

Strategic support of higher education institutions through skilled development workforce technology

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Abstract

The study aims to investigate the strategic support of Higher Education Institutions (HEIs) through skilled development workforce technology. Mixed methods are utilized in the process of the study. Likewise, convenience sampling is employed in the selection of the population sample size. The study comprised Sixty (60) respondents only. Results show that students are prepared to become skilled in the various job industry such as education, business, entertainment that may utilize skills in technology to comply work requirements efficiently and independently, show that career-based education workforce development technology skills utilize the technology to comply job requirements efficiently and independently, show that manpower development workforce technology skills maximize potential of students in the workforce technology skills and process, show that community development workforce technology skills focus to address the power and cause of disadvantages and inequalities, show that job matching and employment workforce development skills involve evaluation, making judgment, and job evaluation, and show that industrial vocational training is a part of the system in Higher Education Institutions to provide training and course program related to career future of students. Findings show that there is a significant agreement on the strategic support of Higher Education Institutions through skilled development workforce technology as observed among the respondents.

Keywords: Career-based education workforce development technology skills, Community development workforce technology skills, Industrial vocational training, Job matching and employment workforce development skills, Manpower development workforce technology skills, Skilled development workforce technology, Strategic support of Higher Education Institutions.

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Contribution of this paper to the literature

This research study contributes to the growing body of ideas and knowledge of the HEIs by examining the strategic institutional support and workforce technology to strengthen the integration of development skills of staff, faculties, and students. Likewise, the study is original because it provides emphasis on strategic support of HEIs as a comprehensive approach for development skills initiatives, industry collaboration, digital competencies, institutional policies, and alignment with workforce technology.

1. Introduction

The Higher Education Institutions (HEIs) in the Philippines is supporting various agencies in the development of workforce technology skills through their programs and curriculum implementation based on the needs of the people in the community. This can be administered by the various colleges and universities, which are also known as the Higher Education Institutions (HEIs). They also have programs on skills development through the help of the Technical Education and Skills Development Authority (TESDA), where they can provide various vocational skills for individuals. This is being regulated by the Commission on Higher Education (CHED) on the knowledge and integration of skilled support among students. It investigates the structure of HEIs support in the cognate industry for students in their employment and career path. It improves and creates academic engagement, agreement, and development policies to include the benefits of HEIs technology skills for students' employability system (Owusu-Agyeman & Fourie-Malherbe, 2019). In addition, the support of HEIs in the skilled development workforce technology provides management knowledge and initiatives in the achievement of sustainable development goals among students. It prepares the contribution of HEIs in the development and performance of sustainable goals. It analyzes the proper approach of HEIs in the skills and development of students' interaction and effectiveness on the leadership capacity curriculum program initiatives. It analyzes the support of HEIs to integrate activities, functions, and structures to address the policy guidelines in maximizing the performance of students and application in the skills development workforce technology. It identifies the gaps and skills development workforce technology in the HEIs. It requires methods to play the multidisciplinary teaching role of HEIs in civic society. It improves the policies and development strategic process (Adhikari & Shrestha, 2023).

On the other hand, students are being prepared with the learning skills to enter the workforce being taught at their senior high school in preparation for their higher education skills. It helps students to arm their strong creativity and critical thinking. It integrates literacy strategies in uplifting the competency of students and skills. It provides a successful workforce alike in higher education. This includes problem-solving skills, judgment, decision-making, utilization of systems thinking, and the ability to reason efficiently. It provides technological innovation for the future workforce. The HEIs are obliged to equip students and assume the pivotal role in molding students' competency development process as support in the skills and technology development process. It assesses student and teacher learning, improving skilled workforce development and technology. The role of HEIs influences students to shape their confidence and provide quality graduates and readiness in the employability skills needed in the community (Pandya, Ruhi, & Patterson, 2023). Yet, students are being prepared in the process of revolutionizing business and employability skills development workforce impact. It helps them to increase their new skills and knowledge in preparation for their future. It prepares them to adopt new skills needed for the advanced technology of today's job requirements in the business process. It adopts a leadership approach in the educational system and management mechanism in HEIs (Mallillin, 2022). The skills needed for students are technological competency, with a focus on upskilling and reskilling the ready workforce in the era of future business industry and employment systems. It prepares students to acquire the necessary skills and knowledge development for lifelong strategic goals in the organization, where HEIs are incorporating the curriculum as part of the support for the Sustainable Development Goals (Li, 2024).

Moreover, the Higher Education Institutions (HEIs) provide *initiative* education in the Philippines to support strategic skills and workforce technology development. This includes student exchange, international speakers, visiting professors, and faculty exchange. It provides a global perspective and integration into the curriculum of the Philippine educational setting. This is to share ideas and knowledge for an improved system and process. They can adopt new trends in the educational system to provide quality education from good, better, and best. It can foster better global competency among students in preparation for their future careers. It provides a professional development system for the quality and support of HEIs. It highlights the challenges of implementing educational learning training for teachers, cultural sensitivity, 21st-century development skills, curriculum alignment, integration of advanced technology, and inclusive global education. It provides teaching and learning interventions in the support and model of skilled workforce technology development in HEIs. It equips with comprehensive needs for teacher programs as part of professional development to navigate and address the culturally diverse perspective based on the needs of the community and resources for students (Diano et al., 2023). In addition, HEIs provide initiatives to support the strategic skills and workforce technology development needed in the Philippines, preparing students for the dynamic labor market and employment. These initiatives connect the academic program to the Commission on Higher Education (CHED). The curriculum is aligned with students' needs and approaches that comprise high-demand skills programs and links to the demands of skills development, workforce technology, and employment (Bustos, 2024).

Furthermore, students are being prepared in the 21st century to enter the workforce in Higher Education Institutions. It helps them to think creatively and critically, provides the ability to collaborate with others. It helps them with the process of initiatives in their tasks and skills with the utilization of advanced technology for potential learning of skills. It seeks to prepare talents on the social and economic dynamics of leading companies and employment for students in workforce technology development and skills. It helps students to thrive and survive as part of their skills and training in the HEIs. The trends and skills in the 21st century demand competency and specific skills training that makes employment seekers and students better opportunity job demands. It aims to identify the competency skills for major employability skills preparation for students in the HEIs (Rakowska & de Juana-Espinosa, 2021). Hence, students are being prepared in 21st-century skills development, workforce technology to

reshape the rapid changes of the HEIs based on the needs of the learners that suit the job demands and requirements at present. It provides the need to reimagine the HEIs in continued learning during the 21st-century educational system. It directs and connects prosperity in a powerful, simple choice to control and create future job employment for students, where the HEIs support the needs of the learners in the present educational system. It assists them to better serve the students to the fullest, where they can be recalibrated on the innovation of teaching to the fullest (Enwefa & Enwefa, 2016).

Indeed, the strategic support of Higher Education Institutions assists them in improving the empowerment of the academic performance of students where they are studying. It empowers them to transform through advanced technology in an educational approach in the 21st century. It enables them to personalize learning access to foster interaction, wealth of information, engagement experiences, develop essential digital skills, collaboration, enhance communication, and promote inclusivity. The HEIs provide committed teachers and lecturers to equip students with quality knowledge in the teaching process, which is an important factor in the contribution to students' achievement in the quality system and process in education. It draws attention to quality education by identifying the influences and factors of the quality system in the educational setting at present. It helps to develop workforce technology skills to equip students to the fullest. HEIs provide academic and managerial competency to empower the positive influence and performance of teachers in mediating directly to the needs of students (Muttaqin et al., 2023). Certainly, the strategic support of higher education institutions integrates the intended school framework and leadership that leverages the teachers' full support among their students. It helps transform students with the skills needed for workforce development technology. It integrates proper self-efficacy among teachers and students' academic performance (Li & Liu, 2022).

1.1. Statement of the Problem

1. What is the strategic support of the Higher Education Institutions through skilled development workforce technology among the respondents?
2. How strategic support of the Higher Education Institutions develop skilled workforce technology among the respondents?
3. Is there a significant agreement on the strategic support of the Higher Education Institutions through skilled development workforce technology among the respondents?

1.2. Hypothesis

There is a significant agreement on the strategic support of the Higher Education Institutions through skilled development workforce technology as observed among the respondents.

1.3. Research Design

Mixed methods are employed in the study composed of quantitative and qualitative research designs. Quantitative research is used to measure the strategic support of the Higher Education Institutions through skilled development workforce technology among the respondents since quantitative research approach answers the questions posited on the concept of strategic support for HEIs. It identifies the trends and patterns in the interpretation stage. It is a systematic and logical process to follow the numeric data to describe a phenomenon of the situation. It is designed to determine the variables to be measured and aims to manipulate and control the research process (Brooke & Rwe, 2023). On the other hand, qualitative research design is also used as part of mixed methods to evaluate and analyze how strategic support of the Higher Education Institutions develops workforce technology skills among the respondents. Qualitative research design reflects the development process of the study through thematic analysis. It transcribes the qualitative interview response through text verbatim. Initial codes are assigned to meaningful responses and statements and categorized into themes that represent the shared experiences of the participants regarding skills development, workforce technology, and strategic support perspectives. It enhances the qualitative research discipline in nature to ensure the rigor and trustworthiness of the study (LaMarre & Chamberlain, 2022).

1.4. Instrument Development

The research instruments were self-made and developed based on the extensive review and objectives of the study to support the skills development workforce technology and strategy in the educational system. The survey questionnaire is based on the strategic support of the Higher Education Institutions through skilled development workforce technology among the respondents and how strategic support of the Higher Education Institutions develops workforce technology skills among the respondents using the five-point Likert Scale, while the interview guide for qualitative research is an open-ended questionnaire to gather insights and participants' experiences. The instruments were reviewed to ensure that items were clear, relevant, and aligned with the objectives and goals of the study.

On the other hand, reliability testing was done. The instruments were conducted and pilot-tested among five individuals who were not included as participants in the study. Internal consistency was measured through Cronbach's alpha, with a value of 0.802, which was acceptable in the pilot-testing results. Since the result was higher than 0.70, the instrument was reliable and consistent for use in the study.

Moreover, the instruments were being validated by experts in mixed methods; they hold doctoral degrees and are psychometricians. They thoroughly evaluated the instruments of the study. Comments, suggestions, and feedback were given emphasis prior to the floating of the questionnaires.

Notably, ethical approval and informed consent were followed based on research protocols and principles. Prior to data collection, the researcher obtained ethical approval from the institutions to which he belongs, where the research study was reviewed by the committee. Also, the participants were informed about the study process by signing a waiver and consent before answering the research instruments. Included in the research instrument was the consent waiver for voluntary participation in the research process. The researcher ensured that the participants' answers were treated with utmost confidentiality.

1.5. Sampling Techniques

Convenience sampling is utilized in the selection of the sample and population size of the study. It is a non-probability sampling technique defined based on the criteria set by the researcher. It represents a non-probability-based convenience sample to evaluate the condition of the strategic support of Higher Education Institutions (HEIs) through skilled development workforce technology. It adjusts to provide bias in the selection of the sample size and population (Penn, Petrolia, & Fannin, 2023).

1.6. Participants of the Study

The participants of the study are the Higher Education Institutions (HEIs) leaders from the Commission on Higher Education (CHED), Technical Education and Skills Development Authority (TESDA), and Department of Education (DepEd), namely, Science Technology Institute (STI), University of Caloocan City (UCC), and San Bartolome High School (SBHS). Written request letters are provided prior to the floating of the questionnaire. They are heads, deans, supervisors, principals, and coordinators of various fields, using the criteria in the selection of the sample population of the study. The study comprised sixty (60) respondents only.

2. Results

- 1. What is the strategic support of the Higher Education Institutions through skilled development workforce technology among the respondents?

Table 1. Strategic support of the HEIs through skilled development workforce technology among the respondents.

Indicators	WM	I	R
1. Industrial vocational training skills and development include the school-oriented approach in the delivery of the workplace.	4.12	A	4.5
2. It is a typical manpower development as part of the strategy to maximize potential of students in the workforce technology skills and processes.	4.00	A	8.5
3. It enhances proper information and access to the improved quality of living in the community as a pivotal role in technology workforce skills.	3.38	MA	15.5
4. It prepares students to become skilled in the various employability fields such as education, business, and entertainment that may utilize skills in technology to comply job requirements efficiently and independently.	4.24	SA	1.5
5. It ensures that proper job matching is emphasized in the curriculum of the Higher Education Institutions consistently informed and structured as possible.	3.79	A	12
6. It helps students to possess and distinguish competency in applying and highlighting qualifications for the position to learn new systems and information capabilities.	4.24	SA	1.5
7. Industrial vocational training is a part of the system in Higher Education Institutions to provide training and course programs related to the career future of students.	3.58	A	14
8. It examines the manpower skills involved in assessing the demand of work requirements in forecasting the manpower supply, implementation, design, gap analysis, evaluation, and feedback.	4.00	A	8.5
9. It focuses on the explicit community development workforce technology to address the power and cause of disadvantages and inequalities.	3.38	MA	15.5
10. It assists students in defining workforce development technology skills for the advanced improvement of their career.	3.87	A	11
11. Job matching and employment workforce development skills involve job evaluation and making judgments.	3.61	A	13
12. It provides community development workforce technology skills such as evaluation, implementation, action, selection, and deciding stage of issues.	4.20	SA	3
13. It encompasses the training of the formal economy and acquisition of knowledge on the practical competency attitude in the labor market.	3.91	A	10
14. It guides potential strategies in manpower development, workforce technology skills to enhance potential training effects and support systems.	4.05	A	7
15. It defines the objectives of job matching criteria and the right traits in the position and performance employment workforce development process and skills.	4.12	A	4.5
Average Weighted Mean	3.899	A	
Standard Deviation	0.292		

Table 1 presents the weighted mean and the corresponding interpretation of the strategic support of the Higher Education Institutions through skilled development workforce technology among the respondents.

It shows in the table that rank 1 is shared by the two indicators which are “It prepares students to become skilled in the various employability such as education, business, entertainment that may utilize skills in technology to comply job requirements efficiently and independently”, and “It helps students to possess and distinguish competency in applying and highlighting qualification for the position to learn new system and information capability”, with a weighted mean of 4.24 or Strongly Agree. Rank 3 is “It provides community development workforce technology skills such as evaluation, implementation action, selection, and deciding stage of issues”, with a weighted mean of 4.20 or Strongly Agree. Rank 4.5 is also shared by the two indicators, which are “Industrial vocational training skills and development include the school-oriented approach in the delivery of the workplace”, and “It defines the objectives of job matching criteria and right traits in the position and performance employment workforce development process and skills”, with a weighted mean of 4.12 or Agree. The least in rank is also shared by the two indicators, which are “It enhances the proper information and access in the improved quality of living in the community as pivotal role in technology workforce skills”, and “It focuses on the explicit community development workforce technology to address the power and cause of disadvantages and inequalities”, with a weighted mean of 3.38 or Moderately Agree. The overall average weighted mean is 3.899 (SD=0.292) or Agree on the strategic support of the Higher Education Institutions through skilled development workforce technology as observed among the respondents.

2. How strategic support of Higher Education Institutions development workforce technology skilled among the respondents?

Table 2. Thematic analysis on the strategic support of HEIs among the respondents.

Themes	Response of the respondents	Core Ideas
1. Career-based education workforce development technology skills	Agree	• Compliance with job requirements • Learn new systems and information capability • Development technology skills
2. Manpower development workforce technology skills	Agree	• Potential of students • Demand of work requirements • Training effects and support system
3. Community development workforce technology skills	Agree	• Evaluation, implementation action, selection, and deciding stage of issues • Address the power and cause • Role in technology workforce skills
4. Job matching and employment workforce development skills	Agree	• Involves job evaluation and making judgment • Proper job matching • Job matching criteria and right traits
5. Industrial vocational training	Agree	• Training and course program • School-oriented approach • Acquisition of knowledge

Table 2 presents the thematic analysis on the strategic support of the Higher Education Institutions development of workforce technology skills among the respondents as follows:

1. Career-based education workforce development technology skills

Career-based education, workforce development, and technology skills are aspects and keys to work-based learning experiences. They expose students’ opportunities to apply learning theory to the academic practice process. They direct career-based workforce development technology skills in education into a broader direct-extension curriculum. They provide a design to direct students through hands-on experiences to improve readiness in their career path. They provide students with better learning experiences to instill further confidence in failures and successes in their ability to understand the fundamental situation in workforce development technology skills. They help students develop learning skills through advanced workforce technology in attaining improved soft-skills processes and systems (Plasman & Thompson, 2023). The participants say that:

“It prepares students to become skilled in the various employability such as education, business, entertainment that may utilize skills in technology to comply with job requirements efficiently and independently”. T1, P49 & P5
“It helps students to possess and distinguish competency in applying and highlighting qualifications for the position to learn new systems and information capability”. T1, P43 & P13
“It assists students to define workforce development technology skills for the advanced improvement of their career”. T1, P39 & P12

Findings of the study show that career-based education, workforce development, and technology skills prepare students to develop skills in various employability areas, such as business, education, and entertainment, that may utilize technology skills where they comply with job requirements efficiently and independently. It continues to evolve with the growing recognition based on the needs of education and the demands of students and universities in the modern workplace. It integrates the research gaps in the promising approach integrated into career-based qualifications within the educational system and curriculum support for a skilled workforce and technology. It allows students to combine practical workforce experiences and academic studies to develop knowledge and industry-relevant skills (Mokabe, 2026).

2. Manpower development workforce technology skills

The manpower development workforce technology skills delve into the comprehensive and transformative role in the management of technology that prepares students’ technology skills where the support of Higher Education Institutions is needed to prepare students through skilled development workforce employability. It is a multifaceted skill and impact development in industry relevance, employability, adaptability, program quality, and skills development. It highlights and integrates the implications of manpower development workforce technology skills in adopting technology integration. It enhances technology practice and effectiveness through skills development of workforce and manpower. It empowers the pivotal role of the learners’ competency workforce development. It advances the employability of the students’ collaboration-based needs in the job market (Manubag et al., 2023). The participants say that:

“It is a typical manpower development as part of the strategy to maximize potential of students in the workforce technology skills and process”. T2, P51 & P7
“It examines the manpower skills involved in assessing the demand of work requirements in forecasting the manpower supply, implementation, design, gap analysis, evaluation, and feedback”. T2, P46 & P10
“It guides potential strategies in manpower development workforce technology skills to enhance potential training effects and support system”. T2, P36 & P9

Findings of the study show that manpower development, workforce technology skills, maximize the potential of students in the workforce technology skills and process, which is typical in manpower development. It also identifies the research gaps in the major inputs to development and employee growth within the defense of a fast-moving and necessarily changing technological world. This involves forecasting the manpower supply, feedback, evaluation, gap analysis, and design involving the assessment of work requirements and demands. It also reveals that employee

development has a substantial impact on the digital skills, which are crucial determinants in learning orientation, technical skills, leadership, and organizational support. It enhances the growing significant improvement of employee advancement and flexibility toward digital skills (Kumar & Sharma, 2026).

3. Community development workforce technology skills

Community development workforce technology skills are necessary since the demands are based on the needs of society in terms of skills and development through learning competency in advanced technology. They provide for the development of workforce technology skills, where Higher Education Institutions need to develop a curriculum based on the demands of students and the community as well. They contribute to human knowledge and development to expand the bridge and digital literacy. They assess the impact of employability community development workforce technology skills. They derive from inherent implementation by policymakers for sufficient technology skills to support and initiate the development of the community workforce. They prepare students to develop skills in preparation for their future careers and based on advanced technology (Alao & Brink, 2023). The participants say that:

"It provides community development workforce technology skills such as evaluation, implementation action, selection, and deciding stage of issues". T3, P54 & P4

"It focuses on the explicit community development workforce technology to address the power and cause of disadvantages and inequalities". T3, P49 & P5

"It enhances proper information and access to improved quality of living in the community as a pivotal role in technology workforce skills". T3, P34 & P17

Findings of the study show that community development workforce technology skills provide skills such as evaluation, implementation action, selection and deciding stage of issues. It also identifies the research gaps in the global economy change in the fast pace incredible influence of socio-economic trends, artificial intelligence, automation, and technology. It increases the mismatch between the educational system and workforce needs. It is created with conventional education models in the industrial age in preparation for the technology-intensive, dynamic, and complex workplace. It explores the global skills gap in community development workforce technology skills and micro-credential rising vocational training trends in the educational system and workforce sustainability (Nguyen, Nguyen, & Dang, 2026).

4. Job matching and employment workforce development skills

Job matching and employment workforce development skills must go hand in hand because it is needed in the community where students are being prepared based on the feasibility study conducted by the Higher Education Institutions prior to full implementation. Their design curriculum is based on the needs of the people in society, especially now that technology is booming in the employment workforce and development. Job matching and employment workforce development skills provide specific qualification as to knowledge, skills, and abilities on personal characteristics in the specific job requirements. Employers or companies are looking for qualified talent and skilled workforce that can perform the job. It is a form of workforce development-driven program of the industry in the job market (Anderson et al., 2023). The participants say that:

"Job matching and employment workforce development skills involve evaluation, making judgment, and job evaluation". T4, P47 & P11

"It ensures that proper job matching is emphasized in the curriculum of the Higher Education Institutions that are consistently informed and structured as possible". T4, P42 & P6

"It defines the objectives of job matching criteria and right traits in the position and performance employment workforce development process and skills". T4, P39 & P4

Findings of the study show that job matching and employment workforce development skills demand high-level communication that involves evaluation, making judgments, and job evaluation. It also identifies the research gaps to ensure proper job matching in the curriculum of the HEIs to be emphasized consistently, and informed that possible structure. It combines that labor market sources and data to examine the demand of higher-level skills and supplies, highlighting the significance of policies in job matching and employment workforce development. It responds to policy and reflection of the various skills demand in the labor market demand and structure. It provides action and framework demands for the retention graduates to connects the skills policy strategies, sector development, and business support (Kollydas, 2026).

5. Industrial vocational training

Industrial vocational training is necessary at present, especially since there are short courses offered to provide certificates to learners. This is one of the core programs of higher education institutions, equipping students with skills development, workforce technology. This can help identify the link between technology digitization processes and technical skills required to achieve a better job. Most jobs now require vocational training skills. It identifies the advancements and necessary skills and implementation of the job industry, such as the digital technology system and management of the technicalities of the company, where students are given enough training skills to the fullest. This involves technical skills in distributed technology content, sustainability, challenges, and development of company efficiency and needed skills (Aranda, Campos, Cosculluela, San Martin, & De Pablos, 2023). The participants say that:

"Industrial vocational training is a part of the system in Higher Education Institutions to provide training and course programs related to the career future of students". T5, P54 & P1

"Industrial vocational training skills and development include the school-oriented approach in the delivery of the workplace". T5, P48 & P10

"It encompasses the training formal economy and acquisition of knowledge and the practical competency attitude in the labor market". T5, P35 & P12

Findings of the study show that industrial vocational training is a part of the system in HEIs to provide training and course programs related to the careers of the students. This includes training for skills and development in the delivery of the workforce and school-oriented approach. It also identifies the research gaps in the industrial vocational training strategic approach in response to advanced vocational education, evolving skills development, and demands in the modern workforce. It reveals an analysis of the system in vocational industrial training to enhance the structure

of graduates’ employability, alignment, and adaptability with industry needs, characterized by globalization and rapid technological transformation (Ogunleeye, 2026).

- 3. Is there a significant agreement on the strategic support of the Higher Education Institutions through skilled development workforce technology among the respondents?

Table 3. Test of significant agreement on the strategic support of the higher education institutions through skilled development workforce technology among the respondents.

Test of Variables	Computed z value	Decision	Hypothesis
Significant agreement on strategic support of HEIs among the respondents	55.890	Rejected	There is a significant agreement on the strategic support of the HEIs through skilled development workforce technology among the respondents.
Two-tailed test at 0.05 level of significance with critical z value of ± 1.96			

Table 3 presents the test of significant agreement on the strategic support of the Higher Education Institutions through skilled development workforce technology among the respondents.

It is shown in the table that, when the variables were tested for significant agreement regarding the strategic support of the Higher Education Institutions through skilled development workforce technology among the respondents, the computed z value was 55.8904279, which is higher than the z critical value of ± 1.96 , indicating non-acceptance of the hypothesis since it is significant. Therefore, it is safe to say that there is significant agreement regarding the strategic support of the Higher Education Institutions through skilled development workforce technology, as observed among the respondents.

3. Discussion

The strategic support of the Higher Education Institutions through skilled development workforce technology among the respondents prepares students to become skilled in various employability such as education, business, and entertainment, which may utilize skills in technology to comply job requirements efficiently and independently and focuses on the explicit community development workforce technology to address the power and cause of disadvantages and inequalities. It also provides community development workforce technology skills such as evaluation, implementation action, selection, and deciding stage of issues. It influences the advent of the digital age in the industry. It helps in the upgrade of expected progress in the Higher Education Institutions to meet the industry or company requirements. It also identifies the gaps and demand of the Higher Education Institutions to identify the skills of the new digital workforce and expectations for the career path of students adequately (Mei, Feng, & Cavallaro, 2023). In addition, the strategic support of the Higher Education Institutions through skilled development workforce technology among the respondents explores the industrial vocational training skills and development to include the school-oriented approach in the delivery of the workplace and defines the objectives of job matching criteria and right traits in the position and performance employment workforce development process and skills. This includes enhancing proper information and access in the improved quality of living in the community as a pivotal role in technology workforce skills. It also focuses on the explicit community development workforce technology to address the power and cause of disadvantages and inequalities. It examines the partnership and relationships of the Higher Education Institutions and employability process in integrating skills and strategies (Khajarian, Angell, & Batra, 2023).

On the other hand, the strategic support of Higher Education Institutions development workforce technology skills among the respondents in the area of career-based education workforce development technology skills prepares students to become skilled in various industry business, such as education, business, entertainment, that may utilize skills in technology to comply with job requirements efficiently and independently (Mallillin, 2021). It provides a paradigm in the industrial revolution that increases the sectors and society to predict the gradual change of the educational system and changes based on the needs of the job market and culture process. The training system remains static for the emerging labor market. It provides positive development and orientation among the Higher Education Institutions on the career development of their graduates to the fullest (Bühler, Jelinek, & Nübel, 2022). In consequence, career-based education workforce development technology skills help students to possess and distinguish competency in applying and highlighting qualifications for the position to learn new systems and information capabilities. It assists students to define workforce development technology skills for the advance improvement of their careers. It enables the development of modern technology and knowledge distribution to expand the effective educational system based on the needs of the individuals in the community and in the job market industry. This is the trend in higher education institutions to rely on an increase in modern technology development workforce skills. It acquires knowledge development and creativity to ensure that the system in the educational setting is based on the needs of the business industry and employability skills of students (Dobrica, Duško, & Lj, 2023).

Certainly, manpower development workforce technology skills are a typical manpower development as part of the strategy to maximize potential of students in the workforce technology skills and process. It clarifies the issues and objectives of manpower workforce technical skills and development in terms of quality of talent, policies, and structure among the respondents. It explores the role of national manpower development and construction in the area of strategies and policies in the improved system process. Strategy and policies are needed in the manpower development workforce and technology skills. This can determine the reasons and processes. It reflects the development, strategy, and policy guidelines and undertakings for manpower development. It contributed to the implication of modernization and industrialization practices in the job market and employability skills (Hien, 2023). Nonetheless, the manpower development workforce technology skills examine and involve processes in assessing the demand for work requirements in forecasting the manpower supply, implementation, design, gap analysis, evaluation, and feedback. It also guides potential strategies in manpower development workforce technology skills to enhance potential training effects and support systems. It manages the increase strategy and complex necessary skills among the talented employees and the supply chain process. It maintains and creates proposals on manpower demands by leveraging the advantage of competitive expert human resources or manpower to provide a range of professional

orientation processes related to manpower development workforce technical skills. It influences manpower demand and activities in the intervention of training and development of students in the educational system. It is equipped with a deeper concept and understanding associated with various capabilities in the intervention and training development to foster innovation and process function effectively (Ellinger & Ellinger, 2013).

Apparently, community development workforce technology skills provide community development workforce technology skills such as evaluation, implementation action, selection, and deciding stage of issues. It provides adoption technology skills in the community as provided by the Higher Education Institutions on the impact of talent workers. It helps them to provide an innovation paradigm in the community development workforce technology skills and perspectives. It also explores the approach concerning the technology skills and workforce development perspective concerning the new challenges of new technology that fits the employability of students in the organization. The factors are being characterized in the contextual organization as to the education support as partners in the business industry or employability process. It influences the involvement of the employee and readiness based on the skills learned and development of the educational setting. It provides an impact on community development workforce technology skills in the job market, experiences and conditions of work (Hayton, 2023). In addition, community development workforce technology skills focus on the explicit community development workforce technology to address the power and causes of disadvantages and inequalities. It also enhances proper information and access to an improved quality of living in the community as a pivotal role in technology workforce skills. This explores the upgrade readiness of the changes in the economic structure and technological harshness in the advanced job industrial revolution. It observes the improvement and needs of the community development workforce technology skills and process. It requires advanced human resource development to revitalize the resource-based sector in the community, service, and manufacturing the value chain integration of the global network, and the development of technology skills among the workforce in the job market (Indrawati & Kuncoro, 2021).

Indeed, job matching and employment workforce development skills involve evaluation, making judgments, and job evaluation witness the significant increase of digital technology, computerization, and automation in different industry sectors. It is the major challenge to cope with the advanced technology in job matching and employment workforce and development skills. It provides mechanisms in the industrialized revolution job matching and employment workforce competency as strategic advantages of employability-level talents. It helps the automation of the human resources roles and functions as to outsourcing and self-service facilitation. It utilizes the hiring of workforce and development rewards, motivating employees, retaining talents, and management of learning development. It analyzes and synthesizes the process information on the job matching and employment workforce development skill decision. It prepares the workforce to develop competencies in the job market employability environment that leads to the needs of the organization (Khang, Jadhav, & Birajdar, 2023). Notably, job matching and employment workforce development skills ensure that proper job matching is emphasized in the curriculum of the Higher Education Institutions, consistently informed and structured as possible. It also defines objectives of job matching criteria and right traits in the position and performance employment workforce development process and skills. It identifies the core and requirement capability of the talents needed in the employability skills of individuals, such as management competency, knowledge level competency, interpersonal competency, job-related competency, technical competency, and personal competency. It employs and helps in the performance of individuals to thrive in the job position (Alharbi, 2024).

Finally, industrial vocational training through development workforce technology is a part of the system in Higher Education Institutions to provide course programs related to the career future of students. It becomes important in the national and economic social role policies in the job industry. It increases the quality of industrial vocational training in advanced technology as support to Higher Education Institutions (HEIs) in response to the labor job market industry. It strengthens the vision and mission of HEIs through stakeholders and pedagogical professional development for faculties in support diversity of industrial vocational training needed for the skills on technology development. It establishes a system for improving the qualification and application of training integration. Industrial vocational training provides the necessary knowledge for students to acquire the necessary skills to work successfully based on the needs of the job market. It is expected that students are trained accordingly through on-the-job training that can demonstrate necessary skills in the labor market after graduation (Özer & Suna, 2019). Notably, industrial vocational training skills and development include the school-oriented approach in the delivery of the workplace. It also encompasses the training formal economy and acquisition of knowledge practical competency attitude in the labor market. It reflects and develops the vocational training process to explore knowledge, practice, and potential. It convenes the technical and vocational industry training in the academe. It explores and develops the practice focus on industrial vocational training, improved curriculum in the college, classroom, and various sectors (McGrath & Yamada, 2023).

4. Conclusions

It shows that strategic support of the Higher Education Institutions through skilled development workforce technology among the respondents prepares students to become skilled in various employability areas such as education, business, and entertainment that may utilize skills in technology to comply with job requirements efficiently and independently. It also focuses on explicit community development workforce technology to address the power and causes of disadvantages and inequalities, where it provides community development workforce technology skills such as evaluation, implementation action, selection, and decision-making stages of issues.

On the other hand, it shows that the strategic support of the Higher Education Institutions' development workforce technology skills among the respondents, in terms of career-based education workforce development technology skills, prepares students to become skilled in various employability areas in the industry, such as education, business, and entertainment, that may utilize technology skills to comply with job requirements efficiently and independently, where it assists students in defining workforce development technology skills for the advanced improvement of their careers; shows that manpower development workforce technology skills maximize the potential of students in workforce technology skills and processes, where it guides potential strategies in manpower development workforce technology skills to enhance potential training effects and support systems; shows that

community development workforce technology skills focus on addressing the power and causes of disadvantages and inequalities, where it enhances proper information and access to an improved quality of living in the community as a pivotal role in technology workforce skills; shows that job matching and employment workforce development skills involve evaluation, making judgments, and job evaluation to define the objectives of job-matching criteria and the right traits for the position and performance employment workforce development process and skills; and shows that industrial vocational training is a part of the Higher Education Institutions system to provide training and course programs related to students' career futures, where it encompasses formal-economy training and the acquisition of practical knowledge, competency, and attitudes in the labor market.

Finally, it shows that there is significant agreement on the strategic support of higher education institutions through skilled workforce development technology, as observed among the respondents.

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