

The application of Total Quality Management (TQM) model in University governance and development

Dr. Phan Thi Yen¹, Dr. Dang Vinh²

¹University of Foreign Languages Studies, The University of Danang, Viet Nam

²Vietnam - Korea University of Information and Communication Technology, The University of Danang, Viet Nam.

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ABSTRACT: Research shows that there are three levels of university quality management: quality control, quality assurance, and Total Quality Management (TQM). Currently, all three levels of quality management coexist in university management across different countries, as each of these methods aims to ensure that higher education products meet certain standards. There are various university quality management models, such as the university quality assurance model, the European EFQM Quality Award model, the ISO 9001 model, the organizational factors model, the C.I.P.O. model, and the TQM model.

At present, higher education institutions are gradually improving their quality management systems. Total Quality Management is a comprehensive approach to quality improvement, emphasizing continuous enhancement across all aspects of an organization. In the context of universities in the region, which often face specific challenges and limitations, the implementation of TQM principles can offer significant benefits in terms of efficiency, performance, and stakeholder satisfaction. The research highlights the potential challenges and opportunities related to TQM deployment in regional university settings, including issues such as resource limitations, organizational culture, and stakeholder expectations.

KEYWORDS: Quality Management; Total Quality Management – TQM; Quality Assurance; Management Models; Higher Education.

I. INTRODUCTION

In the field of higher education, regional universities play a crucial role in providing accessible and high-quality educational opportunities to students in neighboring areas and across the country. These institutions often serve as the backbone of local communities, contributing to

the socio-economic development of the region. However, member universities of regional university systems consistently face unique challenges in management and development, stemming from factors such as limited resources, diverse student populations, and an evolving educational landscape.

In 1987, the introduction of the first ISO quality standards established a global benchmark to ensure the ability to meet quality requirements and enhance customer satisfaction in supplier-customer relationships. Since then, quality assurance and quality management have become important issues not only in the fields of production and business but also in education and training. Globally, quality inspection and control models have been developed and applied.

Regarding common methods of higher education quality assessment in the United States and some European countries, peer review and outcome assessment are prominent. In the book *The Higher Education System: Academic Organization in Cross-National Perspective*, B.R. Clark analyzed these two approaches to quality assessment through the Newman model and the Humboldtmodel[4].

In countries following the Newman model, characterized by high autonomy in higher education, summative evaluations are widely used to enhance the quality of universities in meeting academic standards and fostering student development. This type of evaluation primarily assesses inputs and educational processes, typically occurring after self-assessments based on predetermined criteria. It serves as a foundation for external evaluations, such as audits or accreditation, and is widely applied in the United States, North America, and increasingly in Europe and Asia.

In contrast, countries influenced by the Humboldt model emphasize outcome assessment to evaluate educational quality. Using a set of performance indicators, including quantitative measures gathered through statistical analysis and qualitative factors such as attitudes and satisfaction assessed through surveys or observation, this approach allows for annual monitoring of higher education quality on a national scale. It offers a less complex alternative to peer review while still ensuring comprehensive evaluation.

The application of TQM in higher education in the current context also needs to be adjusted and implemented in a synchronized manner to improve quality, enhance efficiency and stakeholder satisfaction, raise academic standards, and promote a culture of excellence and innovation in university governance. This research aims to contribute solutions to quality management in higher education, empowering regional universities to overcome challenges, seize opportunities, and fulfill their mission of providing high-quality, inclusive, and accessible education to students and the communities they serve.

II. LITERATURE REVIEW

Total Quality Management (TQM) is a comprehensive quality management approach that has been widely applied in various fields, including higher education. TQM focuses on continuous improvement, involving the participation of all stakeholders to ensure the quality of services and output products. In higher education, TQM not only improves management efficiency but also enhances the quality of teaching and learning, increases student and staff satisfaction, and promotes a culture of innovation and creativity in university management [17].

The application of TQM in higher education, especially at regional universities, requires adjustments that are suitable for the specific context of each country and institution. Factors such as limited resources, student diversity, and the development of the modern educational landscape all play significant roles in the implementation of TQM. By integrating TQM principles, universities can enhance operational performance, better meet the needs of students, and play a vital role in the economic and social development of their communities [14].

In the field of higher education, two prominent models are applied in educational quality management: the Newman model and the Humboldt model. The Newman model, particularly popular in the United States and North America, emphasizes the autonomy of universities and uses

summative evaluation to ensure academic quality. This is a qualitative assessment method, focusing on evaluating inputs and the educational process through peer reviews and self-assessments [6].

In contrast, the Humboldt model, popular in Europe, emphasizes outcome assessment. This method uses quantitative metrics based on performance indicators such as learning outcomes, student satisfaction, and qualitative assessments through surveys and statistical analysis. This approach helps to comprehensively monitor educational quality while providing continuous improvements aimed at achieving excellence in teaching and research [20].

The application of TQM in higher education has received widespread attention from researchers and education managers. Studies have shown that TQM not only improves the quality of educational services but also serves as a powerful tool for enhancing operational efficiency and stakeholder satisfaction, including students, faculty, and regulatory agencies. Some research has indicated that integrating TQM into university management processes can help address the complex challenges that universities face, especially in the context of global crises and the rapid changes in educational technology [10].

Recent research by Al-Hosani et al. (2020) emphasizes the role of TQM in promoting a culture of continuous improvement at universities, especially as educational institutions undergo significant digital transformation. According to this study, applying TQM principles in conjunction with digital technology enhances operational efficiency and fosters innovation in teaching and learning. Specifically, universities can optimize management processes and improve the quality of educational services by using big data and artificial intelligence (AI) to monitor, evaluate, and enhance governance and academic activities [2].

Although TQM offers numerous benefits for higher education, its implementation also presents many challenges. One of the biggest challenges is the scarcity of financial and human resources, which is particularly true for regional universities. Additionally, changing organizational culture and management to align with TQM philosophy requires commitment from leadership and consensus among all staff, faculty, and students [8].

On the other hand, the opportunities presented by TQM for universities are substantial. Implementing TQM helps enhance academic quality, promotes a culture of continuous improvement, and increases stakeholder satisfaction. Furthermore, applying TQM principles

in university governance allows institutions to overcome specific challenges, seize development opportunities, and fulfill their mission of providing comprehensive, high-quality education [5].

Some studies focusing on the implementation of TQM at regional universities indicate that specific challenges, such as limited resources, student diversity, and pressure to maintain quality, have hindered the effective execution of TQM [3]. However, research by Olorube (2021) suggests that with government support and appropriate policies, regional universities can successfully implement TQM by training and developing human resources, optimizing processes, and applying advanced technology in educational management.

Recent studies have highlighted the role of TQM in improving student satisfaction, a crucial factor in assessing educational quality. Research by Kashif et al. (2022) indicated that universities effectively implementing TQM often report higher levels of student satisfaction, particularly regarding factors related to facilities, student support services, and teaching quality. Utilizing quality measures based on student feedback not only helps universities enhance their services but also facilitates the creation of a better learning environment [11].

Research by Abdulrahman et al. (2021) indicated that applying TQM principles in educational quality management has helped many universities cope with the challenges posed by the pandemic. Specifically, universities have flexibly implemented online teaching solutions and established remote learning support systems while maintaining quality standards through continuous monitoring and improvement of teaching processes [1].

The application of TQM in higher education, especially at regional universities, needs to be implemented systematically and adjusted to fit the specific context. TQM not only helps improve the quality of teaching and learning but also contributes to enhancing management efficiency, fostering student satisfaction, and serving the communities that universities support. Studies indicate that TQM remains a powerful tool in educational quality management, but to achieve optimal effectiveness, it requires adjustments and integration with new technologies and the unique context of each university.

III. RESEARCH METHODS

The research process for applying TQM systems in the management and development of regional universities requires a multidimensional

approach. Theoretical research should involve evaluating and synthesizing literature on TQM principles and their adaptation to the educational context. Based on this, a comprehensive theoretical framework should be designed that can incorporate both qualitative and quantitative methods to capture diverse perspectives and outcomes. Data collection will occur through surveys and case studies at the University of Foreign Languages, University of Danang, to assess the current situation and analyze the challenges and opportunities within the regional university environment. These findings will provide recommendations for universities to enhance management and development through TQM principles, contributing to continuous improvement in higher education management.

IV. FINDINGS AND DISCUSSION

The necessity of applying TQM systems in university administration

The TQM system, with modules such as Kaizen's 5S, quality groups, and statistical tools, will contribute to making quality management activities more substantial and effective, gradually enhancing management efficiency. However, this is not a one-time effort; it is a long-term, continuous process that requires significant effort from everyone, not just individuals or specific departments. Implementing the TQM system in school management alongside the establishment of a quality assurance system is an optimal solution for improving the quality of the institution.

Currently, higher education institutions are actively engaging in self-assessment and external evaluation of the quality of educational facilities and training programs. The implementation of quality assurance activities is organized into four groups: strategic assurance, system assurance, functional performance assurance, and activity results assurance. This involves refining the internal and external factors that impact university management systems.

The governance system of the University of Danang (UDN) includes the Party Committee of UDN, the Board of Directors, the University Council, various organizational groups (Trade Union, Youth Union, Veterans Association, Student Association), the Office, functional departments, and affiliated centers. The governance system of UDN is established to carry out management tasks including organization and personnel, training activities, scientific and technological activities, international cooperation, quality assurance and accreditation of higher education, finance, assets, work relationships,

information systems, reporting, and inspection of

the units under and affiliated with UDN.

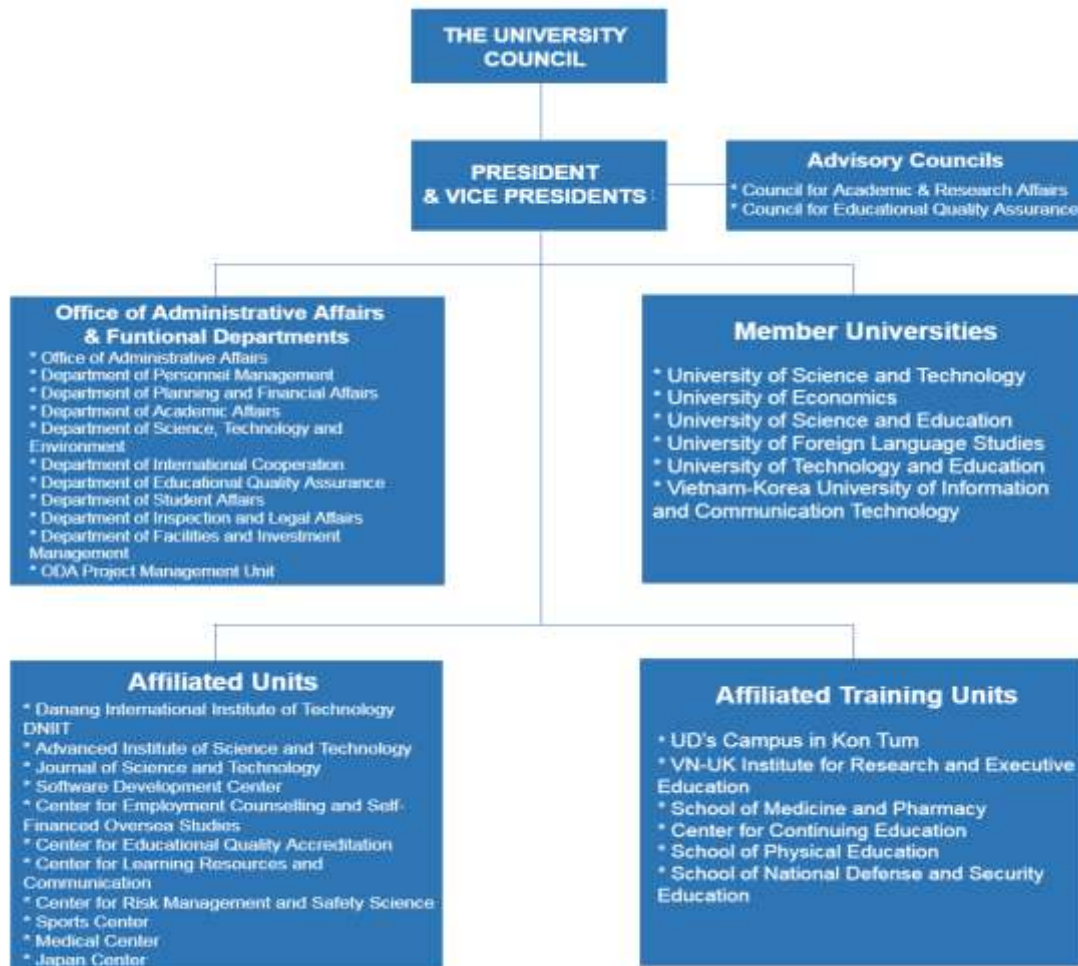


Figure 1. Organization Structure of UDN

(Source: Danang University <https://www.udn.vn/>)

Accordingly, the governance system of member higher education institutions also includes equivalent units. The governance system of the University of Foreign Languages includes: the University Council; the Party Committee; the Board of Directors; the Scientific and Training Council; the Quality Assurance Council, and other advisory councils; organizational groups such as the Trade Union, the Ho Chi Minh Communist Youth Union, the Student Association, and the Veterans Association; advisory and supporting

units such as faculties/subject groups (9 faculties and 1 group), functional departments (8 departments), and centers affiliated with the University (1 center under the University and 5 centers directly under the University). These organizations operate according to regulations, with clearly defined functions and tasks in their activities. The units are established and subject to vertical control from the corresponding functional departments of UDN.



Figure 2. Organization Structure of UD-UFLS

The annual enrollment at the University of Foreign Language Studies, UD is approximately over 7,000 students/learners, with the majority

being bachelor's degree students, while the doctoral level has the fewest students.

Current training scale of the UD-UFLS

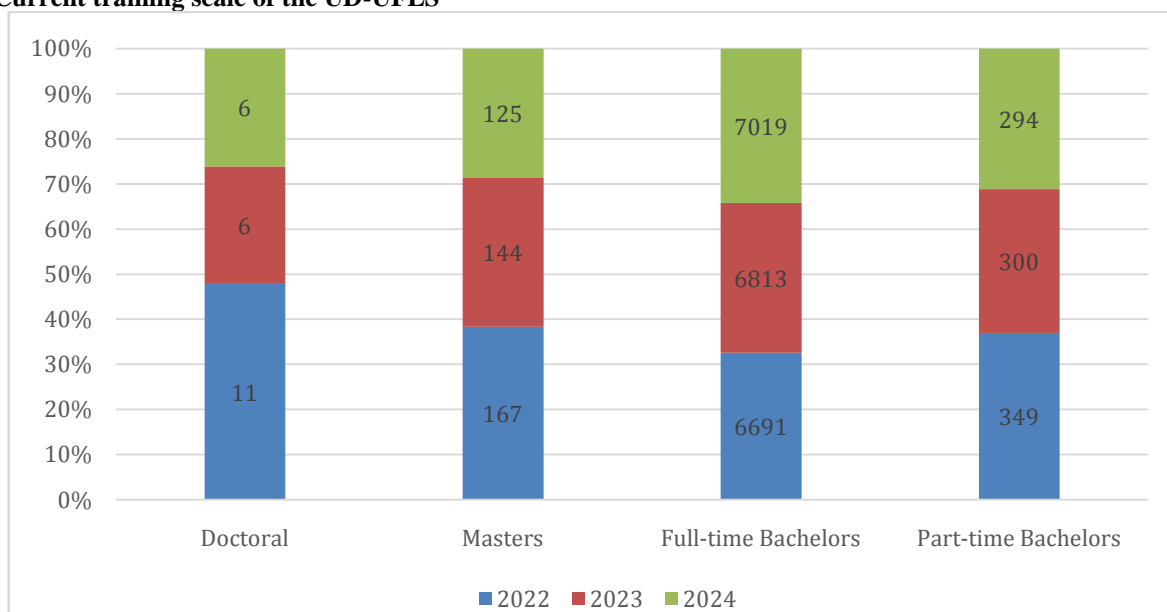


Figure 3. The training scale of UD-UFLS over the past 3 years.

The current status of quality management in the university

Using a random sampling method of approximately 500 students currently studying at UD-UFLS, a survey was conducted on their opinions regarding 10 areas of quality in school-wide activities. The results showed:

A considerable proportion of students rated the activities at a 3/5 level (with 1 being the

lowest and 5 the highest). The details are shown in the figure4.

This study focuses on the current status of quality management at the University of Foreign Languages, UDN. It surveys the level of satisfaction of learners with the university's quality management system.

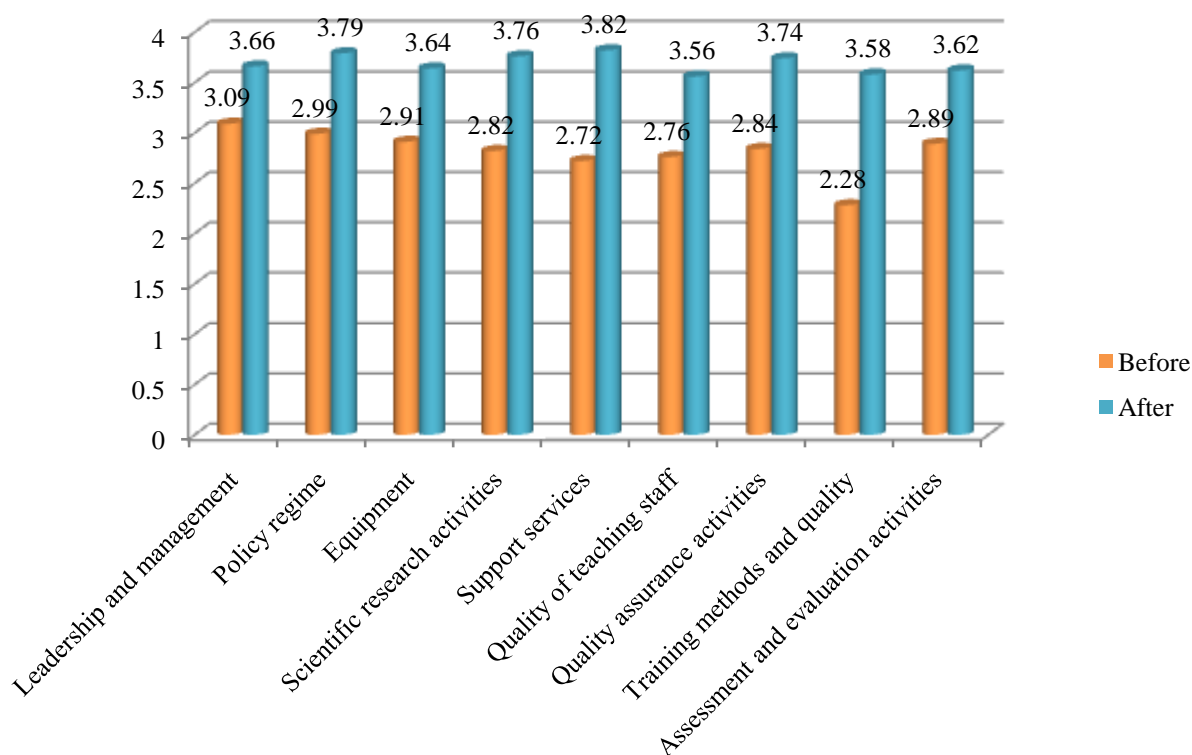


Figure 4. Learner satisfaction level before and after implementing TQM system

The results in Figure 4 shown that a marked improvement in all factors after a certain period or intervention. Specifically, leadership and management increased from 3.09 to 3.66, policies regime from 2.99 to 3.79, and equipment from 2.91 to 3.64. Scientific research activities also saw significant improvement from 2.82 to 3.76, while support services sharply increased from 2.72 to 3.82. Faculty quality rose from 2.76 to 3.56, and quality assurance activities increased from 2.84 to 3.74. Notably, training methods and quality made a considerable leap from 2.28 to 3.58, and assessment and evaluation activities also improved from 2.89 to 3.62. Overall, all factors showed positive improvement, with the most notable progress in support services and teaching methods and quality.

Solutions for implementing TQM into regional university administration and development

Solutions to implement TQM in regional university governance and development based on quality factors:

Improving leadership and management capacity: Improving the management system through leadership training and creating conditions for managers to listen to and receive feedback from lecturers and students. Increasing transparency and accountability in management decisions.

Improving policies: Creating optimal support policies for lecturers and students, including remuneration, scholarship support, and career development policies. Ensuring that policies are regularly updated to suit reality.

Upgrading facilities and equipment: Investing in modern infrastructure, digital technology tools, and equipment for research and

teaching. Creating comfortable learning conditions and adequate support facilities for students and lecturers.

Developing scientific research activities: Encourage scientific research through financial support, expanding international cooperation and creating opportunities for training and academic exchange. Create conditions for lecturers and students to participate in highly applicable research projects.

Strengthen student support services: Develop academic advising, financial support, career guidance and mental health care services. Ensure students receive comprehensive support in their studies and personal development.

Improve the quality of the teaching staff: Invest in professional training and teaching skills for lecturers. Create conditions for lecturers to participate in exchange programs, international conferences and access advanced teaching methods.

Improve the quality assurance system: Build a system for regular quality assessment and control, with the participation of all stakeholders. Focus on collecting and analyzing data to propose timely improvement solutions.

Innovation in teaching methods: Promote the application of modern teaching methods, encourage students to participate in the active and creative learning process. Integrate technology and interactive learning methods into the curriculum.

Develop a continuous assessment system: Build a transparent and continuous assessment process, based on feedback from both teachers and students. Ensure fair assessment methods and encourage the comprehensive development of learners.

V. CONCLUSION

Implementing TQM in the management and development of regional universities requires strong commitment from leaders and active participation from all members of the university. It is necessary to focus on enhancing leadership capacity, improving facilities, and developing student support services. At the same time, investing in faculty training, promoting scientific research, and innovating teaching methods are key factors to ensure the quality of education. Continuous evaluation processes, based on feedback from stakeholders, help ensure continuous improvement and meet practical needs. In this way, TQM will help regional universities develop sustainably and achieve the goal of educational excellence.

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