

R. Beniadi Setiawan

Kamar Dagang dan Industri Indonesia (KADIN Indonesia), Indonesia Email: beniadi14@gmail.com

Abstract

Article Info: Submitted: 11-04-2025 Final Revised: 17-04-2025 Accepted: 19-04-2025 Published: 22-04-2025

Indonesia's demographic bonus presents a significant opportunity to accelerate economic growth, but without proper workforce development, it may lead to rising unemployment and poverty. High-quality vocational programs equip individuals with industry-relevant skills, ensuring better job absorption and entrepreneurial opportunities. Strengthening vocational education through policy support, industry collaboration, and curriculum enhancement is essential to achieving sustainable economic growth and poverty alleviation. This study analyzes how high-quality vocational programs can enhance workforce skills, reduce unemployment rates, and contribute to sustainable economic growth. This study employs a descriptive method with a qualitative approach to analyze the effectiveness of vocational programs in alleviating poverty and promoting economic growth. Data is collected through literature studies and observations of vocational program implementation in various regions of Indonesia. The data analysis follows Miles and Huberman's interactive model, which includes data reduction, data presentation, and conclusion drawing to understand the patterns and effectiveness of vocational policies on societal economic well-being. The research findings indicate that highquality vocational programs significantly reduce acute poverty by equipping the workforce with industry-relevant skills, leading to higher employability and income stability. Additionally, vocational education aligned with industry needs enhances national productivity, supporting Indonesia's goal of achieving 8% economic growth amid the demographic bonus. Effective implementation requires strong collaboration between the government, industry stakeholders such as Kadin Indonesia, and educational institutions to ensure accreditation, certification, and quality assurance of vocational training programs.

Keywords: Demographic bonus; Economic growth; Vocational Skill quality assurance; Vocational training programs; Workforce education.

Corresponding: R. Beniadi Setiawan E-mail: beniadi14@gmail.com



INTRODUCTION

Indonesia is currently experiencing a demographic bonus period, where the proportion of the productive-age population is more significant than the non-productive age group. This condition presents an important opportunity to boost economic growth

(Siregar et al., 2023). However, without proper planning, this demographic bonus could turn into a social challenge, such as rising unemployment and poverty. Therefore, concrete strategies are needed to maximize the potential of the abundant workforce so that they can contribute optimally to the national economy (Sagara et al., 2025).

One of the solutions that can be implemented during this demographic bonus period is strengthening high-quality vocational programs. Vocational education and training aligned with industry needs can enhance workforce skills, making them more prepared to enter the job market (Sutrisno, 2023). With a competent and well-absorbed workforce, national productivity will increase, ultimately driving economic growth toward the ambitious target of 8% per year. Effective vocational programs can also create entrepreneurial opportunities, thereby expanding employment opportunities for the wider community (Asnawi et al., 2024).

On the other hand, acute poverty remains a serious challenge for Indonesia, particularly in regions with limited access to education and job training. The low skill level of the workforce is often the leading cause of economic stagnation in these areas (Nainggolan et al., 2025). Therefore, investing in high-quality vocational programs impacts individuals who undergo training and improves overall societal well-being. By providing broader access to vocational training, the government and private sector can play a significant role in reducing poverty rates (Lasiyono et al., 2024).

Thus, developing and implementing excellent vocational programs must become a top priority in the national development strategy. Policy support, industry partnerships, and improvements in curriculum quality and teaching staff are key factors in the success of these programs. If well-managed, vocational education will not only alleviate poverty but also serve as a key driver in achieving sustainable economic growth amid Indonesia's demographic bonus era (Deni & Ruswandi, 2025).

Indonesia is currently experiencing a demographic bonus, where the working-age population is larger than the non-working-age population. This presents a great opportunity for Indonesia's economy to grow rapidly. However, without proper preparation, this demographic bonus could lead to social issues such as unemployment and poverty. One of the main problems is the unpreparedness of the workforce to meet the needs of an ever-growing industry. Low education quality and inadequate skills among the workforce result in many job seekers not being absorbed in the job market or only being able to secure low-paying jobs.

Moreover, despite Indonesia's abundant natural resources and considerable industrial sector potential, many graduates do not possess the skills required by industries, leading to a significant mismatch between education and the labor market. This mismatch exacerbates unemployment, particularly among the youth, and requires more attention to policies that are responsive to the needs of the industry and the labor market.

This study is highly relevant, given that Indonesia is entering a demographic bonus period, providing an excellent economic growth opportunity. However, this opportunity can only be fully utilized if the workforce has the skills the job market needs. Therefore, this study explores how quality vocational education programs can improve workforce

skills, reduce unemployment rates, and contribute to sustainable economic growth. The findings of this study are expected to provide strategic recommendations for designing more effective vocational education policies.

Several previous studies conducted by Akbar et al. (2025) indicate that digital transformation in the vocational education system can enhance workforce competitiveness in the Industry 4.0 era. The findings reveal that digital technology-based vocational programs can accelerate workforce adaptation to industry needs, thus contributing to faster economic growth. Additionally, research conducted by Utomo (2021) emphasizes that digital marketing strategies in vocational education also help increase graduates' absorption into the job market.

Regarding the role of vocational education in poverty alleviation, research by, Lutfia et al. (2024) shows that customer-oriented vocational programs can improve graduate quality, making them more competitive in the job market and increasing their chances of improving their standard of living. This aligns with research conducted by Wuli (2023), which highlights that innovation in agriculture technology-based vocational education can be a solution for enhancing productivity and farmers' welfare in rural areas. These findings indicate that high-quality vocational programs impact individuals and contribute to societal well-being.

Unlike previous studies, which focused more on digitalization aspects or specific sectors such as agriculture and marketing, this study integrates various factors, including government policies, industry partnerships, and vocational curriculum effectiveness, to create a more holistic and highly competitive vocational education model. This study analyzes how high-quality vocational programs can enhance workforce skills, reduce unemployment rates, and contribute to sustainable economic growth.

While previous studies have extensively discussed the importance of vocational education in improving workforce competitiveness, many have focused on digitalization or specific sectors such as agriculture and marketing. This research seeks to fill the gap by integrating various factors, including government policies, industry partnerships, and vocational curriculum effectiveness, to create a more holistic and adaptive vocational education model that responds to the evolving needs of the industry.

This study offers novelty by examining the relationship between vocational education policies, industry collaboration, and curriculum development that aligns with industry needs to create a vocational education model capable of improving workforce competitiveness. Unlike previous studies, this research integrates aspects of policy, industry, and education to provide a more comprehensive solution to the challenges posed by Indonesia's demographic bonus.

The primary objective of this study is to analyze how quality vocational education programs can improve workforce skills, reduce unemployment rates, and contribute to sustainable economic growth in Indonesia. Additionally, the study aims to provide policy recommendations for developing more relevant and efficient vocational education programs.

This study's benefits include providing a deeper understanding of the role of vocational education in improving workforce quality and supporting economic growth. The findings are expected to serve as a reference for policymakers, industries, and educational institutions in designing vocational education policies that are more targeted to reduce unemployment and improve society's welfare. Furthermore, this study is also expected to strengthen collaboration between the education sector and industry in producing a ready workforce for the job market.

RESEARCH METHODS

This study employs a descriptive research method with a qualitative approach to analyze the effectiveness of vocational programs in alleviating poverty and promoting economic growth. Data is collected through literature studies and observations of the implementation of vocational programs in various regions of Indonesia. The research informants include representatives from training institutions, industries, the government, and graduates of vocational programs who have entered the workforce. The sample consists of 50 individuals, selected purposively to represent different stakeholders involved in vocational programs, including 20 graduates, 15 government representatives, 10 industry representatives, and five training institution staff. The data analysis technique follows the interactive model of Miles and Huberman, which includes three stages: data reduction, data presentation, and conclusion drawing. This approach allows for an indepth understanding of the patterns and effectiveness of vocational policies in improving the economic well-being of society. The study identifies key factors contributing to vocational programs' success or challenges in supporting poverty alleviation and economic development by analyzing the data in these stages.

RESULT AND DISCUSSION

A country's demographic fluctuation and transition become favorable when the proportion of the productive age population (15-64 years) reaches the most significant number compared to the non-productive age population. This condition can be utilized as a stepping stone to encourage the country's progress through increased productivity and economic growth. In demographic studies, this phenomenon is known as the demographic bonus (Achmad et al., 2024).

In Indonesia, the Central Bureau of Statistics (BPS) estimates that the demographic bonus period will occur from 2020 to 2035. During this time, the productive-age population is projected to be at its highest level in history. The demographic bonus is characterized by the dominance of the productive age population compared to the non-productive age population, namely the 0-14 years old and 65 years old and above age groups. One of the leading indicators of this phenomenon is the dependency ratio, which describes the ratio between the total population of unproductive age and the total population of productive age (Prasarti & Prakoso, 2020). The lower the

dependency ratio, the greater the economic potential that the productive age group can generate.

This phenomenon brings great opportunities for a country's economic growth, provided that the available human resources can be appropriately managed through adequate education and training. However, the main challenge that arises in the demographic bonus is the paradox between economic potential and workforce readiness. Srihadi (2012: 3) in Prasarti & Prakoso (2020) explains that the demographic bonus can become a disaster if the productive-age population is not accommodated in the world of work. This problem is exacerbated by the low level of education and skills among the productive-age group, which causes a mismatch of competencies with industry needs. As a result, many individuals face unemployment or can only obtain low-wage jobs.

Policies that focus on improving the quality of human resources are needed to optimize the benefits of the demographic bonus. In this effort, some challenges and opportunities need to be considered so that the demographic bonus can provide maximum benefits for economic growth and community welfare. One of the main challenges faced is the workforce's low level of education and skills. Although the demographic bonus offers great potential, there are still various obstacles, such as high levels of youth unemployment, gaps in education quality, and slowing industrialization and digitalization in some regions (Nuriman et al., 2025).

In addition to the workforce's low level of education and skills, another challenge faced in utilizing the demographic bonus is the mismatch of graduates' skills with industry needs. Many graduates, especially those from the general education pathway, lack skills matching the job market demands. This challenge reflects the gap between the skills education graduates possess and the skills required by industry. Many education graduates do not have the competencies needed by the labor market, making it difficult to be absorbed in the industry and risking facing unemployment or low-wage jobs (Rahman et al., 2021). This condition also causes a gap between the world of education and the world of industry, where companies often have difficulty finding ready-to-use labor. As a result, many graduates have difficulty finding decent jobs, while the industry still needs workers with more specific and skilled competencies.

Another significant challenge is the low interest in vocational education. Vocational education is often considered the second choice after academic education, making it less attractive to the public. Many people still do not understand the advantages vocational education offers compared to academic education in general. This view is reinforced by the perception that vocational education is an alternative for those who are not accepted in other academic programs, not as the primary pathway to acquire skills that can be directly applied in the world of work (Febrian et al., 2022).

Challenges in utilizing the demographic bonus must be addressed immediately, given that great opportunities can drive economic growth through human resource development. One of the main opportunities is to increase economic growth based on workforce quality. Seeing the challenges and opportunities that exist in utilizing the demographic bonus, it is important to present practical solutions, one of which is through

vocational education to improve the quality of human resources. As an integral part of the higher education system, vocational education is designed to provide practical and technical skills that can be directly applied in the world of work. Unlike academic education, which focuses more on theory and research, vocational education focuses on mastering skills relevant to current industry needs. This makes vocational education a strategic choice in preparing a workforce that is better prepared to face the demands of an increasingly dynamic labor market (Febrian et al., 2022).

If vocational education programs are well developed, a more skilled and ready-touse workforce can increase industrial productivity and strengthen economic competitiveness (Subiyantoro et al., 2023). With skills that match the needs of the labor market, vocational education graduates can directly contribute to the industrial world, thus accelerating economic growth and creating a more adaptive workforce to technological developments and market changes.

In addition, partnerships with industry are an excellent opportunity to prepare a more competitive workforce. By involving companies in the vocational training process, vocational education graduates will be better prepared to face the world of work and have skills relevant to industry needs. This partnership can be realized through internship programs, work-based training, and collaboration in the preparation of a more applicable curriculum (Yanto et al., 2024)Thus, the gap between education and labor market needs can be minimized, reducing the unemployment rate and giving graduates clearer career prospects. Utilizing this opportunity will not only improve the quality of human resources but also create a more productive and sustainable employment ecosystem.

Vocational education has a close relationship with poverty alleviation and economic growth. Its important role in improving a country's competitiveness at the global level cannot be ignored. In an era of rapid labor market changes and technological advancements, vocational education offers a concrete solution to meet the needs of skilled labor. By equipping individuals with skills that match industry demand, vocational education helps create a more productive workforce that is ready to face the challenges of the world of work (Tiasari et al., 2025).

The existence of training programs aligned with industry needs is a strategic step in overcoming the gap between the skills of graduates and the demands of the world of work. With a curriculum designed directly with industry players, vocational education graduates have more relevant competencies so that they can be easily absorbed into the labor market. Thus, improving the quality of human resources through vocational education not only contributes to reducing unemployment but also accelerates economic growth and improves the overall welfare of society.

In addition, vocational training contributes directly to poverty alleviation by opening up more employment opportunities (Auwalin & Rumayya, 2024). One of the main factors leading to poverty is low education and skills, which hinders an individual from getting a decent job. Thus, by attending vocational training, individuals have a greater chance of getting jobs that suit their skills. This can have an impact on increasing individual income as well as household welfare. When people have decent jobs and

sufficient income, they are less dependent on social assistance programs from the government. Thus, vocational training indirectly helps ease the burden on the state in its poverty alleviation efforts.

Furthermore, improving labor skills also has a positive impact on economic growth. A more skilled workforce can work more efficiently, increase national productivity, and produce greater economic output. The presence of a qualified workforce is also an attraction for investors, both domestic and foreign, because industries will find it easier to get the workforce they need. On a broader scale, vocational training also helps improve a country's competitiveness in the global market. Countries that have a qualified workforce are better able to compete in various industrial sectors, including manufacturing, technology, and services. Thus, vocational education and training investment is a strategic step in capitalizing on Indonesia's demographic bonus. If done well, vocational training can be one of the leading solutions in improving people's welfare, reducing poverty, and promoting sustainable economic growth.

Vocational training has a strategic role in bridging the gap between education and industry needs. In this case, education does not only function as a place to transfer theoretical knowledge, but must also be able to provide practical experience that can be applied directly in the world of work. John Dewey, a progressive educational figure, emphasized that the learning process must be experiential, and the theory learned must be integrated with real practice to produce a deeper understanding. This principle underlies the dual system concept in vocational education, which combines formal learning in schools with hands-on training in the workplace. This model has proven effective in preparing a competent workforce to contribute to the industry (Tiasari et al., 2025).

As a bridge between the education system and the industrialized world, vocational training is important in ensuring that graduates have skills that match the job market demands. With a structured curriculum based on industry needs, this training allows learners to gain hands-on experience relevant to their field of work. This approach gives the workforce a strong theoretical understanding and enables them to apply their skills effectively in a real work environment. Thus, vocational training is a key element in improving the quality of human resources and strengthening the workforce's competitiveness amid increasingly fierce global competition.

The successful implementation of vocational programs in several countries shows how vocational education can effectively improve workforce competitiveness and reduce unemployment. Germany and Switzerland are examples of countries that have successfully implemented dual-track vocational education systems, where students receive education at school and undergo hands-on training in the industrial world. This system helps students gain practical experience early on, so that when they graduate, they already have skills that match the needs of the labor market. Countries that have solid partnerships between educational institutions and industry, such as Germany and Switzerland, have proven to be able to create graduates who are more work-ready and more easily absorbed into the industrial world (Rokeman & Kob, 2024; Schröder, 2019).

The success of this model is evidence that close collaboration between the education and industry sectors can positively impact employment and economic stability.

Institutions such as Kadin are crucial to creating opportunities and benefits in vocational education. The Indonesian Chamber of Commerce and Industry (Kadin) is central to Indonesia's vocational training reform efforts. As an organization representing the World of Business, the World of Industry, and the World of Work (DUDIKA), Kadin is officially involved in this process with duties and responsibilities that have been regulated in detail in the Coordinating Minister for Economic Affairs Regulation Number 6 of 2022. As an organization that represents the interests of the business world, Kadin seeks to bridge the gap between educational institutions and industry needs, so that vocational programs can be more in line with the growing demands of the job market. To accelerate vocational training reform, Kadin can implement various strategies that focus on improving the quality of human resources to be more competitive and ready to face challenges in the world of work. Various strategies that should be implemented to support the development of vocational education include:

- Bridging educational institutions and the business world
 Kadin acts as a liaison between educational institutions and the industrial world. This
 is done so that vocational programs offered by educational institutions can be aligned
 with the needs of the world of work. With the involvement of Kadin, companies can
 provide direct input related to the competencies needed in the industry, so that
 vocational education can be more responsive to changes and demands of the labor
 market.
- 2. Collaboration with Domestic and International Industries Kadin collaborates with various industries at home and abroad to improve the quality of vocational training. This collaboration aims to provide wider access for vocational training participants to gain hands-on experience in the work environment. In addition, cooperation with international industries enables the transfer of technology and best practices that can improve the competitiveness of the Indonesian workforce in the global market.
- 3. Aligning curriculum with labor market needs
 One of the main challenges in vocational education is that the curriculum is not always in line with industry developments. Therefore, Kadin encourages the preparation of a curriculum that is more adaptive and based on labor market needs. Regular curriculum updates are important so that vocational graduates have skills relevant to industrial developments, including technology, manufacturing, and services. Thus, vocational graduates not only have qualified technical skills but are also ready to adapt to changes in the world of work.

Through these strategies, Kadin plays an active role in ensuring that vocational education in Indonesia produces a competent workforce ready to compete in the global market. This effort is expected to provide long-term benefits for national economic growth and improve people's welfare through increased employment opportunities and reduced unemployment.

In addition to the important role played by Kadin, increasing the competitiveness of human resources in vocational education requires a robust quality assurance system to ensure graduates have skills that align with industry standards. This can be realized through various mechanisms that ensure the quality of vocational education. One important step in this effort is the implementation of accreditation for vocational institutions. Educational institutions that organize vocational programs must have clear quality standards recognized nationally and internationally. In Indonesia, regulations regarding accreditation have been regulated in various policies, such as the Higher Education Law, Presidential Regulation No. 68 of 2022, and Coordinating Minister for Human Development and Culture Regulation No. 6 of 2022. With regulations governing vocational education standards, institutions can ensure that their programs align with industry needs and produce competent graduates.

In addition to institutional accreditation, professional certification also plays an important role in improving the competitiveness of vocational graduates. The industry more recognizes graduates who have professional certification because it shows that they have met specific competency standards (Hapsari, 2016). This certification not only provides added value for graduates in the domestic job market but also opens up job opportunities at the international level. Thus, with official recognition of their skills, vocational graduates can more easily compete and obtain jobs suitable for their fields of expertise.

Collaboration with international partners is another effort that can improve the competitiveness of the vocational workforce. Standardizing vocational training with global standards encourages graduates to have skills that meet the needs of the international market. By following global training standards, vocational graduates from Indonesia can more easily adapt to the demands of industries in various countries, thus opening up more job opportunities abroad. Partnerships with global educational institutions and industries can also accelerate the transfer of technology and knowledge that supports improving the quality of vocational education in Indonesia.

Thus, based on the results of the analysis, it can be concluded that a comprehensive vocational education reform must be carried out to maximize the benefits of the demographic bonus and boost economic growth. One important step in this reform is to improve the quality and relevance of vocational training by building close partnerships between educational institutions and industry. This collaboration helps curricula and training methods be tailored to the needs of the world of work so that graduates have skills that match industry standards. In addition, implementing a strict accreditation and certification system is a key factor in ensuring the competence of graduates. With clear standards, the workforce produced from vocational education will be more recognized at the national and international levels, so that their chances of getting a decent job are greater. Kadin Indonesia also has a strategic role as the primary facilitator that bridges cooperation between educational institutions, the government, and the industrial sector. With Kadin's involvement, the implementation of vocational training can run more effectively, in line with industrial development, and support labor needs in

various sectors. Thus, through the right strategy and support from various parties, Indonesia's demographic bonus can be optimized to create a quality workforce that can contribute to economic growth while significantly reducing poverty.

CONCLUSION

The research reveals that high-quality vocational programs are a key solution to alleviating acute poverty and achieving 8% economic growth in Indonesia amid the demographic bonus. These programs enhance employability, boost productivity, and contribute to economic stability by equipping the workforce with industry-specific skills. Moreover, aligning vocational training with industry needs, supported by strong partnerships between the government, industry stakeholders such as Kadin Indonesia, and educational institutions, ensures these programs meet accreditation and certification standards. This collaboration is essential to guaranteeing the quality of vocational skills and maximizing their potential to reduce poverty and drive sustainable economic growth.

Future research could explore the long-term impact of specific vocational programs on regional economic development, examining how different sectors (e.g., technology, manufacturing, services) contribute to poverty alleviation in rural and urban areas. Additionally, studies could focus on the scalability of successful vocational models and how they can be adapted to address emerging challenges in the labor market, particularly in response to rapid technological advancements and globalization.

REFERENCES

- Achmad, W., Nurwati, N., Fedryansyah, M., Sumadinata, R. W. S., & Sidiq, R. S. S. (2024). Taking Advantage of Indonesia's Demographic Bonus in 2024: Challenges and Opportunities. *Management Studies and Entrepreneurship Journal (MSEJ)*, *5*(2), 4425–4434. https://doi.org/10.37385/msej.v5i2.4713
- Akbar, A., Siregar, A., & Wahid, F. (2025). Strategi Efektif dalam Optimalisasi Soft Skills Siswa SMK untuk Kesiapan Kerja dan Daya Saing Global di Era Industri 4.0. *PESHUM : Jurnal Pendidikan, Sosial Dan Humaniora*, 4(2), 2497–2509. https://doi.org/10.56799/peshum.v4i2.7305
- Asnawi, R. A. A., Turukay, E., Souhoka, S., & Nur, H. B. (2024). Membidik Peluang Wirausaha Yang Tepat Di Generasi Milenial. *Community Development Journal: Jurnal Pengabdian Masyarakat*, 5(6), 11382–11386. https://doi.org/10.31004/cdj.v5i6.37686
- Auwalin, Y., & Rumayya. (2024). The role of vocational education on unemployment in Indonesia. *Cogent Education*, 11(1), 2340858. https://doi.org/10.1080/2331186X.2024.2340858
- Deni, A., & Ruswandi, W. (2025). Pengentasan kemiskinan di wilayah pedesaan Sukabumi: Identifikasi tantangan dan optimalisasi peluang melalui fokus group discussion (FGD). *Jurnal Pengabdian Masyarakat: Pemberdayaan, Inovasi Dan Perubahan*, *5*(1), 300–310. https://doi.org/10.59818/jpm.v5i1.1275

- Febrian, A., Musa, F. S. D., Khairunisa, W., & Fahmi, R. (2022). The Role Of Vocational Education At The Higher Education Level To Prepare Young Citizens To Face The Era Of Society 5.0. *Unpublished or Incomplete Citation*.
- Hapsari, M. I. (2016). Pengkajian program kursus dan pelatihan terkait dengan jenis keterampilan, sertifikasi dan penempatan lulusan. *Journal of Nonformal Education*, 2(1). https://doi.org/10.15294/jne.v2i1.5314
- Lasiyono, U., Ula, F. N. R., Sari, L., & Ngadas, P. (2024). Partisipasi ekonomi penyandang disabilitas: Hambatan dan solusi di pasar kerja Indonesia. *JIMPS*, 9(4). https://doi.org/10.24815/jimps.v9i4.32869
- Lutfia, A., Yohana, C., & Adha, M. A. (2024). Strategi pengembangan school-based enterprise dalam meningkatkan kualitas lulusan sekolah menengah kejuruan. *Paedagoria: Jurnal Kajian, Penelitian Dan Pengembangan Kependidikan*, 15(1), 10–16. https://doi.org/10.31764/paedagoria.v15i1
- Nainggolan, R. R., Ompusunggu, D. P., Pasha, A. A., Marihat, S. M. B. S., Tobing, D., Ganda Tua A, H., & Togatorop, N. (2025). Analisis faktor tingkat kemiskinan di Kalimantan Tengah melalui pendekatan regresi probit. *EKOMA: Jurnal Ekonomi, Manajemen, Akuntansi*, *4*(3), 5473–5482. https://doi.org/10.56799/ekoma.v4i3.7162
- Nuriman, E. J., Hidayat, R., Setiabudi, A., & Dewi, M. P. (2025). Bonus Demografi: Peluang atau Tantangan Bagi Kemajuan Indonesia di Tahun 2045. *PANDITA: Interdisciplinary Journal of Public Affairs*, 8(1), 149–161. https://doi.org/10.61332/ijpa.v8i1.266
- Prasarti, S., & Prakoso, E. T. (2020). Karakter dan perilaku milineal: peluang atau ancaman bonus demografi. *Consilia: Jurnal Ilmiah Bimbingan Dan Konseling*, *3*(1), 10–22. https://doi.org/10.33369/consilia.3.1.10-22
- Rahman, A., Zebua, W. D. A., Satispi, E., & Kusuma, A. A. (2021). Policy formulation in integrating vocational education graduates with the labor market in Indonesia. *Jurnal Studi Pemerintahan*, 331–371. https://doi.org/10.18196/jgp.123141
- Rokeman, N. R. M., & Kob, C. G. C. (2024). Exploring Determinants and Challenges of Job Satisfaction in Technical and Vocational Education and Training (TVET): A Systematic. *International Journal of Academic Research in Business and Social Sciences*, 14(7). https://doi.org/10.6007/IJARBSS/v14-i7/21930
- Sagara, R., Setiawan, A. H., Almuzafir, & Purnawan, E. (2025). Dinamika kependudukan dan ketenagakerjaan: Tantangan dan kebijakan berkelanjutan untuk Indonesia. *Jurnal Alwatzikhoebillah: Kajian Islam, Pendidikan, Ekonomi, Humaniora*, 11(1). https://doi.org/10.37567/alwatzikhoebillah.v11i1.3629
- Schröder, T. (2019). A regional approach for the development of TVET systems in the light of the 4th industrial revolution: the regional association of vocational and technical education in Asia. *International Journal of Training Research*, 17(sup1), 83–95. https://doi.org/10.1080/14480220.2019.1629728
- Siregar, N. N., Laensadi, A. M., Nurhasanah, A., Mardiana, & Nuraida. (2023). Demographic and intellectual bonus: Science development innovation using current modeling. *IJELaSS: International Journal of Education, Language and Social Science*, 1(2). https://doi.org/10.62612/ijelass.v1i2.19
- Subiyantoro, H., Tarziraf, A., & Asmara, A. (2023). The role of vocational education as the key to economic development in Indonesia. *Proceedings of the 3rd Multidisciplinary International Conference, MIC*, 28. https://doi.org/10.4108/eai.28-10-2023.2341745

- Sutrisno, A. (2023). Skilling the demographic bonus: Progress and gaps in Indonesian employment strategies (Vol. 1). Routledge India. https://doi.org/10.4324/9781003278061
- Tiasari, W. N., Hadi, S., & Suswanto, H. (2025). Analisis Sistematis Inovasi Pendidikan Vokasi: Studi Sistem Ganda Dalam Tvet Di Berbagai Negara. *Jurnal Ilmiah Pendidikan Citra Bakti*, 12(1), 155–166. https://doi.org/10.38048/jipcb.v12i1.4922
- Utomo, W. (2021). Paradigma Pendidikan Vokasi: Tantangan, Harapan Dan Kenyataan. *Almufi Journal of Measurement, Assessment, and Evaluation Education*, 1(2), 65–72. https://www.almufi.com/index.php/AJMAEE/article/view/86
- Wuli, R. N. (2023). Penerapan manajemen sumber daya manusia pertanian untuk menciptakan petani unggul demi mencapai ketahanan pangan. *Jurnal Pertanian Unggul*, 2(1), 1–15. https://ejournal.stiperfb.ac.id/index.php/jurnalpertanianunggul/article/view/7
- Yanto, S., Patang, P., Indrayani, I., & Rivai, A. A. (2024). Optimization of Soft Skill Competencies and Student Work Readiness Through The MBKM Internship Program at The KIPM Makassar Center. *QALAMUNA: Jurnal Pendidikan, Sosial, Dan Agama*, *16*(2), 1437–1448. https://doi.org/10.37680/qalamuna.v16i2.5886



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