

CHAPTER I

INTRODUCTION

1.1 Background

Higher educational institution such as university is always expected to maintain and improve the quality of its education process. Quality improvement in higher educational institution can be done by implementing quality assurance system for higher education. Quality assurance system in higher education is implemented to assure that the institution can fulfill the National Standard of Higher Education, or commonly called SNPT, and also treat as an effort in fulfilling the stakeholder's expectations regarding the educational processes conducted by the higher educational institution.

The responsibility for higher educational institution to conduct the quality assurance system is described in Law 12/2012, section 53 on quality assurance system of higher education. Law 12/2012 explained that each higher educational institution must establish and implement its own internal quality assurance system based on the institution's objectives and characteristic. The implementation of internal quality assurance system or mostly known as SPMI, is considered as a preparation for the higher educational institution to perform the external quality assurance system, which determined the accreditation level of the institution.

Andalas University as one of the prominent Universities in Sumatera also has the responsibility to conduct its own SPMI. University which establish in September 13th 1956 have conducted its SPMI through an internal board namely *Lembaga Pengembangan Pendidikan dan Penjaminan Mutu* (LP3M). One of the responsibility of LP3M for Andalas University's SPMI is to execute the internal quality audit which is implemented to evaluate the suitability between the internal quality standard and process conducted. The internal quality audit is executed by using an internal quality audit instrument, which is formulated by LP3M based on

the appraisal criteria used by the National Accreditation Board for Higher Education or commonly known as BAN-PT in assessing the higher educational institution. The result of this internal quality audit would be taken into consideration in determining the required policy improvement, which also prepares the institution to face the external quality audit that will determine the institution's accreditation level. This make the internal quality audit such an important role for LP3M in conducting the internal quality assurance system of Andalas University.

Along with the success of Andalas University and several Study Programs in achieving accreditation level A stated by BAN-PT, Andalas University need to improve its standards in order to maintain the current achievement and step up to a higher stage. The statement is supported by Dr. Yulia Hendri Yeni, SE, MT as the chairperson of LP3M that justifies the plan to prepare the institution to be certified by Asean University Network of Quality Assurance (AUN-QA) and Accreditation Board of Engineering and Technology (ABET) as the international accreditation board for higher educational institution. Thus, Andalas University through LP3M need to revise the current internal quality audit instrument by considering not only BAN-PT's appraisal criteria, but also take AUN-QA and ABET's appraisal criteria into consideration so that the internal quality audit would also depict the performance of the University in fulfilling the quality standard from these international accreditation boards' perspectives. Furthermore, the release of the new National Standard of Higher Education 2015 through the Ministry of Research, Technology and Higher Education's Decree No. 44 of 2015 becoming another reason why LP3M need to revise the current instrument, since it has to be align it to the newest SNPT.

Currently, internal quality audit is still executed using MS. Excel. Ms. Excel is used as the media for storing data and audit result from each auditor, meanwhile the data processing related to the scoring of the quantitative criteria is still counted manually by the auditors. In addition, each auditor has stored their Ms. Excel file in a different compact disk (CD). Thus, LP3M staff responsible to make the audit

report has to recap all the data from each auditor to be able to process and analyze the data to produce the overall report.

The non-integrated and manual data processing make the internal quality audit conducted by LP3M is less efficient, considering the data and actors involved in this process are a lot in number. It is also consumed relatively a longer time than it supposed to be to make the audit report. Furthermore, a chance to have any mistakes in data processing in the current method is wider since a lot of data have to be recap manually. As stated by LP3M's quality assurance coordinator that there was a mistake happened that make the internal quality audit report is different with the actual data. In addition, the paper based report make it harder for LP3M in serving and finding the desired information once it is needed, as stated by the secretary of LP3M in an interview that it is hard for him to find an information he needs regarding the audit report of one Study program, because he have to search in a huge pile of papers.

Since the internal quality audit plays significant role in the implementation of internal quality assurance system, LP3M need to improve the internal quality audit system to overcome these issues. A computerized information system designed for supporting the internal quality audit system can be a solution to help in integrating, processing, storing huge number of data, and most importantly to make the desired information available and accessible for the entire corresponding actor in the system. Chairperson of LP3M also supported the statement by saying that a computerize information system would be a huge help and needed by LP3M to improve the current internal quality audit process, not only in data handling but also in minimalizing the cost consumed by doing the audit manually.

Therefore, this research is conducted in order to propose an internal information system management which in the implementation will be using a proposed internal quality audit instrument formulated based on the Andalas University's requirement.

1.2 Problem Formulation

The problem formulation of this final project is how is the design of an information system management for supporting the implementation of internal quality audit in Andalas University.

1.3 Objective

The objective of this final report proposal is to produce a proposed internal quality audit information system design to support the internal quality assurance system in Andalas University.

1.4 Research Scope

The development of the information system designed in this final project is focus only on internal quality audit system for bachelor degree program in Andalas University.

1.5 Outline of the Report

This final project proposal contained:

CHAPTER I INTRODUCTION

Introduction contained the background of the research, problem formulation, objective, scopes of the research and outline of the final project report.

CHAPTER II LITERATURE REVIEW

This chapter contained the literature reviews, such as the internal quality audit system in higher educational institution, international accreditation board for higher education, Delphi method, cut off point, management



information system, system development methodology, Unified Modeling Language (UML) database concepts, software verification and validation.

CHAPTER III RESEARCH METHODOLOGY

This chapter described briefly about the stages and methods used in completing the final projects.

CHAPTER IV PROPOSED INTERNAL QUALITY AUDIT INFORMATION SYSTEM DESIGN

This chapter explain each step taken in order to produce the proposed internal quality audit information system. This chapter is divided into two parts, the formulation of the proposed internal quality audit instrument by using the Delphi method and the information system design using object Oriented Design (OOD).

CHAPTER V RESULT AND DISCUSSION

This chapter contain the result of this final project and discussion regarding the proposed information system produced. The discussion will cover the analysis of the proposed system designed, comparison between the actual and proposed system, the flexibility of the proposed system as well as its shortages and advantages.

CHAPTER VI CONCLUDING REMARKS

This chapter contain the concluding remarks of this research and suggestion for the development of the topic in the next research.