

Strategy for Implementing Total Quality Management to Achieve Quality Education in Higher Education

Rini Susilowati¹, Sumiati²

¹Universitas Islam Nusantara, ²Universitas 17 Agustus 1945 Surabaya, Indonesia

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ABSTRACT

Received: 20 Nov 2024 This study aims to analyze the strategy of implementing Total Quality

Management (TQM) in realizing quality education in higher education, with a
Revised: 24 Dec 2024 case study at Telkom University. The research approach is descriptive and

Accepted: 12 Jan 2025 qualitative, with data collection techniques that include in-depth interviews, observations, and documentation studies. The results of the study indicate that the success of TQM implementation at Telkom University is supported by five main factors: the highest leadership commitment, the active involvement of the entire academic community, an integrated internal quality assurance system (SPMI), the use of information technology in quality management, and the formation of a sustainable quality culture. This strategy is realized through implementing the PDCA (Plan-Do-Check-Action) cycle in all work units and study programs, supported by quality information systems such as *gracias* and *e-SPMI*. These findings strengthen the relevance of the TQM concept in the context of higher education in Indonesia and provide an implementation model for other institutions that want to improve the quality of academic services systematically and participatively.

Keywords: Total Quality Management, higher education, quality assurance, quality culture

INTRODUCTION

In the context of globalization, higher education institutions are crucial in developing competitive human resources by ensuring that their academic programs and services adhere to high standards of excellence. Total Quality Management (TQM) is a comprehensive managerial approach that facilitates continuous quality improvement across all aspects of an organization, including academic and administrative services. By implementing TQM, higher education institutions can systematically address quality assurance challenges, essential for maintaining their reputation and attracting students (Ghosh, 2018). This focus on quality enhances academic excellence and aligns educational outcomes with the demands of the evolving global economy, ultimately producing graduates equipped with the skills and competencies necessary to contribute effectively to economic development (Sonia, 2021). Total Quality Management (TQM) is an important management philosophy in higher education that enhances customer satisfaction by focusing on continuous improvement and stakeholder engagement. By regularly assessing and refining practices, educational institutions can better meet the needs of society, thereby fostering a culture of continuous evaluation and response (Sharma, 2016). Engaging diverse stakeholders, including faculty and community members, is essential to integrating multiple perspectives into quality improvement initiatives and building trust and ownership among participants. This collaborative approach supports effective TQM implementation and aligns with the principles of quality-oriented educational management, emphasizing high standards in teaching and learning (Raissi, 2019).

Effective implementation of Total Quality Management (TQM) in higher education requires a strategic approach that combines strong leadership support, a conducive organizational culture, and active involvement from the academic community. Leadership support is essential because it supports TQM initiatives and allocates necessary resources, fostering an environment conducive to innovation and continuous improvement (Ünal, 2001). In addition, a positive organizational culture, characterized by shared values and beliefs, is essential to promoting collaboration and sustaining quality improvement efforts. Furthermore, engaging the entire academic community, including faculty, staff, and students, ensures that all stakeholders are invested in the quality improvement process, which is critical to achieving quality education (Das, 2019).

The quality of higher education in Indonesia is greatly affected by several interrelated challenges, including low quality of academic services, a curriculum not aligned with industry needs, inadequate ongoing evaluation, and weak coordination between units. A comprehensive quality management system is essential to address these challenges effectively. Such a system can facilitate evaluating and improving academic services, ensuring they meet established standards (Welch & Aziz, 2023). In addition, implementing a continuous evaluation process will help identify areas for improvement, fostering a culture of continuous development. Furthermore, strengthening unit coordination can enhance department collaboration, leading to a more cohesive educational strategy (Siahaan et al., 2023).

Total Quality Management (TQM) is a comprehensive approach that fosters a quality culture, involves all organization members, and emphasizes continuous improvement, especially in educational settings. Implementing TQM principles has been associated with increased effectiveness in teaching and learning processes, operational efficiency, and student satisfaction (Ren, 2024). However, many higher education institutions struggle to fully adopt these principles due to inadequate policy integration and lack of strategic understanding. A quality culture which promotes accountability and commitment to improvement is essential to realizing the benefits of TQM (Maryamah, 2013). In addition, participative management, involving all stakeholders in decision-making, can further facilitate the success of TQM implementation by fostering ownership and accountability among faculty and students (Saha, 2016).

LITERATURE REVIEW

Total Quality Management (TQM)

Total Quality Management (TQM) adalah pendekatan komprehensif yang menekankan peningkatan berkelanjutan dan kepuasan pelanggan melalui keterlibatan semua anggota organisasi. Dalam konteks pendidikan, pelanggan utama termasuk siswa, orang tua, dan komunitas yang lebih luas, yang memerlukan pemahaman yang mendalam tentang kebutuhan dan harapan mereka (Sharma, 2016). Inti dari TQM adalah prinsip peningkatan berkelanjutan, yang menumbuhkan budaya di mana semua pemangku kepentingan didorong untuk mengidentifikasi dan menerapkan peningkatan (Sari, 2024). Memberdayakan karyawan di dalam lembaga pendidikan juga penting, karena memungkinkan mereka untuk membuat keputusan berdasarkan informasi yang berkontribusi pada peningkatan kualitas dan pada akhirnya meningkatkan hasil siswa (Hoque et al., 2017).

Prinsip-prinsip utama TQM meliputi, Fokus pada pelanggan (customer focus), Perbaikan berkelanjutan (continuous improvement), Keterlibatan semua pihak (total employee involvement), Pendekatan proses (process approach), Pengambilan keputusan berbasis data (fact-based decision making), Hubungan yang saling menguntungkan dengan mitra (mutually beneficial supplier relationships), Implementasi prinsip-prinsip tersebut pada institusi pendidikan menuntut perubahan budaya organisasi dan penguatan sistem manajemen berbasis mutu.

TQM dalam Konteks Pendidikan Tinggi

Total Quality Management (TQM) in higher education is essential to foster quality academic systems, efficient administrative processes, and satisfactory services to students and stakeholders. According to Srikanthan and Dalrymple (2003), TQM encompasses several important dimensions, including academic quality management, which focuses on maintaining high standards in academic programs and research (Muhith et al., 2022). In addition, improving the quality of teaching is essential, as it aims to improve the teaching-learning process through faculty development and practical curriculum design (Sasi, 2024). In addition, the quality of student services plays a vital role in ensuring student satisfaction and retention, providing necessary support such as counselling and career guidance (Berg, 2005).

Research by Tsinidou et al. (2010) stated that important elements of TQM in higher education include leadership committed to quality, Effective human resource management, Student involvement in the quality improvement process, Transparent evaluation and accountability system, and Availability of quality supporting facilities.

TQM Implementation Strategy in Higher Education

Implementing Total Quality Management (TQM) requires a systematic and structured strategy that begins at the highest level of leadership and penetrates all functions of the organization. An important element of this strategy is formulating a quality-based vision and mission, which directs the organization towards customer satisfaction and continuous improvement (Gallardo, 2024). In addition, human resource training and development are essential, equipping employees with the skills needed to contribute effectively to quality management efforts. Forming a quality management team comprising representatives from various departments is essential to oversee TQM initiatives and identify areas for improvement (Dhawan, 2024). Furthermore, continuous performance evaluation is important in assessing organizational performance, ensuring that corrective actions are implemented to drive continuous improvement. Organizational culture is critical in successfully implementing Total Quality Management (TQM). A culture that emphasizes openness, collaboration, and commitment to quality fosters an environment conducive to effective quality management processes (Fellague, 2020). Furthermore, implementation strategies must be tailored to the local context and institutional characteristics, including available resources, internal policies, and external demands (Marpaung, 2024). By understanding these factors, organizations can develop a comprehensive quality management strategy that aligns with their unique circumstances, ultimately enhancing the effectiveness of TQM practices (Kumar & Kumar, 2024).

Method

This study uses a descriptive qualitative approach to explore in depth the strategy of implementing Total Quality Management (TQM) to improve the quality of higher education. This approach was chosen because it allows researchers to contextually understand the phenomenon of TQM implementation through the perspective of education actors. This type of research is a case study. The object of study is focused on higher education institutions that have implemented TQM principles in their education management systems. Data analysis was carried out qualitatively interactively using the Miles and Huberman (2014) model, which consists of Data reduction, Data presentation, Conclusion drawing and verification (conclusion drawing/verification)

Results & Discussion

Research Results: Case Study at Telkom University

1. Leadership Commitment in Implementing TQM

The results of interviews with leaders and heads of quality assurance units show that Telkom University has a strong commitment from the highest leadership leadership to implementing the principles of Total Quality Management. The Chancellor is actively involved in determining the quality vision, supervising the internal quality assurance program (SPMI), and providing strategic direction for continuous improvement. This aligns with the TQM principle, which places leadership as a key element.

"We apply the PDCA (Plan-Do-Check-Action) principle in all units, including in the learning system and administrative services," (Interview, Head of BPM Tel-U).

2. Comprehensive Involvement of the Academic Community

TQM at Telkom University is implemented by involving all elements of the academic community, including lecturers, education staff, and students. Active participation is demonstrated through various quality evaluation forums, such as student satisfaction surveys, tracer studies, focus group discussions (FGD), and internal quality audits.

Lecturers must prepare RPS based on learning achievements that are reviewed periodically, while students are given space to provide feedback on the learning process each semester.

3. Strengthening the Internal Quality Assurance System (SPMI)

Telkom University has a structured internal quality assurance system consisting of each work unit's evaluation, control, improvement, and quality assurance cycles. The Faculty Quality Assurance Unit (UPMF) routinely conducts academic audits, and the results are used to prepare follow-up improvement plans.

In addition, the university also adopts various external standards such as ISO 9001:2015 and international accreditation (ABET, ASIC, etc.) to strengthen the TQM system.

4. Digitalization of Quality Processes and Monitoring

Tel-U's TQM strategy is strengthened by using information technology in the quality system. Digital platforms such as *gracias*, e-SPMI, and SIMONIK are used to monitor quality indicators in real-time, such as student GPA, on-time graduation rates, lecturer evaluation results, and graduate user satisfaction.

This innovation helps create a transparent, efficient, and well-documented management process.

5. Quality Culture and Continuous Improvement

The quality culture at Telkom University is fostered through various trainings, socializations, and incentives for quality performance. Each work unit is required to prepare an "Annual Quality Work Program" that reflects a continuous improvement cycle.

"We don't wait for an audit to change. Every finding from students or lecturers must be handled immediately with a root cause analysis," (Interview, Head of Study Program).

Discussion

The results of this study indicate that the implementation of Total Quality Management (TQM) at Telkom University has been carried out systematically and structured in line with the principles of quality management that are oriented towards continuous improvement, committed leadership, and the involvement of all members of the organization (total employee involvement).

1. Strategic Leadership as the Main Driver

The initial findings of this study confirm that the commitment of institutional leaders, especially the Chancellor and Head of the Quality Assurance Unit, is a key foundation in the success of the

implementation of Total Quality Management (TQM) at Telkom University. This leadership role is not symbolic but is manifested through active involvement in formulating the direction of quality policy, supervising program implementation, and providing consistent strategic direction to support the cycle of continuous improvement at all levels of the organization.

In the context of TQM, the involvement of top leaders is a crucial element referred to as "leadership" by Deming (1986). Deming emphasized that quality cannot be achieved only with technical instructions but requires a transformation of organizational culture that starts from the top. Leaders are responsible for forming a shared vision, creating a conducive work climate, and being role models in implementing quality principles.

Telkom University has translated this principle operationally by implementing the PDCA (Plan-Do-Check-Action) cycle, which is comprehensive in various academic and administrative units. This cycle is the main framework in quality management, where each program or policy is systematically designed (Plan) and implemented (Do), the results are evaluated (Check), and continuous improvement is carried out (Action). The implementation of PDCA is not only limited to the institutional level. However, it is also practised by study program units, laboratories, and student service departments, thus creating systemic harmony in achieving quality.

This practice is consistent with Oakland's view (2003), which states that the success of TQM is highly dependent on the commitment of top management to creating an organizational culture that supports quality. Top management must facilitate organizational learning, ensure information transparency, and foster collective responsibility for quality. At Telkom University, these values are translated into internal policies such as quality management training, involvement of academics in internal quality audits, and incentives for innovation and continuous improvement.

Furthermore, the leadership approach applied by the Chancellor of Telkom University also reflects a transformational style, namely encouraging change through inspiration, idealistic influence, and attention to individual development. In this context, leadership becomes an instrument to transform quality values into real practices integrated into learning, research, and community service.

2. Involvement of the Academic Community in the Quality System

The principle of "total involvement" or comprehensive involvement is one of the main pillars of the Total Quality Management approach, and its implementation at Telkom University is evident through the active participation of all elements of the academic community in various quality assurance processes. Leaders, lecturers, students, education staff, and supporting units are systematically involved in evaluation, monitoring, and continuous improvement activities.

The involvement of the academic community at Telkom University is realized through various quality instruments such as user satisfaction surveys (both from students to lecturers and between internal service units), the implementation of internal quality audits (AMI), and quality discussion forums that encourage open dialogue between units. Students, for example, are routinely given space to provide input on the learning process, curriculum, and academic services through survey instruments and the Quality Assurance Dialogue (QAD) forum. Lecturers and education staff are also involved in preparing quality documents, annual work plans, and training and workshops to improve quality-based competencies.

This practice is in line with the opinion of Goetsch and Davis (2014), who stated that the success of TQM depends on the active involvement of all organizational personnel in every ongoing process. Organizations that want to achieve excellence through quality must build a collaborative climate where each individual feels they have a role and responsibility for quality results.

At Telkom University, this total involvement approach is not a formality but is part of an institutional work culture driven by an open and accountable management system. All individuals are

given access to information and are empowered to convey ideas for improvement. This strengthens the sense of ownership of quality, forming a collective spirit to continue improving.

Furthermore, this involvement is also facilitated by information technology and digital quality assurance systems, such as an intranet-based quality monitoring dashboard that all units can access. This system allows for data openness, performance transparency, and ease of reporting for each quality activity. Thus, participation is physical in activities and systemic through access and control of quality data and information.

By instilling the principle of total involvement, Telkom University not only carries out quality assurance procedures but also forms a participatory quality culture, which is an important prerequisite for the success of TQM. This reflects that quality is not just a structural or administrative responsibility but is the result of continuous collective work based on a spirit of togetherness.

3. Strengthening the Internal Quality Assurance System (SPMI)

The implementation of Total Quality Management (TQM) at Telkom University is supported by the Internal Quality Assurance System (SPMI), which is not only strong in terms of structure but also practical in terms of operations and integration between units. This system runs from the university level to the study program and covers all aspects of implementing higher education, both academic and non-academic. The existence of SPMI at Telkom University is not just to fulfil the administrative obligations stipulated by national regulations (Permenristekdikti No. 62 of 2016). However, it has become a living system that is the basis for policy formulation, program planning, and strategic decision-making.

One of the strengths of implementing SPMI at Telkom University is its continuous quality evaluation mechanism, which is carried out through periodic internal quality audits and accompanied by external audits from independent institutions. Each audit cycle does not stop at the evaluation but is always followed by preparing a clear, specific, measurable Follow-up Plan (RTL). This RTL is then monitored in the next cycle to ensure that improvements are truly implemented and have a tangible impact on improving service quality and learning outcomes.

This approach is very much in line with the process-centred principle in the TQM framework, as stated by Juran & Godfrey (1999), which emphasizes that to achieve superior quality, an organization must map, understand, and control the key processes within it. Telkom University has implemented this principle by establishing standard operating procedures (SOP) for every academic, administrative, and student service process, which are then monitored digitally through an integrated quality information system.

Moreover, SPMI Telkom University also adopts the principle of evidence-based decision making, where every policy taken is based on the results of documented quality evaluation data. This strengthens objective decision making that is responsive to real conditions in the field. In other words, quality is not maintained only through rules, but through the discipline of a systematic evaluation process and culture.

For example, the results of the learning performance evaluation from the student survey are used directly to develop a program to improve the quality of lecturers through pedagogical training and digital learning. The alum tracer study evaluation is used to develop a curriculum based on industry needs. Each audit result is also used as input in the management review meeting (RTM), an important forum in the PDCA cycle carried out comprehensively. With a structured and data-based process approach, Telkom University can maintain quality in the short term and create an adaptive and responsive system that uses the essence of TQM as a dynamic approach to managing educational organizations. This makes Telkom University an institution that can translate the philosophy of quality into real, measurable, documented, and results-oriented practices.

4. Utilization of Technology in Quality Management

One of the differentiating aspects that stands out in the implementation of Total Quality Management (TQM) at Telkom University is the systematic and integrated utilization of information technology to support the entire quality management process. Unlike many other educational institutions that still rely on manual procedures in quality monitoring and evaluation activities, Telkom University has developed and implemented various digital platforms such as *iGracias*, SIMONIK (Quality Monitoring and Control System), and e-SPMI (Electronic Internal Quality Assurance System).

This platform not only increases administrative efficiency but also creates a data-based decision-making environment that is the core of the fact-based decision-making principle in TQM. Through *iGracias*, student academic data, lecturer attendance, learning activities, and evaluation results can be monitored in real-time by various stakeholders. Meanwhile, SIMONIK is the primary tool in quantitative and qualitative quality monitoring and evaluation, including the achievement of study program and faculty performance indicators.

The e-SPMI system is specifically designed to document the entire quality assurance cycle, from planning, implementation, evaluation, to follow-up. All of these processes run in an integrated and cross-unit manner, thus minimizing overlapping information or communication gaps between departments. Thus, this approach allows for high process transparency and accountability in managing educational quality.

This technology is very much in line with the views of Evans and Lindsay (2014), who stated that an effective quality information system can accelerate the process of correcting deviations, enabling organizations to adapt more quickly to changes in the external environment. In the context of Telkom University, evaluation data from students, alums, and graduate users can be directly compiled and processed digitally to be used in strategic decision-making, such as curriculum adjustments, improving academic services, and improving lecturer competency.

In addition, this digital quality information system strengthens the principle of continuous improvement because it allows the PDCA cycle to run faster and more accurately. Feedback from various stakeholders can be immediately analyzed and followed up on without waiting for a lengthy manual process. This advantage gives Telkom University a higher adaptive capacity to face the dynamics of the world of higher education that continues to change nationally and globally. Therefore, the mastery and integration of information technology in the quality system supports the implementation of TQM at Telkom University and becomes the primary enabler in creating a responsive, transparent, and sustainable quality system. This strengthens Telkom University's position as one of the universities that understands the philosophy of quality and can also apply it innovatively through digital transformation.

5. Organizational Culture that Supports Continuous Improvement

A crucial aspect in the successful implementation of Total Quality Management (TQM) at Telkom University is forming a quality culture deeply rooted in all levels of the organization, from leaders to operational staff. This quality culture does not emerge instantly but results from internalizing quality values through educational, structural, and motivational approaches.

Educationally, Telkom University consistently holds training and workshops that discuss the technical aspects of quality management and instill awareness of the importance of quality in every academic and administrative activity. This training targets all elements of the academic community, including lecturers, education staff, and even students, to ensure a collective understanding of quality standards and their respective roles in achieving them.

From a structural perspective, a reward and recognition system has been built to encourage active participation and innovation in improving quality. For example, awards for lecturers with the best performance, work units with the best service, or learning innovations that have a real impact on

students have become part of the strategy to build intrinsic motivation in the organization. This strategy creates healthy competition and strengthens the collective spirit to continue to innovate and improve processes.

This effort reflects the view of Ishikawa (1985), who emphasized that the success of TQM depends not only on systems and procedures but also on how a culture of quality is instilled comprehensively into every individual in the organization. In the context of Telkom University, this can be seen from the high awareness of the importance of quality in all activities ranging from the learning process, administrative services, and research to community service.

Furthermore, the formation of this quality culture does not stand alone but is the result of the interconnectedness between leadership, systems, and active participation of all elements of the organization. Visionary Leadership becomes a catalyst for a quality culture through exemplary behaviour and policy consistency; a measurable quality system provides direction and control, while active participation provides the power of execution and innovation.

Synthesis

Overall, this study shows that the implementation of the Total Quality Management strategy at Telkom University has successfully improved the quality of education. This strategy has proven effective because it combines three main pillars of TQM, namely:

1. Visionary and committed Leadership, which drives strategic direction and change;
2. Documented and integrated internal quality assurance system as a data-based quality control framework;
3. Participatory and quality-oriented organizational culture encourages all stakeholders' active involvement.

This finding strengthens the relevance of TQM theory in Indonesia's higher education context. It provides practical contributions for other educational institutions that want to implement a similar approach. Telkom University can be used as a best practice in translating TQM principles into measurable and sustainable operational strategies. In other words, the quality of education cannot only be achieved through formal policies but must be built through mutually reinforcing culture, systems, and leadership.

Conclusion

Based on the results of the research conducted at Telkom University, it can be concluded that the strategy of implementing Total Quality Management (TQM) has a significant impact on improving the quality of education in the higher education environment. The implementation of TQM at Telkom University is demonstrated through a strong commitment from the highest Leadership, an integrated internal quality assurance system (SPMI), and the involvement of all academicians in the evaluation and quality improvement process.

1. Visionary and Consistent Leadership

The Chancellor and unit leaders at Telkom University play a strategic role in building the direction of quality policy. Their involvement in every stage of the PDCA (Plan-Do-Check-Action) cycle reflects the leadership principle in TQM, which is the foundation for continuous change and improvement.

2. Active Involvement of All Organizational Elements (Total Involvement)

A participatory culture is seen from the involvement of lecturers, students, education staff, and unit leaders in satisfaction surveys, internal quality audits, and evaluation forums. This aligns with the TQM principle, which emphasizes the importance of comprehensive involvement in quality improvement.

3. Structured and Integrated Quality Assurance System

Telkom University manages SPMI as an administrative obligation and as the main instrument for ensuring quality. Routine evaluation, quality audits, and follow-up plans (RTL) are practical and measurable quality control mechanisms.

4. Utilization of Information Technology in Supporting Quality

Using digital platforms such as *gracias*, *SIMONIK*, and *e-SPMI* supports data-based decisionmaking, accelerates the evaluation process, and increases transparency and accountability in quality management.

5. Embedded and Sustainable Quality Culture

Through training, reward systems, and managerial support, Telkom University has instilled a quality culture as a collective value in every academic and non-academic activity.

Thus, the TQM strategy implemented by Telkom University can be used as a model of good practice for other universities in building a quality, sustainable, and adaptive education system to the demands of changing times.

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