

Model of Quality Management System to Maintain Quality Consistency in Higher Education

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ABSTRACT

Indonesia has a lot of Higher Education institutions, creating intense competition among them. In order to win the competition, every Higher Education institution must be able to maintain the consistency of the quality and always improve it. One of the best ways to improve the quality of management in Higher Education institutions is by implementing Quality Management System. The quality management system ISO 9001:2015 is an international standard and well known that it can help manage and improve the quality of Higher Education. Quality Management System ISO 9001:2015 can be implemented in academic or non-academic units in Higher Education. To improve the quality of education, the key success factors for the implementation of Quality Management system in Higher Education need be known. Those will be the fundamental to build the model of Quality Management System ISO 9001:2015 to be implemented in Higher Education. With the implementation of a model of Quality Management System ISO 9001:2015, the quality management in higher education institution will be continuously improved, and hopefully, it can increase the competitiveness in the national and international level. The method used in this research is a mixed method that is a qualitative and quantitative method. The quantitative method uses questionnaires to determine the key factors that should be the priority in order to improve the quality management system of Higher Education. The qualitative method uses the case study approach and in-depth interviews to study the stages that should be done in order to improve the management system of Higher Education. Based on the key success factors and stages to improve the Quality Management System, the Model of Quality Management System that is easy to implement will be obtained.

Keywords: Quality Management System, Key Success Factors, Higher Education, ISO 9001:2015, Model of Quality Management System

1. INTRODUCTION

Indonesia has a lot of Higher Education institutions. In 2017, based on data from the Ministry of Technology Research and Higher Education (Ristek Dikti), the number of registered college reached 4,504 units. This figure is dominated by the private Higher

Education (PTS) which reached 3,136 units. While the number of public Higher Education (PTN) is smaller than that, i.e. 122 units.

Based on these data, it is shown that the Higher Education institutions in Indonesia must compete to be able to maintain their existence. Each Higher Education institution should be able to maintain consistency of the quality. One way to survive is by doing continuous improvement (Suroso, 2013). The quality management system that is publicly known is ISO 9001:2015.

The Higher Education institution which wants to continuously improve its quality of education can implement ISO 9001:2015. Its implementation can be done gradually either in the academic or in the non-academic unit.

In this research, we want to know the key factors that become the priority to be improved in Higher Education and quality management system model that is easy to implement in Higher Education.

2. QUALITY MANAGEMENT SYSTEM

A quality management system (QMS) is a formalized system documenting processes, procedures, and responsibilities for achieving quality policies and objectives. A QMS helps coordinate and direct organization's activities to meet customer and regulatory requirements and improve its effectiveness and efficiency on a continuous basis (ASQ, 2017).

According to Gaspersz (2008: 268), Quality Management System is a set of documented procedures and standard practices for a management system that aims to ensure the suitability of a process and a product (or service) that meets the needs of certain requirements specified by the customer and the organization. Gaspersz (2008: 273) stated that Quality Management System is divided into two, namely Informal and formal Quality Management System.

In the Informal Quality Management System, every management is free to construct or build a model of the organization's Quality Management System. There is no need to be tied to the formal criteria established by other institutions. Therefore, according to the understanding and beliefs of the quality management principles, the management will implement the system and then develop a model of the management system that fits the organization. Unlike the Informal Quality Management System, Formal Quality Management System is bound to the formal criteria predetermined by the constituent institutions of the quality management system. Thus, if the management of an organization wants to adopt a model of Formal Quality Management Systems and wants to get recognition or get awarded, the management must be able to prove its feasibility of applying the model of the Formal Quality Management System.

2.1 Implementing a QMS

There are several things to ponder when establishing a QMS for an organization. Of great importance is guaranteeing it is a strategic choice influenced by the varying

objectives, needs, and products and services provided. This structure is based mainly on the Plan-Do-Check-Act (PDCA) cycle and allows for continuous improvement to both the product and the QMS. The basic steps to implement a quality management system are as follows:

- Design
- Build
- Deploy
- Control
- Measure
- Review
- Improve

2.2 Quality Management System ISO 9001:2015

On September 23, 2015, ISO officially launched ISO 9001: 2015 standard. ISO 9001: 2015 has more clauses than ISO 9001: 2008. The comparison of the clauses of ISO 9001: 2008 and ISO 9001: 2015 is as follows:

Table 2.1 Comparison of the clauses ISO 9001

ISO 9001:2008	ISO 9001:2015
1. Scope	1. Scope
2. Normative Reference	2. Normative Reference
3. Terms and Definition	3. Term and Definition
4. Quality Management System	4. Context Of Organization
5. Management Responsibility	5. Leadership
6. Resources Management	6. Planning
7. Product Realization	7. Support
8. Measurement, Analysis, and Improvement	8. Operation
	9. Performance Evaluation
	10. Improvement

3. RESEARCH METHODOLOGY

In this study, the method used is mixed method between qualitative and quantitative methods. The elaboration of the method is as follows:

This research uses the quantitative method as this research uses questionnaires to determine the key factors that should be the priority in order to improve the quality management system of Higher Education. Some dimensions to be studied in order to determine the key factors are as follows:

- Leadership
- Business processes
- Quality assurance
- Governance of academic and non-academic process

This research uses the qualitative method because it uses case study approach and in-depth interviews to study the stages that should be done in order to improve the management system in Higher Education. Improving management system can be performed based on the requirements contained in the clauses of ISO 9001: 2015.

4. RESULTS AND DISCUSSION

4.1 Key Factors for Improving the Quality Management System in Higher Education

The Factors that become the focus to be improved in the QMS of Higher Education are:

1. Awareness that quality should not be just complacent but must always be improved
2. The commitment of all parties to always put the quality concerned first (In'airat, 2014)
3. Team cooperation to improve the existing system or build a new simple system
4. Change of mindset or culture (Todorut, 2012)
5. Identify the gap that occurs between expectation (by the rules, procedures, guidelines, etc.) and reality
6. The integration of data. The database is always up to date.

4.2 Model of Quality Management System

To facilitate the implementation of quality management system in higher education, a simple model is constructed as below:

Based on the Model of Quality Management System above, there are some key factors that become the important steps to easily implement Quality Management System in Higher Education. The steps are:

1. Formation of Team ISO 9001: 2015

The team consists of individuals who have an awareness of quality, representing each of units/departments. They must know well the existing processes and service, understand the QMS, have knowledge or information on the ISO 9001: 2015, and of course have a commitment (Kaziliunas, 2010).

2. Determine the Vision, Mission, and Quality Policy

The commitment to improve the existing system is greatly influenced by the presence of a clear direction. The form of direction is from the Vision, Mission and of course the quality policy. The quality policy is adopted by containing elements of continuous improvement and commitment to run a quality management system.

3. Processes Identification

Each unit has the main processes that will become the benchmarked processes. Such process will be vital if it is not implemented properly and it will be an obstacle for the next process. Identifying the existing process should be clear started from the input, the process and further the output.

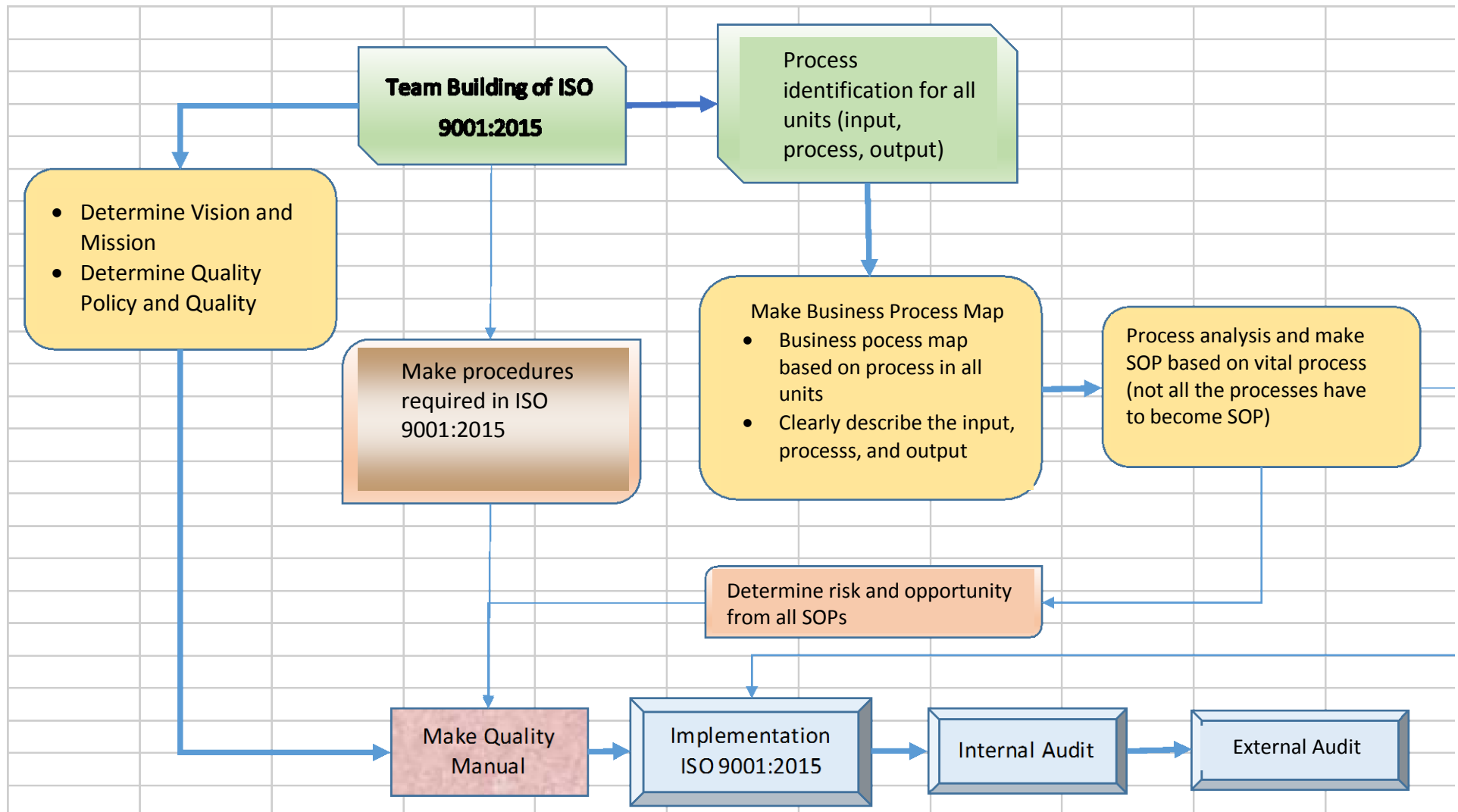


Figure 4.1 Model of Quality Management System

4. Business Process Mapping

This business process mapping should be able to broadly describe the outline from the input, process and then output. To make a mapping of the business process, we have to know the process that occurs in each unit, which was then the main activities of each unit are coupled in the form of input, process, and output in business process mapping. So, the linkages between units with activities can be clearly defined.

5. Preparation of SOP

After each unit investigates the existing processes, the next step is to clarify and confirm what to do, how the steps work and then make the procedures which are considered important and must be available. Not every existing activity in the procedure must be made. The process must be simplified and must accommodate the key factors that have an influence on the process and quality. Each unit requires different procedures which should be synchronized with other related units and also refers to business process mapping.

6. Making Mandatory Procedures ISO 9001: 2015

Besides the procedures that must be made in each unit, there must also be procedures as required by the clause in ISO 9001: 2015. The procedures required are as follows:

Table 4.1 Procedures Required in ISO 9001:2015

No	Procedure	Clause ISO 9001:2015
1	Procedure for Addressing Risks and Opportunities	6.1.
2	Competence, Training and Awareness Procedure	7.2, 7.3
3	Procedure for Control of Documents and Records	7.5
4	Sales Procedure	8.2
5	Procedure for Design and Development	8.3
6	Procedure for Production and Service Provision	8.5
7	Warehousing Procedure	8.5.4
8	Procedure for Measuring Customer Satisfaction	9.1 .2
9	Procedure for Internal Audit	9.2
10	Procedure for Management Review	9.3
11	Procedure for Nonconformity and Corrective Action	10.2

7. Determine Risks and Opportunities

Every organization has a lot of problems and those problems need to be identified in detail, both regarding the risks and opportunities for improvement. Risks and opportunities may contain in any procedure that will be executed.

Each process has risk and opportunity. Therefore, there is a need to identify the risks when the process is not implemented properly. Besides the risk, there are opportunities for process improvement.

8. Implementation of SOP

Each SOP that has been made should be implemented, monitored and evaluated. There might be a case that the implementation is not in accordance with the procedure made. So, it needs to be improved.

9. Internal Audit

Internal audit is a process for performing monitoring and evaluation. In internal audit, the results of the SOP implementation and compliance will be assessed and compared with QMS ISO 9001: 2015 clauses. Then, the internal auditor will provide advice/suggestion for improvements (Kaziliunas, 2012). The internal auditor should be independently assigned from cross function unit. They also should be trained to fully understand the Internal Audit of QMS ISO 9001: 2015. According to Treno, Muslim and Nuramaliah (2016), internal control such as internal audit can help the organization to improve and manage the system.

10. External Audit

An external audit is carried out if an organization has implemented all of the requirements in the clauses of ISO 9001: 2015 and has been carrying out internal audits. If all the required procedures or established procedures have been well implemented, the organization can request a certificate to perform the audit and to obtain a certificate of QMS ISO 9001: 2015.

5. CONCLUSION AND RECOMMENDATION

5.1 Conclusion

Based on data collection both secondary and primary data, it can be concluded that:

- Improvement of Quality Management System in Higher Education institution needs to be implemented in each unit, both academic and non-academic units.
- Awareness of continuous quality improvement is the most important factor for improving the existing system.
- Commitment must absolutely be owned by the management of Higher Education institution, reflected in each of the activities supporting the development and Improvement of QMS (David Han, Quang Linh, 2014).
- The establishment of teamwork must consider the similarity of goals and objectives to be achieved.
- The database containing required information is important and strongly supports the QMS.

5.2 Recommendation

QMS model needs to be tested and implemented in academic and nonacademic units in Higher Education where monitoring and evaluation are conducted in the implementation process. The results of this implementation can become the inputs for improvement of the QMS model. At the end, it will result in the QMS Model which is flexible and easy to implement.

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