



Analysis of Total Quality Management Implementation in Higher Education Institutions

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ABSTRACT

This article discusses the application of Total Quality Management (TQM) to improve the quality of educational institutions in higher education. To gather information, a library research method was used, involving the exploration of various sources from books, journals, printed materials, and electronic resources. Higher education institutions today are implementing TQM, a system initially used by businesses to enhance the quality of their products and their competitive edge. TQM encompasses four main components: input, process, output, and outcome, with an emphasis on the crucial role of human resources.

The primary goal of TQM implementation is to shift from conventional management techniques to contemporary management, where decision-making is fact-based. TQM, therefore, serves as both a replacement for traditional quality assurance methods and as the foundation of quality management. In the context of educational services, client satisfaction forms the basis for fostering client loyalty and continued patronage.

INTRODUCTION

There are four major shifts that policymakers, particularly in the higher education sector, need to be aware of: changes in consumer preferences, environmental changes, technological advancements, and demographic shifts (Lim et al., 2022). Higher education consistently demands quality improvement, both in curriculum and management, as it is seen as the frontline in addressing environmental changes. Higher education is considered the final stage of formal education, equipping individuals with specialized skills required in the workforce (Ali & Johl, 2022). Therefore, it is crucial for higher education to understand the impact of environmental changes and be capable of adapting to meet societal quality expectations.

Total Quality Management (TQM) has become a relevant managerial approach to address these changes. Originating from systems thinking in the 1950s, TQM is a concept adopted by educational institutions from the industrial and business sectors. Through TQM, a management approach was developed that does not strictly separate thinking (conducted by management) from action (carried out by personnel). TQM has provided a competitive edge for many businesses as it is recognized as a strategy that enhances organizational effectiveness and performance.

Higher education institutions can benefit from TQM principles by focusing on four main areas. First, implementing TQM to improve the university's administrative and operational functions comprehensively. Second, integrating TQM into the curriculum. Third, applying TQM in classroom teaching. Fourth, managing TQM in university research activities (Permana et al., 2021). The application of TQM in higher education introduces six strategic issues, alongside its impact on traditional management. These challenges include the need to prioritize customer quality, leadership, continuous improvement, human resource management, and fact-based management (Sharma & Modgil, 2020).

As a result, the application of Total Quality Management in higher education will become the focus of in-depth study, given its critical role in ensuring that higher education institutions can remain competitive and meet the quality standards expected by society.

RESEARCH METHOD

This study employs a literature review approach to gather data. This strategy involves collecting books, journals, and previous research supporting the research topic. Literature on the quality aspects of Total Quality Management (TQM), quality in higher education with an emphasis on consumers, and TQM and higher education is among the sources. The first step in the research process is to find relevant information on quality management in education. Next, the data is analyzed, and finally, new findings on quality management in higher education institutions are developed.

RESULTS AND DISCUSSION

Definition of Total Quality Management (TQM)

Everyone interprets the term "quality" differently. According to the *Kamus Besar Bahasa Indonesia* (Indonesian Language Dictionary), "quality" refers to the degree or level of excellence of something. Quality management, according to Saha et al. (2022), is a technique for organizing personnel. The goal of quality management is to balance people's enthusiasm for completing their work with their involvement in improving overall work standards.

Fandy provides a comprehensive definition of quality, describing it as a dynamic state that involves goods, services, personnel, procedures, and the environment in a way that meets or exceeds client expectations. Goetsch and Davis also define TQM as a methodology that aims to enhance competitiveness by continuously improving human resources, processes, goods, services, and the organizational environment (Isnaini et al., 2021).

William Mantja describes TQM as an integration of all functions and processes within an organization to achieve continuous improvement in the quality of goods and services. The main focus of TQM is to ensure customer or client satisfaction. William developed a set of guidelines known as Quality Improvement Management (QIM), emphasizing that the primary goal of educational institutions is quality enhancement. This involves continuous efforts to consistently improve the organization's capacity and capability to meet the demands of students and society (Arifin et al., 2022). From these definitions, it can be concluded that QIM involves controlling processes within educational institutions, which includes diagnostics, data- and fact-based approaches, and both qualitative and quantitative evaluation, with the ultimate goal of satisfying students, parents, and society.

Total Quality Management (TQM) and Higher Education

The success of TQM in the industrial and corporate sectors has inspired other organizations, including higher education institutions, to adopt it. Universities have subsequently developed and enhanced TQM across various areas. By implementing TQM, numerous businesses have improved their performance quality, productivity, competitiveness, and profitability, including companies like Hewlett-Packard, Xerox, IBM, Motorola, Harley Davidson, Ford, Toyota, Allen-Bradley, and Astra Group.

Although implementing TQM in higher education remains controversial, some view it as a promising approach, while others question its effectiveness in the educational field. The success of TQM in educational institutions varies, often sparking debate. Some observers question the feasibility of TQM for higher education institutions, while others argue that TQM may be more suitable for supporting roles than for core teaching and learning functions (Nashihin et al., 2021).

While TQM may be well-suited for support roles, it may not be ideal for teaching and learning activities, which are essential in higher education. Experts such as Holmes

and Gerard argue this, whereas Herbert, Dellana, and Bass contend that TQM standards should apply in four key areas of higher education: administrative function, operations, general university administration, and integration of TQM into university research activities (Hilman et al., 2020; Faeq et al., 2022).

In 1992, *Quality Progress* published data indicating that 220 American universities—including the University of Chicago, Harvard University, Oregon State University, and the University of Pennsylvania—had adopted TQM. TQM is being implemented in higher education institutions in the United States and the United Kingdom, encompassing strategic planning, organizational quality, employee involvement, collaboration, management design, training, and superior quality management, along with top management commitment.

TQM implementation also leads to changes in conventional management, including in university administration. Quality aspects, customer focus, leadership, continuous improvement, human resource management, and fact-based management represent six main challenges in implementing TQM in higher education. Effective collaboration is crucial to achieving high-quality education, as it fosters independence, communication, and self-confidence. Empowerment involves giving stakeholders significant responsibility. Effective collaboration among these elements will help universities deliver high-quality educational services and student satisfaction through continuous improvement (Budayan & Okudan, 2022).

Quality Aspects in Total Quality Management Education (TQM)

There are five categories that determine the quality of higher education (Nguyen et al., 2023):

1. **Reliability** refers to the ability to deliver promised services quickly, accurately, and satisfactorily. This includes offering courses that genuinely meet student needs, providing fair assessments, ensuring accurate grade calculations, funding faculty research, and ensuring smooth class processes.
2. **Responsiveness** reflects the willingness of staff to assist clients and provide services efficiently. This includes the accessibility of university leaders, faculty availability for consultation, interactive teaching and learning processes, campus facility accessibility, and prompt and accurate handling of service failures, such as fixing broken computers.
3. **Assurance** involves the knowledge, competence, politeness, respect for clients, and trustworthiness of staff. For example, all faculty and academic staff should be highly skilled in their fields, the university should maintain a positive reputation in the community, and professionalism should be evident at all levels.
4. **Empathy** emphasizes easy relationships, effective communication, and genuine understanding of clients' needs. Examples include faculty who know their students by name, are easily reachable, and academic advisors who actively fulfill their roles.
5. **Tangible Facilities** such as physical resources, equipment for faculty and staff, and efficient communication systems are also critical. Examples include

dictionaries, computer centers, libraries, lecture rooms, faculty offices, canteens, various teaching modalities, scientific journals, and places of worship.

The factors mentioned above are used by customers to evaluate service quality, based on a comparison between the expected service and the actual service received. The difference between these expectations and perceptions serves as an indicator of service quality. Therefore, higher education institutions must strive to improve their performance in all areas and avoid setting unrealistic expectations for prospective students, parents, faculty, and staff, to ensure that these high expectations can be met. This aligns with the perspective of Karahan and Mete²³, who emphasize that quality assurance in higher education involves delivering quality services to satisfy customers and build trust through inspection, review, and evaluation. Consequently, the quality of higher education is crucial for producing competent, excellent, and competitive graduates, ultimately contributing to national progress.

Quality of Higher Education and Customer Focus

Quality assurance in education is adapted from process management techniques often used in the manufacturing industry. Just as in the industrial world, it is essential to ensure that the products meet the requirements to satisfy consumers. Thus, the concept of quality assurance is designed to ensure that production processes comply with established standards or specifications. High-quality products must have quality assurance to prevent customers from feeling disappointed when purchasing and using these products. In fact, customers tend to make repeat purchases and recommend products and services to friends due to the value they experience from Education (Ahmed & Idris, 2020).

This viewpoint is consistent with the opinion of Kotler and Keller, who argue that expectations and perceived performance determine satisfaction. Customers will feel dissatisfied if goods or services do not meet their expectations; on the other hand, they will feel satisfied, or even delighted, if these meet or exceed their expectations. Therefore, the perception of service and customer expectations heavily depends on how well these expectations are met. Service is considered high-quality if it meets or exceeds expectations, while it is viewed as poor if it does not.

To deliver high-quality services, educational institutions must exceed customer expectations. This is why quality assurance is conducted, similar to practices in the industry. If quality assurance finds deviations from standards, corrective actions are taken to ensure that graduates produced by educational institutions are not deficient. Therefore, educational quality assurance must be performed from the beginning of the education process, involving the input, process, output, and outcome stages. Ensuring the initial stages are well-executed is expected to yield satisfactory final results. This is known as the "right first time, right every time" concept. Customer satisfaction is a crucial aspect of Total Quality Management (TQM) in educational quality management.

According to Ivancevich, viewing students as clients to be served is the first step in implementing Total Quality Management (TQM). Usman emphasizes that both

internal and external customers have a significant influence, citing Goetsch and Davis. While internal consumers impact the environment, procedures, and quality of graduates, external customers determine the quality of graduates. However, Wambsgans and Kennett oppose this idea, arguing that students are often considered customers since they pay tuition fees and receive services.

They argue that TQM is not a traditional concept. An alternative perspective is presented by Lewis and Smith, who differentiate between three types of consumers: indirect external customers (the public), direct external customers (companies and other universities), and internal customers (academic and administrative).

Universities, as organizations, are closely related to a system where patrons or clients play a crucial role. In quality improvement management, customers are the parties who receive goods or services. They participate in all stages that require better results in terms of goods or services, besides being external to the company. Quality management requires businesses to communicate with customers, consider their input, and ensure appropriate services. Aspects of customer-facing quality improvement management include budget planning, budget considerations, communication of the organization's vision and mission, and ethical considerations.

Murgatroyd and Morgan present four basic ideas for the effectiveness of an educational system. First, educational institutions link customers and suppliers. Second, processes connect all connections with both internal and external suppliers and customers. Third, participants in the process have a close relationship with clients. Fourth, organizations like colleges and universities limit interactions between suppliers and customers. This creates an inverted pyramid structure, where customers are at the top, followed by faculty, with senior managers below them. The organization plays a central role in mediating this customer-supplier relationship.

Additionally, as faculty are closest to students, their performance management in curriculum, reflective evaluation, formative and summative assessment, and storage and archiving of important records are essential processes that must be supervised by educational administrators. Alternatively, they receive support for their work from school administrators, management teams, as well as instructors, school librarians, and administrative staff. The school hierarchy is based on student needs. One key component of TQM is customer happiness. A person's feeling of satisfaction or dissatisfaction arises from a comparison between their perception of performance and their expectations (or the product's outcome and their expectation). Contrary to the criteria above, satisfaction depends on expectations and performance perceptions. Customers are unhappy when services do not meet their expectations. When performance meets expectations, customers are satisfied. Customers are delighted when they receive services that exceed their expectations. The definition of satisfaction in mathematics is the difference between the customer's total value and total cost. The total sacrifice made by the client to receive goods and services is the total customer value. This is a comparison of costs incurred in terms of money, time, energy, and sacrifice against the benefits obtained.

It is crucial to recognize students as clients in higher education and understand their needs. According to Fandy, referring to Ivancevich (1992), viewing students as clients to be served is the first step in implementing Total Quality Management (TQM). While this viewpoint is widely acknowledged, not everyone agrees with it. An alternative perspective is presented by Wambsganss and Kennett (1995), who suggest that historically, students have been viewed as clients because they pay tuition and receive educational services. However, they argue that TQM is not a conventional idea and that colleges should place primary emphasis on end-users—specifically, prospective employers—in the future. They believe employers are the main clients of the university.

Regarding client identification, Lewis and Smith (1994) present a similar perspective. Internal (academic and administrative), direct external, and indirect external perspectives are used to create a framework for consumer identification. Students, instructors, departments, and programs within campus academic programs impacting specific programs are examples of internal academic customers. Conversely, department units or divisions responsible for overseeing a service or activity, as well as students and staff, are examples of internal administrative clients. Student employers, other colleges accepting them for further education, and specific higher education services are examples of direct external clients.

Customer perception is used to measure how well the learning process is conducted. As they receive learning services directly from faculty, students are considered clients within the classroom. Although students do not determine the majority of the educational system, their opinions and input are still valued in its formation. Customer loyalty in education is influenced by the level of customer satisfaction in education. Customer loyalty is defined as loyalty measured by the frequency of service use. Customer recommendations and encouragement of others to use the service can also reflect their satisfaction, indicating that consumer behavior can be used to assess customer loyalty.

According to Oliver, loyal customers are consumers with a strong attachment to consistently choosing and using a product in the long term, despite competing products. Therefore, loyal customers can be considered to have "permanent fanaticism" for their chosen product, service, or company. A similar view is expressed by Griffin, who states that loyalty is primarily demonstrated through routine purchasing behavior, focusing on the decision-making unit.

Thus, customer loyalty at the college level includes students' stable long-term behavior, showing commitment through active participation in classes, providing constructive suggestions, recommending the institution to others, not transferring to other institutions, and not being attracted by other institutions. Therefore, having loyal students is considered a valuable asset for higher education institutions. To achieve customer loyalty, colleges need to understand and identify the factors influencing student behavior.

CONCLUSION

To improve the effectiveness and quality of higher education institutions, the application of Total Quality Management (TQM) at colleges in Indonesia should be carried out with mutual understanding and accountability, in line with the facts and analysis mentioned above. Through the continuous and consistent implementation of TQM in the higher education system, Indonesian colleges can successfully compete in the highly competitive global arena. The welfare of university staff can be improved and developed with the help of both financial and non-financial benefits from Total Quality Management. Moreover, this effort is expected to reduce existing misunderstandings between colleges and the business world in Indonesia.

There is a growing opinion that TQM should be immediately implemented in institutions in Indonesia due to the high unemployment rate among recent graduates and the dominance of foreign workers in industrial management roles. The goal is to enable Indonesian university graduates to compete in the global job market.

It is essential to recognize that knowledge that can be practically applied in business is a valuable national asset that supports Indonesia's development and helps it compete globally. College graduates must have more than just information; they also need additional skills, including decision-making, logic, teamwork, and communication. Therefore, universities should prioritize subjects such as process management, theoretical foundations and system analysis, quality management theory, statistical thinking, statistical process control, problem analysis, and decision-making.

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