The Role of Quality Control and Total Quality Management in Maintaining the Reputation of Higher Education Institutions in the Global Era

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Abstract
In the context of education, higher education institutions must be able to implement a good quality hierarchy mechanism so that the institution can provide the expected quality and always strive to improve the quality it has achieved in maintaining its reputation. The right strategy is needed so that higher education institutions can systematically become quality and reputable institutions. Improving the quality of institutions runs continuously so that public participation and expectations of managed educational institutions become stronger and able to maintain their reputation. Quality control and total quality management are methods to provide assurance to the public of the quality and reputation of education organized by institutions. Continuous improvement activity is proof of sincerity in presenting quality Higher Education institutions through quality control and total quality management.

Keywords: Quality Control, Total Quality Management

Introduction
Education is a primary factor in shaping human personality and is seen as an effort to enlighten the life of the nation, capable of developing individuals who are faithful, virtuous, and knowledgeable (Musfah, 2015). The personality of an individual is greatly influenced by the strength of the education acquired. The intelligence of a nation is also determined by educational factors. Thus, the progress or regress of a nation is influenced by education in shaping the quality of the nation's personality and intelligence.

As a quality nation, education must be placed as a crucial aspect in the policy of improving quality in higher education institutions because quality signifies the ability of a product or service to meet needs or expectations, satisfying customer satisfaction in education (Fattah, 2013). Quality can also be defined as a comprehensive representation and characteristic of educational services internally and externally, demonstrating its ability to satisfy expected or implied needs, including the input, process, and output of education (Sagala, 2013).

When a university aims for quality outputs, it must continually innovate its educational approaches to face various challenges according to developments. The quality improvement of universities can be observed from various aspects of higher education management. Furthermore, the quality of an institution can be achieved by implementing Total Quality Management (TQM) in higher education. TQM can develop established programs through planning, showcasing excellence for each educational unit. Therefore, a university that meets the set quality standards depends on what is produced, used, and perceived by others.

Improving the quality of higher education involves the active participation of all stakeholders in education. This involvement includes efforts to foster creativity and new innovations. Thus, a university can be considered capable of conducting its programs to be of high quality and maintaining its reputation.

Minister of Education, Culture, Research, and Technology, Nadiem Anwar Makarim, stated that there will be efforts to enhance the reputation of universities in Indonesia (DetikEdu Daily, Friday, January 27, 2023). In this regard, he mentioned that improving reputation can be achieved through internationally standardized teaching, highly qualified faculty, and universities with good reputations being able to attract foreign students and establish collaborations with internationally reputable universities. According to international students, the most important ranking indicator is about 72 percent observing how university graduates can work full-time within one year after graduation. Other indicators include the level of qualification of faculty, student satisfaction performance surveys, company perceptions of the university, citations in academic journals, the number of international students and the student-to-faculty ratio, the number of postgraduate students, and the number of international staff.

Method

This research employs the method of literature research (Library Research). This method is related to the collection of literature data (Zed, 2004). The method used in this research is the literature review method, which involves selecting, summarizing, and considering issues so that they can be reduced and presented systematically.

Results and Discussion

Quality Control and Total Quality Management

From quality gurus' sources or http://www.qualitygurus.com/courses/mod/forum/discuss.php?d=1557, literally, quality control is a process involved in the system to ensure the management of work, competence, and performance during the production of products or services so that
they can meet the quality plan as envisioned. In accordance with the above opinion, it can be understood that quality control is part of management to ensure that products, whether goods or services, are guaranteed quality, thus instilling confidence in the quality of those goods and services among the public. In the context of education, it is a service provided by educators during the delivery of learning.

The Scottish Qualifications Authority (SQA), an institution with the authority to determine the quality of a product, service, or education service, suggests ways to conduct quality control. Table 1: General Criteria for Maintaining the Quality of Goods and Services

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<th>No</th>
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| 1  | A section that is always reviewed and continuously improved | a. Always pay attention to quality assurance and have the latest information to address people's needs for the goods and services produced.  
      b. Bertanya a to users for feedback | a. Look Back and get the latest information needed internally.  
      b. Identify the roles and responsibilities of staff/subordinates.  
      c. Make it easy for subordinates to consult practice and provide feedback |
| 2  | Prepare product and service information as well as | Determine the target to whom product information and Expand the necessary information to each subordinate, user and potential user | |
| 3  | Make necessary special assessments of potential users | a. Provide guidance and information as best as possible (specifically) to potential users.  
      b. Give potential users a fair and consistent opportunity to decide | a. Look for good ratings or opinions from users about the products produced and then apply them to guarantee product quality |
| 4  | Accurate and timely processes | a. Completely record the results of interactions with users.  
      b. Periodically discussing user data | a. Give the serial number for each product whose quality is guaranteed  
      b. Enter and update data periodically |

The above procedure is one of the common methods to assess the quality of goods and services produced. There are other methods, but it is crucial for product manufacturers or service providers to realize that if they cannot guarantee the quality of the output, it may lead to a decline or even the disappearance of the product from the market. Maintaining a product's existence in the market can be
achieved by implementing a continuous quality management system to ensure a qualitative improvement, known as Continuously Quality Improvement, which has implications in every field. The implications in the field of education can be logically explained. If an educational institution, as a service provider, cannot guarantee the quality of the education process, the institution is likely to lose interest from the community. People will choose educational institutions that can meet their needs for the development of knowledge and technology and provide quality education services. Higher education is an integral part that cannot be separated from ensuring quality. In developed countries such as Europe and the Middle East, higher education institutions and governments have been synergizing progressively in implementing quality management systems for the past two decades (Hodson, P. & Thomas, H.2003). This fact indirectly explains that providing high-quality higher education is a necessity for the existence of the institution to produce qualified graduates capable of contributing at the local, national, and international levels. Therefore, the implementation of effective quality management in higher education will contribute significantly to a nation's progress. A quality higher education institution will have a positive impact on all academic communities, society, and the nation as a whole. Of course, selective behavior should be maintained, as looking at the evidence in developed countries does not mean adopting everything wholesale; selective behavior is necessary because every country has diverse cultures that should be preserved to maintain its identity. A more detailed understanding of a concept can be achieved by exploring the elements within that concept. To have a detailed understanding of quality control, it is necessary to outline the elements that constitute the concept. A good understanding of a concept makes it easier for anyone intending to apply that concept. Understanding the elements of quality control aims to facilitate practical application. Theoretically, quality control is related to good quality management or known as Total Quality Management (TQM).

In essence, TQM is a management approach to provide excellent services so that consumers can achieve maximum satisfaction while producers can attain optimum profits. Conceptually, the elements of TQM are: ethics, integrity, trust, training, teamwork, leadership, recognition, and communication. Graphic explanations of the elements in TQM can be seen in Figure 1. The eight elements of TQM are explained as follows:

1. **Ethics**: This involves statements that serve as a reference for the actions and behaviors of each member within an organization, ensuring unity in the actions and behaviors of all members. Typically, a code of ethics contains norms or morals, such as the ethical code for professors, teachers, doctors, or other professions.

2. **Integrity**: It is a concept related to consistency in actions, values, methods, measurements, principles, expectations, and various outcomes. A person with integrity possesses honesty and strong character. An institution is likely to thrive if it is filled with individuals of integrity.

3. **Trust**: Trust is the psychological assumption consumers have about the output/results of an institution. High trust will lead users to use products, whether goods or services. Building trust is as important as producing the product itself. An institution with high public trust will easily benefit optimally from the public.

4. **Training**: This involves developing the human resources owned by the institution to enhance their abilities. Through continuous training, human
resources will gain confidence and initiative to develop the institution. Skilled human resources contribute to higher quality output from the institution.

5. **Teamwork:** The existence of teamwork within an institution enables the control of the quality of work performed by human resources. Cooperation in a team makes it easier to achieve the institution's goals and can improve the performance of individual human resources. Heavy, numerous, and difficult tasks become easier, accessible, and manageable when teamwork is established in an institution.

6. **Leadership:** Leadership is a key factor because effective leadership facilitates the realization of Total Quality Management (TQM). Weak leadership can lead to human resource wastage and, simultaneously, some individuals may be overloaded with work. Team wastage can be felt when some human resources are not involved in the process, leading to a reduced sense of ownership of the institution they are part of. Strong leadership can be observed through efficient human resources, even distribution of work, well-thought-out plans, and the achievement of measurable targets.

7. **Recognition:** The work done by human resources in an institution needs acknowledgment from leadership. Lack of recognition for the achievements of human resources by higher-ups can lead to decreased performance. Decreased performance negatively impacts the institution's sustainability, and if this occurs, leadership has a contribution to the health of the institution it leads.

8. **Communication:** This refers to how leaders communicate with human resources in addressing issues related to goods or services as the output of the institution. As shown in Figure 1, communication serves as a protective element, functioning as a wall, foundation, and roof. Leaders will choose wise words to provide advice, input, or instructions to human resources.

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**Figure 1: Functions and Positions of TQM Elements**

TQM will facilitate the implementation process of quality control and can prevent overlapping in its application. The relationship between TQM and quality control can be seen in Figure 2. Based on Figure 2, it can be understood that quality control is a part of TQM, and TQM cannot be realized without quality control in the management system. Therefore, the implementation of quality control is an inseparable part of TQM.

According to Kay Abel and Michael Gillenwater (2001), to implement quality control, several steps can be taken:

**Figure 2: Relationship Between TQM and Quality Control**

1. Inventorizing the expected quality.
2. Developing and implementing a quality control activity plan.
3. Creating general procedures for the implementation of quality control.
4. Determining specific categories for improving the quality of a product or service.
5. Conducting periodic assessments of the implementation of quality control procedures.
6. Establishing procedures for reporting, documentation, and archiving.

These eight steps constitute a series of activities carried out to deliver products or services that can maintain their quality. Consistency in these eight steps will create a conducive environment for those responsible for producing high-quality products or services.

Figure 2: Relationship between Quality Control and Total Quality Management

Quality Control and Total Quality Management in Higher Education

Educational institutions, especially higher education, are an integral part of efforts to provide quality services. The quality of an educational institution is indicated, among other things, by the trust of the community in seeking knowledge from that institution. The ability of an educational institution to provide quality educational services greatly depends on the quality of its academic community. A high-quality academic community will be able to provide quality educational services, and the community seeking knowledge from the institution will find satisfaction, ultimately leading to increased trust in the educational services provided by the institution.

The desire of educational institutions to attract the public to be willing to acquire knowledge from a particular institution cannot be realized if they still use old management patterns. These educational institutions must adopt new management patterns to determine strategies on how to encourage the public to become part of their institution. Old management patterns are not necessarily wrong, but they are no longer relevant and contextual to the current situation. The implementation of new management patterns is a necessity to address contemporary issues related to the development of educational institutions.

There are 14 tips for developing educational institutions according to Robert C. Winn & Robert S. Green, 1997:
1. Set consistent goals.
2. Use a new philosophical basis.
3. View every issue from the user's perspective.
4. Provide opportunities to apply acquired knowledge.
5. Continuously develop oneself.
6. Conduct training for every human resource.
7. Emphasize institutional leadership.
8. Manage concerns.
9. Solve every obstacle.
10. Build enthusiasm with goals and slogans.
11. Do not forget self-praise.
12. Turn obstacles into self-motivation.
13. Involve every organizational component.

The points mentioned above are steps that should be understood operationally, demanding real-world application. Problems encountered at the action level will always be accompanied by reactions in the form of solutions to the existing issues. The farther the actions taken, the results will continually improve. Over time, cumulative success will become
apparent, moving towards a better direction.

Quality management systems in higher education need attention. In higher education, every leader and other human resources always strive to find quality management systems so that students receive satisfactory services. A concept focusing on continuous improvement activities needs to be considered (Armand Faganel & Slavko Dolinšek). Achievements obtained in the previous year must be evaluated and improved for the current year's improvement. The achievements of the current year serve as a basis for improving achievements in the coming years, making these achievements a phase that differentiates achievements in each period with positive growth.

The creation of a quality management system in higher education is the responsibility of the entire academic community. One of the principles suggested by The United Nations Global Compact is the principle of partnership (Anne Graham, eds, 2007). This principle emphasizes that there is no perfect leadership figure in management; each individual has diverse capabilities and different specializations. Therefore, the partnership principle can bring together the various abilities possessed by human resources. The implication of this understanding is that every human resource is motivated by leaders to work better to achieve continuous improvement. However, every human resource is not required to have the same role. Leaders set the work standards for human resources without limiting their working methods. This approach can help build creative human resources in managing higher education.

The areas to be addressed in higher education are numerous and extensive; therefore, separation of responsibilities, personnel selection, and prioritization are necessary. Several strategic areas for attention include strategy, evaluation, and quality management, learning processes, research, human resource development, student activities, infrastructure provision, financial systems, and extensive collaboration with various parties to develop the campus.

The technical implementation level of the areas to be addressed can be adjusted to prioritize and scope. This adjustment is based on the capabilities and needs of the educational institution. These areas can also be addressed in several periods, such as short-term, medium-term, and long-term periods. For example, research is included in the short-term period, human resource development is included in the medium-term period, and providing infrastructure is included in the long-term period.

The Importance of Quality Control and Total Quality Management for Educators to Enhance Reputation

Quality assurance and management systems are not only institution-oriented; they must also focus on the human resources conducting education in classrooms, namely teachers and lecturers. According to the author, there are four aspects to consider in quality assurance and management for educators: ethics, commitment, scope of work, and job description. Each component can be explained as follows:

1. Ethics

Educators are professionals, and every professional has a code of ethics to be observed. Violating the code of ethics can damage the image of the respective profession. Understanding the code of ethics is a necessity for educators to carry out their duties within the prescribed ethical framework. According to the National Association for the Education of Young Children (2005), the formulation of the code of ethics for educators may vary but is always based on core values. The core values include: a. Recognizing that educators guide individuals who are growing, making appreciation a
priority. b. Educating based on knowledge. c. Understanding that appreciation and assistance are the backbone of learning. d. Acknowledging that individuals will have a good understanding depending on educators, the environment, culture, and family. e. Respecting and appreciating differences in backgrounds. f. Acknowledging that individuals can grow well with praise and building confidence. Attention to these core values will provide internal motivation for educators to maintain quality in delivering education. This, in turn, indirectly leads teachers to personally strive for quality in education.

2. **Commitment**

Commitment is the determination to perform tasks to the best of one's ability. Educators who are committed to education will have the determination to perform educational tasks with good quality. Commitment can be made collectively to provide communal awareness, but personally realized commitment is better because it can integrate with an educator's personality. Educators will have a high level of commitment if they strive to work to the maximum, are emotionally attached to the institution where they work, and make a concerted effort to achieve learning goals. Quality management will be easier to achieve set goals if educators in an institution have good commitment. The implementation of education will be of higher quality in the hands of committed educators. Characteristics of committed educators can be involved in the concept of efforts to organize learning with various approaches, evaluate achievements in learning both for students and their own achievements, present material and explain it well, and facilitate students in understanding the material through various learning approaches.

3. **Scope of Work**

The scope of work refers to additional tasks assigned by leaders to educators. Every educator has different potentials. Not every educator is ready to take on tasks assigned by leaders. Leaders should be aware of the potential and abilities of educators. Tasks that are suitable tend to be performed with full power, resulting in relatively better outcomes than unsuitable tasks. To reduce errors in assigning tasks, leaders should conduct a task analysis. After the task is analyzed, attention should be paid to the human resources who will be given the task. This process is done objectively and transparently to avoid personal likes and dislikes. Thus, tasks will be carried out by the right human resources, ensuring the quality of task implementation.

4. **Job Description**

Every job requires a clear explanation. A clear job description facilitates completion. The description will also reduce differences between leaders and human resources performing the tasks. The benefits of a job description include creating a harmonious working atmosphere and making human resources more comfortable in the work process. If the type of job is related to deadlines, regulations, or other stages, these aspects should be conveyed and emphasized well at the beginning of task assignment to avoid differences in perception. This process is called task analysis. Task analysis can be understood as an effort to find information related to the job, then organize it in a logical sequence. In this way, leaders and human resources can serve to carry out each task.
assigned to them with a sense of responsibility.

In today's context, the implementation of reputation in education, especially higher education, also shows an increasing trend. The concept of corporate reputation has been adapted to the field of education management (Safo'n, 2009; Vidaver Coen 2007, Skallerud 2011). Generally, there is growing recognition among academics and education practitioners that school reputation is becoming increasingly important (Bond and King, 2003; Friedman, Bobrowski, and Geraci, 2006; Hausman and Goldring, 2000; Li and Hung, 2009; in Skallerud, 2011).

Based on the analysis of various definitions outlined earlier, we define university reputation as: Recognition from various circles, both subjective and collective, towards the university, indicating their perception, attitude, evaluation, level of trust, admiration, goodwill, and appreciation for the university over time as a result of the university's past actions that can contribute to the achievement of the university's sustainable competitive advantage. Building a university's reputation needs to focus on technology-driven innovation combined with design, emphasizing unique opportunities that more valuable innovations positively relate to a university's reputation because the university's reputation is a signal of high scientific quality proven to affect the university's relationship with companies.

Finally, the further implications of a good university reputation are encouraging potential students to prioritize choosing that university. Of course, to improve a university's reputation, quality control and total quality management are essential.

**Conclusion**

Based on the above description, it can be concluded that managing an educational organization should be done as effectively as possible. If the educational institution is not performing well, the community will not respond positively to the institution, and eventually, the institution may be abandoned by the community.

Efforts to achieve the quality of educational institutions are carried out through quality control and total quality management. Both of these have been empirically proven to make educational institutions highly qualified and a preferred choice for the community, as the public feels that their knowledge needs can be fulfilled by these educational institutions.

Quality control and total quality management are global methods that involve various stages and processes that must be implemented for the results to be felt by educational institutions. The application of quality control and total quality management requires leaders and human resources (SDM) who use new management concepts.

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