



Administrative Management Strategy at SMK Timika City

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Abstract. Vocational education in Indonesia faces a serious challenge in the form of a gap between the competencies of Vocational High School (SMK) graduates and the evolving needs of the workforce. Timika City, despite having the largest number of vocational high schools (SMK) in Papua, has not yet fully demonstrated optimal educational management quality, particularly in the aspect of school administration. This condition has resulted in low effectiveness in data recording, documentation of industrial work practices, and reporting and evaluation of partnerships with the business and industrial world (DUDI). This study aims to explore and analyze administrative management strategies that can improve educational quality while strengthening the work readiness of vocational high school students in Timika City. The research method used is a descriptive qualitative approach with content analysis of secondary data, including government policy reports, educational statistics, and the latest scientific literature. The results show that weaknesses in the administrative system are one of the factors inhibiting the achievement of competitive vocational education quality. The implementation of management strategies based on Total Quality Management (TQM) principles, particularly through the Plan–Do–Check–Act (PDCA) cycle, data-driven decision-making, and the involvement of all school elements, has proven effective in increasing the efficiency and accountability of administrative services. The discussion also emphasized the importance of transformational leadership from school principals, developing the competencies of administrative staff, utilizing information technology in administrative systems, and strengthening strategic partnerships with the industrial and industrial sectors (DUDI). Therefore, it can be concluded that school administrative management is not merely a technical function, but rather a strategic component in building a vocational education ecosystem that is adaptive, relevant, and oriented to the needs of the workplace. This research recommends that school policymakers and local governments strengthen administrative governance systems to support educational quality and improve the job readiness of vocational high school graduates.

Keywords: Administrative Management, Vocational Education, Vocational High School (SMK), Total Quality Management (TQM), Work Readiness.

1. INTRODUCTION

Vocational education in Indonesia, especially in Vocational High Schools (SMK), has an important role in preparing the younger generation to enter the world of work. Vocational schools are expected to provide not only theoretical knowledge, but also practical skills that are relevant to the needs of the industry in preparing a ready-to-use workforce, especially in the era of globalization and rapidly changing technology. Globally, the vocational education system is faced with a **learning crisis**, which is a low quality of learning outcomes even though access to education has increased (Clarke, 2022; Pritchett & Viarengo, 2023), as well as the inequality between graduate competencies and the needs of the world of work (Utama et al., 2025; Yanti & Zahri, 2025). This inequality refers to the gap **between the** skills, knowledge, and attitudes (soft skills) possessed by education graduates, including vocational school graduates, with the **expectations or standards needed by the industrial world and the world of work**. In February 2025, Indonesia faces an increase in the number of open unemployed to 7.28 million people, as reported by the Central Statistics Agency (BPS). This

figure shows a growth of 1.11 percent or around 83 thousand people compared to the same period the previous year (Tempo, 2025). This shows that nationally employment challenges are still quite significant, including from the vocational graduate sector.

Table 1. Open Unemployment Rate in Indonesia

No	Province	Open Unemployment Rate (%)
1	Aceh	5,5
2	North Sumatra	5,05
3	West Sumatra	5,69
4	Riau	4,12
5	Jambi	4,48
6	South Sumatra	3,89
7	Bengkulu	3,24
8	Lampung	4,07
9	Bangka Belitung Archipelago	4,17
10	Riau Archipelago	6,89
11	Dki Jakarta	6,18
12	West Java	6,74
13	Central Java	4,33
14	Yogyakarta	3,18
15	East Java	3,61
16	Banten	6,64
17	Bali	1,58
18	NTB	3,22
19	NTT	3,23
20	West Kalimantan	4,23
21	Central Kalimantan	3,47
22	South Kalimantan	3,94
23	East Kalimantan	5,33
24	North Kalimantan	3,9
25	North Sulawesi	6,03
26	Central Sulawesi	3,02
27	South Sulawesi	4,96
28	Southeast Sulawesi	3,27
29	Gorontalo	3,12
30	West Sulawesi	3,17
31	Maluku	5,95
32	North Maluku	4,26
33	West Papua	4,21
34	Southwest Papua.	6,61
35	Papua	6,92
36	South Papua	4,9
37	Central Papua	3,55
38	Papua Mountains	1,68
	Indonesia	4.76

Source: BPS (2025)

From table 1. it can be seen that Central Papua Province, which is the location of Timika City, shows interesting characteristics in the dynamics of vocational education and employment. Based on data from BPS (2025), the open unemployment rate (TPT) in Central Papua in February 2025 was recorded at 3.55%. This figure is relatively lower than the average of TPT in other provinces in the Papua region, even below the national average (4.76). At first glance, this data gives an idea that the absorption of labor in Central Papua is quite good.

However, it is important to note that the low unemployment rate does not necessarily indicate optimal job readiness of education graduates, especially Vocational High School (SMK) graduates. Many of the vocational school graduates are absorbed into the informal sector or work in fields that are not in accordance with their competencies, so the effectiveness of vocational education in answering the needs of the world of work is still a big question mark (Maulida et al., 2025).

Timika City, as one of the developing regions, has great potential in the industrial sector, especially in the field of mining and natural resources. Therefore, it is important for vocational schools in these areas to adapt their curriculum and educational programs to the needs of the local job market. Vocational schools need to improve the quality of vocational education to encourage the quality of graduates while improving the work readiness of students in areas with economic dynamics based on natural resources and industrial projects.

Table 2. Number of Vocational High Schools in Papua

Province	Number of Vocational Schools (Public)	Number of Vocational Schools (Private)	Number of Vocational Schools (Public + Private)
West Papua	16	5	21
Southwest Papua	16	23	39
Papua	35	14	49
South Papua	21	4	25
Central Papua	17	37	54
Papua Mountains	12	10	22

Source: BPS (2025a)

Data from the Ministry of Education also noted that Central Papua has the highest number of vocational schools compared to all provinces in the Land of Papua, namely 54 vocational schools consisting of 17 public vocational schools and 37 private vocational schools. This number even exceeds Papua (49 vocational schools), Southwest Papua (39 vocational schools), and South Papua (25 vocational schools) (Table 2). The high number of vocational education institutions shows that Central Papua, especially Timika City as a center of industrial and government activities, is a magnet for the growth of vocational education. However, the existence of many educational institutions does not necessarily guarantee the quality of the educational output produced. In this context, one of the important aspects that is often overlooked is the school administrative governance system or administrative management. An unstructured administrative system, lack of order in recording student data, unclear reporting of the results of industrial work practices (Prakerin), and weak documentation of partnerships with the business world, are often obstacles in improving the quality of vocational education.

National data shows that only about 12% of vocational schools have a "good" quality index, while the other 88% are still below the minimum quality standards (Khurniawan, 2021). This low quality indicates the weak management of school operational management, including administration. In Timika, the gap between existing vocational school graduates and the need for local and national skilled workers is becoming increasingly real. Research by Afif & Suamong (2024) highlights the implementation of administrative management in schools, where planning, implementation, evaluation, and assignment according to expertise show an improvement in administrative services but does not examine the implications for the quality of vocational education. Meanwhile, for the quality of education more broadly, Robiyono et al. (2021) discussed the strategy of school principals to improve the quality of education in general in primary and secondary education, but without a specific focus on vocational school administration or its relation to student job readiness. This condition shows a clear **research gap**: there has been no research that explores **administrative management strategies in vocational schools**, especially in Timika City, as well as its impact on the **quality of education and work readiness of students** as a result of vocational education. This condition emphasizes the urgency of research on **administrative management strategies** in vocational schools, as an important part of the school management system that supports improving the quality of education and the relevance of learning outcomes to work needs.

By paying attention to these two data, it can be seen that Central Papua Province is in a strategic and crucial position. On the one hand, the high number of vocational schools provides great opportunities in producing competent and job-ready graduates. But on the other hand, if it is not supported by a reliable management system, including in the field of administration, then this potential can become an administrative burden that hinders the effectiveness of schools. Therefore, a planned and structured administrative management strategy is urgently needed to answer this challenge. Through good administrative management, schools can manage student data systematically, facilitate cooperation with the industrial world, and strengthen the reporting and monitoring system of student work readiness. This strategy will ultimately contribute to improving the quality of vocational education and strengthen the relevance of Timika City Vocational School graduates to the real needs of the world of work.

An effective administrative management strategy can include the application of Total Quality Management (TQM) principles, the development of cooperation with industry, the improvement of teacher competence, and the implementation of the school model as a learning organization. By implementing these strategies, it is hoped that vocational schools in Timika

City can improve the quality of education provided to students, as well as prepare them with the skills needed to compete in the world of work. **TQM** is an approach that focuses on continuous quality improvement through the involvement of all members of the organization. Key elements of TQM include strong leadership, top management commitment, customer focus, quality culture, communication, training, and education (Meirani & Intania, 2023). The implementation of TQM in vocational schools can improve the effectiveness of school management and ensure that graduates meet the needs of the industry (Khurniawan et al., 2021a).

This research is expected to make a **theoretical contribution** in enriching the literature on vocational education management, especially in the administrative aspect **as an integral part of the TQM (Total Quality Management) quality management system** in vocational schools. Practically, this study will provide **recommendations for administrative managerial strategies** that are applicable to school policy makers (principals, heads of administration), education offices, and partner industries, as a model for strengthening school administrative governance to improve the quality of education and strengthen students' readiness to face the world of work. Against this background, this study is intended to explore and analyze administrative management strategies that can be applied at SMK Timika City to improve the quality of education and job readiness of students, as well as provide relevant recommendations for the development of vocational education in the area.

2. THEORETICAL STUDIESS

The theoretical approach used refers to the concept of **Total Quality Management (TQM)** as the main foundation. TQM is a comprehensive management approach that emphasizes continuous quality improvement efforts in all aspects of the organization. This theory was first developed in the industrial sector by figures such as W. Edwards Deming, Joseph Juran, and Philip Crosby, but was later further developed in the world of education by Edward Sallis in 2014 (Alauddin & Yamada, 2022). Anwar (2020) stated that educational institutions, including schools, must be seen as service organizations that are tasked with providing quality services to their customers, namely students, parents, the community, and the world of work. Thus, every function within the school, including the administrative unit, has a strategic contribution in ensuring the quality of educational output and job readiness of graduates. According to Meirani & Intania (2023) **TQM** is an approach that focuses on continuous quality improvement through the involvement of all members of the organization.

The main concepts in TQM include several principles, including customer *focus*, *continuous improvement*, *total employee involvement*, *data-based decision-making*, and leadership that inspires a culture of quality (Tambare et al., 2021). In the context of vocational schools, these principles demand that administration is no longer positioned as a passive administrative function, but as part of a quality system that actively supports vocational education services. Focus on the customer implies that administrative services must answer the needs of students and the industry; continuous improvement can be implemented through the PDCA (*Plan–Do–Check–Act*) cycle; and data-driven decision-making requires an accurate recording and reporting system from the school administration unit (van Kemenade, 2020).

A number of previous studies also support the relevance of TQM in the context of vocational education. Research by Luthfia & Sumarto (2020) shows that the application of TQM principles in vocational high schools contributes directly to improving students' management efficiency and job readiness. This study used a qualitative method with in-depth interviews with education personnel, and found that the integration between quality management and school administration functions is key in the management of education based on industrial needs. Similar findings were put forward by Wismayanti et al. (2025), who emphasized that school administration has a central position in supporting the quality ecosystem through its role in providing accurate data, efficient services, and information management that supports transparency and institutional accountability. Based on this conceptual framework, the administrative management strategy at SMK Timika City needs to be studied as an integral part of efforts to improve the quality of education and achieve vocational goals, namely producing graduates who are not only academically competent, but also ready to enter the world of work. By using TQM as the basis for theoretical thinking, this study positions administration as one of the important pillars in building a responsive, adaptive, and quality-oriented vocational school.

3. RESEARCH METHODS

This research uses a descriptive qualitative approach with documentary *research* design and content analysis techniques. This design was chosen because it allows researchers to explore administrative management strategies through an in-depth understanding of textual data and relevant official documents in the context of vocational education at SMK Kota Timika (Creswell & Poth, 2016). Qualitative research allows researchers to understand phenomena in their natural context as well as emphasizes the importance of subjective

interpretations of data obtained in a contextual and reflective manner. The data sources in this study consist of 35 secondary documents, including: (1) official statistical data from BPS, and (2) 15 relevant scientific articles published in the period 2015–2025 and indexed in Scopus and DOAJ. All documents were selected using inclusion criteria based on topic relevance, topicality, and suitability of the local context.

The procedure for conducting research begins with the identification of problems and the formulation of the focus of the study. Furthermore, **secondary data collection** was carried out through systematic searches on trusted online sources, repositories of educational institutions, and databases of indexed scientific journals such as Scopus and DOAJ. The collected documents were then selected based on the criteria of relevance, content validity, and temporal suitability (2020–2024 data). The analysis technique used is *qualitative content analysis* based on the three-stage approach from Vaismoradi et al. (2013), namely:

- **Data Reduction:** Selecting information related to administrative strategies, education quality, and student job readiness. Unit of analysis in the form of a paragraph or thematic statement
- **Categorization and Coding:** Open coding is done manually to identify dominant patterns and themes. For example, the theme "*total quality management*" or "*administrative management*"
- **Thematic Interpretation:** The main themes are then analyzed interpretively to find the relationship between managerial strategies and graduates' work readiness achievements

To increase the credibility of the analysis results, *a source triangulation technique* was carried out through a comparison between BPS statistical data and academic publications. The findings are compiled in the form of a narrative that contains strategic patterns and managerial implications on the work readiness of vocational school graduates.

4. RESULTS AND DISCUSSION

Challenges in School Administration Governance

Based on the results of secondary data analysis and literature review conducted, it was found that administrative management strategies have a very strategic role in improving the quality of education and work readiness of students at SMK Timika City. Central Papua Province, where the research was conducted, was recorded to have an open unemployment rate of 3.55%, which is relatively lower than the national average. However, the low unemployment rate does not automatically reflect the high job readiness of vocational school graduates,

because many graduates actually work in the informal sector or fields that are not in accordance with their competencies. This shows that there is a gap between the results of vocational education and the real needs of the world of work. In addition, Central Papua also has the highest number of Vocational High Schools (SMK) compared to other provinces in the Land of Papua, which is 54 schools. The number of these educational institutions certainly provides opportunities to improve the quality and quantity of job-ready graduates. However, in terms of governance quality, it was found that most vocational schools do not have an orderly and professional administrative management system. The problems that arise include the lack of documentation of industrial work practice activities (Prakerin), weak student data recording, and the non-optimal management of partnerships with the business world and the industrial world (DUDI). These problems directly contribute to the low quality of education and the lack of linkages between graduates and the needs of the local workforce.

Answering these challenges, this study recommends an administrative management strategy based on the principle of Total Quality Management (TQM). In improving the quality of education and work readiness of students at SMK Kota Timika, an integrated administrative management strategy is needed that is adaptive to the dynamics of industrial needs and technological developments. This strategy includes the application of principles such as customer focus (students and the world of work), *continuous improvement*, and data-driven decision-making. TQM focuses on continuous quality improvement by involving all members of the organization. Key elements of TQM include strong leadership, top management commitment, focus on customers (in this case students and the industry), a culture of quality, open communication, and ongoing training and education (Khurniawan et al., 2021a; Meirani & Intania, 2023).

Application of Total Quality Management Principles (TQM)

The implementation of TQM principles in the field of administration can be carried out through the development of the PDCA cycle system, increasing the capacity of administrative human resources through training, and closer integration between schools and the industrial world (Khurniawan et al., 2021b). Through this approach, school administration services can become more efficient, transparent, and responsive to the needs of *stakeholders*. By strengthening structured and measurable administrative management, vocational schools in Timika City are expected to be able to improve the quality of vocational education processes and outputs. This strategy will support the realization of professional administrative services, productive partnerships with industry, and higher readiness of graduates to enter the workforce.

In the long term, this effort is expected to increase the competitiveness of vocational school graduates in Central Papua, as well as make a real contribution to the development of quality local human resources and relevant to the economic dynamics of the region based on natural resources and industrial projects.

Research by Afif & Suamong (2024) shows that the implementation of administrative management in madrasas has an influence on improving the quality of administrative services, especially through the assignment of staff according to their fields of expertise and periodic performance monitoring. However, the study did not examine the direct link between administrative management and the quality of vocational education or student job readiness. On the other hand, Robiyono et al. (2021) discuss the principal's strategy in improving the quality of education, but still focuses on general managerial aspects without reaching specific administrative units. In this context, research at SMK Kota Timika fills the research *gap* by underlining that the administrative system is not only a supporting administrative function, but a central element in shaping the school quality management system. Furthermore, studies by Luthfia & Sumarto (2020) and Wismayanti et al. (2025) confirm that the integration of *Total Quality Management (TQM)* principles in school governance contributes to increased efficiency, transparency, and accountability. These findings are in line with the recommendations in this study which emphasize the importance of collaboration between administration and other units in schools to create a sustainable quality ecosystem.

School–Industry Collaboration

The next strategy is to strengthen **partnerships with industry**. This collaboration is important to ensure that the curriculum and training are aligned with the needs of the job market. The partnership between vocational schools and the industrial world is one of the key strategies in bridging the gap between educational theory and actual work practice. This collaboration allows the school to develop a curriculum that is more adaptive and responsive to the development of job market needs, both in terms of technical competencies (hard skills) and non-technical (soft skills). Common forms of partnerships include **internship programs or industrial work practices (Prakerin)**, where students can directly engage in a real work environment during the study period. In addition, **the industry-based learning approach** allows subject matter to be developed together with industry players so that it is more contextual, relevant, and applicative. No less important, **experiential learning** such as field studies, real work projects, or practitioner involvement as guest lecturers, provides students

with direct insight into work ethic, industry operational standards, and professional organizational dynamics (Mahmudah et al., 2022).

Industry involvement in the school planning and evaluation process also helps ensure that the skills provided to students are truly relevant to the demands of the world of work (Ichwanto et al., 2022; Mahmudah et al., 2022). Through these forms of collaboration, the transition process from the world of education to the world of work becomes smoother, because students have already gotten to know the work environment, professional communication patterns, and performance expectations. This has an impact on the reduced adaptation period of graduates when entering the job market and an increase in their confidence and work competence. For the industry, this partnership also provides benefits in the form of access to prospective workers who are familiar with their work systems and culture. On the other hand, for vocational schools, this collaboration enriches the learning process and improves the overall quality of vocational education services. Therefore, the sustainability and institutionalization of industrial partnerships need to be an integral part of school management, including through the support of administrative units in documenting, monitoring, and evaluating all forms of cooperation in a systematic and sustainable manner.

Strengthening the Role of Principals and Teachers

The use **of the school model as a learning organization is** also a promising strategy. This approach emphasizes the importance of developing professional competencies for management staff and teachers, having a strong and collective strategic vision, and supporting collaboration and effective resource management (Siliņa-Jasjukeviča et al., 2024). The implementation of *Learning Organization* allows schools to be more adaptive to future educational changes and challenges. No less important, **improving teacher competence and providing adequate learning facilities** is also very crucial. Improving teacher competence is a central element in efforts to strengthen the quality of vocational education, including in vocational schools. Teachers not only play the role of material presenters, but also learning facilitators, skill mentors, and links between the world of education and the world of work. Therefore, **sustainable teacher professional development** through training, workshops, competency certifications, and industrial internship activities is very important. This training helps teachers to stay up-to-date with technological developments, active learning methods, and the latest skill needs needed by the job market. Learning in skill-based vocational schools is very demanding for teachers to have balanced practical and pedagogical competencies.

Without strengthening teacher competence, the quality of teaching will be stagnant and unable to respond to the dynamics of the ever-changing world of work.

In relation to school management, **strong leadership of the principal** is a crucial supporting factor. Strong leadership of school principals can have a positive impact on teacher performance and management of learning facilities (Santoso, 2016). A school principal who is visionary, participatory, and has good managerial skills can create a school culture that is conducive to teacher learning and professional development. This kind of leadership is able to motivate teachers to continue to improve their competence, facilitate access to training resources, and build cooperation networks with external parties such as industry or training institutions. In addition, effective school principals can also ensure that **the management of learning facilities** such as laboratories, work workshops, and practice rooms is well managed and according to the standards of practice-based learning needs. The synergy between competent teachers and professional school management is the foundation for improving students' learning outcomes and their readiness to enter the world of work.

As a form of quality control, the management strategy should also include **continuous evaluation and development**. Regular evaluation of the learning process and graduate achievements helps to maintain the quality of education according to standards. This evaluation includes cognitive, affective, and psychomotor aspects, all of which contribute to measuring and improving the quality of learning outcomes (Made Sudana et al., 2019). A valid and comprehensive evaluation tool can be the basis for making the right decisions in the development of school management. In addition, **the implementation of a good school governance system (SG)** is an important foundation in administrative management. This governance includes efficient and effective planning, organizing, implementing, and monitoring functions (Khurniawan et al., 2021a, 2021b). The synergy between SG and TQM has resulted in a significant positive impact on improving the effectiveness of school management and student job readiness.

Learning Technology and Innovation

In the era of globalization and digitalization, **the use of educational technology** is also a strategic factor. Technology competence in learning management has been proven to improve the quality of education through the development of learning resources, quality assurance of learning, teacher capacity development, and facilitation of improving the professionalism of educators (Utanto et al., 2019). One example is the application of *e-learning information systems* and the use of interactive multimedia that can improve students' understanding of the

material (Ongko & Napitupulu, 2018; Prabawa & Husnun, 2017). **Innovative learning and the use of educational technology** are increasingly important components to improve the quality of the teaching and learning process. Innovation in learning includes not only interactive, collaborative, and project-based teaching methods, but also the integration of information and communication technology (ICT) as a learning tool. One form of innovation that is now widely adopted is the use of **online learning platforms such as *Massive Open Online Courses (MOOCs)***, which allow students to access learning materials from institutions or professional practitioners around the world. The platform offers learning flexibility, expands students' knowledge horizons, and allows them to study independently according to their individual pace and interests (Li et al., 2024; Yunus, 2016).

For vocational school students, especially those in remote areas such as Timika, online learning technology opens access to **the latest industry training materials, work practice simulations, and digital skills certification** that was previously difficult to reach. The use of this technology also allows teachers to combine *blended learning* models that combine face-to-face learning with technology-based learning. This creates a more engaging, dynamic, and relevant learning experience to real life and the increasingly digitized world of work. In addition, the use of technology in learning helps students build digital literacy which is one of the essential skills of the 21st century. However, the implementation of technology-based learning also needs to be accompanied by infrastructure readiness, teachers' digital competence, and school management support in providing adequate access and training. In the context of administrative management, the role of school administration is also needed in managing an online learning management system (LMS), documentation of student participation in online courses, and digital-based reporting of learning outcomes. Therefore, innovative learning and the use of technology are not only a matter of devices or platforms, but also about the readiness of management systems and collaboration between school units to realize adaptive and quality vocational learning.

Adaptive learning models and *student-centered learning* are important strategies in vocational education to equip students with the skills needed in the world of work (Dimitrios et al., 2025; Obukhov et al., 2020). Adaptive learning adjusts learning methods, materials, and tempo to the needs and abilities of each student, thereby increasing learning effectiveness. Meanwhile, the student-centered approach encourages active participation through discussions, simulations, work practices, and collaborative projects, which strengthen critical thinking, communication, teamwork, and problem-solving skills, all of which are key *soft skills* sought

in the workforce. This model is also in line with competency-based learning, which emphasizes the achievement of technical skills and professional attitudes in a measurable manner. In addition, adaptive learning allows teachers to apply differentiation of instruction according to the character of the students, which is very relevant in vocational schools with diverse student backgrounds. For this model to be successful, managerial support from the principal and the active role of the administrative unit in managing learning documentation, flexible schedules, and portfolio-based evaluations are needed. With this approach, students not only acquire knowledge and skills, but are also mentally and professionally prepared to face the dynamic and competitive world of work. This approach makes vocational education more responsive, inclusive, and relevant. As a complement to this learning strategy, strengthening students' work readiness also requires an approach that is directly connected to the real world of work environment.

Work-based learning

Strengthening students' work readiness is one of the main goals of vocational education, especially in Vocational High Schools (SMK). One effective approach to achieving this goal is a **work-based approach**, such as *work-based learning (WBL)*. *Work-based learning* is a learning model that integrates hands-on experience in the workplace into the educational process. By engaging directly in a real-life work environment through internships, industry practices, or partnership programs with companies, students not only gain technical understanding, but also **improve learning motivation, academic achievement, and mental readiness to face the world of work**. This approach has also been proven to reduce the unemployment rate, because graduates become more competently prepared and more quickly absorbed by the business and industrial world (Tjiptady, 2019). Direct work experience is also important to encourage **the development of *technopreneurship readiness***, namely students' readiness to become technology-based business actors. It includes digital skills, innovative creativity, and an entrepreneurial spirit that allows students to not only find jobs, but also create new jobs.

This ability is particularly relevant in the era of digital economy and industry 4.0, where work patterns are increasingly flexible, and business opportunities are wide open through technology platforms. In addition, ***employability skills*** or work skills are key elements that determine the readiness of graduates. These skills include previous work experience, knowledge of the standards and ethos of the world of work, and mastery of vocational competencies appropriate to their major. Kertiasih et al. (2024) emphasized that these three

aspects significantly affect the smooth transition of students from school to the world of work. Therefore, learning in vocational schools needs to be designed not only to achieve academic competence, but also to form job readiness through industry involvement, entrepreneurial training, and strengthening *soft skills* and work character. In this case, there are still **challenges** to be faced.

First, limited access for teachers to technical training. This is a crucial issue in maintaining the relevance of learning to industrial needs (Widaningsih et al., 2025). Although teachers are key in transferring competencies to students, many of them have not had the opportunity to take on the latest technical training tailored to industry standards. This is due to the weak synergy between the world of education and the industrial world, both in terms of training planning, funding, and the sustainability of cooperation. Teachers who are not equipped with the latest knowledge and technology tend to teach with an outdated approach that is irrelevant to modern work practices. As a result, students struggle to acquire skills that match the needs of the job market, and graduates become less competitive compared to the increasingly complex demands of the industrial world. Second, the emergence of a mismatch between education and work or *job-education mismatch* is also a serious challenge. This phenomenon includes two main forms, namely *overeducation*, where graduates work in positions that do not require the highest level of education or skills they have, and *horizontal mismatch*, which is a mismatch between the field of expertise studied and the type of work undertaken (Paramitasari et al., 2024). This discrepancy shows that vocational education is not yet fully in sync with the specific needs of the world of work. In addition to harming graduates individually because they cannot develop their potential according to their competencies, this also creates inefficiencies in the labor market nationally. Therefore, to overcome these challenges, more systematic collaborative efforts are needed between educational institutions, industry, and the government. Industry-based teacher training programs, dynamic curriculum development, and strengthening tracer study systems and employment data can be solutions to bridge the inequality between the world of education and the world of work. In addition, school administration management also needs to be actively involved in documenting partnerships, facilitating access to training, and compiling periodic reports on the suitability of graduate competencies as a basis for continuous improvement.

The administrative management strategy at SMK Kota Timika must be directed at strengthening systems and collaboration, improving the quality of teachers and facilities, utilizing technology, and continuous evaluation. This effort will support the achievement of the main goal of vocational education, which is to produce graduates who not only have academic competence, but are also ready to compete in the world of work professionally. Thus, this research makes a relevant empirical and practical contribution, not only for the development of administrative management models at SMK Kota Timika, but also as a reference for other vocational schools in Eastern Indonesia in facing the *challenge of link and match* between education and the world of work

5. CONCLUSION

This study concludes that administrative management strategies play a key role in improving the quality of education and job readiness of students at Vocational High Schools (SMK) Timika City. Although Central Papua Province shows a relatively low open unemployment rate, it does not fully reflect the success of vocational education, as there is still a mismatch between the competence of graduates and the needs of the job market. The findings show that the weaknesses of the administrative system, such as insystematic data recording, lack of documentation of industrial work practices (Prakerin: *Praktek Kerja Industri*), and weak reporting and coordination of partnerships with the industrial world, contribute to the low quality of vocational education. The application of *the principle of Total Quality Management (TQM)* as a whole in administrative management is seen as a strategic solution to overcome these problems. TQM enables more scalable, accountable, and continuous improvement-oriented administrative management. Strengthening the administration, if supported by visionary school leadership, industry involvement, technology-based learning innovation, and improving teacher competence, has the potential to create an adaptive, relevant, and highly competitive vocational education ecosystem. Thus, administrative management strategies in vocational schools not only function as administrative support, but also as a strategic component in achieving vocational education goals.

6. RECOMMENDATIONS

Based on the findings of the study, the following recommendations are proposed to strengthen administrative management in supporting the quality of vocational education:

1. Systematic Application of TQM Principles

Vocational schools need to integrate the principles of TQM in administrative management, especially through the implementation of the PDCA cycle in all school administration processes

2. Improving the Competence of Administrative Personnel

Local governments and education offices need to facilitate training programs and competency development of administrative personnel, especially in terms of mastery of information technology, data management, and digital-based excellent services

3. Strengthening Information Systems and Databases

Schools need to build an integrated management information system to support documentation of industrial work practices, tracer studies, and data reporting in real-time and accurately

4. Sustainable Partnership Institutions

The development of strategic partnerships between vocational schools and the business world/industry (DUDI) must be institutionalized through formal policies, cooperation agreements, and industry involvement in curriculum development and learning evaluation

5. Strengthening the Role of School Principals as Transformational Leaders

Inspiring and participatory leadership of school principals is indispensable in building a culture of quality, encouraging collaboration between units, and ensuring the availability of adequate resources for the implementation of managerial strategies

6. Optimizing the Use of Learning Technology

Vocational schools need to integrate technology in the learning process and education management through e-learning systems, interactive multimedia, and open learning platforms (*MOOCs*) to expand access to the latest industry competencies

7. Quality Evaluation and Sustainability of Improvement

Periodic evaluation of managerial processes, student learning outcomes, and the linkage between curriculum and the needs of the world of work needs to be carried out systematically as a basis for decision-making and evidence-based policy development

8. Multi-stakeholder collaboration

Strengthening vocational education governance requires cross-actor collaboration, namely between school principals, heads of administration, productive teachers, partner industries, and local governments in formulating management strategies that are responsive to industry dynamics and future challenges.

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