

## STRATEGY FOR CONTINUOUS QUALITY IMPROVEMENT AT VOCATIONAL HIGH SCHOOL

Cahyo Widodo<sup>1</sup>, Fajar Danur Isnantyo<sup>2</sup>, Aris Budianto<sup>3</sup>,  
Sukatiman<sup>4</sup>, Muhamad Nur Azmi Wahyudi<sup>5</sup>

<sup>12345</sup>Universitas Sebelas Maret; Indonesia

Correspondence email; cahyowidodo19@guru.smk.belajar.id

Submitted: 20/09/2024

Revised: 21/11/2024

Accepted: 18/01/2024

Published: 21/03/2025

### Abstract

This study analyzes the implementation of the *Sistem Penjaminan Mutu Internal (SPMI)* as a strategy for continuous quality improvement at Tambakboyo Vocational High School. Using a qualitative case study approach, data were collected through in-depth interviews with key stakeholders, participatory observation, and document analysis. Interviews involved school principals, teachers, administrative staff, students, and industry partners to gain insights into *SPMI* implementation. Observations were conducted through direct engagement in school activities, quality assurance meetings, and industry collaboration programs, while document analysis reviewed policies, reports, curriculum guidelines, and employment data. Data were analyzed using a qualitative descriptive approach through data reduction, display, and conclusion drawing, with triangulation ensuring validity. The findings highlight how stakeholders collaborate to align educational quality policies with industry demands through the *PPEPP model* (*Penetapan, Pelaksanaan, Evaluasi, Pengendalian, Peningkatan Standard*). Implementing *SPMI* positively impacts academic and non-academic quality, enhances graduate employability, and strengthens school-industry partnerships. A well-structured organization and consistent quality policies facilitate optimal outcomes, with industry collaboration ensuring curriculum relevance and skill alignment with labor market needs. This strategy enhances graduate competitiveness and serves as a model for addressing global educational and workforce challenges.

### Keywords

Educational Quality Improvement, Graduate Relevance, Implementation of *SPMI*, School-Industry Collaboration, Vocational School.



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

## INTRODUCTION

The rapid advancement of technology and industry in the modern era demands that vocational education institutions produce graduates with competencies aligned with market needs (Mulawarman, 2024). According to data from the Ministry of Education and Culture (Kemendikbud, 2023b), 60% of vocational school graduates face difficulties securing jobs due to skill mismatches with industry requirements (Fadya Safitri Rahman et al., 2024). SMK Negeri Tambakboyo, as one of the leading vocational high schools, has implemented the Sistem Penjaminan Mutu Internal (SPMI) to ensure continuous quality improvement in education. The implementation of SPMI is structured within the school's organizational framework to create a systematic and measurable quality assurance process (Herawan et al., 2014). By adopting the PPEPP model (Penetapan, Pelaksanaan, Evaluasi, Pengendalian, Peningkatan Standard)(Sugesti, 2023), SMK Negeri Tambakboyo aims to enhance the alignment of its educational programs with industry standards. However, the effectiveness of this system in improving student competencies and employability remains a critical area of study (Harahap et al., 2023). Understanding how SPMI functions within the school structure to meet both educational and industrial demands is essential to optimize its impact on graduate competitiveness (Ima Rahmawati, Hana Lerstari, 2024).

Despite its structured implementation, several challenges hinder the optimal application of SPMI at SMK Negeri Tambakboyo. One of the primary obstacles is the limited understanding and commitment of some stakeholders toward the quality assurance process. Based on an internal school evaluation report (Kemendikbud, 2024), 45% of teachers and administrative staff reported difficulties in integrating *SPMI* principles into daily educational activities due to a lack of adequate training and support systems. Additionally, the dynamic nature of industrial demands requires continuous curriculum adaptation, which can be a complex and resource-intensive process. (M. Ridwan, 2024). A study by (Novitanti & Situmorang, 2023) Highlighted that 70% of vocational schools in Indonesia struggle to update their curriculum in response to rapid technological changes. Another significant challenge is the availability of infrastructure and technology to support quality improvement initiatives, particularly in ensuring that vocational training remains relevant to industry standards (Ali et al., 2024). Addressing these challenges requires strategic interventions, including capacity-building programs for educators, stronger industry collaboration, and enhanced resource allocation to facilitate a more effective implementation of *SPMI* (Mubarok et al., 2024).

The effectiveness of SPMI in enhancing the competitiveness of SMK Negeri Tambakboyo graduates can be evaluated through multiple indicators, such as academic performance, skill mastery, and employment rates in relevant industries. Data from the school's graduate tracking system (Kemendikbud, 2023a) Revealed that the employment rate of graduates within six months post-graduation increased from 55% to 75% after the structured implementation of SPMI. Additionally, participation in industry-based internships has risen by 40%, and the certification rate for vocational competencies has improved by 30%. Employer satisfaction surveys also indicate that 80% of industry partners recognize the improved skills and professionalism of SMK Negeri Tambakboyo graduates. However, to fully maximize its potential, ongoing monitoring and evaluation mechanisms must be strengthened. By fostering a culture of continuous improvement, SMK Negeri Tambakboyo can ensure that its graduates are not only academically proficient but also equipped with industry-relevant skills. This approach positions the school as a model for other vocational institutions seeking to bridge the gap between education and industry demands in an increasingly competitive global landscape (Nugroho & Miyono, 2024).

Previous research revealed several findings related to sustainable quality improvement strategies. Research (Zahrok, 2020) and (Prasetya et al., 2024) showed that SPMI Implementation, which begins with School Self Evaluation (EDS), quality fulfillment planning, implementation of improvement programs, and annual evaluations, has shown positive results reflected in the school quality report card. Then (Nisa & Karwanto, 2023) and (Lianda Sondey and Hizkia Kamang Manggopa, 2024) explained that SPMI implementation is carried out systematically and continuously through internal audits, quality mapping, preparation of school work plans, periodic evaluations in management review meetings, and well-documented quality documents managed in the ISO room. (Afifatul Laili, Alya Irrzaq Nahya Alfandie, Asa Maghfirotul Jannah, Aurelia Jovita Putri Tio, Desika Agustin, Julian Wildhan Santosa, 2024) Produced findings on the implementation of quality management through planning, organizing, implementing, and evaluating, with main strategies such as curriculum adjustment with industry, increasing teacher competence and commitment, and maintaining competent educators. Furthermore (Valianto et al., 2024) explained that, in general, teachers have understood the SPMI policy in education units, especially regarding the demands of fulfilling the eight education quality standards, the quality mapping analysis cycle, planning, implementation, and evaluation of quality assurance, including improvement by setting new quality standards. Achieving quality standards that exceed national education standards

requires collaboration between schools, teachers, education offices, parents, and students. Research by (Muhamad Khoirur Roziqin, 2024) also states that the implementation of SMM ISO 9001: 2015 can be an effective instrument in improving the quality of educators and education as a whole at SMK PGRI 1 Jombang. Taking into account the findings and recommendations of this study, it is expected that schools and other educational institutions can utilize ISO 9001:2015 SMM as a tool to achieve higher quality standards in education. Another research by (Meirani et al., 2022) states that The implementation of the Internal Quality Assurance System (SPMI) has been going well, but there are still three main problems, namely the limited pedagogical skills of teachers from industry in preparing learning tools, the lack of school facility management personnel, and public opinion that considers SMK graduates less competitive than another high school graduates. Moreover (Meirani et al., 2023), Quality assurance in the preparation of the SMK PK curriculum is carried out through monitoring of each stage of preparation by TPMPs, involving various stakeholders so that the resulting curriculum is by industry needs and includes technical competencies, soft skills, and entrepreneurship. All previous studies have found the importance of using SPMI in the education development process in vocational education.

The research conducted by the author has a novelty in examining the integration of the Internal Quality Assurance System (SPMI) and ISO 9001: 2015 in SMK, which has not been discussed in depth in previous studies. Previous studies focused more on the general implementation of SPMI ((Zahrok, 2020); (Nisa & Karwanto, 2023)) without exploring specific factors that influence its effectiveness in SMK. In addition, research by (Afifatul Laili, Alya Irrzaq Nahya Alfandie, Asa Maghfiroatul Jannah, Aurelia Jovita Putri Tio, Desika Agustin, Julian Wildhan Santosa, 2024) Highlighted curriculum alignment with industry but did not discuss program continuity in ensuring graduates' work readiness. This study proposes a model that integrates industry involvement in evaluating the quality of education. Furthermore, research by (Valianto et al., 2024) Shows teachers' understanding of SPMI, but has not discussed the challenges in its implementation, which in this study is further analyzed through the factors of teacher motivation and managerial skills. In addition, research by (Muhamad Khoirur Roziqin, 2024) On ISO 9001:2015, SMM has not examined its integration with SPMI in the context of vocational education. Therefore, this study offers a more adaptive and sustainable model to improve the quality of vocational education by combining SPMI and ISO 9001:2015 synergistically to improve the effectiveness of quality management, stakeholder satisfaction, and graduate competitiveness in the world of work.

This study aims to analyze the effectiveness of the implementation of the Internal Quality Assurance System (SPMI) integrated with ISO 9001: 2015 in improving the quality of education at SMK Negeri Tambakboyo, as well as to identify factors that support and hinder its implementation. Theoretically, this research is expected to enrich academic studies on strategies to improve the quality of vocational education through a systematic approach based on quality management. In addition, the results of this study can be a reference for other researchers in developing SPMI and ISO 9001: 2015 integration models in various educational units. Pragmatically, this research provides benefits for schools in designing more effective quality policies, for educators in improving competence and understanding of the quality system, and for industry stakeholders in strengthening synergies with vocational education institutions to ensure graduates have skills that match the needs of the world of work. Thus, this research contributes to creating a quality management model that is more adaptive, sustainable, and aligned with industry demands and national education standards.

## METHOD

This research adopted a qualitative approach with a case study design that aims to comprehend in depth the strategy of continuous quality improvement at SMK Negeri Tambakboyo by implementing the Internal Quality Assurance System (SPMI) in the school's organizational structure to meet the demands of education and industry.

Data were collected through in-depth interviews with the principal, school management team, teachers, and representatives of the business and industry sector (DUDI)(Aryani, 2012). In addition, participatory observations were made of various school activities, quality assurance meetings, and collaboration programs with industry. Document analysis was also used as a data source (Denih et al., 2023), including school policies (Kemendikbud, 2018e, 2018h, 2024, 2018g, 2018c, 2018d, 2018f, 2018a, 2018b, 2023b, 2023a), quality evaluation reports (Kemendikbud, 2024), curriculum guidelines (Kemendikbud, 2018e), and graduate absorption data (Kemendikbud, 2023b). The data obtained were analyzed descriptively and qualitatively through data reduction, data presentation, and conclusion-drawing techniques, with triangulation to ensure validity (H. Soro et al., 2023). The results of this study aim to evaluate the effectiveness of SPMI in improving the quality of education as well as the relevance of graduates to industry needs (Dr. Sabar Budi Raharjo, M.Pd. Meni Handayani, SS, M.Si. Moh Rif'an Jauhari, S.E, MA. Fitri Juanita M., 2019).

Data analysis was conducted using a thematic analysis method with an interactive approach, including data collection, data reduction, data presentation, and conclusion drawing (Sahroni, 2023). This research seeks to provide an overview of the Strategy for Continuous Quality Improvement at SMK Negeri Tambakboyo through the Implementation of an Internal Quality Assurance System in the School Organizational Structure to Meet Educational and Industrial Demands. The results are expected to provide strategic recommendations to improve the relevance and competitiveness of SMK Negeri Tambakboyo in meeting the demands of the educational and industrial fields.

## FINDINGS AND DISCUSSION

### Findings

Improving the quality of education in Vocational High Schools (SMK) is a major challenge in preparing graduates who are competitive and by industry needs. In facing the changing dynamics of the world of work, SMK Negeri Tambakboyo adopts the Internal Quality Assurance System (SPMI) as a sustainable strategy to improve the quality of education. This study reveals how the implementation of SPMI in the school's organizational structure impacts the effectiveness of learning, industry involvement, and graduates' readiness to enter the workforce. Through a qualitative approach, data were collected from interviews with stakeholders, direct observation of school activities, and document analysis of quality policies and evaluations. The results of this study are expected to provide insight into the effectiveness of SPMI in improving the quality of vocational education and offer strategic recommendations for education managers in aligning the curriculum with industry demands.

**Table 1.** Research Data Strategy for Continuous Quality Improvement  
at SMK Negeri Tambakboyo

No	Continuous Quality Improvement Strategy	Effectiveness of SPMI implementation
1.	Implementation of PPEPP ( <i>Penetapan, Pelaksanaan, Evaluasi, Pengendalian, Peningkatan Standard</i> ) as a quality assurance system model.	Improving the compatibility of the curriculum with industry needs so that graduates are more work-ready.
2.	Improving Teacher Competencies through training, workshops, and certification to enhance pedagogical and vocational skills.	Teachers are more aware of industrial standards and implementing project-based learning methods.
3.	Establish collaboration with the business and industry sector ( <i>DUDI</i> ) for curriculum alignment, internship placement, and student competency certification.	Increasing graduate employment opportunities, with an increase in the graduate absorption rate from 55% to 75% within six months after graduation.
4.	Technology Use in Learning, including e-learning, digital simulations, and industrial	Enhancing students' digital skills and the effectiveness of practice-based learning.

---

	technology-based laboratories.	
5.	Periodic Performance Monitoring and Evaluation through internal quality audits, management review meetings, and stakeholder feedback.	Guarantee implementation of a consistent quality policy and continuous improvement in the learning system.
6.	Strengthen Quality Culture in Schools through socialization, discussion, and participation of all school communities in the implementation of <i>SPMI</i> .	Increase awareness and commitment of all school elements in maintaining and improving the quality of education.

---

Based on the results of the table above, it is found that implementation of the Internal Quality Assurance System (SPMI) with the PPEPP approach ensures continuous evaluation and improvement of educational standards to match industry needs. The curriculum is adjusted to make graduates more work-ready, supported by improving teacher competence through training and certification. Collaboration with the industrial world is carried out for curriculum alignment, internships, and student certification to increase graduate employment opportunities by 75% within six months of graduation. The utilization of technology such as e-learning and digital simulation strengthens learning effectiveness, while performance monitoring through quality audits and stakeholder feedback ensures continuous improvement. Strengthening the quality culture through socialization and involvement of the entire school community further encourages commitment to improving the quality of education.

The scope of implementation of the quality assurance system at SMK Negeri Tambakboyo is in all parts within the scope of the organization, both in all processes of academic activities and in the process of non-academic activities. This applies to all elements of academic implementation. Elements of teaching staff (teachers and education staff), elements of administrative staff, and other supporting elements. The organizational structure of the Internal Quality Assurance System (SPMI) at SMK Negeri Tambakboyo is designed to ensure the implementation of the quality insurance policy runs effectively and efficiently. This organization involves various school stakeholders, ranging from the principal as the main person in charge, the quality assurance team as the main driver of implementation, to the supporting roles of teachers, staff, and industry partners. This structure reflects strong collaboration and a defined division of tasks so that each section has specific responsibilities in supporting the achievement of the school's vision and mission. With an integrated approach, this organizational structure aims to ensure that quality programs and policies can be implemented consistently and have a real impact on improving the quality of education and the relevance of graduates to the needs of the industrial world.

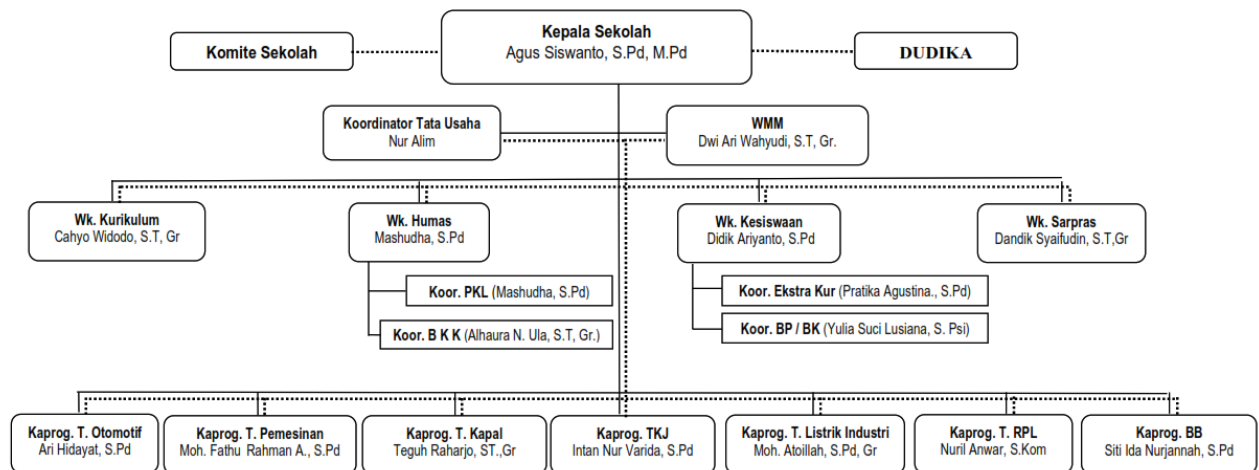
**The strategy of sustainable quality improvement is applied at SMK Negeri Tambakboyo by implementing the Internal Quality Assurance System (SPMI) in the school's organizational structure.**

Planning, implementation, control, and development of SPMI at SMK Negeri Tambakboyo follow the principles of the quality control management model PPEPP (Penetapan Standar, Pelaksanaan Standar, Evaluasi Standar, Pengendalian Standar, Peningkatan Standar). At the "Standard Determination" stage, SMK Negeri Tambakboyo conducts preparations by designing and establishing various documents consisting of a Quality Policy, Quality Manual, and Quality Standards Procedure Manual/SOP, along with forms that serve as the basis and guidelines for implementing quality assurance.

At the "Standard Implementation" stage, each unit, starting from the school, carries out its duties, functions, and quality policies aimed at meeting the established standards. At the "Standard Evaluation" stage, each unit, in carrying out its duties at a certain period, must conduct a self-evaluation and internal quality audit to determine the suitability of its work with the established quality standards. If the results of his work do not meet, do not match, or deviate from the predetermined standards. "Standard Control" must be carried out in the form of corrective or corrective actions against the work results so that the predetermined standards can be achieved.

Controlling the implementation of standards is intended to meet standards. After the set standards are met, "Standard Improvement" is carried out. This improvement is carried out through the utilization of standard achievement results and based on internal and stakeholder needs for quality improvement through the preparation and determination of higher quality standards. This process will continue toward continuous quality improvement. At the school institutional level, there are tasks for the implementation of quality assurance at the school level carried out by the School Leader and School Quality Management.





**Figure 1.** SPM Organizational Structure of SMK Negeri Tambakboyo

The organizational structure of SMK Negeri Tambakboyo is designed to ensure effective leadership and coordination in carrying out the various functions of the school. The principal, supported by the School Committee and the World of Business and Industry (DUDIKA), leads the various areas through the Administrative Coordinator, who manages the administration, and the Deputy of Quality Management, who is responsible for educational standards. The vice-principals oversee the areas of curriculum, public relations, student affairs, and facilities and infrastructure, each with specific tasks to support the learning process and student welfare. In addition, the Head of the Specialization Program (Kaprog) manages various majors such as Automotive Engineering, Mechanical engineering, Marine engineering, Computer and Network, Industrial Electricity, Software Engineering, and Fashion Production Design, ensuring the relevance of education to industry needs. This structure shows a clear division of tasks to improve the quality of education and work readiness of graduates.

### **The Implementation Effectivity of the Internal Quality Assurance System (SPMI) at SMK Negeri Tambakboyo in Meeting the Demands of The Educational and Industrial Sectors.**

The researcher has conducted in-depth interviews with the principal, vice principal, teacher representatives, and representatives from the industry, namely PT Orela shipyard, which is one of the industrial partners of SMKN Tambakboyo. To achieve the school's objectives, decisions are taken through strategic steps in the implementation of the Internal Quality Assurance System (SPMI), including the formulation of a quality policy by involving stakeholders, training for teachers and staff, the establishment of a quality assurance team, and periodic evaluation of the implementation of this system. In addition, the school management ensures the implementation of SPMI by

providing quality documents, conducting socialization of the quality policy, conducting regular internal audits, and providing continuous training for teaching staff so that their competence continues to improve under industry standards.

The teachers' role in the implementation of SPMI is crucial, as they act as the main implementers who ensure learning is by the set standards. The implementation of this system has brought significant changes in teaching methods, such as curriculum adjustment to industry needs, the use of project-based learning methods, as well as more standardized evaluation of learning outcomes. From an industry perspective, graduates of SMK Negeri Tambakboyo are considered to have relevant technical skills, although improvements are still needed in soft skills such as communication and teamwork. The industry also participates in the preparation of school quality improvement strategies through discussion forums, coordination meetings, and curriculum alignment to ensure the suitability of student competencies with the needs of the world of the workforce.

From the interview, it can be concluded that the implementation of the Internal Quality Assurance System (SPMI) at SMK Negeri Tambakboyo is primarily focused on the academic field, which includes educational and teaching activities. Furthermore, the internal quality assurance policy at SMK Negeri Tambakboyo is gradually being expanded to cover the non-academic field. Quality assurance in the non-academic sector serves as a support system for academic quality assurance.

The implementation of quality improvement at SMK Negeri Tambakboyo begins with the school's vision, which emphasizes industrial excellence, character development, and environmental culture, all grounded in faith and devotion. The school's mission is designed to support this vision by incorporating an industry-oriented curriculum, providing industry-standard facilities and infrastructure, and enhancing the quality of graduates. With this vision and mission, the school establishes a strong foundation for the implementation of the Internal Quality Assurance System (SPMI) as a key tool for continuous improvement.

The strategic steps of SPMI implementation involve drafting a quality policy, training for teachers and staff, establishing a quality assurance team, and continuous monitoring and evaluation. These efforts are reinforced by close collaboration between schools and industry to align with the needs of the job market. The school management team plays a key role in the development of quality documents such as SOP and quality manuals, as well as the implementation of internal audits that

ensure the SPMI process goes according to plan.

However, collaborative work with Business and Industry (DUDI) is one of the factors that determine the success of SPMI implementation. The industries consider graduates of SMK Negeri Tambakboyo to have relevant technical skills but still need improvement in soft skills such as communication and teamwork. The participation of DUDI in curriculum development, internship programs, and strategic discussions creates a strong synergy between schools and industry demands. This collaboration is a strategic step to improve the competitiveness of graduates in the job market. The result of the implementation of the Internal Quality Assurance System (SPMI) is that SMK Tambakboyo managed to get results in the school accreditation process in 2022 with a score of "Accredited A (Excellent) with a Score of 93".

## **Discussion**

This study examines the strategy of continuous quality improvement at SMK Negeri Tambakboyo by implementing the Internal Quality Assurance System (SPMI) in the school's organizational structure to meet the demands of education and industry. The results showed that the implementation of SPMI based on the PPEPP model (Determination, Implementation, Evaluation, Control, and Improvement of Standards) has increased the relevance of the curriculum to industry needs, improved teacher competence, and expanded graduate employment opportunities (NUR INDA SARI, 2024). This finding is in line with the concept of Total Quality Management (TQM), which emphasizes the importance of continuous improvement in the education system. (Hanim et al., 2022). In addition, the implementation of PPEPP reflects the systematic approach to quality management as outlined by (Sari Warni Indah, Noor Miyono, 2024), which emphasizes the importance of quality control based on regular evaluation and feedback from stakeholders (Handayani et al., 2024).

The results of this study are also consistent with previous studies, such as the one conducted by (Zahrok, 2020), which found that the implementation of SPMI, starting with School Self Evaluation (EDS), quality fulfillment planning, and annual evaluation, has had a positive impact on the quality of education in SMK. In addition, research by (Nisa & Karwanto, 2023) underlined that the success of SPMI is highly dependent on the implementation of internal audits, quality mapping, and the involvement of all school elements in the quality management process. Other findings from (Afifatul Laili, Alya Irrzaq Nahya Alfandie, Asa Maghfirotul Jannah, Aurelia Jovita Putri Tio, Desika Agustin, Julian Wildhan Santosa, 2024) showed that the main strategies in improving the quality of

SMK involve aligning the curriculum with industry as well as improving teachers' competencies, which is also reflected in this study. However, the challenges still faced are the lack of understanding of SPMI principles by some educators as well as difficulties in adjusting the curriculum to the rapid development of the industry (Novitanti & Situmorang, 2023). On the other hand, this study provides an antithesis to several previous studies that assessed that the implementation of SPMI is generally sufficient in improving the quality of education in SMK. For example, research by (Valianto et al., 2024) concluded that teachers' understanding of SPMI policy is good, but this study found that there are still obstacles to implementation at the classroom level, especially in adjusting the curriculum to the rapid development of the industry. This is supported by the findings of (Novitanti & Situmorang, 2023), which showed that 70% of SMK in Indonesia experienced difficulties in updating the curriculum adaptively. Therefore, this study proposes a more dynamic approach by integrating Agile-based quality management that enables more flexible curriculum changes and responsiveness to industry trends.

As a result, the author finds that the implementation of SPMI at SMK Negeri Tambakboyo has provided positive results but still requires strengthening in several aspects. Collaboration with industry needs to be further expanded not only in curriculum development but also in aspects of teacher training and the provision of industry-based technology in schools. In addition, a blended learning-based approach can be a solution to improve learning effectiveness, given the increasing need for digital skills in the industrial era 4.0. As an antithesis, although the PPEPP model has been proven effective in improving the quality of education, it is still reactive to change and less flexible in accommodating more dynamic educational innovations. Therefore, a more adaptive approach is needed, such as the integration of agile quality management that allows for rapid changes based on industry trends and direct feedback from graduate users. Thus, the quality improvement strategies implemented can be more sustainable and responsive to global changes in the world of work and education. Furthermore, this study also highlights the importance of integration between SPMI and ISO 9001:2015 as a continuous quality improvement strategy, something that has not been widely discussed in previous studies. The study by (Muhamad Khoirur Roziqin, 2024) showed that the implementation of ISO 9001:2015 could improve the quality of educators but did not relate it to the effectiveness of SPMI in SMK. This study fills the gap by showing that the combination of SPMI and ISO 9001:2015 can improve the effectiveness of quality policy, stakeholder satisfaction, and graduate competitiveness in the world of work. Thus, these findings contribute to the development of a more

adaptive quality assurance model based on industry needs and able to answer the challenges of vocational education in the global era.

## CONCLUSION

The implementation of the internal quality assurance system (SPMI) at SMK Negeri Tambakboyo has successfully enhanced education quality through a structured and sustainable approach, ensuring systematic quality improvement from planning to evaluation. A well-defined organizational structure, clear task division, and strong support from various school elements serve as the foundation for sustaining SPMI implementation. Additionally, a well-designed quality policy and consistent execution have fostered an educational environment that adapts to industry changes and job market needs. Collaboration with business and industry (DUDI) plays a crucial role in this success, particularly through curriculum alignment, internship programs, and strategic discussions, which have resulted in graduates equipped with relevant skills. The study highlights the importance of synergy between internal school elements and external stakeholders in sustaining continuous improvement. Ultimately, the SPMI-based strategy benefits graduates and serves as a model for other schools to address the evolving challenges of education and industry.

## REFERENCES

- Afifatul Laili, Alya Irrzaq Nahya Alfandie, Asa Maghfirotul Jannah, Aurelia Jovita Putri Tio, Desika Agustin, Julian Wildhan Santosa, A. S. (2024). *Manajemen Mutu Terpadu Sebagai Upaya Peningkatan Kualitas Jurusan Tata Boga Di SMK Negeri 3 Malang*. 4(11). <https://doi.org/10.17977/um065.v4.i11.2024.7>
- Ali, I., Fernandy, H., & Fauziyyah, N. (2024). Pengembangan Sistem Informasi Penjaminan Mutu Internal Berbasis Web Menggunakan Framework Codeigniter 4. 14(2), 243–250.
- Aryani, S. R. (2012). Implementasi Sistem Manajemen Mutu ISO 9001: 2008 di SMK Negeri 2 Salatiga. 10–19. [https://repository.uksw.edu/handle/123456789/2552%0Ahttps://repository.uksw.edu/bitstream/123456789/2552/8/T1\\_162008014\\_Lampiran.pdf](https://repository.uksw.edu/handle/123456789/2552%0Ahttps://repository.uksw.edu/bitstream/123456789/2552/8/T1_162008014_Lampiran.pdf)
- Denih, A., Syaodih, C., Santosa, A. P., Islamy, H. A. S., & ... (2023). Manajemen Mutu Dalam Meningkatkan Kualitas Lulusan Di SMKN 3 Bandung. *Al-Afkar, Journal For ...*, 6(2), 500–513. <https://doi.org/10.31943/afkarjournal.v6i2.552.Quality>
- Dr. Sabar Budi Raharjo, M.Pd. Meni Handayani, SS, M.Si. Moh Rif'an Jauhari, S.E, MA. Fitri Juanita M., S. S. (2019). Sistem Penjamin Mutu Pendidikan. In *Ar-Ruzz Media*.
- Fadya Safitri Rahman, Agilia Febriani, Fadillah Annisak, Irlyanova Sabina, & Pramudia Ananda. (2024). Kolaborasi Sekolah dan Industri: Menyiapkan Siswa Untuk Dunia Kerja. *Jurnal Bintang Pendidikan Indonesia*, 2(3), 158–166. <https://doi.org/10.55606/jubpi.v2i3.3076>
- H. Soro, S., Handayani, S., Ahmad, S., Septiyani, T., Jalaluddin Efektivitas Penjaminan Mutu Pendidikan Di SMK Guna Dharma Nusantara, M. S., Jalaluddin, M. S., Nusantara, I., Al-Falah

- Cicalengka, S., & Kementrian Agama Kota Jakarta Selatan, K. (2023). Efektivitas Penjaminan Mutu Pendidikan Di SMK Guna Dharma Nusantara. *Journal For Islamic Studies*, 6(1), 425–443. <https://doi.org/10.31943/afkarjournal.v6i1.585>.
- Handayani, L., Juwita, J., Afriansyah, A., & Sariakin, S. (2024). Peningkatan Mutu Pendidikan Melalui Implementasi Sistem Penjaminan Mutu Pendidikan di SMP Negeri 5 Meureubo Aceh Barat. *Ranah Research: Journal of Multidisciplinary Research and Development*, 6(5), 2135–2144. <https://doi.org/10.38035/rrj.v6i5.1066>
- Hanim, Z., Januar, S., Priyandono, L., Poernomo, S. A., Ping, T., Heriman, & Rohana. (2022). Manajemen Pendidikan Berbasis Sistem Penjaminan Mutu Internal di SMK Negeri 9 Samarinda : Diseminasi dan PkM. *Communio: Jurnal Pengabdian Kepada Masyarakat*, 1(1), 1–6.
- Harahap, M. S., Gultom, S., . D., . R., & Fithriyah, N. H. (2023). Kajian Implementasi Spmi (Sistem Penjaminan Mutu Internal) Sekolah Dan Perguruan Tinggi Di Indonesia. *Jurnal Education and Development*, 11(1), 447–480. <https://doi.org/10.37081/ed.v11i1.4616>
- Herawan, E., Kurniady, D. A., & Sururi. (2014). Development of Education Quality Management Model at Vocational Schools in Bandung. *Jurnal Penelitian Pendidikan UPI*, 14(2), 199–208.
- Ima Rahmawati, Hana Lerstari, M. J. (2024). Analisis Implementasi Sistem Penjaminan Mutu Internal Dalam Meningkatkan Mutu Pendidikan. *EMRR Journal*.
- Kemendikbud. (2018a). *Standar Biaya Operasi.pdf*.
- Kemendikbud. (2018b). *Standar Isi.pdf*.
- Kemendikbud. (2018c). *Standar Pendidik dan Tenaga kependidikan*.
- Kemendikbud. (2018d). *Standar Pengelolaan*.
- Kemendikbud. (2018e). *Standar Penilaian Pendidikan.pdf*.
- Kemendikbud. (2018f). *Standar Sarana dan Prasarana.pdf*.
- Kemendikbud. (2018g). *Standart Kompetensi Lulusan* (pp. 1–5).
- Kemendikbud. (2018h). *Standart Proses Pembelajaran*. 33.
- Kemendikbud. (2023a). *DATA TRACER Satuan Pendidikan SMKN Tambakboyo*. <https://tracervokasi.kemdikbud.go.id/satpen/umpanbalik>
- Kemendikbud. (2023b). *Keterserapan Lulusan SMK*. <https://tracervokasi.kemdikbud.go.id/>
- Kemendikbud. (2024). *Raport Pendidikan SMKN Tambakboyo*. <https://raporpendidikan.kemdikbud.go.id/download-report>
- Lianda Sondey, Hizkia Kamang Manggopa, R. O. (2024). Analisis Penjaminan Mutu Di Smk Negeri 1 Tombariri. *EduTIK: Jurnal Pendidikan Teknologi Informasi Dan Komunikasi*, 2(5), 773.
- M. Ridwan, C. D. Y. (2024). *Urgensi Sistem Penjaminan Mutu Internal Terhadap Peningkatan Mutu Sekolah*. 09, 3746–3756.
- Meirani, R. K., Sobri, A. Y., & Sunarni, S. (2022). Analisis Permasalahan Pelaksanaan Sistem Penjaminan Mutu Internal (Studi Kasus di SMK Cor Jesu Malang). *Kelola: Jurnal Manajemen Pendidikan*, 9(2), 203–211. <https://doi.org/10.24246/j.jk.2022.v9.i2.p203-211>
- Meirani, R. K., Supriyanto, A., & Imron, A. (2023). Implementasi Total Quality Management melalui Penjaminan Mutu dan Pelibatan Stakeholder dalam Penyusunan Kurikulum SMK PK. *Kelola: Jurnal Manajemen Pendidikan*, 10(2), 115–131. <https://doi.org/10.24246/j.jk.2023.v10.i2.p115-131>
- Mubarak, A. W., Imanika, M. S., & Prasetya, G. (2024). Efektivitas Manajemen Penjaminan Mutu Pendidikan di SMK Bakti Karya. *J-STAF: Siddiq, Tabligh, Amanah, Fathonah*, 3(2), 398–405. <https://doi.org/10.62515/staf.v4i2.542>
- Muhamad Khoirur Roziqin, I. R. (2024). Implementasi Sistem Manajemen Mutu ISO 9001:2015 Pada Kualitas Tenaga Pendidik di SMK PGRI 1 Jombang. *Eduscope: Jurnal Pendidikan, Pembelajaran, Dan Teknologi*, 9(2), 76–86. <https://doi.org/10.32764/eduscope.v9i2.4551>
- Mulawarman, W. G. (2024). *Analisis implementasi manajemen Kurikulum Merdeka dalam meningkatkan*

- mutu pendidikan SMK Pusat Keunggulan*. 4(2), 123–134.
- Nisa, Z. S., & Karwanto. (2023). Implementasi sistem manajemen mutu ISO 9001 : 2015 di SMK Negeri 1 Surabaya. *Jurnal Mahasiswa*, 11(1), 119–125.
- Novitanti, & Situmorang, I. R. (2023). Analisis Penjaminan Mutu pada Pendidikan Sekolah Menengah Kejuruan: Sebuah Tinjauan Singkat. *Journal of Information Systems and Management (JISMA)*, 2(3), 71–79. <https://jisma.org/index.php/jisma/article/view/391>
- Nugroho, P., & Miyono, N. (2024). Dampak Strategi Pelaksanaan Sistem Penjaminan Mutu Eksternal terhadap Kualitas Pendidikan di SMK Negeri Bansari. 5(2), 391–398. <https://doi.org/10.51874/jips.v5i2.243>
- Nur Inda Sari, T. H. (2024). Analisis Pengelolaan Mutu Pendidikan Di Smk Darussalam Subah. 4(2), 1–23.
- Prasetya, G. A., Imanika, M. S., & Mubarok, A. W. (2024). Peluncuran Program Penjaminan Mutu Pendidikan di SMK Bakti Karya Parigi. 1(1), 162–171.
- Sahroni, M. (2023). Transformasi Sistem Penjaminan Mutu Internal (SPMI) pada Sekolah Menengah Kejuruan (SMK). *MindSet: Jurnal Manajemen Pendidikan Islam*, 2(September), 75–85. <https://doi.org/10.58561/mindset.v2i2.100>
- Sari Warni Indah, Noor Miyono, T. H. (2024). Implementasi Sistem Penjaminan Mutu Internal Berbasis Evaluasi Diri Sekolah (Eds) Di Sekolah Menengah Kejuruan Negeri 2 Demak. 13(2), 261–268.
- Sugesti, T. (2023). Management of the Internal Quality Assurance System (SPMI) for Higher Education. *Holistic Science*, 3(3), 146–151. <https://doi.org/10.30596/jcositte.v1i1.xxxx>
- Valianto, B., Tanjung, A. A., Luthan, P. L. A., Jasmani, J. P., Keolahragaan, F. I., Medan, U. N., Negeri, U., Pendidikan, J., Bangunan, T., Teknik, F., Medan, U. N., & Pendidikan, M. (2024). Edukasi Sistem Penjaminan Mutu Internal di SMK Swasta Pab-8 Sampali. 1(4), 314–320.
- Zahrok, A. L. N. (2020). Implementasi sistem penjaminan mutu internal di Sekolah Menengah Kejuruan (SMK). *Jurnal Akuntabilitas Manajemen Pendidikan*, 8(2), 196–204. <https://doi.org/10.21831/jamp.v8i2.31288>