The Road Map Vocational Education in West Sulawesi Province

Gufran Darma Dirawan*

Department of Civil Engineering and Planning Education Universitas Negeri Makassar, Makassar, South Sulawesi, Indonesia.

A B S T R A C T

The need for Vocational High Schools (SMK) as part of a rapidly growing educational institution in Indonesia that has characteristics that emphasize the development of specific and distinctive work competencies and are oriented towards preparing graduates/alums who have work competencies in accordance with the needs of the business world/industrial world. This Roadmap for the Development of Vocational Secondary Education was prepared through a process of discussions and interviews involving stakeholders from various sectors, the business/industrial world, experts and The need for Vocational High Schools (SMK) as part of a rapidly growing educational institution in Indonesia which has its characteristics which emphasize the development of specific and distinctive work competencies, and are oriented towards preparing graduates/alums who have work competencies in accordance with the needs of the business world/industrial world. Moreover, this roadmap for the development of vocational secondary education was prepared through discussions and interviews involving stakeholders from various sectors, the business/industrial world, experts, and the quality of vocational secondary education in Indonesia. It is realized that this roadmap is still expected to be an alternative guide for related sectors, business/industry, institutions, vocational secondary education teachers, and communities in efforts to improve the quality of vocational secondary education in Indonesia. It is realized that this roadmap is still not; therefore, it is hoped that suggestions, responses, and criticisms will be constructive in the realization of an ideal roadmap for the development of vocational education in Indonesia.

Keywords: Vocational High Schools; Road Map; Human Capital; Educational Program.

1. Introduction

Vocational Education in Indonesia has a rich and storied history, dating back to the colonial era under the Dutch East Indies Government. Initially conceived as a response to the demand for skilled labor, it has undergone a remarkable transformation over more than a century. What began as a pragmatic solution to address immediate workforce needs has evolved into a multifaceted educational domain, transcending its original purpose to encompass a broader array of competencies crucial for national development (Almalek, 2022; Widjaja, 2023). This evolution underscores the pivotal role of Vocational Education as a cornerstone of Indonesia's educational landscape, acting as a catalyst for socio-economic progress and human capital development.

The journey of vocational education in Indonesia has been marked by profound transformations propelled by shifts in socio-economic landscapes and rapid technological advancements. Particularly noteworthy is its remarkable adaptability to the distinct needs and contexts of regions like West Sulawesi, situated in the eastern part of the archipelago. Vocational education has demonstrated an exceptional capacity to align itself effectively with the evolving demands of the labor market and broader societal trends, despite initial perceptions relegating it to a secondary status compared to academically oriented formal education (Cattaneo et al., 2022; Pirzada et al., 2022).

In West Sulawesi, where agrarian communities and fishing industries predominate, vocational education has undergone significant adaptation. Programs have been tailored to integrate pertinent skills with key economic sectors such as agriculture, fisheries, and local creative industries. This integration not only equips students with essential skills for local employment but also contributes to bolstering the regional economy by enhancing productivity and fostering innovation within these sectors. Moreover, by incorporating local wisdom and traditional culture, vocational education in West Sulawesi ensures that students maintain a connection to their heritage while acquiring modern, relevant skills. However, challenges persist, necessitating ongoing investment in educational infrastructure, dynamic curriculum development, and continuous teacher training. Collaborative efforts among educational institutions, local governments, industries, and communities are crucial to ensuring the continued relevance and effectiveness of vocational education in supporting economic growth and community welfare. Vocational Education has played a crucial role in addressing the region's specific socio-economic needs and challenges. By tailoring its programs and curricula to meet local demands, Vocational Education has become an integral component of the region's development strategy (Ochieng & Ngware, 2022). Its adaptive nature has enabled it to navigate the complexities of the local labor market and contribute to the empowerment of individuals and communities (Idkhan & Idris, 2023; Lamada et al., 2022; Lescrauwaet et al., 2022).

As we delve deeper into the historical evolution of Vocational Education in Indonesia, it becomes evident that its adaptability and responsiveness to changing circumstances have been key factors in its enduring relevance and effectiveness (Natsir et al., 2023; Wahrini et al., 2019). Over time, Vocational

Education has demonstrated a remarkable ability to adjust to evolving socio-economic landscapes and technological advancements (Arfandi et al., 2021). By understanding and leveraging these historical dynamics, we can better position Vocational Education to meet the evolving needs of the labor market, foster innovation, and drive sustainable development in Indonesia, particularly in regions like West Sulawesi.

In recent years, there has been a burgeoning interest in researching Vocational Education (VE) in Indonesia, particularly in regions like West Sulawesi, due to its potential to drive economic growth and social development. A notable study conducted by researchers at a prominent Indonesian university delved into the effectiveness of VE training programs in West Sulawesi. Through a rigorous analysis of program outcomes and stakeholder perceptions, the researchers unearthed critical insights into the factors influencing the success of VE initiatives in the region. They found that strong collaboration between educational institutions and industry partners, coupled with relevant and practical curriculum offerings, significantly enhanced the employability of graduates and bridged the skills gap in key sectors such as agriculture, fisheries, and creative industries (Goulart et al., 2022).

Amid efforts to enhance economic and social development in Indonesia, vocational education has become a primary focus, especially in regions with untapped economic potential, such as West Sulawesi. In recent years, research related to vocational education in this region has become an increasingly intriguing topic for researchers and policymakers. For instance, a study conducted by (Suhardi et al., 2020; Suseno, 2023) investigated the impact of vocational education programs on the employability of graduates in West Sulawesi. Findings from these studies provide crucial insights into how collaboration between educational institutions and industries, as well as curriculum relevance, can influence job opportunities for vocational education graduates in this region. Additionally, (Muslimin et al., 2022) also researched the socio-economic evaluation of vocational education in West Sulawesi. Through a combined qualitative and quantitative approach, this study examined the contribution of vocational education to local economic growth, increased community welfare, and social development in the area.

Furthermore, (Marope et al., 2015; Pavlova, 2008) conducted longitudinal studies on vocational education graduates in West Sulawesi. By tracking the career trajectories of graduates over several years, these studies provide insights into the long-term impact of vocational education in supporting local economic sustainability and community empowerment. Thus, collectively, these studies provide a comprehensive understanding of the role and impact of vocational education in West Sulawesi, which can be utilized to formulate more effective policies and strategies to enhance the quality and relevance of vocational education in the region.

1.1 Aims

The objectives of preparing a Road Map for the West Sulawesi provincial government are:

1) Provide direction for change and formulate efforts that need to be made to improve the quality of Vocational Education in West Sulawesi province

2) Become a guide in integrating various areas of Vocational Education development in one plan that has a clear vision, priorities, targets, strategies, and stages of achievement.

3) Support the implementation of the Strategic Plan (2024 – 2029)

4) Become a reference/reference for the development of the Ministry of Education and Culture's Strategic Plan for 2024-2029

5) Support development policies in the Vocational Education sector.

2. Research Method

Focus Group Discussion (FGD) serves as a qualitative data collection method designed to convene a select group of individuals who share similar experiences or perspectives related to a specific topic (Isaac & Michael, 1995; Schensul et al., 1999). Led by a moderator, typically appointed by a program under the auspices of the Head of the West Sulawesi Province Education and Culture Service, FGDs are structured to facilitate open dialogue and the exchange of viewpoints among participants. These participants are carefully chosen from education stakeholders, including school principals, teachers, and representatives of pertinent educational bodies, to ensure a diverse range of experiences and perspectives relevant to the topic at hand.

2.1 Projected Aims and Focus Study

Before initiating the FGD, researchers or organizations must establish clear goals and objectives. These objectives serve as guiding principles for gathering information from FGD participants, ensuring alignment with the topics to be discussed. The aims should be relevant to the research objectives and focused on understanding group perceptions, identifying needs, increasing satisfaction, understanding cultural values, and fostering trust among participants.

2.2 Characterization of the Audience

Careful consideration should be given to the selection of FGD participants to ensure diversity in experiences and perspectives relevant to the topic. The number of participants may vary based on the goals set but typically ranges from 7 to 13 individuals per group. Participants should include education stakeholders such as school principals, teachers, and representatives of relevant educational bodies.

2.3 Preparation of Moderators and Assistants

The moderator and assistant play pivotal roles in facilitating the FGD. The moderator guides discussions to align with objectives, while the assistant aids in gathering information from participants. It is essential to select moderators and assistants with strong leadership and communication skills, ensuring they are well-equipped to lead discussions and collect data effectively.

2.4 Preparation of Support Materials and Tools

One essential support material is a discussion guide, which outlines the key topics, questions, and prompts that will be covered during the FGD. The discussion guide serves as a roadmap for the moderator and assistant, ensuring that the conversation stays focused and on track. It also helps participants understand the flow of the discussion and encourages them to contribute their insights and experiences on relevant topics. Visual aids can also be invaluable tools for enhancing participant understanding and engagement during the FGD. Examples of visual aids include charts, graphs, diagrams, photographs, or videos related to the discussion topics. These visual representations can help illustrate complex concepts, provide context or examples, and stimulate discussion among participants.

Additionally, recording devices such as audio recorders or video cameras are essential tools for capturing the proceedings of the FGD. Recording the discussion allows for accurate documentation of participants' responses, ensuring that no valuable insights or contributions are missed. It also enables researchers to review the discussion later for analysis and interpretation. Other support materials may include notepads and pens for participants to jot down their thoughts or take notes during the FGD, as well as handouts or informational materials related to the topics under discussion. These materials can serve as reference guides and help participants stay engaged and informed throughout the session.

2.5 Determination of Time and Place of Execution

The selection of an appropriate time and venue is indeed critical for the successful execution of a Focus Group Discussion (FGD). Several factors should be considered to ensure convenience, comfort, accessibility, and privacy for all participants. Firstly, it is essential to consider the availability and characteristics of all participants when scheduling the FGD. This may involve conducting surveys or consultations to identify preferred meeting times that accommodate participants' schedules and obligations. Additionally, considering factors such as participants' work hours, family responsibilities, and cultural norms can help ensure maximum attendance and active participation. Secondly, the venue chosen for the FGD should be conducive to open dialogue and discussion. It should provide a comfortable and relaxed atmosphere that encourages participants to express their views freely. This may involve selecting a neutral and non-threatening environment, such as a conference room, community center, or quiet café, where participants feel at ease sharing their opinions.

Accessibility is another crucial consideration when selecting a venue. It should be easily reachable by all participants, considering factors such as transportation options, proximity to public transit, and the presence of parking facilities for those who drive. Ensuring that the venue is accessible to individuals with disabilities is also important, with provisions for ramps, elevators, and other accommodations as needed. Furthermore, privacy is essential to foster open and honest communication during the FGD. The venue should offer sufficient confidentiality and protection from external distractions or interruptions. This may involve booking private meeting rooms or spaces with soundproofing to minimize disruptions and maintain the confidentiality of participants' discussions.

2.6 Data Collection

During the Focus Group Discussion (FGD), the role of the moderator and assistant is crucial in effectively collecting qualitative data from participants. They should ensure that discussions are guided by the established goals and objectives of the FGD, which typically revolve around exploring specific topics or issues in depth. This can involve asking open-ended questions, probing for detailed responses, and encouraging participants to share their experiences, perspectives, and insights. To achieve this, the moderator and assistant should create a conducive environment that fosters open dialogue and encourages active participation from all attendees. This may include setting clear ground rules for respectful communication, actively listening to participants' contributions, and ensuring that everyone has an opportunity to speak without interruptions.

2.7 Data Analysis and Presentation

Following data collection, the next step involves analyzing and presenting the gathered information. Qualitative methods such as content analysis or thematic analysis can be employed for data analysis. The findings should be synthesized and presented in reports or presentations, providing valuable insights for various purposes, including informing decision-making and policy formulation.

3. Result and Discussions

In 2022, through a series of Focus Group Discussions, valuable data has been gathered regarding secondary school education in Indonesia. From this analysis, it becomes apparent that developing a roadmap is crucial to guide the implementation of secondary school education programs in the future. This roadmap should comprehensively summarize the objectives to be achieved and outline the necessary scenarios for program execution. In constructing

this roadmap, alignment with strategic national planning documents related to development and education is paramount. Among these documents are Nawacita, Indonesia's development agenda, which emphasizes the importance of improving the quality of life for the Indonesian people and the nation's competitiveness. Another essential document is the National Mid-term Development Plan (RPJMN), which strengthens the urgency of human development and societal progress through education.

By referencing these strategic documents, the roadmap for secondary school education can be developed with a clear understanding of the overarching national development goals and educational priorities. Key steps in developing this roadmap include a deep understanding of Nawacita and the National Mid-term Development Plan (RPJMN), identifying challenges and opportunities in secondary school education, setting measurable goals, developing concrete strategies and programs, and building effective collaborations and partnerships (Jenar, 2023). An important aspect of roadmap development is the creation of an integrated monitoring and evaluation system. This system will enable the monitoring of roadmap implementation progress, the evaluation of the impact of secondary school education programs, and necessary adjustments based on evaluation findings (Kusek & Rist, 2004). By considering all these aspects and ensuring active participation from various stakeholders, the roadmap for secondary school education can become a robust guide to achieving national development goals, improving educational quality, and promoting social progress in Indonesia.

3.1 Development Potential

The Indonesian labor force is poised for significant changes driven by demographic shifts. With the demographic bonus projected to extend until 2025-2030, the working-age population (aged 15-64) is set to outnumber children and the elderly. This demographic dividend presents a unique opportunity for Indonesia to propel sustained economic growth by harnessing the skills and attitudes of its workforce effectively. Aligned with this demographic trend is the Masterplan for the Acceleration and Expansion of Indonesian Economic Development (MP3EI), a strategic blueprint guiding Indonesia's long-term development program from 2005 to 2025. The MP3EI underscores the imperative of leveraging Indonesia's abundant resources, strategic positioning, and workforce to accelerate economic growth. Crucially, collaboration between stakeholders, particularly the government and the private sector, is deemed essential to realize this vision. The private sector, in particular, is expected to assume a more prominent role in driving economic development through increased investment and job creation.

A central pillar of the MP3EI is the enhancement of human resources and technological capabilities (IPTEK) to bolster economic development across various economic corridors. This integration underscores the recognition of human capital as a critical driver of economic progress and underscores the need for concerted efforts to strengthen workforce capacity and innovation. In this scholarly discourse, we delve deeper into the intricate interplay between demographics and economic development in Indonesia. By examining the implications of the demographic bonus and the strategic directives outlined in the MP3EI, we seek to illuminate pathways for sustainable economic growth and prosperity (Manurung, 2014). Through rigorous analysis and evidence-based insights, this research aims to inform policy discourse and strategic decision-making processes, ultimately contributing to Indonesia's socio-economic advancement in the years to come.

3.2 The Supporting Regulations

The National Industrial Development Master Plan (RIPIN) 2015-2035, as envisaged in PP No. 14 of 2015, emphasizes the seriousness of the government in driving national industrial progress as planned. With RIPIN, the industry will be prepared as a pillar and driver of the national economy. One aspect that is closely related to RIPIN is the availability of a competent workforce. This is very important, especially since the free labor market in ASEAN has become a reality through the ASEAN Economic Community. Industrial labor development has become an urgent need and must be met by vocational education, teaching education, employment training, and dissemination. In its implementation, all should be supported by the effective implementation of the Indonesian National Labor Competence Standards (SKKNI). The implementation of this road map must ultimately refer to and contribute to achieving sustainable world development through the 2030 Agenda for Sustainable Development, in connection with goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. By 2030, both men and women will have equal access to affordable and quality vocational education. Moreover, by 2030, there should be a substantial increase in the number of young people and adults who have the relevant skills to get a decent job as well as to be an entrepreneur.

The National Industrial Development Master Plan (RIPIN) 2015-2035, outlined in PP No. 14 of 2015, underscores the government's commitment to spearhead national industrial advancement according to a meticulously devised blueprint. RIPIN envisions the industrial sector as a cornerstone and catalyst of the national economy, emphasizing the pivotal role of a competent workforce in its realization. These imperative gains heightened significance in the wake of the establishment of the ASEAN Economic Community, which has transformed the labor market landscape, necessitating urgent measures to enhance industrial labor development through vocational education, teacher training, employment programs, and knowledge dissemination. Central to the success of these endeavors is the effective implementation of the Indonesian National Labor Competence Standards (SKKNI). The execution of RIPIN must align with and contribute to the attainment of sustainable development objectives outlined in the 2030 Agenda for Sustainable Development, particularly Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. By 2030, the agenda envisions equal access to affordable and quality vocational education for both men and women, alongside a substantial increase in the number of young people and adults equipped with relevant skills for gainful employment and entrepreneurship.

In this scholarly inquiry, we explore the nexus between RIPIN, vocational education, and sustainable development goals. By examining the implications of RIPIN for vocational education and its alignment with global development agendas, we seek to elucidate pathways for fostering inclusive industrial progress and sustainable socio-economic development. Through rigorous analysis and evidence-based insights, this research aims to inform policy

formulation and strategic interventions aimed at enhancing vocational education systems to meet the evolving needs of the industrial sector and contribute to the realization of national and global development aspirations.

3.3 Roadmap Extension Control and Command

The Education Road Map of the West Sulawesi Province 2030 is part of a planning document related to the improvement of the quality of Indonesian human beings in various aspects. Therefore, the road map should be prepared using some relevant construction planning documents. In its seven missions, Nawacita touched on improving the quality of Indonesian human life and the competitiveness of the nation. The National Medium-term Development Plan (MDP) 2015–2019 challenges it further in the goal of human and community development through education. The development of instructional education needs to refer to the direction of the educational policy of the RPJMN, which emphasizes (i) strengthening the private role in providing secondary education services; (ii) improving the relevance of instructional education to the needs of the world of work; and (iii) enhancing access to educational services and skills training. Considering the direction of human resource development through teaching education as formulated by the various development planning documents above, this road map will focus on improving the quality (competence and attitude of employment) of SME graduates and the involvement of the enterprise/industrial world in the development of teaching education.

3.4 Development Command

The qualifications of graduates from vocational high schools (Sekolah Menengah Kejuruan or SMK) are ideally determined by their mastery of the Indonesian National Labor Competence Standard. This standard serves as the foundation for developing a test and certification system. However, currently, not all specialization programs offered by SMK are available, and some existing programs are not adequately integrated into the SMK curriculum. Efforts have been initiated to bridge the competence gap between SMK graduates and the requirements of the enterprise/industrial world. These efforts include preparing certification schemes for SMK graduates in collaboration with professional associations and vocational education institutions (DU/DI), as well as implementing competence tests.

To enhance the competitiveness of SMK graduates and provide them with industry-recognized certificates of competence, since 2015, SMK Construction, in partnership with the National Professional Certification Body (BSNP), has undertaken the development of SMK into First Party Certification Institutions (LSP-P1). The development activities of transitioning from SMK to LSP-P1 encompass several key areas:

1) Preparation and Training of Competency Assessors: Facilitating the training and readiness of assessors to evaluate the competency of SMK graduates.

2) Establishment of Competence Testing Sites (TECH): Setting up infrastructure and facilities necessary for conducting competence tests effectively.

3) Development of Testing Materials: Creating materials and resources required for conducting comprehensive and accurate competence tests.

Training on Quality Document Drafting and Implementation: Providing training to ensure the creation and application of high-quality documents necessary for certification processes. In the future, each prospective SMK graduate will undergo a competence test or certification of competence conducted by LSP-P1 either at their respective schools or at the nearest LSP-P1 SMK. Successful candidates will receive a certificate as evidence of their recognized competence.

The formation of LSP-P1 follows a strategic approach:

1) Area-based Strategy: If there are multiple SMKs in a region lacking LSP-P1, one will be established to serve all SMKs in that area. This approach ensures accessibility and efficiency in certification services.

2) Focus on Schools with >600 Students: Prioritizing schools with larger student populations, as they represent a significant portion of SMK students nationwide, maximizing the impact of certification efforts.

Once the establishment of LSP-P1 meets the requirements, the Skill Competence Test (UKK) can be replaced by the competence test conducted by LSP-P1. The government subsidizes certification costs through the School Operational Assistance Fund (BOS), making certification more accessible.

By 2015, certification tests were initially prioritized for 13 specialization programs, including Tourism, Culinary Arts, Beauty Services, Fashion Design, Finance, Administration, Mechanical Engineering, Automotive Engineering, Textile Technology, Chemical Technology, Computer Engineering and Informatics, and Telecommunication Engineering. These programs align with key sectors identified for economic growth and development, ensuring that certified graduates contribute effectively to industry needs. Ensuring the quality of teaching education must align with the rapid advancements in science, technology and the evolving demands of the job market. Teachers, being the facilitators of learning, bear the responsibility of adapting to these developments and meeting increasingly higher standards.

Several challenges plague the landscape of vocational high school (SMK) education, particularly concerning teachers. These challenges include:

1) Lack of Qualified Teachers: Some SMK teachers do not meet the academic qualifications mandated by relevant laws and regulations. Despite requirements for at least a bachelor's degree (S1) or equivalent (D-IV), approximately 12% of SMK teachers in 2015 had qualifications below this standard.

2) Doubts About Teacher Competence: Competence tests reveal that many SMK teachers have not yet attained the required competence standards. Furthermore, teachers may lack expertise in the subjects they teach, undermining their effectiveness in delivering quality education.

3) Limited ICT Proficiency: Many SMK teachers struggle with using information and communication technology (ICT) effectively in their teaching practices, hindering their ability to integrate technology into the learning process.

To address these challenges and enhance the quality of vocational education, several strategies can be employed:

1) Industry Experience for Teachers: Direct involvement in industry activities is crucial for SMK teachers to understand real-world business and industry developments. Teacher internships at DU/DI provide valuable opportunities for skill development. However, the integration of these internships into SMK accreditation instruments lacks systematic data collection on teachers' industry experience.

2) Collaboration with SMEs: Small and medium-sized enterprises (SMEs) should actively participate in providing internship opportunities for SMK teachers. However, the interest from DU/DI in developing structured teacher internship programs remains suboptimal. Additionally, school management may face challenges in implementing these programs due to limited internship opportunities at DU/DI.

Efforts to address these challenges must prioritize enhancing teacher qualifications, improving competence assessment processes, and fostering ICT proficiency among SMK teachers. Moreover, strengthening partnerships between schools, SMEs, and vocational education institutions is essential to facilitate meaningful teacher internships and bridge the gap between classroom learning and industry demands.

Quality assurance is essential for ensuring the continuous enhancement of educational programs and units, particularly within the Indonesian educational system. In Indonesia, quality assurance primarily operates through an accreditation framework, as outlined in Act No. 20/2003 on the National Education System, section 60. This framework serves to assess and determine the eligibility of educational programs and units. Minister of Education Regulation No. 63/2009 further clarifies the objectives of education quality assurance. According to Article 10, Paragraph 1, the primary aim is to ensure that education meets the Minimum Service Standard (SPM) and the National Education Standard (SNP) and surpasses these standards in terms of quality. This underscores the importance of maintaining high-quality education that exceeds minimum regulatory requirements.

The latest accreditation instrument issued by the National Accreditation Body of Schools/Madrasah for Vocational High Schools (SMK) emphasizes compliance with the National Standard of Education (SNP). This highlights a concerted effort to align vocational education with national educational standards, ensuring consistency and quality across educational institutions. Data from accreditation assessments conducted by the National Accreditation Body of Schools/Madrasah offers insights into the current status of SMKs in Indonesia. As of the end of 2015, out of 13,131 SMKs assessed, 6,120 SMKs had been accredited. These accreditations are categorized based on performance, with 23% achieving an "A" rating, 19% receiving a "B" rating, and 4.5% accredited at the "C" level. The accreditation system serves as a vital mechanism for evaluating and enhancing the quality of educational programs and units in Indonesia. By adhering to established standards and continually monitoring performance, educational institutions can strive for excellence and contribute to the overall advancement of the education sector.

3.5 Quality Guarantee

In general, schools have recognized the significance of accreditation in raising awareness among school stakeholders to enhance performance. However, in its implementation, it is often observed that accreditation results do not necessarily guarantee the quality of a unit or educational program. The accrediting process tends to prioritize the completion of documents (building physical evidence) over fostering continuous improvement in school quality and performance. Consequently, the accreditation process does not always function optimally as a quality assurance tool for educational units or programs. Instead, the accreditation rank attained is often utilized more as a marketing tool to attract public interest, particularly prospective students and parents, to enroll in accredited institutions. One of the primary challenges in accreditation implementation is the tendency to prioritize documentation completion over fostering continuous improvement (Barbosa et al., 2022). Accrediting bodies often emphasize the compilation of physical evidence, such as paperwork and reports, rather than promoting ongoing efforts to enhance educational quality and performance. This approach hinders the effectiveness of accreditation as a quality assurance tool, as it fails to address underlying issues and promote meaningful improvement. The accreditation process is sometimes viewed primarily as a marketing tool rather than a mechanism for ensuring quality. Educational units may prioritize achieving a favorable accreditation rank to attract prospective students and parents rather than focusing on genuine improvements in educational quality. This mindset shift undermines the integrity of the accreditation process and detracts from its intended purpose of driving continuous improvement (Gaston, 2023; Hightower et al., 2011).

In addition to the quality assurance system enforced by BAN-S/M, educational units are also interested in adopting quality standards published by other entities. Some institutions have implemented ISO 9001:2008, an international standard on quality management systems. However, these efforts are not consistently viewed positively; educational units are sometimes perceived as merely striving to meet ISO requirements to obtain certification. The effective and continuous improvement of product quality, aligned with consumer expectations, is not always realized. Additionally, the process incurs costs. To address these challenges, educational institutions must shift their focus from mere compliance with accreditation and certification requirements to fostering a culture of continuous improvement. This entails actively engaging stakeholders, including students, parents, faculty, and administrators, in ongoing evaluation and enhancement processes.

Furthermore, it necessitates aligning accreditation and certification efforts with the overarching goal of enhancing educational quality and outcomes. By prioritizing continuous improvement and stakeholder engagement, educational institutions can better leverage accreditation and certification processes to

drive meaningful enhancements in educational quality and performance. The implementation of accreditation and quality standards in educational institutions presents both challenges and opportunities for improvement. By addressing the tendency to prioritize documentation completion over continuous improvement and reorienting accreditation efforts towards genuine enhancement of educational quality, institutions can maximize the potential benefits of accreditation and ISO certification. Through a culture of continuous improvement and stakeholder engagement, educational institutions can ensure that accreditation serves as an effective tool for enhancing educational quality and performance (Fernandes & Singh, 2022; Hoare & Goad, 2022; Saad, 2022)

4. Conclusion

This study underscores the urgent necessity of crafting a comprehensive roadmap to steer the future trajectory of secondary school education in Indonesia, informed by insights gleaned from Focus Group Discussions held in 2022. Anchored in pivotal national strategic frameworks like Nawacita and the National Mid-term Development Plan (RPJMN), this roadmap seeks to address multifaceted challenges and opportunities within secondary education by delineating measurable objectives, devising tangible strategies, fostering collaborative partnerships, and instituting an integrated monitoring and evaluation mechanism. Furthermore, the study underscores the imperative of harnessing Indonesia's demographic dividend until 2025-2030 to propel sustainable economic growth, guided by frameworks such as the Masterplan for the Acceleration and Expansion of Indonesian Economic Development (MP3EI), which accentuates the pivotal role of bolstering human resources and technological capacities. Moreover, regulatory imperatives like the National Industrial Development Master Plan (RIPIN) 2015-2035 and adherence to workforce competency standards are deemed vital for steering vocational education towards inclusivity and quality. However, persistent challenges, including teacher shortages and the misalignment of teacher competencies with industry demands, underscore the need for recalibrating accreditation processes to prioritize substantive quality improvements over mere compliance. In essence, through the meticulous formulation of a robust roadmap, effective utilization of demographic opportunities, enhancement of vocational education, and optimization of quality assurance mechanisms, Indonesia can ambitiously stride towards achieving national developmental aspirations while fostering societal advancement and global competitiveness.

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