Role of Internal Quality Audit Effectiveness in Improving the Quality Management System ISO 9001:2000

#### Simple Regression Analysis

Simple regression analysis is a technique to test the functional relationship between the independent variables at a causal (Internal Quality Audit) with one dependent variable (Effectiveness Implementation Quality Management System ISO 9001:2000). After doing a simple regression analysis using SPSS version 14.0, the output is obtained as follows:

**Tabel 1**  
**Coefficients(a)**

Model		Unstandardized	Standardized Coefficients		t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2,547	,517		4,923	,000
	x	,281	,120	,483	2,338	,031

*a Dependent Variable:* Effectiveness Implementation Quality Management System ISO 9001:2000

From the table above it can be seen the regression equation of internal quality audit role in improving the effectiveness of the quality management system ISO 9001:2000 as follows:

**2,547 + 0,281X**

where:

Y: Effectiveness of Implementation Quality Management System ISO 9001:2000

X: Internal Quality Audit

Can be interpreted as follows:

- a. The constant of 2.547 means that if the internal quality audit (X) value is 0, then the effectiveness of the quality management system ISO 9001:2000 (Y) value of 2.547.
- b. Regression coefficient for the internal quality audit will be able to increase the effectiveness of the quality management system ISO 9001:2000 by 0.281. The coefficient is positive, meaning a positive relationship between internal quality audits (X) with the effective implementation of the quality management system ISO 9001:2000 (Y).

### Coefficient of Determination

The magnitude of the influence of role in improving the Internal Quality Audit Effectiveness Implementation Quality Management System ISO 9001:2000 can be determined by using the coefficient of determination (R<sup>2</sup>). R<sup>2</sup> values can be seen by calculating the SPSS version 14.0 as follows:

**Tabel 2**  
**Model Summary(b)**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,483(a)	,233	,190	,22524

a Predictors: (Constant), Internal Quality Audit

b Dependent Variable: The effectiveness of the Quality Management System Implementation ISO 9001:2000

From the table above it can be seen the coefficient of determination is  $0.233 \times 100\% = 23.3\%$ . This value implies that the quality of internal audit has a role in increasing the effectiveness of the quality management system ISO 9001:2000 by 23.3% and 76.7% influenced by other factors.

### Hypothesis Testing

Hypothesis testing between internal quality audits and the effectiveness of the quality management system ISO 9001:2000 is as follows:

H<sub>0</sub>: internal quality audit is not a significant role in improving the effectiveness of internal control sales.

H<sub>a</sub>: internal quality audit a significant role in improving the effectiveness of the quality management system ISO 9001:2000.

Significance values obtained from the test is 0.031. This value turned out to be  $< \alpha = 0.05$ , which indicates that H<sub>0</sub> is rejected. So the conclusion that can be drawn is that the hypothesis (H<sub>a</sub>), which is "an internal quality audit a significant role in improving the effectiveness of the quality management system ISO 9001:2000" acceptable.

### Discussion

This research was conducted to determine the extent of the role of internal quality audits to improve the effectiveness of the quality management system ISO 9001:2000 in PT INTI (Limited). This research has a significant positive effect. Instrument in this study is a questionnaire distributed to 20 respondents. Qualitative data processing is done editing, coding, tabulation, the validity and reliability of data that can be processed. Data in the form of experience or perception questionnaire respondents were then analyzed to determine the extent of the Internal Quality Audit role in Improving Effectiveness Implementation Quality Management System ISO 9001:2000 in PT INTI (Limited).

The Internal Quality Audit Executed by Internal Quality Auditor at PT INTI (Limited)

From the analysis of known responses of internal quality auditors on internal quality audit conducted at PT INTI (Limited) has done well. It can be seen from the analysis of the respondents' answers in the questionnaire contained the highest spread in which the answers are at the planning and preparation of audit by 53.57%, followed by the stage of reporting is at 51.67%, the implementation phase of the audit process by 46,67%, and stage of the follow-up audit has also been at 36.67%. It can be seen from the answers of the respondents answered that the majority agrees.

### **Effectiveness of Implementation Quality Management System ISO 9001:2000**

From the analysis of known response coordinator for each division for the implementation of quality management system ISO 9001:2000 in PT INTI (Limited) has performed quite well and quite effective. It can be seen from the analysis of the respondents' answers are contained in the answers to the questionnaire circulated highest-review dimensions contained in a management by 90%; dimensional measurement, analysis and improvement of 76.67%; dimensions of human resource management by 73,75%; dimension of management responsibility by 67.5%; dimensions of responsibility, authority, and communication of 66.67%; dimensions of quality management system by 63.33%, and the dimensions of the product realization by 60%. It can be seen from the answers of the respondents answered that the majority agrees.

### **Role of Internal Quality Audit Effectiveness in Improving Implementation Quality Management System ISO 9001:2000**

From the results of testing that has been done of the obtained results indicate a positive correlation between the effectiveness of the internal quality audit ISO 9001:2000 Quality Management System. From the results of simple regression analysis, it is known that the value of the significance of internal quality audits with the effectiveness of the quality management system ISO 9001:2000 is equal to 0.031. Which value is smaller than  $\alpha$ , where  $\alpha = 0.05$  indicating that  $H_0$  is rejected, it means that the internal quality audit a significant role in improving the effectiveness of the quality management system ISO 9001:2000.

In addition, based on the results of this research is that the coefficient of determination is  $0.233 \times 100\% = 23.3\%$ . Which contains the value meaning that the internal quality audit role in improving the effectiveness of the quality management system ISO 9001:2000 by 23.3%, while 76.6% is influenced by other factors. One other factor that plays a role in increasing the effectiveness of the quality management system ISO 9001:2000 Quality Management System that is socialization ISO 9001:2000 in every division of the company.

## **CONCLUSION AND RECOMMENDATIONS**

### **Conclusion**

From the research that has been done in PT INTI (Limited) regarding the role of internal

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audit in improving the effectiveness of quality management system ISO 9001:2000 implementation, the following conclusions can be drawn:

Internal quality audits conducted by internal quality auditor role in improving the effectiveness of the implementation of the ISO 9001:2000 quality management system applied in enterprises. It can also be seen from the coefficient of determination of 23.3%, which means that internal quality audits conducted by the internal quality auditor has a role in increasing the effectiveness of the quality management system ISO 9001:2000 by 23.3% and the remaining 76.7% influenced by other factors such as the dissemination of quality management systems in each division of the company.

### **Recommendation**

Based on the above conclusion, as for suggestions that can be put forward the author and are expected to be useful for a variety of parties are as follows:

#### 1. For the Company

a. Quality audit activities undertaken by the company are quite good, but it should still be improved, especially the implementation of internal quality audits are carried out for 6 months, ideally for 3 months. Another thing to note is the quality of the internal audit team, which team should conduct internal quality audits are auditors who are experienced, qualified and have received sufficient training so as to better understand auditing procedures of the quality management system ISO 9001:2000. Another thing that needs to be considered is the follow-up phase of the audit, which aims to make the process of error correction can be immediately implemented in the wherewith audited.

b. Pensosialisasian further enhance the quality management system ISO 9001:2000 in all company divisions not only in certain parts of it, so that each employee will better understand the quality system procedures.

#### 2. For Further Research

For the next researcher, it can try to do research on the company services a certified ISO 9001:2000 or ISO certification for the ISO 9001:2008. Should the number of internal quality auditors even more so that the results are better.

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### **Questionnaire**

#### **Charging Instructions**

The question consists of two types of questions, namely question type A and type B. The question is a common question type A, type B, while the question was specific question, where the question of type B is a closed-choice questions with five possible answers that have been provided, the SS (Strongly Agree), S (Agree), RR (Doubt-Doubt) , TS (Disagree), and STS (strongly disagree). Put an "X" in the column answers that Mr / Ms deem most appropriate.

#### **A. Common Questions**

1. Name: (When ready)
2. Gender:
3. Latest Education:
4. Title:

#### **B. Special Questions**

Here is the question of the role of internal quality audits to improve the effectiveness of the quality management system ISO 9001:2000 in the company where Mr / Ms work. Mr / Ms just choose one of the alternative answers by marking the check list (II) in the space provided for each question that most believed.

#### **Independent Variables Questionnaire**

##### **A. Planning and preparation of audit**

1. Tim auditor / auditor head that will perform quality audits will be chosen by management representatives.
2. Internal quality audit team should have the education and training of quality management system ISO 9001:2000 both formal and informal.
3. The auditor must audit schedule before menyusun internal quality audits.
4. Internal quality audits should be performed at least 2 (two) times a year.
5. Internal quality audit team should prepare a checklist of the audit before the audit is performed.
6. The auditor should perform at least one week notice to the auditee before the audit conducted.
7. Detailed plan of the audit was made when the auditee has approved the implementation of internal quality audits.

##### **B. Implementation of the Audit Process**

8. In the opening meeting of chief auditor must give an explanation of the purpose and methods of implementing internal quality audits to be conducted.



9. Auditors have ample freedom to obtain information in performing their duties.
10. Auditors gather evidence based on interviews, examination of documents and observations.
11. In the quality management system audit, the auditor should work according to the steps defined in the quality management system standard ISO 9001.
12. Quality auditor findings would indicate compliance or non-compliance with existing requirements.
13. The findings of the auditor of the discrepancy will be noted on the form of corrective action plans.
14. Auditors will hold meetings with representatives of management to explain the audit findings
15. The auditor will conduct a discussion of the findings obtained to draw conclusions.
16. The auditor will present the results of a quality audit conducted at the meeting of the cover.

#### C. Reporting Audit Results

17. Quality audit reports will be submitted to the auditee for further action.
18. Quality audit report should contain factual information, relevant significant and systematically arranged in an easily understandable.
19. Auditor head will be responsible for the manufacture of the final audit report.
20. When the presentation of the audit report should always be on time and in accordance with a predetermined time.
21. Once the audit is completed and report writing auditor will submit the results to the quality manager.
22. The management has always supported the report of investigation conducted by the internal auditor.

#### D. Follow-up Audit

23. The auditor will verify that corrective actions based on objective evidence of improvement.
24. Advice and recommendations expressed in the management generally positive response.
25. Auditors always provide advice and recommendations to build on the findings obtained.

### Dependent Variable Questionnaire

#### A. Quality Management System

1. The company has established measures for the implementation of procedures and work instructions.
2. The Company has established and maintains manual (user guide) Quality assurance / quality.
3. The Company has established written procedures for controlling all documents required.

#### B. Management Responsibility

4. Management had already been aware of the regulations set by the company.
5. The quality policy has been communicated at all levels within the company.
6. Quality planning has been documented to meet the requirements and objectives of quality / quality.
7. Quality objective has been ensuring the effectiveness and efficiency and the efficiency of the company.
8. Quality objectives established by top management at each company functions.

#### C. Responsibility, Authority and Communication

9. The organizational structure has been created to identify functional linkage relationships within the company.

10. Management representatives have established methods to meet the needs and customer satisfaction to all parts of the company.

11. Top management has established internal communication processes are appropriate in the company.

#### D. Review-Re Management

12. Input review re-management has included discussion of suggestions for improvement.

13. Output review re-management has included the decision to take corrective action.

#### E. Management Human Resources

14. The Company has provided adequate resources in the execution of operations.

15. HR managers must ensure that the personnel assigned to each work unit has met the requirements (competencies, skills and experience) established companies.

16. The company has been providing infrastructure (buildings, workspace, equipment, transportation, etc.) are required.

17. The company has managed a comfortable working environment in accordance with health and safety requirements.

#### F. Realization

18. Planning of product realization consistent with the requirements set.

19. The Company has established work instructions in their communication with customers.

20. The company has been planning the design and product development.

21. The Company has controlling production through the availability of information for the products produced.

#### G. Pengukuran, Analysis and Improvement

22. The Company has made continuous improvements to achieve corporate objectives.

23. The company has been analyzing the data to evaluate compliance with the procedures specified requirements.

24. The company has been taking corrective action to prevent a repeat of the same mistakes.

25. The Company has established precautions to avoid potential mismatches.