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Improving the Competitiveness of Vocational School Graduates in Indonesia as Human Capital through Local Wisdom-Based Learning

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ABSTRACT

Purpose – The purpose of this study is to identify and analyze local wisdom values in each region in Indonesia that can be involved in education at Vocational High Schools, in order to increase the competitiveness of vocational high school graduates as human capital.

Methodology – The research method employed in this study is a qualitative descriptive approach, focusing on productive subject teachers in vocational high schools of East Java Province. The collection of research data employed an interview method, utilizing an interview guide instrument, and was conducted through focus group discussions based on the spectrum of vocational expertise. FGD involved three productive subject teachers, the principal, and stakeholders, totaling N = 176. The data analysis in the study employed the interactive model of Miles and Huberman.

Findings – Diploma ranks highest as the minimum education standard required by various job vacancies, at 52.8%, followed by Vocational High School at 30%. The requirement for a Bachelor's degree is 8.5%, then High School at 7.5%, and finally, the minimum requirement for postgraduate studies is 1.4%. The less-than-optimal absorption of Vocational High School graduates into the job market, based on existing vacancies, indicates that the industrial world is not yet fully convinced of the value of Vocational High School graduates for several fields of expertise.

Contribution – This study contributes to identifying human capital development strategies, summarized based on local wisdom practices, by implementing key features such as developing global skills, described in basic skills, continuous learning and improvement, knowledge creation and sharing, systematic change, fostering a learning culture, encouraging experimentation, and appreciating students.

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INTRODUCTION

The transformation from the old system to the new system, brought about by the Covid-19 pandemic, has a complex impact on all sectors. The development of human capital through vocational education is an important topic to discuss. It is also worth noting that vocational education produces graduates who are well-prepared to compete in the job market. This is due to the important role of vocational education institutions, primarily vocational high schools, in producing graduates who can fill the job market. Human capital management in vocational high schools must be planned in accordance with the school's organizational goals, specifically to produce graduates who can compete in the job market. This competition presents both a challenge and an opportunity for vocational schools, which are institutions that produce graduates who are ready to enter the workforce. According to the research results of the Indonesian Minister of Finance, Sri Mulyani, the impact of premature deindustrialization can be clearly observed in Indonesia, highlighting the need for productivity improvements to adapt to digital disruption and changes in the economic structure (Indrawati & Kuncoro, 2021). Supply-side improvements require infrastructure and human capital development. Indonesia's education policy framework for improving human capital and increasing the country's competitiveness focuses on five key areas: access to education, education quality, synergies between government, industry, and higher education, industrial linkages, and an incentive system.

The Indonesian government recognizes that the workforce needs to upgrade its skills, particularly in technology and management, to help Indonesian companies compete globally. The challenge is developing an up-to-date curriculum to match the skills required in the workplace (Almaleh et al., 2019; Kaewtip & Thongchaisuratkrul, 2023). Indonesia's education policy framework, aimed at improving human capital and enhancing the country's competitiveness, focuses on five key areas: access to education, education quality, synergy between government, industry, and higher education, industrial linkages, and incentives. Meanwhile, the disruption caused by the Covid-19 pandemic forced the Indonesian education system to immediately revolutionize its teaching methods to adapt to pandemic and post-pandemic conditions (Indrawati & Kuncoro, 2021). The focus of human capital development is evident in the success of students in continuing their studies at higher education institutions, as well as their success in securing important positions in both the government and the private sector, and in entrepreneurship. Despite the lack of social status in the socio-economic background, this factor does not prevent people from developing human capital in the education sector. Struggles in the workforce are challenges that students must overcome to develop independence and competitiveness (Gibbings & Brodie, 2006; Ludam et al., 2022).

The quality of graduates reflects human capital and the organization's ability to achieve goals. This statement is in line with the results of research (Bancong, 2024; T. Santoso, 2020; Thi Cao & Ba Le, 2024)-which concluded that vocational education institutions at all levels must be equipped with good infrastructure, workshop facilities, and employ quality teachers who enable graduates to acquire the skills they need, get jobs so that they can contribute to society and the nation in general. Vocational high school organizations are expected to become learning organizations (Fernandez & Shaw, 2020), where the learning and adaptation processes support vocational high schools in achieving a competitive advantage (Arndt, 2011; Carnahan et al., 2010; Herawati et al., 2020; Obeidat et al., 2021). The opportunity to integrate local wisdom into vocational education is substantial, particularly with the support of the government and society, which are becoming increasingly aware of the importance of preserving culture and managing natural resources sustainably. Vocational education based on local wisdom can provide a competitive advantage for graduates in the job market, especially in industries that rely on traditional skills that are increasingly being forgotten. Additionally, vocational education grounded in local wisdom can also help strengthen local cultural identity and introduce local economic potential to the global market (Fauziah et al., 2023).

The development of human capital at the vocational high school level is strengthened by Presidential Instruction (Inpres) Number 9 of 2016, concerning the Revitalization of vocational high schools, which aims to improve the quality and competitiveness of Indonesian human capital as the primary capital. The President gave a mandate to ministers, governors, and heads of national education standardization organizations to take

the necessary policies according to their respective duties, functions, and authorities in order to revitalize each Vocational High School, improve the quality and competitiveness of Indonesian human capital by creating a roadmap according to needs, and by involving the Minister of Education and Culture. Several ministers involved in the RevitalizationRevitalization of education at the vocational high school level are the Coordinating Minister for Human Development and Culture, Minister of Home Affairs, Minister of Finance, Minister of Research, Technology, and Higher Education, Minister of Industry, Minister of Manpower, Minister of Transportation, Minister of Maritime Affairs and Fisheries, Minister of State-Owned Enterprises, Minister of Energy and Mineral Resources, and Minister of Health. The involvement of these ministers aligns with the spectrum of Vocational High School expertise, which is tailored to local wisdom (Bancong, 2024), in order to support the absorption of work energy in line with the world of work (Arjaya et al., 2024). This study provides contributions. First, highlighting the literature on human capital strategies in vocational education and its practice in several vocational schools that are the object of research. Through this, a policy can be developed to map the vocational school development, ensuring that graduates are effectively absorbed into the workplace and reducing unemployment (Cahyaningrum & Wagiran, 2019). Second, this study can help vocational schools to develop a curriculum according to regional potential based on local wisdom.

Human capital, as the asset that encompasses skills, knowledge, talent, competency, and experience (Gumede & Govender, 2022), is owned by staff and managers, enabling them to perform their work activities effectively. Human capital consists of staff satisfaction, staff commitment to the company, and training and development (Islam & Managi, 2021; Of & Notes, n.d.; Tian Belawati & Nizam, 2020), human capital is defined as the knowledge, skill, competency, and attributes in an individual (Bonvin, 2019) who facilitates the creation of personal, social and economic wellbeing. Human capital development is a process of capacity development and strategic mobilization of human capital towards modernization, increasing productivity, and, more extensively, enhancing global trade, while also integrating it with the world economy (Brunello & Rocco, 2017). Otherwise, human capital development is likened to an investment, activity, and process that creates knowledge, skills, health, or values that are embodied in the human (Scott & Nimon, 2016). It means that any effort to increase human knowledge, skill, productivity, and stimulate individual resources could be called human capital development. Human capital development is a process that enhances human knowledge, skills, and productivity, and stimulates individuals to engage in systematic, continuous, and strategic training. The process should be systematic and planned, with previous activities supporting future activities and facilitating the achievement of set goals. The benefit of implementing an effective human capital development system is the creation of open and decent employment opportunities, as it enhances employees' skills to secure and retain their jobs, advance at work, and adapt to changes (Patky & Pandey, 2020). Investment in human capital development in vocational high schools is crucial for reducing the gap between knowledge-based labor and low-skilled labor (Lincovil Belmar, 2022).

Competitive advantage is anything that the company can do better than its rival companies. When a company can do something that other companies cannot, or has something that rival companies want, it represents a competitive advantage. Competitive advantage can be reached continuously by, first, continuously adapting to changes in trend and external activity and skill, competency, and internal resources; and second, by effectively formulating, applying, and assessing different strategies that strengthen those factors (Gilang, R., & Jane, 2023; Indrawati & Kuncoro, 2021; Lim et al., 2020). The competitive advantage of a school reflects its quality, as demonstrated by the learning strategies implemented within the human capital framework of the school organization. Human capital theory serves as a framework for identifying school organization models and assessing their effectiveness, as displayed in Figure 1 below.

Paletta explained that school quality is a manifestation of school performance and is influenced by several external and internal factors. These factors influence the process and output of the school as an organization, enabling it to achieve performance and impact its competitive advantage, as indicated by the correlation line between resources and results, which is derived from Paletta Models (Hamdouna & Khmelyarchuk, 2025; Veiga et al., 2022).

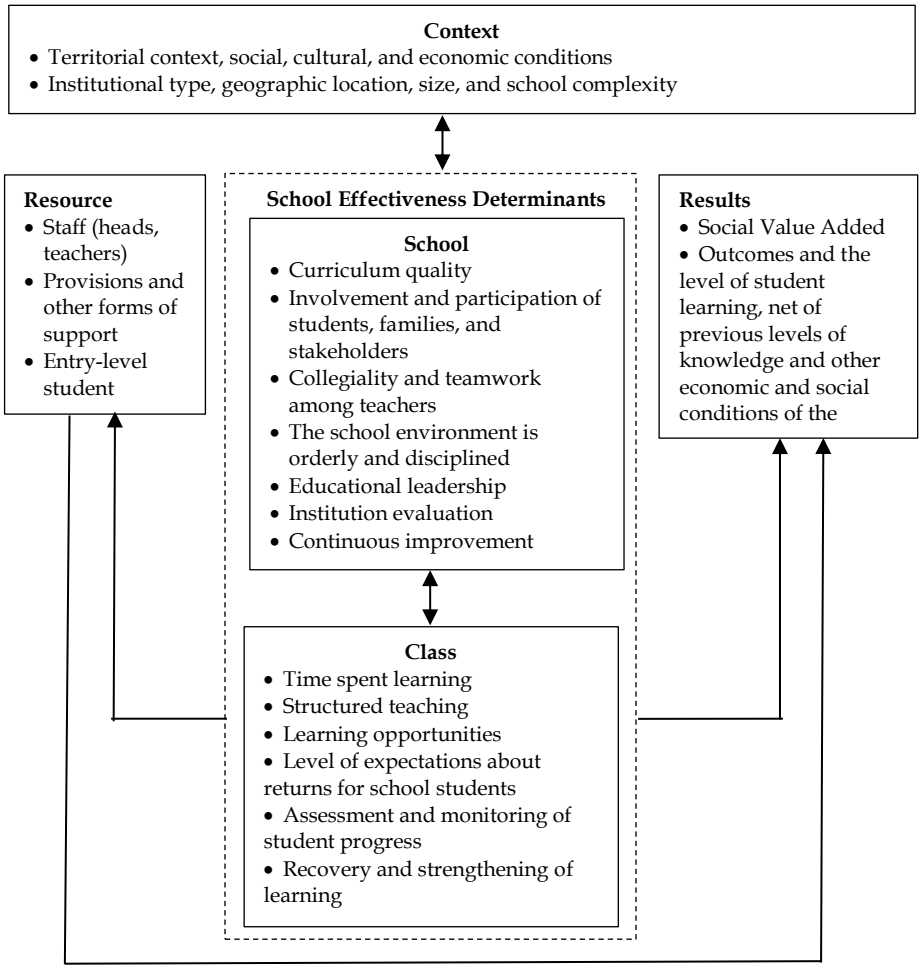

Figure 1. Competitiveness Strategy Framework (adoption from Paletta Models)

Paletta's theory was also strengthened by Zuhr et al., who revealed that the development of human capital, in this case, can be based on the values and potential of local wisdom and regional potential. This presents an opportunity to cultivate local wisdom-based human capital, as well as a step towards revitalizing local and traditional values in the prevailing context of the area where the school is located (Zuhr, Herawan, Nur, & Harsono, 2019). Based on these views, it is evident that developing human capital based on local wisdom can create added value for graduates, as they are not only competent but also possess local values in their profession or expertise. In addition to the existence of a professional community in society, it helps formulate the knowledge and skills needed in a particular area (Bisogno et al., 2018; Matos et al., 2019). This is undoubtedly an asset for vocational schools to focus their learning on the needs and solutions to problems in the surrounding area. Vocational education will be more meaningful and align with national goals because SMK graduates can be a solution in filling the workforce and creating business opportunities in their area. The aim of this research can be formulated as analyzing the potential and integration of local wisdom values in Indonesia into vocational education, to strengthen cultural identity, increase competitive advantage, and expand job opportunities for graduates based on regional potential.

METHODOLOGY

Research Design

This study employed a qualitative approach with an interactive design model developed by Miles and Huberman, as the focus was to explore local wisdom in depth during the learning process (Alsharari & Al-Shboul, 2019; Levin & Forward, 2021).

Subjects and Location

The research subjects were teachers of productive subjects, principals, and school staff. Subject selection was based on information related to classroom learning implementation, tailored to a spectrum of subject areas, and integrated with local wisdom. This is crucial and related to the conclusions (Saleh, 2017). Subject selection was based on data collection from Vocational High Schools (SMK) in Indonesia, covering nine subject areas, and the school's accreditation ranking. After obtaining the names of the schools, a random selection was conducted to represent each province/district. Principals were selected as key informants based on their tenure as principals at their current school, which was a minimum of one year. Teachers serving as key informants were selected based on the criteria of being certified as professional teachers and having worked for at least five years. Stakeholders, who served as supporting informants, were selected based on recommendations from the schools being studied.

Table 1. Data collection based on the spectrum of vocational expertise

Expertise Major	School	Teacher/school	Principal	Stake holder	Total Respondents
Technology and Engineering	5	5	5	3	30
Energy and Mining	3	5	3	1	19
Information and Communication Technology	3	5	3	2	
Health and Social Work	3	5	3	1	19
Agribusiness and Agritechnology	3	5	3	2	20
Maritime	3	5	3	1	19
Business and Management	5	5	5	3	30
Tourist	3	5	3	1	19
Arts and Creative Industry	3	5	3	2	20
	31				N= 176

Data Collection

Data collection techniques were based on interviews conducted through online focus group discussions (FGDs). Interviews used school content standards and vocational high school graduate competency standards, but were conducted in a naturalistic manner to obtain accurate data (Karimi-Ghartemani et al., 2022; Surawy-Stepney et al., 2023). Other data were obtained from field observations at schools that have implemented and formulated local wisdom in their learning practices.

Data Analysis

Data analysis techniques, including narrative analysis, were used to understand and interpret information provided by key informants and supporting informants. Narrative analysis helps examine the structure and content of informants' narratives and identify themes and patterns (Saleh, 2017). The data analysis stages were as follows:

Data Reduction

This stage involves filtering, summarizing, and selecting important data from interviews, focus group discussions (FGDs), observations, and documents to identify meaningful patterns (Plummer, 2017) for determining learning patterns in vocational schools. Data reduction is conducted to obtain relevant data to filter the diversity of local human capital-oriented values and learning practices across various vocational schools (Busetto et al., 2020; Galanis, 2018).

Data Display

The research data is presented in tabular form to facilitate interpretation and further analysis (Busetto et al., 2020). The tabular data presentation illustrates the potential number of vocational schools according to the spectrum and direction of curriculum development, informed by local wisdom and human capital.

Conclusion Drawing and Verification

The next stage involves drawing tentative conclusions and verifying these with field data, key informants, supporting informants, and documentary evidence obtained. Through this process, the data findings will be validated and then used as the basis for recommendations for improving graduate competitiveness. Validation in this research design employs data source triangulation techniques, involving observation results, key informants, and supporting sources, as illustrated in Figure 2 (Patel, M., & Patel, 2019).

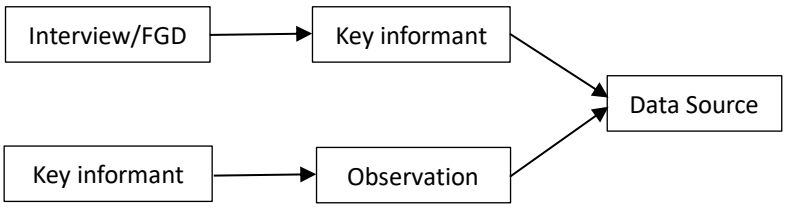

Figure 2. Source Triangulation

FINDINGS

Based on the recapitulation of job vacancies collected from various sources, it is clear that job opportunities for vocational high school graduates are minimal. This can be seen from the minimum requirements listed in the job vacancies, which require a diploma for study programs at vocational high schools. The following represents the percentage of job vacancies that require the minimum education. Data collected from 31 vocational high schools reveal the formulation of local wisdom-based school human capital strategy practices, which are grounded in six fundamental foundations for developing vocational high school strategies, as shown in Figure 3.

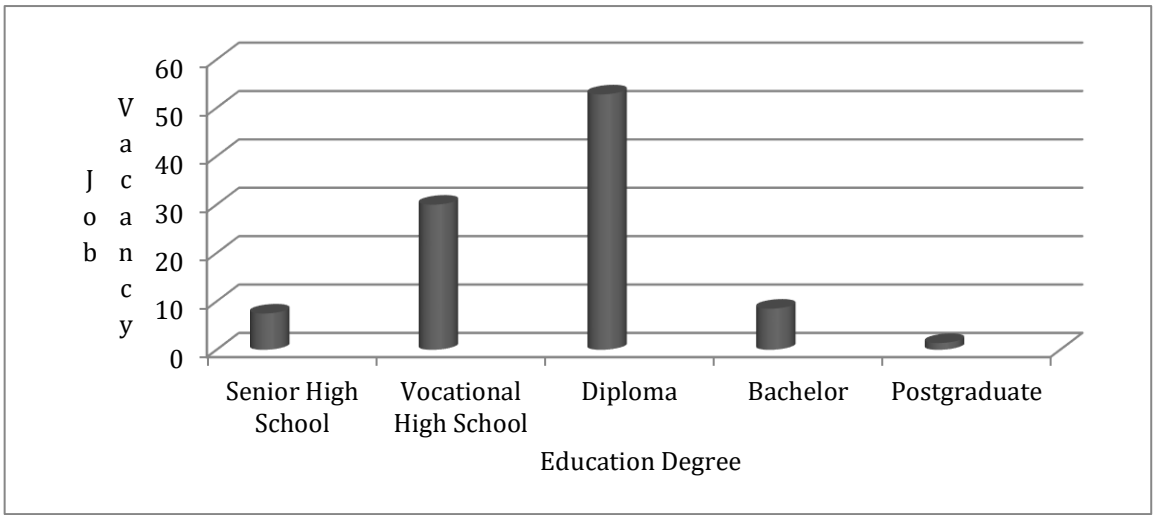

Figure 3. Graph of Minimum Education Requirements for Job Vacancies on several Online Job Markets per August – November 2024 (in percent)

Figure 3 shows that a diploma ranks highest as the minimum standard of education required by various job vacancies, at 52.8%, followed by vocational high school at 30%. Next, there are 8.5% of the minimum requirements for a bachelor's degree, then 7.5% for high school, and lastly, the minimum requirement for postgraduate is 1.4%. The not yet maximal absorption of vocational high school graduates in the labor market,

based on the vacancies presented, indicates that the degree of trust in the industrial world is not yet fully convinced of the suitability of vocational high school graduates for several areas of expertise. Referring to several job vacancies and minimum educational requirements, they can be grouped into areas of expertise in vocational schools that require advancement so that they can be equated with diploma graduates.

The development of vocational secondary education based on regional development strategies can be achieved by strengthening the link and match model, as well as the dual system, which have been the mainstream approaches to vocational secondary education in Indonesia. Education in vocational schools is collaborated with industrial strategies, so that student learning activities occur in parallel with industry. This demonstrates that the implementation of the dual system is straightforward in concept but challenging in practice. Industry involvement in quality control and competency standardization will determine the success of vocational education. Models with this competency approach include the first model, namely the industrial work-based curriculum, which emphasizes work-based learning and treats students as potential workers. In its future development, the competency approach needs to be strengthened and reinforced with a capability approach, to develop a "stock" of future skills that are not only limited to specific skills related to certain jobs, but also include the context of work. Thus, even though students learn in the context of specific types of work, they become graduates who have the ability and confidence to face rapid changes in their field of work.

The labor market scheme will provide an overview of the opportunities and challenges facing vocational high school students as they enter the labor market. Both the formal and informal sectors must receive equal attention from the government, as this is how the economy and public welfare can be realized. Indonesia had a workforce of 1.73 million people as of the second semester of November 2024. The Indonesian workforce has the opportunity to work in both the formal and informal sectors of the economy. The workforce can enter the workforce directly by applying for available jobs or by creating their own opportunities. Vocational high school graduates can take advantage of this opportunity to contribute to the Indonesian labor market. According to information obtained from the Vocational Training Center (BLK), the workforce, both those entering the formal and informal sectors, can participate in professional certification or educational and training institutions before entering the workforce to equip themselves and strengthen their desired competencies. This is expected to align with the needs or targeted employment standards. The statement by the BLK representative was reinforced by a stakeholder, who noted that one of the requirements that facilitates student or job applicant acceptance is having a competency certificate.

On the other hand, Indonesia has potential informal jobs that can absorb labor, including the creative industry, agriculture, animal husbandry, plantations, and fisheries. It is time for the younger generation to dare to work in these fields, as they are pillars of the Indonesian economy. Informal employment requires attention in terms of training and social security protection (Bancong, 2024; Ferdi Hasan & Monita, 2024), as the formal sector has been the only sector to receive membership certification, thereby supporting expertise in its field. The potential labor market, both in the formal and informal sectors, can be leveraged to create a sustainable economy if managed with the right competencies and technology.

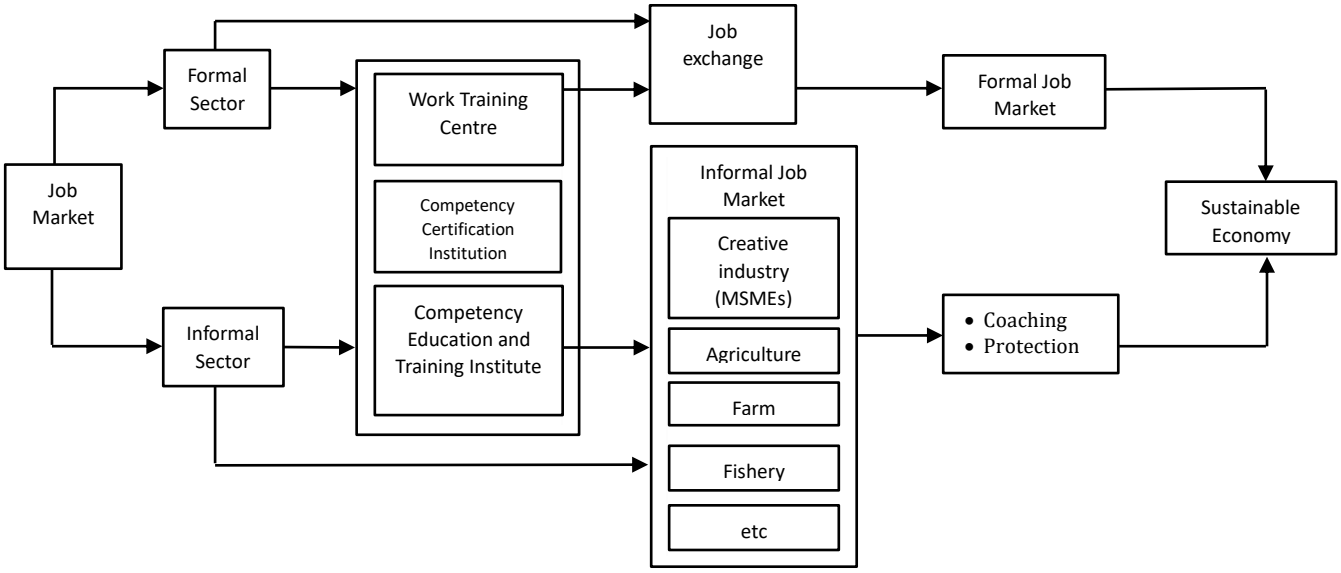

Figure 4. Potential Labor Market Scheme in Indonesia

Based on the analysis of the job market opportunities for vocational high school graduates, a job market schematic can be designed, as shown in Figure 4. The job market schematic, as a result of the FGD with several vocational high school principals, productive teachers, representatives of the Vocational Training Centre (BLK), and stakeholders, will provide an overview of the opportunities and challenges for vocational high school students competing in the job market. The discussion generated ideas for the direction of vocational high school curriculum development based on local wisdom. The job market schematic model is expected to inform the direction of vocational high school education policy, guiding the design of learning models from upstream to downstream, as illustrated in Figure 1. The flow shown in Figure 1 provides information that improving learning in vocational high schools does not only start in the classroom, but also that starting from input and the environment is crucial in successfully achieving learning objectives in vocational high schools. This is reinforced by input from several online FGD participants, who stated that the benchmark for vocational high schools' success in guiding their students into the workforce is their absorption in contributing to their environment. Vocational high schools in the fields of agriculture, mining, maritime, arts, and culture are highly dependent on sensitivity to providing for the needs of their environment. Holistically, the employment sector, both formal and informal, must receive equal attention from the government, as this is the pathway through which the economy and public welfare can be realized. As of February 2024, Indonesia had a workforce of 1.73 million people. Indonesian workers have the opportunity to work in both the formal and informal sectors of the economy. These workers can directly enter the workforce by applying for available job openings or by creating their own jobs. Vocational high school (SMK) graduates can capitalize on this opportunity to contribute to the Indonesian job market. Workers, whether entering the formal or informal sector, can attend BLK (Vocational Training Centres), namely job training centres, professional certification institutions, or educational and training institutions, before entering the workforce to equip themselves and strengthen their desired competencies, with the hope that their competencies align with the needs or standards of the targeted workforce.

Table 2. Recapitulation of Analysis of Vocational School Curriculum Development Models

Aspects	Link and Match Model Based on Local Wisdom	Link and Match Model Based on Local Wisdom
Main objectives	Aligning the competencies of vocational school graduates with industry needs through school-business and industry partnerships.	Develop a contextual curriculum, based on local potential, culture, and regional socio-economic conditions.
Curriculum development	The curriculum is developed in collaboration with industry, encompassing teaching materials, hard and soft skill competencies, and a minimum of one semester of internship.	Educational units (through local development teams) develop operational curricula by including local content as special subjects and intra-curricular integration.
Soft skills and local culture	Focus on improving soft skills, such as communication, teamwork, time management, and public speaking, which are in high demand by the industry.	Cultivating love for local culture, regional identity, local diversity, and the wisdom of local communities
Model implementation	There is a link & match program (curriculum synchronization, internship, certification, teaching factory, etc.) at the Centre of Excellence Vocational School from 2021 to 2025.	Implemented since the 2022–2023 Independent Curriculum through regional curriculum team workshops.
Curriculum flexibility	The curriculum is designed based on formal industry needs; schools have relatively limited flexibility in vocational materials.	Highly flexible: schools can choose local content, integration, or their own subject options as long as they meet national learning outcomes. Ministry of Elementary and Secondary Education
Evaluation of undergraduate outcomes	Judging from direct industrial absorption, some schools achieve absorption of up to 80–93%	Evaluation focuses more on the impact of learning on cultural preservation, student character, and community involvement; it has not focused on absorption by formal industry.

Link & Match is designed to increase the relevance of vocational high school education by minimizing the mismatch between graduate competencies and industry needs. The curriculum is developed in collaboration with industry, internships, certification, teaching factories, and tracer study-based evaluation. Dynamic Local Wisdom is an approach to making schools learning centres that express the uniqueness of each region. Local content can be developed as standalone subjects, integrated, or explored through learning projects to bridge the gap between local culture and globalization.

Potential informal jobs in Indonesia that can absorb workers are the creative industry, agriculture, animal husbandry, plantations, and fisheries. It is time for young workers to take the initiative and get involved in this field (Purwati et al., 2019), as it is a pillar of the Indonesian economy. Informal employment needs attention in terms of training and social security protection. Given that, so far in Indonesia, only the formal sector has received social protection and welfare guarantees from the government. The potential of the labor market in both the formal and informal sectors, when managed with the right competence and technology, can create a sustainable economy. The model that can be developed in a framework becomes a guide in the development of local wisdom-based vocational schools. Figure 1 illustrates the framework of a local wisdom-based human capital strategy in achieving competitive advantage.

DISCUSSION

Developing vocational education based on regional strategies can be achieved by strengthening the link-and-match and dual-system models that have been the mainstream of vocational education in Indonesia. Collaboration between vocational schools (SMK) and industry is a strategic step, ensuring that student

learning activities align with those in industry. For more than four decades, education in our vocational schools has been based on a link-and-match and dual-system mindset, but it has yet to yield satisfactory results. Rapid shifts in job trends have rendered the knowledge and skills taught in school obsolete upon graduation. The curriculum that has been designed has not fully equipped students as human capital. This demonstrates that implementing the dual system is conceptually straightforward but challenging in practice. Industry involvement in quality control and competency standardization will significantly impact the success of vocational education (Amini, 2020; Usmeldi & Amini, 2022). This model, with a competency-based approach, is referred to as the first model, which involves an industry-based curriculum, work-based learning, and treating students as potential workers. In its future development, the competency approach needs to be strengthened and reinforced with a capability approach, to develop a "stock" of future skills that are not only limited to specific skills related to particular jobs (Arjaya et al., 2024), but also include the context of the world of work oriented to local wisdom. Thus, although students learn in the context of a specific type of work, they become graduates who have the ability and advantages to face rapid changes in the field of work that exists in their environment. Semi-industrial Indonesia, with an unclear labor market map, cannot rely solely on the link-and-match approach between schools and industry or the workplace.

Learning from this experience, Indonesia, which is rich in natural resources, needs to diversify its vocational education model. The demand-driven model and the link and match concept that have been used so far need to include their meaning not only in the context of providing for the needs of high-ranking industrial workers and the business world in the established formal sector, but also need to be read and interpreted to meet the needs of "exploration" and development of the potential of natural resources around, culture, arts, and local cultural heritage as local wisdom that has the potential to become the nation's mainstay. By understanding local problems around them, students are expected to be able to utilize and even create appropriate technology (Purwati et al., 2019). Potential informal jobs in Indonesia that can absorb workers are the creative industry, agriculture, animal husbandry, plantations, and fisheries. It is time for young workers to take the initiative and get involved in this field, as it is a pillar of the Indonesian economy. Informal employment needs attention in terms of training and social security protection. Given that, so far in Indonesia, only the formal sector has received social protection and welfare guarantees from the government. The potential of the labor market in both the formal and informal sectors, when managed with the right competence and technology, can create a sustainable economy. The model that can be developed in a framework becomes a guide in the development of local wisdom-based vocational schools. Figure 3 illustrates the framework of a local wisdom-based human capital management strategy in achieving competitive advantage.

Schools struggle to predict the types of jobs and occupations that will be used as curriculum references, as labor market volatility persists and the workforce landscape becomes increasingly difficult to visualize. The combination of local wisdom and vocational education will yield valuable investments for the entire country. Work-ready vocational high school students will contribute to the management of natural resources, culture, arts, and appropriate technology, thereby supporting national development (Maria Zulfiati et al., 2019; Hendrayati et al., 2022). This research confirms that preparing vocational high school students as human capital requires equipping them with information and the potential of local wisdom to support the sustainability of the future workforce. These findings suggest that a vocational high school curriculum solely focused on linking and matching will inevitably be trapped in labor market turbulence (Widiaty et al., 2021).

In this case, a second scenario is needed with a reorientation of vocational education based on Indonesia's natural and cultural wealth. Vocational education is not only designed in a traditional link-and-match model between schools and jobs within a specific industry, but also in a multi-link and match model that accommodates the new world of work, which relies on the advantages of natural resource potential and sovereign development priorities (Alomari et al., 2019). Thus, the nation's competitiveness is not only read as the ability to compete and collaborate with other nations (Chung, 2010) in the sense of being involved in the formal industrial sector (job seekers), domestically and abroad, but what is much more important than that is

the emergence of creative generations (job creators) who rely on the potential of our superior natural resources and will not be rivaled by any country, because that potential only exists in Indonesia. I refer to this vocational education model, which is oriented towards developing the potential of job creators, as the second model. The curriculum is designed based on natural resources and society (natural resource and community-based curriculum), a life-based learning approach that prioritizes strength and self-potential (strength-based development), and treats students as whole individuals.

Food and social security in Indonesia during the COVID-19 pandemic, which has affected most parts of the world (Ing & Basri, 2022; Lee, 2021; Rela et al., 2022), has proven that adaptive sensitivity and the ability to utilize the potential of local wisdom (Sopanah et al., 2024) are solutions to the nation's economic downturn (Anggraeni et al., 2023; Sriyakul et al., 2022). Through local wisdom-based resource management in the agricultural sector (Rozaki, 2020), halal tourism (L. Santoso et al., 2022), and government policies, the country's economic condition is supported. Evidence of sensitivity to local wisdom has led to economic resilience in countries, particularly in Indonesia (Ngongo et al., 2021). This has raised public awareness that facilitating increased economic capital through human resources oriented towards local wisdom can help overcome the productivity deficit in the face of the COVID-19 pandemic's impact.

Through a summary of the analysis of the orientation of the learning model in vocational schools, it provides information that vocational education is not only designed in a link and match model between schools and established employment in specific industries, but also a multi-link and match model with a new world of work that relies on the advantages of natural resource potential and sovereign development priorities (Alomari et al., 2019). Thus, national competitiveness is not only read as the ability to compete and collaborate with other nations (Lim et al., 2020; Péter, 2024; Samira et al., 2017) in the sense of being involved in the formal industrial sector (job seekers), domestically and abroad, but what is far more important than that is the emergence of creative generations (job creators) who rely on the potential of our superior natural resources and will not be matched by any country, because that potential only exists in Indonesia. This vocational education model, oriented towards developing job creator potential, is what I call the second model. The curriculum is designed based on natural resources and society (natural and community-based curriculum), a life-based learning approach that prioritizes strengths and self-potential (strength-based development), and treats students as whole individuals who are valuable as per the concept of human capital (Bonvin, 2019; Lantip Diat Prasojo, Amirul Mukminin, 2017; Loyalka et al., 2016; Prasojo et al., 2017; Syamsuddin & Makassar, n.d.).

CONCLUSION

Indonesia, as a vocational country, will also manifest in two strong figures: a quality and competitive labor market, and high-quality, superior products that are the result of the expertise and creativity of skilled workers, leveraging Indonesia's natural resources that are superior to those of other countries. This study highlights the strategic management of human capital development in a vocational high school, grounded in local wisdom, to achieve a competitive advantage. Human capital development was conducted through a series of strategies to ensure effective learning, enabling graduates to possess the 6C (communication, collaboration, critical thinking, creativity, citizenship/culture, character/compassion) abilities and adapt to the job market, thereby increasing their socio-economic level. Emphasizing human capital development enabled changes through learning. The strategic management human capital development study process was summarized based on local wisdom practices by implementing key features, such as developing global skills described in basic key performance skills, continuous learning and improvement, knowledge generation and sharing, systematic changes, fostering a learning culture, encouraging flexibility and experimentation, and valuing students.

The main element that supported a competitive advantage was human capital development. As a result of the systematic analysis, a framework was suggested for human capital development in the vocational high school organization. Vocational education in Indonesia needs fundamental paradigm innovation—first,

rethinking skills. Reconsider the nature of skills, their types, and how to develop them. This means that the curricular pillars and learning strategies become strategic targets of human capital development management. Second, it is oriented to the wealth and superiority of natural resources as the basis for local wisdom in the development of vocational schools.

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