



Hybrid Quality Management Model in Vocational Education: Strengthening National Standards with International Principles

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Article Information:

Received February 8, 2026

Revised March 22, 2026

Accepted April 21, 2026

Keywords: *Hybrid quality management, vocational education, integration of quality standards, national education standards, principles of ISO 9001:2015*

Abstract

As the demands of vocational education globalization and the international industry's need for competitive graduates continue to rise, the independent implementation of National Education Standards is deemed insufficient to fully ensure adaptive and sustainable quality management, particularly in vocational high schools operating as Regional Public Service Agencies. This study aims to critically examine and evaluate the implementation of the Hybrid Quality Management Model as an integrated approach that combines National Education Standards with international quality management principles based on ISO 9001:2015 in the quality management of vocational education at vocational high schools. Using a qualitative approach with a case study design, this research collected data from key informants, including school principals, quality assurance teams, teachers, Regional Public Service Agency administrators, and industry partners through in-depth interviews, observation of quality assurance processes, and analysis of official documents, with data validity ensured through triangulation and thematic analysis. The research findings reveal the existence of two distinct quality assurance practices: compliance with National Education Standards, which focuses on administrative compliance, and process-based quality management aligned with ISO 9001:2015, as evidenced by the implementation of standard operating procedures, ongoing internal audits, and corrective action mechanisms. This study contributes novelty to the literature on educational quality management by proposing the Hybrid Quality Management Model as a new conceptual approach that systematically positions international quality management principles as structural reinforcements of the National Education Standards, rather than merely as supplements or parallel systems.

How to cite:

Monica, S. Q., Aimah, S. (2026). Hybrid Quality Management Model in Vocational Education: Strengthening National Standards with International Principles. *International Journal of Multidisciplinary of Higher Education (IJMURHICA)*, 9(2), 354-369.

E-ISSN:

2622-741x

Published by:

Islamic Studies and Development Center Universitas Negeri Padang

INTRODUCTION

Improving the quality of education is a top priority both globally and domestically, including in Indonesia (Musfah, 2023). In this context, vocational high schools play a strategic role in preparing competent, work-ready human resources who are responsive to the evolving needs of the global market (Gunherani, 2023; Hidayah, 2023). Vocational high schools are not only required to produce graduates who meet academic qualifications but are also capable of adapting to technological advancements, industry standards, and cross-border labor competition. In line with this, the internationalization of vocational education requires a process of transferring and adapting global standards not through direct adoption, but through contextual integration with local regulatory systems, governance, and institutional culture (Li & Pilz, 2023). Therefore, vocational high schools are educational institutions that occupy a crucial position in sustainably bridging the worlds of education and work. This position places vocational high schools between compliance with domestic regulations and efforts to become competitive at the global level (Madihah & Cahyanto, 2024).

In light of these demands, vocational high schools are faced with the obligation to meet National Education Standards as a form of compliance with national regulations, while also adapting to global quality standards and industry needs. This situation places vocational high schools in a dilemma between administrative compliance with national policies and efforts to enhance the international competitiveness of graduates (Madihah & Cahyanto, 2024). An imbalance in addressing these two demands has the potential to cause vocational high schools to become trapped in the fulfillment of formal national standards without a corresponding substantive improvement in quality relevant to the needs of the global workforce (Rahmawati, 2024).

In their operations, vocational high schools are required to meet National Education Standards as a form of compliance with government policy. On the other hand, vocational high schools also face demands to enhance the competitiveness of their graduates so they can adapt to the needs of the global industry. This situation often creates tension between meeting administrative requirements and substantive quality improvements, resulting in graduate quality that does not yet fully reflect the needs of the workforce (Madihah & Cahyanto, 2024). The effectiveness of vocational schools is determined not only by academic achievements but also by the quality of governance and the institution's ability to conduct continuous institutional benchmarking (Anggung et al., 2023). This underscores that institutional benchmarking practices are a crucial strategy for enhancing the management effectiveness of vocational high schools, particularly in data-driven decision-making and organizational performance improvement.

Educational quality management is an approach that emphasizes continuous improvement through the involvement of all school stakeholders and the systematic management of processes. The principles of quality management, such as a focus on stakeholder satisfaction and the cycle of continuous improvement, serve as a crucial foundation for enhancing the quality of education. However, the implementation of international quality standards such as ISO 9001:2015 in vocational high schools still faces various obstacles, particularly regarding alignment with the national education system and the characteristics of school governance (Jannah et al., 2024), including vocational high schools operating under the Regional Public Institution model (Thohir, 2020).

In practice, quality management in vocational education institutions often faces difficulties in determining and implementing the appropriate quality standards framework. Conventional approaches focused on meeting National Education Standards and accreditation do provide institutional legitimacy, but are often insufficient to address increasingly complex global skill requirements. Meanwhile, the application of international standards such as ISO 9001:2015 in the vocational education environment often faces obstacles because they are not yet fully aligned with the national education system and the institutional context of schools, including Vocational High Schools that have implemented the Regional Public Service Agency governance model (Thohir, 2020).

Inconsistencies in quality management directly impact the quality of graduates and the employment rate of vocational education graduates (Hidayah, 2023). Today's industries require a workforce that not only meets national standards but also possesses specific skills and globally recognized certifications. In the context of vocational high schools under the Regional Public Agency, which are required to be more adaptive and professional, the need for a quality management model capable of bridging national standards and global demands is becoming increasingly relevant. If these two standards fail to be synergized, the gap between the competencies of vocational high school graduates and the expectations of the job market will widen further.

Given these circumstances, a managerial approach is needed that can adaptively and systematically integrate compliance with National Education Standards with international quality principles. This study is driven by the need for schools to achieve global quality standards without neglecting national regulatory obligations. Therefore, this study aims to analyze the Hybrid Quality Management Model as an integrated approach that combines National Education Standards with international quality principles, specifically ISO 9001:2015, as a conceptual framework for managing the quality of vocational education.

Previous studies have shown that the disconnect between National Education Standards and international quality standards results in a mismatch between graduates' competencies and the needs of the global industry (Hidayah, 2023). However, prior research has generally treated these two standards as parallel systems without a clear integrative framework. Based on this gap, this study poses the question: how can a hybrid quality management model structurally integrate National Education Standards and international quality principles into the governance of Regional Public Service Vocational High Schools? The findings of this study have implications for strengthening the literature on educational quality management as well as practices to enhance the competitiveness of vocational graduates.

METHODS

This study employed a qualitative approach using a case study design (an in-depth study of a single case), with instruments including a semi-structured interview guide, a quality assurance process observation sheet, and a document review checklist (Akem et al., 2025; Aryasutha et al., 2025; Busral et al., 2025; Engkizar et al., 2018; 2023; 2025; Febriani et al., 2023; Iskandar et al., 2023; Kassymova et al., 2025; Oktavia et al., 2023; Rahman et al., 2018). Data were analyzed using a thematic analysis framework aided by a categorization matrix to identify patterns of integration between the National Education Standards and international quality management principles. Data analysis was conducted through iterative stages of data reduction, open coding, categorization, and

drawing conclusions. We chose this method because the objective was to understand in detail how the National Education Standards and international quality management principles referencing ISO are adapted and integrated into the school's quality assurance system. State Vocational High School 1 Banyuwangi was specifically (purposively) selected as the study site because this school has a well-established quality assurance system and a documented history of quality management, making it relevant for observing the dynamics of implementing the Hybrid Quality Management Model within the governance context of State Vocational High School 1 Banyuwangi, a Regional Public Institution.

The research subjects were key individuals directly involved in quality assurance at the school, selected through purposive sampling. They included the principal, vice principals in charge of the curriculum, members of the Quality Assurance Team, teachers, department heads, administrative staff, and personnel involved in the school's internal quality audit. Data collection was conducted using triangulation techniques to ensure the data obtained was comprehensive and reliable. We used in-depth interviews to gather information from the subjects, direct observation of internal quality assurance activities such as the implementation of Standard Operating Procedures and school quality evaluation activities as well as analysis of official school documents, including internal quality assurance documents, quality reports/EDS, and various operational procedures developed in accordance with international quality management principles.

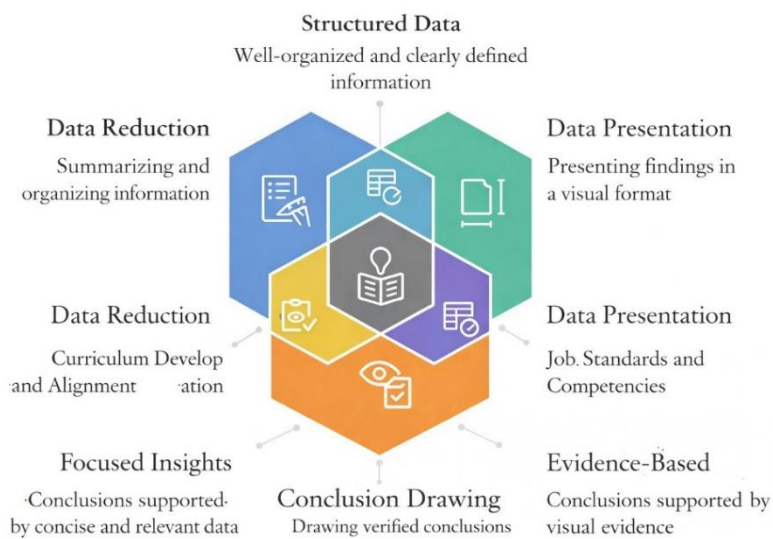


Fig 1. Strengths of the Integrated Data Analysis Model

Data analysis was conducted in stages using the Miles, Huberman, and Saldaña model. The process involves three main steps: summarizing the data (data reduction), which involves selecting and organizing key information from the outset; presenting the data, which involves compiling findings in the form of narratives and tables that illustrate the relationship between the National Education Standards and international quality management principles; and drawing conclusions that are repeatedly verified to ensure accuracy. Data validity (credibility) was rigorously tested through various methods, including comparing data from multiple sources and techniques (triangulation). All stages of this research aimed to produce the final formulation of the Hybrid model.

RESULT AND DISCUSSION

Dualism in the Quality Documentation System

A dualism or two parallel quality documentation systems was found to be in operation at State Vocational High School 1 Banyuwangi. On one hand, there are quality documents oriented toward meeting National Education Standards for accreditation purposes and reporting to relevant agencies; on the other hand, there is a set of documents and Standard Operating Procedures (SOPs) based on international quality management principles referencing ISO 9001:2015 and industry standard criteria. This dualism often leads to redundancy (duplication) of work at the administrative staff and teacher levels because they must fill out different report formats with similar substance, thereby increasing the high administrative workload, even though the aim is to ensure dual compliance (Rahmawati, 2024). The findings of this study reinforce the results of previous studies confirming that the implementation of ISO 9001:2015 in vocational high schools not only improves school managerial performance but also strengthens the consistency of processes and accountability in vocational education quality assurance.

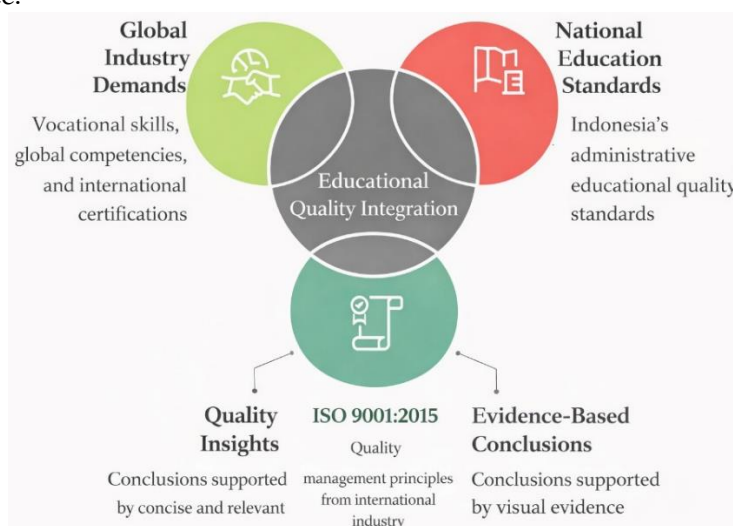


Fig. 2. Framework for Integrating Educational Quality at Vocational High Schools in Indonesia

The figure represents an educational quality framework relevant to the conditions at State Vocational High School 1 Banyuwangi, where the integration of educational quality is a key element in the delivery of vocational education. At State Vocational High School 1 Banyuwangi, the implementation of National Education Standards has become the foundation for school management, particularly in the development of vocational curricula, the implementation of competency-based learning, and the evaluation of student learning outcomes (Badrudin et al., 2024). However, challenges remain in aligning these standards with the needs of the ever-evolving industrial world (Savitri, 2019).

Additionally, internal quality standards at a vocational school in Indonesia play a crucial role in fostering a culture of quality, including through instructional supervision, teacher performance evaluations, and ensuring the quality of graduates. On the other hand, human resources and infrastructure are critical to the success of vocational education, given that vocational schools require competent, productive teachers as well as adequate practical facilities aligned with industry standards (Istiyana, 2019). Therefore, the integration of these three components, as illustrated in the figure, serves as a key strategy to enhance graduate quality, ensuring they are work-ready and competitive.

To address the high administrative workload resulting from this dualism,

some vocational schools in Indonesia have begun to identify areas of overlap between quality documents based on the National Education Standards and internal quality documents developed according to international quality management principles. A comparative analysis shows that many quality requirements have the same substance, even though their names differ (Sekartadji et al., 2025). The main differences lie in the focus and verification mechanisms. National Education Standards place greater emphasis on meeting educational inputs and outputs in accordance with government regulations, while the principles of ISO 9001:2015 emphasize a process-oriented approach, consistency in the implementation of SOPs, and the satisfaction of stakeholders such as students and the industry (Masriah, 2015).

Efforts to harmonize quality documents have begun through cross-mapping to identify substantive similarities between the indicators of the National Education Standards and the requirements of ISO 9001:2015. Analysis shows that most documents considered different actually differ only in format, while their essence is identical. To highlight the points of difference as well as the potential for alignment, the following table compares the National Education Standards and ISO 9001:2015 as two quality systems that have been operating in parallel at State Vocational High School 1 Banyuwangi.

Table 1. Comparison of National Education Standards and ISO 9001:2015 in School Quality Management

Aspect	National Education Standards	ISO 9001:2015
Main Focus	Compliance with national regulations and the eight education standards	Strengthening process effectiveness and customer satisfaction
Quality Approach	Compliance-based, emphasizing physical evidence and administrative standards	Process approach, risk-based thinking, and continuous improvement
Type of Documents	Learning process plans, class journals, monitoring instruments, work programs, accreditation evidence	SOP, WI, risk register, corrective action record, audit report.
Evaluation Orientation	Input–process–output in accordance with government standards	Process traceability and SOP effectiveness
Document Characteristics	Normative and administrative	Concise, contextual, and process-focused
Responsible Parties	School principal, vice principal for curriculum, accreditation team	Quality Assurance Unit/Quality Management Unit (UPM/UJMI), internal auditors, top management
Critical Points	Duplication of physical evidence, high administrative burden	Demands for documentation consistency and regular audits
Integration Potential	Learning indicators can be integrated with ISO process records	ISO SOPs can serve as operational standards for National Education Standards

The table reinforces the finding that the two standards can indeed be integrated because they share many substantive overlaps, even though their terminology and document formats differ. In the context of State Vocational High School 1 Banyuwangi, this table helps the quality assurance team identify areas that can be combined, such as learning documents that can integrate evidence from the National Education Standards and records of internal quality processes that adopt a process-based approach as in ISO 9001:2015 (Ekowati et al., 2025). This aligns with research findings (Wismayanti et al., 2025) confirming that the integration of cross-standard quality documents can reduce administrative burdens while enhancing the effectiveness of internal audits (Bassam & Abou, 2017).

The integration of the National Education Standards and ISO 9001:2015 is further supported by empirical findings indicating that the adoption of international quality management principles in vocational education can enhance process consistency, educational service performance, and the organization's quality culture (Tambun, 2025). These principles do not replace the National Education Standards but serve to reinforce the school's internal quality assurance system. The research findings confirm that international standards do not replace national standards but complement them by strengthening documentation, internal audits, and process control mechanisms. Furthermore, recent studies also indicate that internal quality assurance systems in vocational high schools will be more effective when national indicators are integrated with a systematic quality control model as applied in ISO 9001 (Jannah et al., 2024). Thus, the implementation of a hybrid quality management model in the context of State Vocational High School 1 Banyuwangi has a strong and relevant empirical basis for improving accountability and the effectiveness of school quality management.

Enriched National Core Curriculum with International Modules

The curriculum integration model in this school does not take the form of a completely new curriculum, but rather an enriched national core curriculum. The core competencies mandated by the Ministry of Education and Culture remain the primary foundation, but the school strategically incorporates additional skill modules adopted from global industry competency standards or international certifications (Gustiawan et al., 2025). This integration focuses on practical elements and assessment (Janna et al., 2024), while theory follows national standards; practical skills and soft skills are assessed using rubrics aligned with the demands of the global job market (Suparyati & Habsya, 2024), ensuring graduates possess comprehensive competitiveness. In the context of State Vocational High School 1 Banyuwangi as a vocational high school, this enrichment is made possible by the flexibility of program management and more adaptive industry partnerships (Muslikhah & Yuliana, 2025).

Implementing this enriched curriculum requires significant flexibility in time allocation. Schools use the effective time allocated for co-curricular activities and personal development to incorporate these international modules, thereby avoiding disruption to required core class hours. This approach is known as the add-on model, in which international standards are added to the national curriculum without altering its underlying structure. These modules are often taught by teachers who already hold industry certifications or, in certain cases, by guest instructors from partner companies (Rosba et al., 2025).

However, the implementation of the enriched curriculum faces a major challenge: the readiness and competence of teachers to teach rapidly changing, technology-driven standards. National curriculum standards have a relatively slow cycle of change, while international competency standards and industrial

technologies can change drastically within 1–2 years. To address this, schools implement a periodic teacher re-certification program every two years in collaboration with professional certification bodies (LSPs) and industry partners, ensuring that teachers’ pedagogical and technical skills remain aligned with global developments as part of an internal capacity-building strategy within the Hybrid Quality Management model (Siswandari & Susilaningsih, 2013). Additionally, the costs associated with obtaining licenses for materials, tools, and international certifications often pose financial barriers, which are addressed through a cost-sharing scheme involving the school committee and funds from the Affirmative School Operational Assistance (BOS) program, specifically allocated for vocational quality improvement (Ariani et al., 2025). The results of this enriched curriculum approach indicate a significant increase in the rate of graduate absorption by industry, particularly in multinational companies that demand specific competency standards.

In addition to teacher readiness, another challenge stems from funding. Procuring licenses for international materials, technology-based practical tools, and global certification fees requires a significant budget. In this context, the implementation of a financial management model based on the Regional Public Service Agency provides schools with the flexibility to manage and diversify funding sources in a more adaptive manner (Dokumen & Penerapan, 2024). Schools then implement a joint financing scheme through collaboration with the school committee, the Affirmative School Operational Assistance fund, and support from partner companies that have CSR programs in the field of vocational education. This strategy enables schools to ensure the sustainability of implementing international modules without burdening students (Anisimova, 2021).

The impact of implementing an enriched curriculum is evident in the increased employment rate of graduates, particularly at multinational companies and industrial institutions that require specific competencies aligned with global standards. Additionally, students demonstrate improvements in digital literacy, professional communication skills, and readiness for international competency certification. These findings confirm that a curriculum enriched based on global standards not only enhances the relevance of vocational education but also strengthens graduates’ competitiveness at both the national and international levels (Kaleja & Egetenmeyer, 2017).

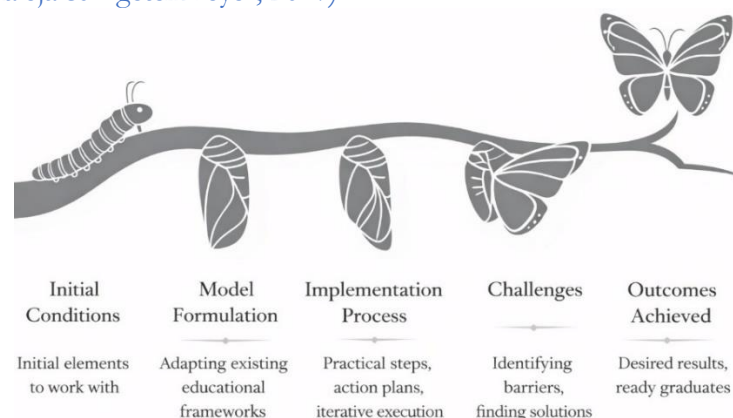


Fig 3. Flow Diagram of the National Core Curriculum Model Enriched with International Modules

The image illustrates the implementation process of an enriched curriculum using the metaphor of a butterfly’s metamorphosis to depict the gradual changes in curriculum development. In the initial stage, the caterpillar figure represents the National Core Curriculum, which serves as the foundation

for learning in schools. The next phase is marked by the emergence of the first cocoon, representing the addition of modules the process by which schools begin to incorporate international modules into the existing curriculum. The subsequent cocoon illustrates the Implementation Phase, which includes teacher training, the development of materials aligned with global standards, and the adaptation of assessment tools. Following this, the nearly open cocoon depicts Various Challenges, including budget constraints, teachers' readiness to meet new standards, and the need to adapt the school's work culture. The final stage is visualized through a fully formed butterfly, symbolizing Graduate Outcomes: students possessing global competencies, strong digital literacy, and critical thinking skills. Overall, this illustration demonstrates that curriculum enrichment is a multi-stage process requiring institutional readiness before producing graduates who are competitive at the international level.

Adaptive Leadership as the Key to Integration

Adaptive leadership has been a key factor in successfully integrating the National Education Standards with international quality management principles at State Vocational High School 1 Banyuwangi. In practice, this leadership enables the principal to translate various external changes from global industrial developments to international certification requirements into responsive and flexible internal policies (Norman & Pahlawati, 2024). Through this approach, the principal acts as a mediator bridging two primary interests: meeting national regulations and adopting international quality management practices, such as ISO standards, global industry competencies, and professional certification-based modules relevant to the vocational education context.

This relevance is clearly evident at State Vocational High School 1 Banyuwangi. School leaders facilitate collaboration with industry through strategic communication, market-driven curriculum updates, and flexible scheduling arrangements that allow teachers to participate in industry training and certification programs. In the context of Regional Public Service Agency vocational high schools, flexibility in resource management allows school leaders to manage schedules, partnerships, and teacher capacity building in a more adaptive manner. Adaptive leadership is also evident in the school's ability to manage internal resistance, particularly when some teachers struggle to adapt to international standards that are more dynamic than national regulations (Hanafiah et al., 2023). Coaching approaches, academic mentoring, and tiered capacity-building programs serve as strategies to maintain a progressive work culture.

Furthermore, adaptive leadership enables the integration of systems to proceed harmoniously without creating dualism. School leaders consolidated the curriculum team, the internal quality assurance team, and the industry working group which had previously operated separately into an integrated coordination mechanism based on continuous monitoring. This demonstrates that the success of the hybrid quality management model relies not only on documents and procedures but also on the school leader's capacity to orchestrate change, unify perspectives, and ensure quality execution proceeds in harmony (Said, 2018). Thus, adaptive leadership becomes a key prerequisite for bridging national and international standards to improve the quality of vocational education at State Vocational High School 1 Banyuwangi.

Resistance to Implementation During the Internal Assessment Phase

Resistance still arises during the internal assessment phase as schools begin to integrate national standards with international quality principles. Some teachers and quality assurance teams view this process as a routine administrative activity, so changes to more analytical evaluation instruments have not yet been

fully accepted. This situation is evident in the lack of alignment between evaluation indicators and process-oriented and continuous quality approaches, as well as the tendency for self-evaluation reports to be descriptive in nature. This phenomenon aligns with the view that changes in assessment systems often provoke resistance when evaluative capacity has not developed evenly (Heck & Hallinger, 2010), so the success of the hybrid management model requires an improvement in quality analysis capabilities at the implementation level. The findings of this study align with the results of a study (Arifin et al., 2022) indicating that the performance of internal quality assurance is a key factor in ensuring vocational schools' readiness to conduct continuous self-evaluation. Systematically implemented quality assurance enables schools to identify weaknesses, formulate improvements, and maintain the consistency of vocational education quality.

This resistance is also influenced by a work culture that remains focused on document compliance rather than on substantive measurement of quality outcomes. In some areas, teachers tend to revert to old evaluation formats that they perceive as easier and more familiar, resulting in internal assessment instruments designed based on international quality approaches not being utilized to their full potential. This pattern indicates that transforming the assessment system requires a shift in organizational mindset, not merely document updates. Change management literature explains that adaptation to new instruments typically proceeds slowly when organizations lack robust mentoring and monitoring systems (Ariani et al., 2025). In the context of vocational schools, this situation points to the need to strengthen evaluative capacity and foster reflective practices so that internal assessment truly functions as a tool for quality improvement, rather than merely a matter of administrative compliance (Kotter, 2007).

In Banyuwangi, the transformation of the assessment and quality management systems in vocational schools also faces real challenges. For example, several schools in Banyuwangi Regency have switched to an online examination system as part of efforts to modernize and adapt to the changing times (Nurryna et al., 2024). This policy indicates that schools, including those at the vocational high school level, are attempting to address the need for transparency and efficiency in assessment. However, this change does not automatically guarantee that the implementation of the internal quality assurance system will run optimally if it is not accompanied by the strengthening of evaluative capacity and the commitment of all stakeholders, as found in the literature that many vocational high schools in Indonesia have not implemented the system in an integrated, sustainable manner, and with the commitment of all stakeholders.



Fig 4. In-House Training as a Strategy for Enhancing Teacher Competence and Improving Educational Quality

At State Vocational High School 1 Banyuwangi, located in your local area, there are various digital initiatives and innovations, such as learning support programs and teaching modules delivered through in-house training (IHT). However, these initiatives are insufficient without a thriving culture of quality, a shared understanding of the role of internal assessment, and the commitment of all school stakeholders. Resistance or half-hearted implementation remains a significant risk. Research at other high schools indicates that if internal quality assurance is carried out merely as an administrative formality without synchronization between inputs, processes, and evaluation, the results often fail to demonstrate significant impact (Nurryna et al., 2024).

Thus, these findings confirm that transforming the internal evaluation system within the Hybrid Quality Management Model requires human resource readiness, a school culture that supports reflection and continuous improvement, and consistent managerial commitment. Without these three aspects, changes risk remaining at the administrative level and failing to yield substantive quality improvements.

Strategic Partnerships with International Industry as a Source of Quality Validation

Strategic partnerships with international industry play a crucial role as a quality validation mechanism in vocational schools, particularly when schools integrate national standards with global competency requirements and workplace practices. The direct involvement of international industry in curriculum enrichment, skills assessment, and competency certification enables schools to obtain objective feedback regarding the alignment of graduates with global market needs. This practice aligns with research indicating that school-industry collaboration strengthens the relevance of students' competencies and enhances educational quality accountability (Hoeckel et al., 2009). Connections with international industry networks have also been shown to accelerate the adoption of international work standards, a factor influencing the enhancement of graduates' competitiveness (Bosch & Charest, 2009). Furthermore, external validation by the global industry adds legitimacy to the school's implementation of a hybrid quality management model, as the literature confirms that international partnerships contribute to the systemic improvement of vocational education systems (Upadhayay & Vrat, 2016).

International industry engagement not only strengthens curriculum quality but also facilitates a benchmarking process that helps schools validate standards for processes, learning outcomes, and student competencies. When schools gain access to global standards and best practices, internal quality assurance becomes more accurate because it is supported by internationally validated external indicators. Research indicates that cross-national partnerships facilitate the transfer of technology and knowledge, which directly impacts the improvement of vocational students' competencies (Li & Pilz, 2023). This external validation also serves as a crucial benchmark for assessing whether learning processes align with the needs of the dynamic modern industry (Bosch & Charest, 2009). Furthermore, strengthening international relationships has been shown to enhance institutional credibility and accelerate adaptation to global changes in vocational education, thereby making the hybrid quality management model increasingly effective and measurable.

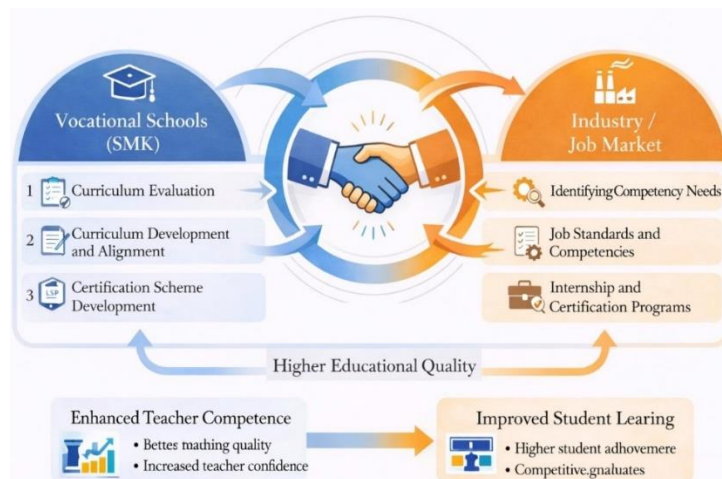


Fig 5. Conceptual Framework of Curriculum Synchronization between Vocational Education and Industry

The strategic partnership between State Vocational High School 1 Banyuwangi and industry serves as a source of external quality validation that reinforces the relevance of graduates' competencies. Based on the school's official documentation, the Link and Supermatch activities were implemented as a form of curriculum and LSP scheme synchronization with the needs of the workforce, ensuring that competency standards not only align with National Education Standards but also rely on current industry standards, thereby providing stronger quality assurance for vocational school graduates. This program aligns with literature findings indicating that school-industry collaboration can enhance the alignment of competencies and the competitiveness of graduates in the job market (Omar & Kamaruzaman, 2024). Furthermore, this integration model aligns with the industry-driven vocational education approach, which emphasizes that the validation of student competencies must involve industry stakeholders as legitimate external evaluators (Hoelscher et al., 2009).

The impact of this strategic partnership is evident in the increased employment rate of vocational school graduates in Banyuwangi. According to local reports, 75% of graduates from State Vocational High School 1 Banyuwangi have successfully entered the workforce due to strong industry networks and the utilization of the Regional Public Service Agency scheme as a means of improving quality and marketing student products. This demonstrates that industry partnerships serve as a mechanism for external quality validation that strengthens the implementation of hybrid quality management in schools, while ensuring that graduates' competencies align with industry needs and remain relevant to evolving labor market trends.

CONCLUSION

This study concludes that the implementation of the Hybrid Quality Management Model in the context of vocational education demonstrates significant potential for integrating National Education Standards with international quality management principles based on ISO 9001:2015. This model contributes to improving the consistency of the quality assurance system, aligning academic processes with industry needs, and strengthening a culture of quality at the school level. These findings indicate that a hybrid quality management approach can serve as a strategic alternative for vocational schools in addressing the demands of educational globalization and international industry standards. Furthermore, further research is recommended to test the effectiveness of this model in various different

vocational school contexts, as well as to develop quantitative indicators to measure the impact of the model's implementation more comprehensively. Additionally, enriching the national core curriculum with international modules relevant to global industry needs has proven to enhance the relevance of graduates' competencies. The success of implementation is also supported by adaptive leadership that acts as a bridge integrating national policies and global quality practices, as well as strategic partnerships with international industries as a source of external quality validation. Overall, this model makes a tangible contribution to building a culture of sustainable quality and enhancing the competitiveness of vocational education graduates.

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First publication right:

International Journal of Multidisciplinary of Higher Education (IJMURHICA)

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