Job Prospects of Generation Z in the Vision of Golden Indonesia 2045: Systematic Literature Review

Enita Indramayani Gaja¹,

¹Sharia Economics, Faculty of Islamic Economy and Business, State Islamic University of North Sumatra, Medan Korespondensi penulis : e-mail: enitagaja@gmail.com

Abstract

This study aims to evaluate the employment prospects of Generation Z in the context of the Golden Indonesia Vision 2045, considering the upcoming approach to the peak of the demographic dividend and the labor market transformation triggered by technological advancements and globalization. Using a systematic literature review method, this study examines how current education and employment policies can be adjusted to prepare Generation Z for the changing labor market dynamics. The main focus is on the need to integrate relevant and responsive education, such as STEM-based education and analytical skills development, to support their readiness in a knowledge and innovation-based economy. The results show that while there are significant opportunities for Generation Z to contribute to national economic growth, there are substantial challenges related to skills gaps and labor market preparation. This study suggests the need for deep education reform and proactive government policies to create quality and sustainable jobs. This includes increasing collaboration between government, industry, and educational institutions to ensure that education policies and curricula can meet the needs of future industries, enabling Indonesia to harness the full potential of the demographic dividend and achieve the goals of the Golden Indonesia Vision 2045.

Keywords: Job Prospects, Generation Z, Golden Indonesia, SLR

Introduction

Indonesia is entering a demographic bonus period that will peak in 2030. The demographic bonus refers to an increase in the number of individuals of productive age (15-64 years) compared to the number of individuals of non-productive age (under 15 years and over 65 years) in a certain period of time. With around 69.3% of Indonesia's total population in 2022 of productive age, which is around 190.83 million people, this change in demographic structure provides great opportunities. The younger generation, as a significant part of the productive age, is expected to be the main driver in facing this demographic bonus.(Minister of State Secretary of the Republic of Indonesia, 2024).

In facing this demographic bonus, there are great opportunities but also significant challenges. Rapid growth in the workforce can contribute to economic growth, provided there are sufficient and quality jobs to absorb this new workforce. Without sufficient job creation, the demographic bonus has the potential to become a burden, resulting in increased unemployment and other social problems.(Handalani, 2019).

The main challenge in harnessing the demographic bonus lies in Indonesia's capacity to produce not only a large number of jobs but also quality ones. This requires massive investment in education and training, especially those focused on skills needed by a modern economy, such as information technology, data analysis, and managerial skills.

With a large Generation Z population entering the labor market, Indonesia needs to develop effective strategies for their integration into the economy. This involves not only education and training, but also infrastructure development, labor policy reform, and innovation in business practices to create more inclusive and sustainable employment opportunities. (Suciati & Deswarta, 2024).

The current education system must be adjusted to place more emphasis on learning relevant and applicable skills. This includes incorporating more STEM (science, technology, engineering, and

mathematics)-based education, which will be critical in a knowledge and innovation-based economy.(Mu'minah & Aripin, 2019).

In addition, the role of government in directing economic policies that support the creation of new industries and sectors is very important. The government must play an active role in stimulating the economy through incentives for innovation and investment in high-growth sectors that can efficiently absorb new workers.(Putri et al., 2021).

Through a systematic literature review, this study will identify the best strategies and recommendations to ensure that Indonesia can not only take advantage of the upcoming demographic bonus, but also ensure that Generation Z has good and sustainable job prospects, in accordance with the objectives of the Golden Indonesia Vision 2045. These steps will greatly determine Indonesia's ability to optimize its human resources and achieve its full economic potential in the future.(Rohmana, 2023).

Given the demographic dividend that is expected to peak in the coming decade, it is important to understand in depth how the labor market will adapt and what is needed to prepare the next generation to effectively capitalize on this opportunity. This study is urgent because without proper planning and strategies, there is a risk that the increase in the labor force will not be matched by sufficient job creation, which could exacerbate problems such as unemployment and economic instability. Therefore, identifying factors that can influence the successful integration of young people into the labor market will not only support economic growth but will also help in designing sustainable and inclusive policies.

Library Study / Theory Study

This study aims to investigate and understand the opportunities and challenges that Generation Z will face in the Indonesian labor market approaching 2045. "Golden Indonesia 2045" is a vision that refers to Indonesia's hopes of reaching the peak of progress and prosperity in 2045, which coincides with the centenary of Indonesia's independence. In this context, Generation Z, which is a demographic group born between the mid-1990s and early 2010s, will be a key factor in the national economy, considering that they will be the largest part of the workforce. Therefore, understanding the conditions of the labor market they will enter, as well as preparing them with the appropriate skills to take advantage of the opportunities that arise, is very important. In this literature review, the author collects several previous studies to be reviewed and compared critically.

First, Elmi, F., & Librianty,(2023), this one examines the improvement of the quality of human resources in education in Indonesia with the aim of achieving the Vision of Indonesia 2045. Through a qualitative methodology that collects data from various government policies and interviews with education stakeholders, this study finds that the integration of technological approaches in education and the development of inclusive policies are key to improving the quality of human resources. The results show significant improvements in teacher competence and education infrastructure as important factors in achieving national goals.

Then, Fairuzzabadi and Hamat.(2021), in the context of the Industrial Revolution 4.0 in Aceh, this study uses a quantitative approach to assess the effectiveness of existing HR development models. With statistical analysis of surveys conducted on workers and educational institutions, this study identified that there are still shortcomings in HR readiness, especially in terms of digital and analytical skills. This study suggests the need for curriculum revision and increased technology-based training.

Next, Listyaningsih, L., et al.(2021), using a qualitative approach, this study explores the implementation of character education in order to prepare an independent millennial generation for Indonesia Emas 2045. Through case studies in several schools, the results of the study show that strong character education contributes significantly to the development of independence and positive values among students, which are important for the future of Indonesia's human resources.

Lastly, Melisa, M., et al.(2022), focusing on the Indonesian government's policy in addressing stunting as a strategy to prepare the golden generation of 2045, this study uses a mixed-method methodology. The results of the study indicate that nutrition and health intervention policies have had a positive impact in reducing the prevalence of stunting, but emphasize that long-term efforts are still needed to ensure that all children have an equal opportunity to reach their full potential.

The difference with this study is that it uses a systematic literature review methodology to identify and synthesize research findings related to labor market opportunities and challenges for Generation Z. Unlike studies that focus on specific educational interventions or health policies, my study provides a comprehensive picture of the various factors that influence Gen-Z's future employment prospects. By assessing secondary sources, this study attempts to fill the gap in the existing literature by combining findings from various disciplines and sectors, providing more holistic policy recommendations to support the successful integration of Gen-Z into the growing national economy.

Research methods

The methodology used in this research uses a qualitative literature study approach with a constructivist paradigm.(Olsen & Pilson, 2022; Weyant, 2022; Young & Diem, 2023). This study aims to understand and interpret social phenomena based on the existing context and how individuals or groups interpret the phenomenon. The data sources used include primary data obtained from official documents, government reports, and scientific publications, as well as secondary data from previous literature reviews, report analysis, and related studies that have been published. This approach allows researchers to collect broad and in-depth information about the dynamics of the labor market and education for Generation Z in Indonesia.

Data collection techniques are carried out through a systematic search of literature related to the research topic. This process involves the use of academic databases, educational institution repositories, and other official sources of information to identify and access relevant materials.(Creswell & Poth, 2018). Each identified source will be assessed based on its relevance to the research topic and the accuracy and currency of its information. The researcher will note the main themes, methodology, results, and conclusions of each source for use in further analysis.

Data analysis was conducted using the Miles, Huberman, and Saldana model, which includes three activity streams: data condensation, data presentation, and conclusion/verification. The collected data will be summarized, categorized, and analyzed to identify themes, patterns, and relationships.(Miles et al., 2020). To increase the validity of the findings, this study will use source triangulation techniques, comparing and balancing information from various sources and types of data. This triangulation helps in verifying the accuracy of the findings and strengthens the reliability of the researcher's interpretation of the existing data.(Flick, 2020).

Results and Discussion

Vision of Golden Indonesia 2045

The Vision of Golden Indonesia 2045 is a strategic plan designed to make Indonesia an advanced and prosperous country by 2045, right on the 100th anniversary of independence.(Bappenas, 2023). This vision covers various aspects of holistic and sustainable development, covering the economic, social, cultural, and environmental sectors. With the aim of improving the quality of life of all Indonesian people, this vision also emphasizes the importance of innovation, technology, and superior human resources as the main pillars of achievement.(Bappenas, 2019).

Indonesia Emas 2045 has four main pillars: human development and mastery of science and technology, sustainable economic development, equitable development, and strengthening national resilience and governance. (Sianturi & Dwicaksono, 2023). The first pillar focuses on improving the quality of Indonesian human resources through inclusive and equitable education, as well as improving access and quality of health services. This aims to create a highly competitive society that is ready to face global challenges. (Sitompul, 2023).

The second pillar, sustainable economic development, emphasizes the transformation of the economy from being based on natural resources to being more innovative and high-tech. This effort includes the development of creative industries, strengthening the manufacturing sector, and utilizing digital technology to increase productivity and efficiency.(F. Rahmawati, 2021). Therefore, Indonesia is expected to be able to compete in the international arena and achieve stable and equitable economic growth.(Anggina & Zaki, 2023).

Objective planning towards the Vision of Golden Indonesia 2045 begins with the determination of clear and measurable targets. The government has set a target of economic growth of 6-7% per year, reducing the poverty rate to below 5%, and increasing the Human Development Index (HDI) to

75(Adminkominfo, 2020). To achieve this, development strategies are designed based on in-depth data and analysis, including strengthening the education and health sectors, bureaucratic reform, and increasing investment in research and development (R&D).(Ministry of National Development Planning/Bappenas, 2017; WWF Indonesia, 2022).

In addition, planning also includes strengthening adequate infrastructure to support economic growth. Large infrastructure projects such as the construction of toll roads, ports, airports, and fast internet networks will continue to be improved. The government is also committed to maintaining political and security stability in order to create a conducive investment climate.(Kusnandar, 2022). Collaboration between the government, private sector, and society is the main key to achieving these goals, ensuring that all elements of the nation are actively involved in realizing Indonesia Emas 2045, the following is data from the planning that has been tabulated:

Development Aspects	Target		Strategy	Suc	cess Indicators
Human Resources	Improving the quality of education and health	a) b)	Increase in education and health budget National and international scholarship programs	c) d)	Literacy rate reaches 100% Life expectancy increased to 75 years
Sustainable Economy	Economic transformation based on innovation and technology	a) b)	Creative industry development Digitalization of the manufacturing sector	c) d)	Economic growth is stable at 6-7% per year Industrial sector contributes 30% of GDP
Equitable Development	Reducing regional disparities	a) b)	Infrastructure development in underdeveloped areas Independent village program	c) d)	Reducing poverty rates to below 5% Reducing disparities in HDI between regions
National Resilience and Governance	Political stability and security	a) b)	Bureaucratic reform	c) d)	Corruption Perception Index (CPI) increases Political stability and security are maintained
Infrastructure	Strategic infrastructure development	a)	Construction of toll roads, ports, airports and fast internet networks	b)	Improvingthequalityandaccessibilityofnationalinfrastructure
Innovation and Technology	Increased investment in research and development (R&D)	a) b)	Incentives for research and innovation Collaboration between universities,	c) d)	Increased number of patents and scientific publications Domestic technology development

Table 1. Golden Indonesia Vision Planning 2045

			industry and government		
Environment	Sustainable and	a)	Reforestation program	c)	Carbon emission reduction
	environmentally friendly development	b)	Sustainable management of natural resources	d)	Increasing the area of protected forests
Social welfare	Turun and a	a)	Social protection programs	c)	Reduction in extreme poverty
	Improving community welfare	b)	Improving access to basic services	d)	rates Improving access to clean water and sanitation

The Vision of Golden Indonesia 2045 targets improving the quality of human resources through improving education and health evenly throughout the country.(Albantani & Faizi, 2015). Increasing the budget for the education and health sectors is a very crucial initial step. The availability of larger fund allocations is expected to improve education infrastructure, training of educators, and the provision of adequate health facilities. In addition, national and international scholarship programs serve to produce competent and globally competitive generations, especially in strategic fields such as science, technology, and management.(Silalahi, 2023).

In the field of sustainable economy, transformation towards an innovation and technology-based economy is the main key. The development of creative industries and digitalization of the manufacturing sector are expected to increase the productivity and competitiveness of the national industry. This strategy includes strengthening the creative industry ecosystem through fiscal incentives, digital skills training, and the provision of adequate technological infrastructure. Indicators of the success of this strategy are stable economic growth in the range of 6-7% per year and the contribution of the industrial sector increasing to 30% of Gross Domestic Product (GDP)(Pasaribu et al., 2021; Untu et al., 2022).

Equitable development is the main focus to reduce disparities between regions. Infrastructure development in underdeveloped areas and independent village programs are key strategies in achieving this goal. By improving access to transportation, communication, and basic facilities in remote areas, it is hoped that a more equitable and inclusive development will be created. The target to be achieved is a reduction in the poverty rate to below 5% and a reduction in the disparity in the Human Development Index (HDI) between regions.(Karnoto & Ratna, 2023).

Political and security stability is an important foundation for the success of national development. Bureaucratic reform and strengthening of the defense and security system are strategies taken to ensure this stability. Bureaucratic reform aims to create more efficient, transparent, and accountable governance, which is expected to improve the Corruption Perception Index (CPI). Strengthening the defense and security system aims to maintain territorial integrity and political stability, which are very important for creating a conducive investment climate.(Duwi Handoko et al., 2023).

Strategic infrastructure development is also a top priority in national development planning. The construction of toll roads, ports, airports, and fast internet networks are some of the infrastructure projects that are expected to improve the quality and accessibility of national infrastructure. This infrastructure improvement not only supports economic growth but also increases connectivity between regions, which in turn can encourage equitable development and improve the quality of life of the community.(Andrianto & Iskandar, 2019).

Finally, in the field of environment and social welfare, the government is committed to implementing sustainable and environmentally friendly development and improving community welfare. Reforestation programs and sustainable natural resource management are strategies taken to reduce carbon emissions and increase the area of protected forests. Meanwhile, social protection programs and increase to basic services aim to reduce extreme poverty and increase access to

clean water and sanitation.(Syahwildan et al., 2023). With a holistic and integrated approach, it is hoped that the Vision of Golden Indonesia 2045 can be achieved, bringing Indonesia to become a prosperous and sustainable developed country.

Job Prospects: Opportunities and Challenges for Gen-Z in Indonesia Emas 2045

The future of work in Indonesia is facing a significant transformation as the demographic bonus peaks in 2030, where the number of productive-age individuals will far exceed the number of non-productive-age individuals. This phenomenon brings broad opportunities for the young workforce, especially Generation Z, who are expected to play a key role in supporting national economic growth.(Aryani et al., 2020).

However, major challenges also emerge, especially related to the readiness of the labor market and the qualifications needed in a modern economy. Vocational education and training in Indonesia must adjust its curriculum to focus more on the needs of future industries, which are heavily influenced by the development of digital technology and automation.(Precalya, 2021).

Generation Z, with characteristics that are very familiar with technology and innovation, has the potential to take on important roles in the knowledge-based economy and creative industries. However, the skills they acquire from the current education system are often not fully adequate to meet the changing market demands. Therefore, lifelong learning and continuing education programs need to be strengthened to address this skills gap.(Avita Sari et al., 2023).

Domestic industries are also faced with demands to increase innovation capacity and technological adaptation in response to increasingly intense global competition. Generation Z involved in the labor market must be equipped with analytical skills and high adaptability to meet these needs. This requires substantial investment in research and development supported by the public and private sectors.

Government policies in formulating education and employment strategies must be based on accurate data and predictions of future economic trends. Stakeholder involvement, including the industrial sector, educational institutions, and civil society communities, is key to designing responsive and inclusive policies.(Pratama et al., 2023).

In addition, attention should also be paid to the potential social gaps that may arise as a result of changes in economic and employment structures. Equal access to quality education and employment opportunities should be a priority to ensure that all levels of society can take advantage of the opportunities arising from this demographic bonus.(Wurdianto et al., 2024).

With job competition becoming increasingly fierce, an individual's ability to innovate and adapt will become a determining factor in career success. Mentorship and internship programs can play a vital role in helping young people develop professional skills and integrate them into a wider industry network.(V. Rahmawati et al., 2021).

Strong social support systems and capacity building initiatives from local and national governments will be vital in addressing the imbalance between job availability and job seekers. Initiatives such as the creation of new industrial parks and innovation hubs can be a driving force for job growth. (Fang et al., 2023).

Success in integrating Generation Z into the labor market and harnessing the full potential of the demographic bonus will depend largely on Indonesia's ability to respond to global dynamics. Strategic collaboration between government, industry, and educational institutions will be key in designing a sustainable and inclusive future of work for the next generation.

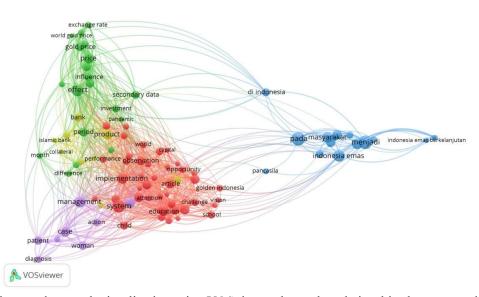
SLR: Scientific Review of Gen-Z Job Prospects in Golden Indonesia 2045

Generation Z (Gen-Z), born between the mid-1990s and early 2010s, will play an important role in realizing the Vision of Golden Indonesia 2045.(Rakhmah, 2021). Being in the midst of rapid technological developments and ever-changing job market dynamics, Gen-Z's readiness to enter the workforce is crucial. This is because of their more digital background and broad access to information, Gen-Z has great potential to drive innovation and productivity, but also faces significant challenges in adapting to increasingly complex and diverse industry needs.(Central Bureau of Statistics, 2023).

Demographically, Gen-Z will dominate the Indonesian workforce in 2045. Inspired by unique characteristics, such as high digital skills and adaptability to new technologies, Gen-Z has a competitive advantage in the global job market. Education that is more focused on STEM (science, technology, engineering, and mathematics) and the ability to work collaboratively in a digital environment gives them an advantage in sectors that are based on technology and innovation. In addition, their openness to lifelong learning allows them to continue to develop skills that are relevant to the demands of the job market.(Hastini et al., 2020).

The job prospects of Gen-Z in Indonesia Emas 2045 will be greatly influenced by their ability to leverage technology and innovation in various sectors. Sectors such as information technology, advanced manufacturing, digital health, and renewable energy are predicted to grow rapidly, offering a variety of job opportunities for Gen-Z. Skills development in these areas, supported by proactive government policies and investment in education and digital infrastructure, will be a determining factor for their success. In addition, entrepreneurship will also be an attractive career path, with Gen-Z having better access to capital, networks, and technology to start their own businesses.(Melita, 2023). In this context, the researcher conducted a critical evaluation of previous scientific literature. The researcher collected 1,000 articles that had been published in the last five years using the Publish or Perish application. Furthermore, the data was analyzed using the VosViewer application. The analysis carried out included network analysis and density analysis to identify research gaps that could highlight the following innovations are the results of the analysis obtained:

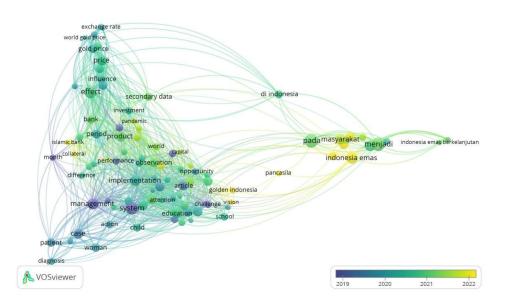
Figure 1.Visualization of the Golden Indonesia 2045 Study Network



The keyword network visualization using VOSviewer shows the relationships between various concepts in the study on "Golden Indonesia 2045". The green to yellow keyword clusters, such as "Golden Indonesia", "becoming", "society", and "sustainable", are located in the middle to right part of the graph. This indicates the increasing relevance of these topics in recent years, reflecting the strategic focus on social and economic sustainability as essential components in achieving Indonesia's long-term vision. These words show a close and mutually supportive relationship, depicting the transformation needed to form an advanced and sustainable society. In contrast, the light green to blue keyword clusters such as "education", "system", "school", "child", and "challenge vision" are in a more dispersed area, indicating continued attention to the topic of education and system development. This underlines the vital role of education in forming globally competitive human resources. Meanwhile, keywords related to economic and financial aspects such as "price", "influence", "investment", and "bank" in turquoise

indicate consistent discussions on economic stability and investment. On the other hand, health keywords such as "patient", "case", and "diagnosis" in purple indicate an early focus on health issues as one of the important pillars in sustainable development. This overall pattern reflects the urgent need for holistic policy integration in achieving the Vision of Golden Indonesia 2045, covering education, economy, and health that are interconnected and mutually supportive.

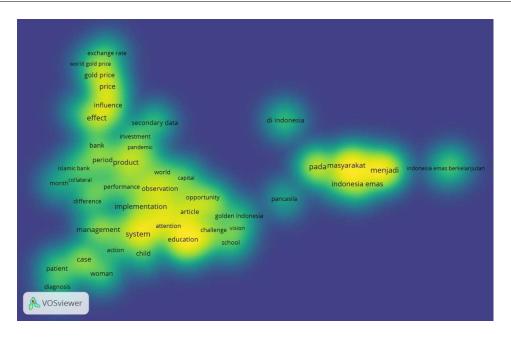




Through the analysis of the timeline above, it can be seen that the classification of the color, size, and proximity of the nodes in this graph provides information about the frequency of occurrence and relationships between keywords from 2019 to 2022. Each color represents a certain period, with color gradations indicating the temporal development of the discussion and focus of related research. In the middle to the right of the graph, there is a group of green to yellow keywords that highlight issues that have become increasingly relevant in recent years such as "Golden Indonesia", "becoming", "society", and "sustainable". The focus on sustainability and societal transformation emphasizes the importance of these issues in Indonesia's long-term vision. The close relationship between these words indicates that the concept of social and economic sustainability is an important component of the strategy to achieve the Vision of Golden Indonesia 2045. Meanwhile, the group of light green to blue keywords such as "education", "system", "school", "child", and "challenge vision" indicate that the topics of education and sustainable system development have long been of concern, emphasizing the vital role of education in shaping a more competitive and competitive future for Indonesia. Keywords related to economic and financial aspects such as "price", "influence", "investment", and "bank" are colored turquoise, indicating consistent discussions on economic stability and investment. This reflects the need to strengthen the economic sector through policies that support investment and good financial management to create a stable and sustainable economic environment. In addition, health-related keywords such as "patient", "case", and "diagnosis" are colored blue, indicating a focus on health issues since the beginning of the analysis period. Attention to public health is an important pillar in sustainable development, with the provision of quality health services and equitable accessibility as a prerequisite for improving the quality of life in achieving the Vision of Golden Indonesia 2045.

Figure 3.Visualization of Density of Indonesia Golden Study 2045

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Discussion

In facing the era of Indonesia Emas 2045, job market transformation is an important focus, especially for Generation Z who will enter and dominate the workforce. Job Evolution Theory explains that the job market continues to change and adapt to new technologies, market demand, and global economic dynamics.(Best, 2020). For Indonesia, this means that the job structure will shift from traditional jobs to technology and information-based sectors, which require high digital and analytical skills. Generation Z, who are familiar with technology and are adaptive, are expected to meet this new demand, but the challenge lies in their readiness to meet the needs of the rapidly changing industry.

According to Human Capital Theory, investment in education and training has proven crucial in increasing individual productivity and the overall economic ability of a country to compete in the global market. (Nakaizumi, 2020). In the Indonesian context, the education received by Generation Z needs to be continuously adjusted to target skills relevant to emerging sectors. This includes integrating curricula that focus on STEM (science, technology, engineering, and mathematics), critical thinking, and creative problem solving, all of which are important aspects of human capital that will support future economic growth.

Human capital development in Indonesia must also involve increasing access to high-quality education and lifelong learning opportunities.(Karahasan & Bilgel, 2020). In an era of globalization and rapidly changing technology, the ability to continuously learn and adapt is becoming more important. Education that is responsive to changing job market needs and continuous skills development are key to ensuring that Generation Z can not only enter the job market, but also thrive and thrive in it.

Implementation of this theory requires collaboration between government, industry, and educational institutions. The government can play a strategic role in providing incentives for innovation in education and training, as well as in creating policies that support the growth of new sectors that will employ the majority of the future workforce. On the other hand, industry must be involved in designing curricula that are not only theoretical but also practical and relevant to industry needs.

Furthermore, the use of technology in the learning process is also an important point in preparing adaptive human capital. Technology-based education, such as online and virtual learning, can reach

more individuals and provide learning modules that can be tailored to the specific needs and career development of individuals. This also allows learning to be more flexible and accessible to anyone, which is very important in preparing Generation Z for a dynamic job market.

The challenges in implementing this theory cannot be ignored. Problems such as inequality in access to education, uneven quality of education, and lack of synchronization between education output and labor market needs are some of the obstacles that need to be addressed. Therefore, continuous evaluation and reform of the education and job training system is very important to ensure that investments in human capital produce optimal results for the economy and society. (Nehme et al., 2023; Pei & Lu, 2023).

The novelty of this study lies in the application of Job Evolution Theory and Human Capital Theory in the context of Indonesia which is approaching the peak of demographic bonus in 2030 and towards the Vision of Golden Indonesia 2045. With a focus on Generation Z as a key asset in supporting national economic growth, this study uniquely integrates an in-depth analysis of how education and training that are relevant and responsive to technological and market changes can affect their readiness and competence in the future job market. This study also highlights the need for adaptation of curriculum and learning methods to prepare a workforce that not only has strong technical skills but also high adaptability, making them more competent and competitive globally. This offers new insights and concrete strategies for education and workforce development policies in Indonesia in facing global economic changes and the fourth industrial revolution.

Conclusions and Suggestions

The conclusion of this study confirms that in facing the challenges and opportunities ahead, Indonesia must implement a comprehensive strategy in preparing Generation Z for a rapidly changing and competitive job market. Adjustments in the education and training system, especially those emphasizing the integration of STEM curricula and the development of analytical and digital skills, are key to ensuring that Generation Z is not only ready to enter the job market but also able to thrive in the global economy. This study underlines the importance of relevant education and training to fully exploit the economic potential offered by the demographic bonus and to achieve the development targets in the Vision of Golden Indonesia 2045.

In addition, the successful integration of Generation Z into the productive workforce also depends on government policies that support the creation of quality and sustainable jobs. The government needs to play an active role in facilitating innovation, investment in high-potential sectors, and adequate infrastructure development. Collaboration between government, industry, and educational institutions needs to be strengthened to design and implement strategies that are responsive to the needs of the future labor market and anticipate changes brought by the fourth industrial revolution. With a holistic and integrated approach, Indonesia can ensure that the Vision of Golden Indonesia 2045 is not only an ideal, but also a reality that provides broad benefits for the entire community.

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