

# Analysis of Internal Quality Audit to Improve The Implementation of The Higher Education Internal Quality Assurance System at The Manado State Polytechnic

Selfy Manueke  
*Business Administration Department*  
*Manado State Polytechnic*  
 Manado, Indonesia  
 self22r@gmail.com

Meiske Wisye Manopo  
*Business Administration Department*  
*Manado State Polytechnic*  
 Manado, Indonesia  
 self22r@gmail.com

**Abstract**—High quality and competitive education has become a national and international concern. Therefore, the Ministry of Research, Technology and Higher Education is targeting the implementation of an effective Higher Education Quality Assurance System in order to guarantee the quality of higher education in the organization of Higher Education Three Main Activities. One important aspect that supports the implementation of Higher Education Quality Assurance System is through an internal quality audit where the internal quality audit is an important activity to ensure that Higher Education Quality Assurance System is in accordance with the plan so that stakeholders can see the good quality impact of the implementation of Higher Education Quality Assurance System in Manado State Polytechnic. This study aims to analyze internal quality audits in order to improve the implementation of Higher Education Quality Assurance System in Manado State Polytechnic. The research method used is a qualitative research method using a semi-structured interview instrument and document analysis in order to obtain information about conducting an internal quality audit at the Manado State Polytechnic. The results found are the implementation of an internal quality audit at the Manado State Polytechnic is conducted under Learning and Quality Assurance Center. It is carried out according to the procedures that consist of pre-audit processes, audit processes and post-audit processes which are done manually. It does not yet have an integrated system with the data center so that various obstacles are experienced by the Learning and Quality Assurance Center in managing the results of internal quality audits, such as requesting corrective actions, reporting, and documenting audit results.

**Keywords**—*internal quality audit, internal quality assurance system*

## I. INTRODUCTION

Nowadays, quality and competitive higher education has become a national and international concern. Therefore, the Ministry of Research, Technology and Higher Education is targeting all higher education institutions in Indonesia to implement an effective Higher Education Quality Assurance System in order to guarantee the quality of higher education in the organization of Higher Education Three Main Activities (education, research and community services). To guarantee the quality of higher education, the Ministry of

Research and Technology and Higher Education issued a national policy for the Higher Education Quality Assurance System, the Internal Quality Assurance System and Internal Quality Audit, and the national policy on the External Quality Assurance System.

These policies refer to [1] Republic of Indonesia Law concerning Higher Education. Article 52 paragraph 1 states that "Quality Assurance of Higher Education is a systemic activity to improve the quality of Higher Education in a planned and sustainable manner". In other words, Higher Education must develop, maintain and implement a planned and sustainable higher education quality assurance program. According to Article 53, Higher Education Quality Assurance consists of a) an internal quality assurance system developed by Higher Education; and b) an external quality assurance system that is carried out through accreditation.

When a university does not carry out quality assurance, the relevant university cannot be accredited, and an unaccredited university is not entitled to issue a title, as stated in Article 28 (3) of the Act, which states that "Academic titles and vocational degrees are declared invalid and revoked by the Minister if issued by: a) Universities and / or Study Programs that are not accredited; and / or b) an individual, organization or organizer of Higher Education without the right to issue academic degrees and vocational degrees".

Manado State Polytechnic is one of the Higher Education Institutions in Indonesia which is required to hold its Higher Education Quality Assurance System. In 2007, the Manado State Polytechnic has begun implementing the Internal Quality Assurance System and was certified by referring to the ISO 9001: 2000 Quality Management System (QMS), which has been revised to the ISO 9001: 2008 QMS. In 2017, the Manado State Polytechnic began to develop the Higher Education Internal Quality Assurance System in accordance with the mandate of Republic of Indonesia Law [1]. Aspect related to the Higher Education Internal Quality Assurance System is Internal Quality Audit, where this aspect is a benchmark to ensure that the Higher Education Quality Assurance System runs according to the plans that have been set and stakeholders can see the good impact of the implementation of Higher Education Quality Assurance System.

Based on the background above, the research team is interested in conducting research on the internal quality audit aspect of the Internal Quality Assurance System at the Manado State Polytechnic. This study aims to find out the implementation of an internal quality audit in order to improve the implementation of Higher Education Quality Assurance System which is applied in the Manado State Polytechnic.

## II. LITERATURE REVIEW

### A. Definition of Quality

Quality is a word that cannot be interpreted literally, but the word quality is interpreted based on context or situation [2]. The word quality does not have a universal meaning but can be applied to all fields [3]. There are several categories where the word quality can be applied [3], for example: quality is the best; quality is no error; the quality matches the purpose; quality is worth the money.

The word quality is usually used as an indicator for evaluating products or services. This type of quality assessment determines the satisfaction of people who use products or services [4] and [2]. So when people feel satisfied with a product or service, this indicates that the product or service has the best quality. In other words, when a product or service matches the needs and expectations of the user, it means that the product or service is considered to be of high quality. Thus, quality is defined as a degree in which a number of characteristics meet the needs or expectations expressed clearly in a product or service, but have an impact in terms of customer satisfaction or whether a service product matches customer requirements [2].

In educational institutions, products or services are educational services provided to the community as customers. For this reason, the quality of education services must always be maintained and developed so that it matches with the community's requirements. Each component in an educational institution must provide educational services that can provide satisfaction to the community as users of educational services.

### B. Higher Education Quality Assurance System

The quality assurance system is a crucial institutional need in the current era of globalization to face challenges and global competition in all fields [5]. The quality assurance system is a process carried out by higher education institutions to ensure that all institutional activities, especially the 3 (three) main activities (Education, Research and Community Service) are carried out properly and in accordance with the needs / requirements of the community [6].

In Indonesia, every higher institution is obliged to develop, maintain and implement a planned and sustainable higher education quality assurance program, as stated in the Republic of Indonesia Law [1] concerning Higher Education. Article 52 paragraph 1 states that "Quality Assurance of Higher Education is a systemic activity to improve the quality of Higher Education in a planned and sustainable manner". Furthermore, Article 53 states that Higher Education Quality Assurance consists of an internal quality assurance system developed by tertiary institutions; and

external quality assurance system carried out through accreditation. Thus, the Internal Quality Assurance System was developed and implemented by the tertiary institution itself, while the University's External Quality Assurance System was developed and implemented by the National Higher Education Accreditation Board. So, nationally the Higher Education Quality Assurance System was developed and implemented by the National Higher Education Accreditation Board.

As the case in Australia, based on the Higher Education Standard Framework, all universities must develop and carry out quality assurance of higher education and university accreditation internally (self-accrediting) [7], and nationally through the national system the recognition and accreditation of higher education quality assurance institutions are held by quality agencies which since January 2012 came into force under the name of the Tertiary Education Quality and Standards Agency, based on the Tertiary Education Quality and Standards Agency Act 2011 [8]. The purpose of this quality assurance is to ensure that all students receive high quality education at every Australian tertiary institution [8]

Both in Indonesia and in Australia, the Higher Education Quality Assurance System plays an important role in determining the quality of education provided by higher education institutions, because the quality assurance system can be a means to control the delivery of education by each educational institution. Through the implementation of a quality assurance system, any weaknesses and threats faced by educational institutions can be corrected into strengths and opportunities to achieve the goals of the educational institution.

Based on the previous literature review, Manado State Polytechnic, which is one of the tertiary institutions in Indonesia, has developed a quality assurance system with reference to the ISO 9001: 2000 Quality Management System in the field of Education Services which has been implemented since 2007 and then the ISO QMS 9001: 2000 has been revised to become an ISO 9001: 2008 QMS in the same field (Manado State Polytechnic ISO Document). The ISO 9001: 2008 QMS consists of 4 (four) main standards namely management responsibility standards, resource management standards, product realization standards, and measurement and analysis measurement standards as shown in Fig 1.

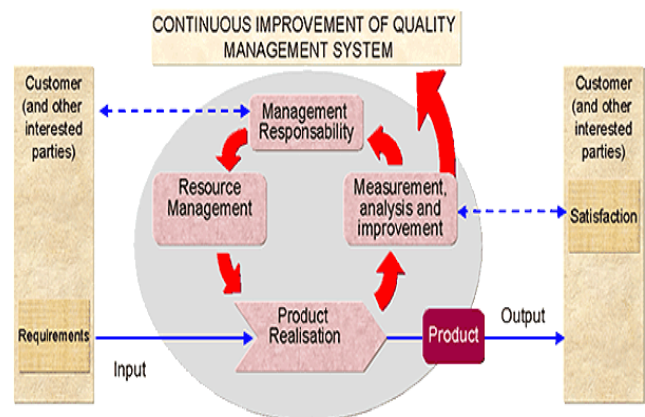


Fig. 1. Continuous improvement of quality management system.

Furthermore, research on the Higher Education Internal Quality Assurance System has been carried out, wherein the research focuses on the implementation of internal quality assurance that refers to the ISO 9001: 2008 Quality Management System (QMS) [9]. This research identifies and evaluates the implementation of ISO 9001: 2008 QMS and its relation to organizational culture, but an internal quality assurance system model has not been created that is associated and or collaborated with the National Higher Education Standards [10] which are the main benchmarks in the organization of higher education. National Standards of Higher Education consist of National Education Standards, National Standards of Research, and National Standards of Community Service (Article 2, paragraph 1) which constitutes an inseparable unit in the implementation of higher education (Article 2, paragraph 2). The three National Higher Education Standards above must be implemented by every tertiary institution in Indonesia.

### *C. Definition of Quality Audit*

Quality audit is a systematic, independent and documented process for obtaining audit evidence and evaluating it objectively to determine how far agreed criteria have been met. A quality audit is not just an examination that can be done arbitrarily by anyone and the results can be explained verbally. Based on the audit definitions given in ISO 9000 and ISO 19011 and the description of audit activities provided in ISO 19011, the audit must be systematic, independent and documented. Systematic that is prepared carefully in advance and implemented according to plan. Independent is carried out by impartial auditors who are not affected by any party related to ties, finance or other fields in the organization. Documented, which is based on documented evidence and the results included in official documentation reports.

The types of audits consist of 2 types, namely Internal Audit and External Audit. Internal Audit is an Audit carried out by, or on behalf of, the company/institution itself for internal purposes. Internal audit can be the basis for a declaration of organizational suitability, while external audit can be carried out by second and or third parties. Second party audits are carried out by parties interested in the organization (for example consumers). Third-party audits are carried out by an independent register or external certification body.

In connection with this research, the type of audit that will be discussed is the Internal Quality Audit conducted at the Manado State Polytechnic to optimize the application of the Manado State Polytechnic Internal Quality Assurance System. Internal Quality Audit is the activity of evaluating and monitoring the implementation of the internal quality assurance system. This activity is carried out every semester to ensure quality targets and standard process and management of learning to determine the suitability between implementation and planning and to find out the constraints faced whether there is a mismatch between implementation and planning.

### III. RESEARCH METHODOLOGY

To answer the problems studied and achieve research objectives as listed in the introduction, this study uses qualitative methods. Qualitative methods are used to explore

existing conditions to get a good understanding of why these conditions occur and how the opinions of the respondents [11]. Qualitative data were obtained through Semi-Structured Interviewed and Document Analysis. Qualitative methods are used to develop convincing narrative analyzes based on perfection, complexity, and detail compared to statistical logic [12]. Participants who were involved in this research consist of Head of Learning and Quality Assurance Center, study program coordinators, and auditors. To analyze qualitative data obtained through interview and document review, the analytical tools used are the Coding Manual and the narrative description. To achieve the stated research objectives, the research stages are designed as follows:

Stage 1, at this stage the initial data collection is carried out by identifying the Higher Education Quality Assurance System documents that are applied in the Manado State Polytechnic more specifically the internal quality audit document. The document is then reviewed and analyzed and used as a reference in designing interview questions for data collection in the field.

Stage 2, instruments for field data collection, specifically interviews, are designed. This instrument is used to obtain in-depth information about conducting internal quality audits.

Stage 3, field data collection and data analysis was carried out in step 3. In accordance with the purpose of the study, the data collected was qualitative data. Qualitative data were obtained through interviews and document analysts.

Stage 4, the last stage of the design of this research method is a comprehensive data analysis of the results of interviews and the results of document analysis to evaluate the application of Internal Quality Audit. Then the research results are formulated and the research report is written. Furthermore, the results of the research were disseminated in an international scientific conference.

### IV. RESULTS AND DISCUSSION

In conducting an analysis of the Internal Quality Audit conducted at the Manado State Polytechnic, there were 4 points that became the focus of the discussion, namely 1) internal quality audit procedures, 2) pre-audit processes, 3) audit processes, and 4) post-audit processes. These focuses of this discussion was concluded based on the results of interviews and document analysis carried out.

#### *A. Internal Quality Audit Procedures*

The Internal Quality Audit at Manado State Polytechnic is carried out by the Learning and Quality Assurance Center through several stages of procedure as follows, the Head of the Center 1) proposes to the Director of the Manado State Polytechnic to issue an Auditor Decree; 2) distribute Director's Decrees to the Auditors; 3) create an audit letter and an audit schedule and 4) submit the letter and audit schedule to the study program coordinators; 5) create an audit task letter for auditors and an audit schedule where the audit will take place; 6) The auditors carry out audits according to a predetermined schedule; 7) The auditors make an audit report; 8) Audit report is documented at the Learning and Quality Assurance Center.

### B. Pre-audit processes

Before the internal quality audit is carried out, based on existing procedures, the Head of Center makes an audit letter and an audit schedule for conducting an internal quality audit and submits it to the study program coordinator. Furthermore, the Head of Center makes the auditor's assignment letter and submits it to the auditors together with the schedule for conducting the internal quality audit. The auditors whose task is to audit the study program must be different from the origin of the auditor's study program. The auditors must contact study program coordinators for meeting appointment. In summary the pre-audit process is described in Fig. 2.



Fig. 2. Pre-audit processes.

### C. Internal Quality Audit Processes

Internal Quality Audit is carried out after the completion of learning every semester by trained auditors who have been determined based on the Decree of the Director of the Manado State Polytechnic. The auditors visit the study program coordinator in the workspace based on an assignment letter. The auditors audit the study program coordinator on 2 matters: quality objectives, and learning process and management standards.

The quality targets of study programs are set by the study program coordinator at the beginning of the year. The quality targets contain programs to be achieved in 1 year. The auditors will also audit the achievement of these quality objectives every semester.

The learning process and management standards are audited after the semester learning ends. The auditors will audit the learning process and management standards that are related to the vision and mission of the study program and learning outcomes contained in curriculum documents, lecture processes, lecture material, implementation of the Midterm Examination and Final Semester Exams, as well as an assessment process consisting of 5 assessment elements namely attendance, formative tests, assignments, Midterm Exams, and End Semester Exams.

Internal Quality Audits are conducted by certified auditors and are trained and managed by the Center of Learning and Quality Assurance. The Internal Quality Audit

Team consists of several auditors to carry out study program audit tasks at the end of each semester. In order to achieve objectivity, the study program audit is not carried out by an auditor who is from the same study program as the origin of the auditor, but is carried out in cross by an auditor who is from a different study program.

The results of the audit are recorded by the auditors on the checklist sheet that has been provided. There are 4 forms that will be filled out by the auditors, namely the quality target checklist, checklist audit attachment for the program that has not been implemented, the checklist of standard process and management of learning, and the checklist of correction action request (CAR) if the audit results state the finding of non-conformity.

### D. Post-audit Processes

1) *Correction Action Request (CAR)*: After conducting the audit, the auditors identify the audit findings for quality targets, and the standard process and management of learning. For quality targets, if there is a program that has not been implemented, the program will be recorded in the checklist audit attachment form and declared as a mismatch in achieving the quality targets. All non-conformities, both quality target programs and standards process and learning management will be recorded by auditors in the checklist of corrective action requests (CAR). Requests for corrective actions will be followed up by the auditors after a period of time given by the auditors. The auditors will re-visit the study program to ensure that the corrective action request has been carried out by the study program coordinator or has not been done. This request for corrective action often experiences obstacles in terms of the time given to the study program coordinator to make corrections to the findings of the program non-conformity that have not been implemented and the standards process and learning management. The auditors also did not have much time to visit the study program to ascertain requests for corrective action due to their busyness in implementing the Three Main Activities of Higher Education.

2) *Reporting on Audit Results*: The results of quality audit are recorded by the auditors into the Checklist of Quality Targets and Checklist Audit Programs that have not been implemented, whereas, the results of audit of the standard process and learning management are recorded by the auditors in the checklist for the standard process and learning management. The audit results are reported by the auditors to the Head of the Learning and Quality Assurance Center. However, before giving a report to the Head of the Learning and Quality Assurance Center, the auditors make a photocopy of the audit results for the study program coordinator as an archive in the study program, and if there is non-conformity program the study program coordinator may use it for corrective actions. In reporting the audit results, the auditors are constrained by findings of non-compliance because these findings must be followed up by the auditors by several times having to re-visit the study program in ensuring the implementation of corrective actions by the study program coordinator or other related parties. In some cases, the corrective actions did not achieve the targets and it was over due date. For example, there was

a finding that exam questions did not have the answer, therefore the study program coordinator must contact the lecturer concerned, who was likely the lecturer was out of town, so this becomes another obstacle.

3) *Documenting Audit Results*: Documenting the results of the audit is carried out by the Learning and Quality Assurance Center after the implementation of the audit, reporting the results of the audit and following up on requests for corrective action have been completed. Documentation of audit results is carried out as evidence that the internal quality audit has been carried out. This documentation will be used as material for management review which will ensure that the Internal Quality Assurance System needs to be improved or provides other considerations. However, this documentation is often influenced by audit reports which have been constrained many times because they are done manually both by the Learning and Quality Assurance Center and by auditors.

## V. CONCLUSIONS AND SUGGESTIONS

### A. Conclusions

Based on the analysis of the pre-audit process, the audit process, and post-audit process it can be concluded that the implementation of an internal quality audit at the Manado State Polytechnic run by the Learning and Quality Assurance Center found many obstacles in several respects, namely the availability of time for auditors to follow up on findings of nonconformities. In this case the auditors must re-visit the study program to ensure that the discrepancy has been corrected or has not been corrected. In addition, reporting and documenting audit results will experience obstacles in storing the audit results.

### B. Suggestions

Since the implementation of the Internal Quality Assurance System at Manado State Polytechnic, both through the Quality Management System (QMS-ISO) and Higher Education Internal Quality Assurance System, the implementation of internal quality audits at the Manado State Polytechnic is still carried out manually using a paper base

device, which means it has not been integrated with the center data thus experiencing problems in corrective actions request (CAR), reporting and documenting audit results. Therefore, the need for the procurement of an online-based Internal Quality Audit System is very necessary to optimize the implementation of the Internal Quality Audit and thus the Internal Quality Assurance System at the Manado State Polytechnic can be improved.

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