

Evaluation Of Total Quality Management (TQM) In Improving The Quality Of Graduates (Case Study On Motorcycle Engineering And Business Study Program At Vocational High School In Bandung)

Yusi Roslina Suciati¹, Arlette Suzy Puspa Pertiwi², Mira Veranita³
Universitas Adhirajasa Reswara Sanjaya, Indonesia^{1,2,3}
Email: yusiroslina@stmik-mi.ac.id¹, Arlette@gmail.com², mira@gmail.com³

ABSTRACT

Graduates of Vocational High Schools (SMK) play a crucial role in fulfilling the workforce requirements of the industrial sector. This condition represents a strategic opportunity for SMK to provide students with technical skills and moral fortitude, preparing them to become competent employees. This study seeks to assess the application of Total Quality Management (TQM) in enhancing the quality of graduates, particularly within the Motorcycle Engineering and Business Study Programme at a vocational school in Bandung. The study concentrates on the strategy for implementing Total Quality Management (TQM), the evaluation procedures for TQM, the factors that facilitate or impede TQM implementation, and the ways to address these challenges. This study employs a qualitative methodology utilizing a case study approach, with data gathering conducted via in-depth interviews, direct observation, and pertinent document analysis. The study's findings suggest that the Total Quality Management implementation strategy commences with a comprehensive understanding of the organization's vision and mission, which guide its objectives. This is reinforced by human resource development, the provision of sufficient facilities and infrastructure, the enhancement of a curriculum aligned with industry requirements, the cultivation of positive attitudes, and the establishment of a supportive learning environment. The processes for evaluating TQM involve establishing a collective commitment to enforce discipline, cultivating accountability, and sustaining concentration on attaining primary objectives. Factors that facilitate TQM implementation include skilled human resources, comprehensive facilities, a flexible curriculum, and a conducive learning environment. Concurrently, impediments consist of restricted human resources, inadequate facilities, and a deficiency in comprehensive comprehension of the TQM concept among all stakeholders within the school. The adopted method to address these challenges is to align all organizational components, including leaders, educators, and students, with the school's vision and goal, fostering a robust quality culture within the educational environment. This study concludes that a robust integration of human resources, facilities, curriculum, and an effective learning environment can attain the caliber of vocational high school graduates. Consequently, vocational high school graduates possess standardized abilities that

align with the requirements and expectations of the business and industrial sectors (DUDI), rendering them a workforce prepared to participate effectively.

Keywords: Total Quality Management, Graduate Quality, Vocational High School, Business World and Industrial World, Case Study

INTRODUCTION

Efforts to improve the quality of education, especially at the Vocational High School level, are one of the national policies that need to be considered and pursued by all elements involved in it. This is because, through quality secondary education, the Indonesian nation is expected to be more independent and have competencies based on the demands of community life. A standard needs to be used as a benchmark for the quality of education, especially vocational education, to be what it should be and what is expected by the community. Each school/madrasah is gradually developed to achieve the standard used as a benchmark. (Komariah, Daniati, Kurniady, Mirfani & Rahyasih, 2021; Ijah, Florentinus & Sudana, 2021)

The quality of vocational schools can be seen from the input, process, and results. As educational institutions, vocational schools can be said to be of high quality if they meet several characteristics, including having a clear vision and mission, having a professional principal and teachers, having a conducive school environment for learning, having a broad and balanced curriculum, and being highly involved in involving the community in managing the school. (Sofyan, Tarihoran & Nugraha, 2023; Suryatmojo & Fitriyani, 2023; Efendi, 2022)

The suitability of the implementation of learning is needed to reduce the gap in skills between vocational school students and DUDI.

According to the Secretary of the Directorate General of Training and Productivity Development (Binalatas) of the Ministry of Manpower, the learning system in vocational schools is considered inappropriate, as evidenced by the increasing unemployment data for vocational schools, so that there is a possibility of a mismatch between educational products and industrial needs. The large number of unemployed vocational school graduates is possible due to the mismatch between the knowledge and skills obtained by students in vocational schools and what is needed by the industrial world. (Firdaus, Yusuf, Nugroho & Fanani, 2024; Ikhsannudin & Pakpahan, 2021; Djuhartono, Ariwibowo & Alhamidi, 2021)

The learning process in vocational schools is currently unable to form the work character needed by the industrial world. Thus, a learning process is needed in vocational schools that are by the real conditions in the industrial world so that a link and match is formed between vocational schools and industry, resulting in graduates who can compete in the world of work. Quality management is a management effort to direct and control an organization/institution in determining policies, targets, plans, quality processes, and procedures and achieving them sustainably (continuous improvement). The term quality management in education is often referred to as Total Quality Management (TQM).

(Yahiaoui, Chergui, Aissaoui, Brika, Lamari, Musa & Almezher, 2022; Azizi, Bakri & Choiriyah, 2023)

The application of the concept of quality management in education is emphasized by Sallis, namely that Total Quality Management is a philosophy of continuous improvement, which can provide a set of practical tools to every educational institution in meeting the needs, desires, and expectations of its customers, now and for the future. (Narayanti, Wahidin & Koeriah, 2023; Siddique, Tatlah, Ali, Awan & Nadeem, 2021; Rosinawati, Khadijah & Warta, 2021)

This study focuses on several research questions: the strategies employed in the implementation of Total Quality Management (TQM) to enhance graduate quality, the evaluation steps taken to support this improvement, the factors that facilitate or impede TQM implementation, and the solutions that can be applied to address obstacles in TQM execution. (Yusuf, 2023; Al-Zoubi, Qablan, Issa, Bataineh & Al Kaabi, 2023; Jami & Muharam, 2022)

Total Quality Management enhances educational quality and institutional competitiveness via continuous initiatives. This notion underscores the ongoing enhancement of services, people resources, products, and the educational milieu. Edward Sallis, as articulated in the translated work by Dr. Ahmad Ali Riyadi and his associates, characterizes Total Quality Management as a philosophy of ongoing

enhancement implemented by educational institutions, wherein TQM offers a collection of pragmatic tools to assist these institutions in fulfilling the needs, desires, and expectations of customers, both presently and in the future. Total Quality Management (TQM) engages all organizational members in regulating and perpetually enhancing work processes to fulfill user or customer expectations for the quality of the organization's products or services. It may be inferred that initiatives to enhance educational quality are intrinsically linked to implementing educational quality management principles, specifically referred to as Total Quality Management in this context. (Manik, Sidharta, Coenraad, Komara, Satria & Riadi, 2023). The implementation of Total Quality Management (TQM) within the educational unit, as articulated by Arcaro, is founded on five principal pillars: an emphasis on both external and internal stakeholders, comprehensive engagement of all organizational components, the establishment of standardized metrics for graduate quality, a robust dedication to quality attainment, and an unwavering commitment to perpetual enhancement in all facets of educational delivery. This method aims to enhance the quality of graduates from educational institutions, enabling them to fulfill the needs of an increasingly competitive corporate and industrial landscape.

METHOD

This publication employs a qualitative research method characterized by a descriptive study type. The qualitative approach was selected to comprehensively understand and assess the implementation of Total Quality Management (TQM) in enhancing the quality of graduates within the Motorcycle Engineering and Business Study Programme at Vocational High Schools (SMK) in Bandung. Qualitative research generates data as words, tales, or images rather than as numbers or statistics. The acquired data is descriptive sourced from oral or written accounts provided by informants and behaviors directly seen by researchers in the field.

Qualitative research is performed naturally, indicating that researchers do not alter factors but observe events in their authentic state. Researchers serve as essential instruments in the data collection process, involving active participation in observation, comprehensive interviews, documentation, and contextual analysis. Researchers aim to comprehend the social and educational dynamics within the SMK setting, particularly regarding the use of TQM concepts and their influence on graduate quality. This methodology enables researchers to comprehensively capture intricate elements, including educator conduct, student perspectives, administrative motivation, and behaviors that facilitate the holistic implementation of educational quality.

The employed research methodology is descriptive. Descriptive research seeks to deliver a systematic, factual, and precise account of the observed phenomena in the field. This study examines the application of Total Quality Management (TQM) within a vocational school setting and evaluates the extent to which its implementation enhances the quality of graduates. The examined phenomena encompass school quality management strategies, educator and education personnel involvement, industry engagement in the learning process, and business input about graduate quality. This study employed a case study methodology to investigate the adoption of Total Quality Management (TQM) in the Motorcycle Engineering and Business Study Programme at a vocational high school in Bandung. Case studies enable researchers to examine and comprehend the intricacies present in a specific educational setting while also facilitating a thorough examination of the strengths, weaknesses, possibilities, and problems associated with implementing Total Quality Management (TQM). This strategy is anticipated to yield significant contributions to enhancing vocational education quality and serve as a benchmark for other educational institutions in executing effective quality management.

RESULTS and DISCUSSION

This study seeks to assess the application of Total Quality Management (TQM) in enhancing the quality of graduates within the Motorcycle Engineering and Business Study Programme at Vocational High Schools (SMK) in Bandung. The study's results demonstrate that the adoption of Total Quality Management (TQM) in vocational schools (SMK) plays a crucial role in guaranteeing the quality of graduates who can fulfill the requirements of the Business World and Industry (DUDI), encompassing both technical competencies and professional work attitudes. Using a qualitative approach and case study methodology, researchers performed comprehensive interviews, direct observations, and documentation analyses to investigate the managerial processes within the TQM framework.

This study's TQM implementation plan emphasizes collective comprehension of the school's vision and mission as the primary direction and objective of the educational institution. The vision and mission serve as frameworks for curriculum development, learning activity planning, and student character formation. The principal and other management tiers actively communicate the vision to all school community members, including teachers, students, and educational staff. The internalization of this vision and mission is enhanced by quality-focused human resource management, the provision of sufficient facilities and infrastructure, development of competency-based curricula, cultivation of professional attitudes among students, and establishment of a supportive and motivating learning environment.

The evaluation processes of Total Quality Management at vocational schools are conducted

frequently, emphasizing three primary aspects: commitment to discipline, accountability, and goal orientation. Evaluation is conducted via regular internal quality meetings and through the monitoring of learning and assessment of student results. This assessment activity requires teachers to actively participate as implementers of education and as directors and overseers of quality in school management. The participation of DUDI in assessing industry practice outcomes (Prakerin) is a crucial metric for evaluating the degree to which vocational school graduates fulfill industrial competency norms.

This study identified several elements that facilitate and obstruct the implementation of Total Quality Management in vocational high schools. Contributing factors encompass skilled and committed personnel, a curriculum tailored to industry demands, sufficient practical facilities and infrastructure, and a learning environment fostering active and collaborative educational activities. Educators with technical expertise from the industrial sector can impart information and skills aligned with the current advancements in automotive technology. The backing of the principal and school committee in resource management is a robust foundation for the constant application of Total Quality Management (TQM).

Nevertheless, some challenges were identified in the application of TQM. The difficulties encompass a constrained budget for enhancing practical tools, inconsistent quality among teaching staff, and insufficient knowledge among some stakeholders about the need for quality culture. The evolving dynamics of national education policy challenge the sustained implementation of consistent Total Quality Management (TQM) year after year. These

alterations frequently influence the curriculum focus and the assessment system, necessitating swift adaptation within the educational setting.

To summarize these challenges, educational institutions employ several strategic methods. One objective is to cultivate a cohesive perception of all school components in alignment with the educational institution's vision and goal. Consequently, every member of the educational institution shares a unified direction and objective in fostering a culture of quality. The institution enhances contact and collaboration with DUDI to secure assistance in educator training, provision of practical resources, and curriculum modifications to align with industry requirements. Moreover, initiatives to enhance teacher proficiency are implemented through continuous internal and external training. An objective competency-based evaluation system enhances the assessment of teacher and student performance.

Educational institutions have commenced integrating information technology to enhance quality management. A digital quality management system has been created to monitor the learning process, program evaluation, and the documentation of quality accomplishments transparently. This condition not only enhances the internal review process but also bolsters public accountability for the quality of educational services provided by schools. In the future, evaluation data will serve as the foundation for planning continual quality improvement.

This study's findings affirm that adopting Total Quality Management in vocational schools includes not only managerial factors but also cultural and structural characteristics of the institution. A culture of quality is established through the collective dedication

of all school constituents, from leadership to pupils. An affirmative and engaging learning environment is an excellent conduit for assimilating quality values into everyday educational procedures. Implementing TQM concepts, including continuous improvement, customer satisfaction, and total involvement, has yielded favorable outcomes in enhancing the quality of vocational school graduates.

The study concludes that the quality of vocational high school graduates can be attained through the unity and synergy of high-quality human resources, infrastructure, curriculum, and learning environment. Graduates from vocational high schools with robust quality management systems typically possess standardized technical competencies and professional work ethics, enabling them to meet the expectations and requirements of DUDI. This case study demonstrates that the systematic and inclusive application of Total Quality Management (TQM) inside vocational high schools can effectively enhance the quality of vocational education in Indonesia.

This study's findings offer practical contributions to formulating vocational secondary education policies. The government, specifically the Ministry of Education and Culture and the Provincial Education Office, can employ the TQM approach as a foundation for developing a system to coach and assess the quality of vocational schools. Other institutions with analogous attributes can emulate this TQM implementation technique to enhance school management in a more professional, adaptive, and quality-oriented way. TQM is not merely a theoretical construct; it has demonstrated efficacy as a framework for achieving quality and enhancing competitiveness in vocational education.

CONCLUSION

The study's conclusion regarding the assessment of Total Quality Management (TQM) in enhancing the quality of graduates from the Motorcycle Engineering and Business Study Programme at Vocational High Schools (SMK) in Bandung indicates that TQM implementation significantly influences the graduates' ability to fulfill the requirements of the Business World and Industry World (DUDI). The efficacy of TQM implementation is significantly affected by the comprehension and dedication of all school constituents to the vision and goal, which serve as the fundamental basis for managing educational quality. This vision and goal are the foundation for establishing a competency-based curriculum, managing human resources, providing supportive facilities and infrastructure for learning, and cultivating professional attitudes among students.

The assessment of TQM implementation is conducted through phases that emphasize discipline, accountability, and a commitment to achieving quality objectives sustainably. The active participation of educators, educational staff, school administration, and industry collaborators in the evaluation process is crucial for the success of effective quality control. The primary components facilitating TQM adoption are proficient and committed human resources, sufficient facilities and infrastructure, a curriculum aligned with industry requirements, and a favorable and supportive educational environment. Nonetheless, some impediments exist, including financial limitations, disparities in teaching staff quality, and difficulties in

reacting to educational changes that require strategic attention.

The measures adopted by the school encompass reinforcing the coherence of vision and mission throughout all organizational elements, enhancing collaboration with DUDI, providing continuous professional development for educators, and employing information technology in quality management. This method has effectively established a sustained quality culture and enhanced accountability for the learning process. The optimal quality of vocational school graduates can be attained by synergy and consistency in the administration of human resources, facilities, infrastructure, curriculum, and learning environment, all focused on quality. The graduates possess technical competencies that align with industry standards and exhibit a professional work ethic that enhances their value in the workforce. This study underscores the need to adopt Total Quality Management as a fundamental technique to enhance the quality of vocational education, ensuring it successfully and sustainably meets labor market demands.

REFERENCES

- Al-Zoubi, Z., Qablan, A., Issa, H. B., Bataineh, O., & Al Kaabi, A. M. (2023). The degree of implementation of total quality management in universities and its relationship to the level of community service from the perspectives of faculty members. *Sustainability*, 15(3), 2404.
- Azizi, M. H., Bakri, S., & Choiriyah, S. (2023).

- Implementation of total quality management in the ministry of religion-based education. *Nidhomul Haq: Jurnal Manajemen Pendidikan Islam*, 8(1), 125-136.
- Djuhartono, T., Ariwibowo, P., & Alhamidi, L. A. (2021). Implementation of total quality management (TQM) on teaching factory (TEFA) vocational middle school in bogor district. *Tarbawi: Jurnal Keilmuan Manajemen Pendidikan*, 7(02), 269-282.
- Efendi, N. (2022). Implementation of total quality management and curriculum on the education quality. *Journal of Social Studies Education Research*, 13(3), 120-149.
- Firdaus, M. I., Yusuf, M. H., Nugroho, W., & Fanani, E. (2024). Total Quality Management Strategy for Improving the Quality of Education at Kolej Universiti Perguruan Ugama Seri Begawan (Empirical Study in the Arabic Language Education Master's Study Program). *Asatiza: Jurnal Pendidikan*, 5(1), 69-80.
- Ijah, T., Florentinus, T. S., & Sudana, I. M. (2021). The quality assurance of Islamic boarding school based on total quality management (TQM). *Educational Management*, 10(1), 42-49.
- Ikhsannudin, M., & Pakpahan, P. L. (2021). Empowerment as A Quality Improvement Human Resources Through The Implementation of Total Quality Management. *Nidhomul Haq: Jurnal Manajemen Pendidikan Islam*, 6(1), 41-60.
- Jami, D. Z., & Muharam, A. (2022). Strategy for Improving the Quality of Islamic Religious Education Study Programs with Total Quality Management. *Nidhomul Haq: Jurnal Manajemen Pendidikan Islam*, 7(2), 267-283.
- Komariah, A., Daniati, N., Kurniady, D. A., Mirfani, A. M., & Rahyasih, Y. (2021). Improvement of educational quality: bridging the total quality management to map students' life skills at polytechnic of health-ministry. *Psychology and Education Journal*, 58(1), 699-709.
- Manik, E., Sidharta, I., Coenraad, D. P., Komara, A. T., Satria, R. O., & Riadi, F. (2023). Assessing total quality management and its impact on product quality: A cross-sectional study on textile industries in Bandung, Indonesia. *International Journal of Applied Economics, Finance and Accounting*, 15(2), 71-79.
- Narayanti, T. Y., Wahidin, D., & Koeriah, N. D. (2023). Quality Improvement Management in Preparing Graduates to Enter State Universities. *International Journal Of Science Education and Technology Management (IJSETM)*, 2(1), 45-57.
- Rosinawati, D., Khadijah, I., & Warta, W. (2021). Implementation of Total Quality Management (TQM) in the Implementation

- of Education Quality Control in Information Engineering Study Program. *International Journal of Nusantara Islam*, 9(1), 188-196.
- Siddique, M., Tatlah, I. A., Ali, M. S., Awan, T. H., & Nadeem, H. A. (2021). Effect of Total Quality Management on Students' Performance in Chemistry at Secondary Level in Pakistan. *Multicultural Education*, 7(11), 592-602.
- Sofyan, A., Tarihoran, N. A., & Nugraha, E. (2023). The concept of applying total quality management in improving the quality of education. *Reflection: Education and Pedagogical Insights*, 1(1), 28-33.
- Suryatmojo, W., & Fitriyani, Z. A. (2023). Implementation Of Total Quality Management (TQM) In Improving The Quality Of Graduates Through Counseling At SMAN 3 Pasuruan. *Journal Of Education And Teaching Learning (JETL)*, 5(1), 14-30.
- Yahiaoui, F., Chergui, K., Aissaoui, N., Brika, S. K. M., Lamari, I. A., Musa, A. A., & Almezher, M. (2022). The impacts of total quality management practices in Algerian higher education institutions. *Frontiers in Psychology*, 13, 874209.
- Yusuf, F. A. (2023). Total quality management (TQM) and quality of higher education: A meta-analysis study. *International journal of instruction*, 16(2), 161-178.



© 2025 by the authors.
 Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC Attribution-NonCommercial-ShareAlike 4.0) license (<https://creativecommons.org/licenses/by-nc-sa/4.0/>).