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The Scenario of Dual Vocational Training in Private Vocational Colleges under the Office of Vocational Education Commission in the Next Decade (2021-2036)

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Abstract

The purposes of this research were: 1) to study a scenario of dual vocational training, and 2) to evaluate the future possibility of the dual vocational training in private vocational colleges under the Office of Vocational Education Commission in the next decade (2022-2036). The Ethnographic Delphi Future Research (EDFR) was used in this study by document synthesis, semi-structured interviews and consensus by 24 experts of 3 groups; area administrators, private vocational college administrators and entrepreneurs. The median, mode and inter quartiles range were used in data analysis. The future wheels were created and confirmed the future possibility of the dual vocational training in private vocational colleges. The samples of this study were 216 private vocational college administrators under the Office of the Vocational Education Commission selected by purposive sampling. The data were analyzed by frequency and percentage. The result of the study found that the experts' opinions of a scenario of dual vocational training in private vocational colleges under the Office of Vocational Education Commission in the next decade (2022-2036) are consensus with all issues.

Keywords: Dual Vocational Training, Private Vocational Colleges, Next Decade

1. Introduction

1.1. Background and Significance of the Study

The rapid changes in the global economy, world society, and modern technology have given rise to multifaceted transformations. These encompass shifts in political economy, cultural society, ways of life, values, and advances in science and technology, the emergence of digital currency, coupled with global warming caused by greenhouse gases warming the world's average temperature, conflicts in many parts of the world, additionally, societal norms have shifted as people increasingly communicate through online communities, conduct trades via digital platforms, and make investments through the internet. These transformations are the result of ongoing human evolution and development over an extended period, and the advancements in science and technology that continue to reshape the world today. Moreover, these changes extend to the agricultural and industrial production sectors, shaping not only economic landscapes but also contributing to alterations in the world's environment and the emergence of new diseases. Education is the most powerful weapon which you can use to change the world (Mandela, 2017, p. 123). According to the Thirteenth National Economic

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and Social Development Plan (2023-2027), there is a requirement for the preparation of both people and systems to adapt and be ready for future changes. It is essential to be knowledgeable about these changes. The plan aims to develop the status and direction of Thailand 4.0 adaptation. In the future, many countries are placing significant importance on trends in education management, focusing on adopting educational management models that can respond to global changes. This includes keeping up with technological advancements, economic competition, trade, and investment, aligning with the overall trend towards a knowledge-based economy. Human development is a goal that brings benefits to every country. However, the impact of development can also lead to inequality. Countries that successfully drive development towards their goals will have an advantage on the world stage. The guidelines for development outlined in the 20-year national strategy (2018-2037) translate into concrete actions to transform Thailand 'toward a progressive society with a sustainable, value-creating economy. This involves restructuring production for economic innovation, focusing on human development in the modern world, moving towards a society of opportunity and fairness, and transitioning to sustainability. The milestones are clear in terms of the economy, occupational groups, and guidelines for human development in the modern world, aiming to maintain a high level of the Human Progress Index. This involves moving towards a society of opportunity and fairness, fostering continuous learning, and addressing the future development needs. Giving importance to people is a crucial foundation for driving the countries' economic and social development plans. The economic growth of the country has led to the depletion of natural resources and environmental degradation. Issues include resource usage, as well as challenges within the education system, which still faces numerous problems. These issues encompass the quality concerns among people of all ages in Thailand, affecting the standards of education at all levels. The weaknesses in the education system also extend to personnel development in science, English, technology, and management. Furthermore, education inequalities, lacking flexibility, morality, ethics, discipline, honesty, and integrity are impacting the education system. It is crucial to organize vocational education that aligns with the requirements of local enterprises and caters to investors investing in industrial areas. These investments often require highly skilled workers to support technology transfer. Adjustments in education are essential to meet and overcome the challenges of global competition, contributing to the future development of the country. This shift toward change for human development empowers people to contribute to the country, recognizing human resources as the nation's most valuable asset. Changing the paradigm of private vocational colleges to implement dual vocational training aims to develop a skilled workforce that meets the establishment's needs and contributes to overall development. Teaching and learning management in vocational education according to the Vocational Education Act 2008, Section 8, education and training can be organized in 3 patterns: 1) formal education 2) informal education and 3) dual vocational education. Private vocational colleges are educational institutions in society established by the private sector, responsible for organizing teaching and learning at the vocational education under the Office of the Vocational Education Commission. Stakeholders in every sector should collaborate to establish a dual vocational training in order to achieve the objective of developing high-quality human resources that meet workforce needs in all dimensions, including professional competency, life skills, and learning for national development. Therefore, the researcher would like to study the scenario of the dual vocational training in private vocational colleges under the Office of the Vocational Education Commission for the next decade (2022 - 2036), aiming to enhance and sustain the effectiveness of the dual vocational education system in these institutions.

Research Problems

The development of professional manpower is failing to meet the needs of establishments. The declining number of students, who opt for general education to pursue further studies at higher education levels, results in a shortage of both quantitative and qualitative professional manpower entering the workforce. Qualitative labor development remains insufficient, lacking essential occupational skills such as problem-solving, foreign language proficiency, technology skills, and teamwork abilities, particularly in areas that are in high demand by enterprises. Most importantly, there is a deficit in knowledge of technology and innovation.

Research Objectives

- 1. To study a scenario of dual vocational training in private vocational colleges under the Office of the Vocational Education Commission in the next decade (2022-2036).
- 2. To evaluate the future possibility of the dual vocational training in private vocational colleges under the Office of Vocational Education Commission in the next decade (2022-2036).

Research Methodology

The study of a scenario of dual vocational training in private vocational colleges under the Office of the Vocational Education Commission in the next decade (2022-2036) used the EDFR technique (Ethnographic Delphi Futures Research), which combines Ethnographic Future Research (EFR) and Modified Delphi Techniques three rounds and evaluating the possibility of future development of the dual vocational training in private vocational colleges Under the Office of the Vocational Education Commission in the next decade (2022-2036). The methodology was divided into 2 phases;

Phase 1: Studying the management conditions of the dual vocational training in educational institutions under the Office of the Vocational Education Commission by synthesizing relevant documents and research using the systematic framework proposed by Lunenburg & Ornstein (Lunenburg & Ornstein, 2021) to create a semi-structured interview.

Step 1: Semi-structured interviews were conducted with 12 experts following EDFR (Ethnographic Delphi Futures Research, the research method of Poonphatcheewin Jumpol (2009).

Step 2: Develop a questionnaire to collect data using Modified Delphi Techniques, then inquire about the feasibility and consistency from the original group of 12 experts and adding 12 to 24 additional experts. Utilize the research results from step 2 as a guideline for preparing a closed-ended questionnaire with estimation scales, and used these questions to 24 experts from the same group. The data was subsequently analyzed by experts to verify and confirm the consistency with the trend of dual vocational training in private vocational colleges under the Office of the Vocational Education Commission in the next decade (2022-2036), employing percentage, median, and interquartile range. Subsequently, identify a plausible trend that satisfies all three criteria: 1) a trend with a median value of 3.50 and above; 2) a trend with a consensus of expert opinion, characterized by an interquartile range not exceeding 1.50; and 3) a desired trend with support from 85 percent or more of the experts. After analyzing the data, the researcher compiled a closed-ended questionnaire, incorporating the same questions as in

step 2 and including the positions of each expert who responded in that step. Additionally, the positions of the median, group interquartile range, and each expert's original response position from step 2 were added. This compiled information was then sent back to the experts for them to compare their opinions with the group's and decide whether to revise their answers. If their responses were inconsistent with the group consensus, adjustments were considered and the process continued until a consensus was reached. When a consensus is reached, the researcher utilizes the obtained information to paint a picture of the future and prepares a closed-ended questionnaire employing a rating scale. This questionnaire is then used to assess the possibility development of dual vocational training in private vocational colleges.

Phase 2: evaluating the future possibility of the dual vocational training in private vocational colleges under the Office of Vocational Education Commission in the next decade (2022-2036). The researcher prepared a closed-ended questionnaire using a 5-level rating scale to evaluate as follows:

- 5 indicates the highest possibility of a scenario of dual vocational training in private vocational colleges under the Office of the Vocational Education Commission in the next decade (2022-2036).
- 4 indicates the high possibility of a scenario of dual vocational training in private vocational colleges under the Office of the Vocational Education Commission in the next decade (2022-2036).
- 3 indicates moderate possibility of a scenario of dual vocational training in private vocational colleges under the Office of the Vocational Education Commission in the next decade (2022-2036).
- 2 indicates low possibility of a scenario of dual vocational training in private vocational colleges under the Office of the Vocational Education Commission in the next decade (2022-2036).
- 1 indicates the lowest possibility of a scenario of dual vocational training in private vocational colleges under the Office of the Vocational Education Commission in the next decade (2022-2036).

Questionnaires were used to assess the possibility of a scenario development from 216 administrators of private vocational colleges. The data were analyzed using a Statistical Package for the Social Sciences to calculate frequency, percentage, mean (\overline{X}) , and standard deviation (S.D.).

The Results

1. Quality of learners and graduates

Administrators of private vocational colleges hold opinions on a scenario of dual vocational training in private vocational colleges under the Office of the Vocational Education Commission in the next decade overall at a high level. When considering each item, it was found that every item were at the highest level. The item with the highest average was the college organizes teaching and internships according to the curriculum and the lowest was knowledge, including knowledge of general principles of specific occupations and basic analysis, as well as knowledge of English and technology, which can be used for basic communication.

2. Quality of Teaching and Learning

It was found that administrators of private vocational colleges hold opinions on a scenario of Kurdish Studies

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dual vocational training in private vocational colleges under the Office of the Vocational Education Commission in the next decade on quality of teaching and learning overall at a high level. When considering each item, it was found that every item were at the high level. The item with the highest average was colleges and establishments have plans for organizing classes, developing a joint curriculum to meet the needs of the establishment followed by the notification of learning objectives and methods for evaluating results for students both before teaching and the lowest average focuses on measurement and evaluation according to the learner's potential, encompassing various knowledge and skills.

3. Quality of the Dual Vocational Training Administration

It was found that administrators of private vocational colleges hold opinions on a scenario of dual vocational training in private vocational colleges under the Office of the Vocational Education Commission in the next decade on the quality of the dual vocational training administration overall at a high level. When considering each item, it was found that every item were at the high level. The item with the highest average was colleges must seek cooperation with overseas establishments that have a need for manpower and the lowest were the college engages in public relations activities to recruit students in collaboration with business establishments. Colleges and these establishments collaborate to design curriculum that suit the students' needs. Teachers in educational institutions possess a strong understanding of the dual vocational training. Additionally, teachers in the college are developed in both knowledge and a positive attitude toward the implementation of the dual vocational training.

4. The Quality of Collaboration between Business Establishments and Educational Institutions

It was found that administrators of private vocational colleges hold opinions on a scenario of dual vocational training in private vocational colleges under the Office of the Vocational Education Commission in the next decade on the quality of collaboration between business establishments and educational institutions overall at a high level. When considering each item, it was found that every item were at the high level. The item with the highest average was the establishment is equipped with a laboratory for hands-on practice in operations, followed by the establishment provides the college with suitable equipment for students to practice practical subjects, ensuring thorough preparation and the lowest was the establishment collaborates with colleges to provide support resources for education, aiming to develop knowledge and transfer new technology to students.

Discussion

The private vocational college organizes teaching and internships based on the curriculum structure, ensuring that learners acquire competencies meeting the standard criteria desired by business establishments. The training also focuses on cultivating positive attitudes in students and graduates, emphasizing morality, ethics, and professional conduct. This includes instilling pride in preserving national identity, respecting the law and the rights of others, and fostering responsibility according to individual roles and democratic principles, with the King as the head of state. Individuals should embody a public-minded attitude, demonstrate unity and environmental care, and excel in their respective careers. Proficiency in English and technology for basic communication is essential. Moreover, individuals should cultivate skills in selecting and

applying basic tools and materials for accurate task execution. Lifelong learning skills, analytical thinking, and systematic problem-solving are also crucial. Additionally, possessing knowledge about health and safety, adaptability to change, the ability to work according to plans, and providing basic guidance for decision-making are important attributes. Individuals should be adept at planning and solving problems responsibly in their work. As well as, Wattananarong Kritsaman (2011: 35), emphasized that learners must undergo training to cultivate habits and attitudes aligned with the demands of their specific career fields. The training should aim to foster systematic thinking for problem-solving and develop practical skills. This process requires sufficient time to instill these habits effectively, considering the unique interests, aptitudes, and intelligence of each learner. Furthermore, it is essential to encourage learners to unlock their maximum potential based on their individual needs and capabilities. And Bunyasopon Teerawut (2013:3) indicated that vocational education is the preparation of quality human resources with the aim of developing and transforming individuals' behaviors in terms of skills or expertise, knowledge, understanding, and attitude. This preparation is intended to enable individuals to effectively pursue careers of their choosing. As well as, Daoruang Jongsathaporn (2017), the preparation of vocational education personnel should encompass fundamental qualifications in three key areas: 1) knowledge, 2) attitude, and 3) skills, along with desirable characteristics. Students are encouraged to foster a desire for independent thinking, self-analysis, and problemsolving. Cultivating creative thinking, promoting cooperative coordination, and self-development are essential attributes for students aspiring to become global citizens and Dewreong (2017) mentioned that the vocational education management in the 21st decade has a need for learning management methods that are flexible and focused on student-center. In addition to the Vocational Education Development Plan 2017-2036 (2017 C), which outlines the goals for the specified period, the plan aims to produce and develop learners and graduates in at least three key areas: 1) desired characteristics, 2) core competencies and general competencies, and 3) professional competency, all in accordance with the Vocational Education Standards 2018. The Vocational Education Qualification Standards Certificate of Vocational Education 2019 establish guidelines for the Office of the Vocational Education Commission, vocational education institutions, and other educational institutions. These standards serve as a reference for developing or enhancing teaching and learning curricula, aiming to improve the overall quality of education. By organizing education in accordance with these standards, the goal is to produce high-quality graduates and facilitate the certification of their qualification standards (The Vocational Education Qualification Standards Certificate of Vocational Education, 2019: 10). Private vocational colleges design curricula aligned with the requirements of establishments, collaborating in the development of courses. This approach ensures that teaching and learning methods meet the demands of the labor market and adhere to a suitable course structure. The curricula are tailored to the situation and designed for optimal study time. Emphasis is placed on practical learning, integrating theoretical knowledge into real-world applications to equip students with the skills needed to become proficient in the workforce. Private vocational colleges and business establishments have prepared study plans to meet the needs of the establishment, regularly and continuously incorporating new technologies for teaching. The teaching and learning process incorporates course content aligned with professional studies. Students engage in a modern curriculum that stays abreast of technological advancements while working in establishments that provide up-to-date education. Clear learning objectives and evaluation methods are communicated to students before the commencement of teaching. Colleges and establishments collaborate to measure and evaluate students, organizing tests prior to the course conclusion. Measurement and evaluation are tailored to the learner's potential. In addition, graduates should be able to secure jobs that align with the fields in which they received vocational

training. Private vocational colleges are obligated to promote the availability of dual vocational education to parents and students through various channels, including direct communication and various media, including the internet. Guidelines are provided for organizing vocational teaching, aiming to guide students toward appropriate future careers. The college allocates a budget according to the study plan in the dual education training and provides materials and equipment for teaching and learning in fields that are up to date with modern technology. It also focuses on developing and imparting knowledge to college teachers to ensure a thorough understanding of educational management in the dual training. Additionally, efforts are made to develop and provide knowledge to trainers in workplaces. Vocational colleges arrange for teachers to regularly supervise students in the workplace. They also facilitate and provide materials and tools for the supervision of teachers in educational institutions, and train teachers in establishments. Private vocational colleges are required to seek cooperation with establishments in various sectors that require vocational workers. The college encourages students studying in the dual system to explore various opportunities for building their careers and actively seeks cooperation with foreign business establishments in need of skilled manpower. According to Ruamchomrat Jintana (2015), who studied the model of dual education training management in vocational colleges under the Office of the Vocational Education Commission, it was discovered that developing the characteristics of vocational education institutions and enhancing learning resources leads to the advancement of private vocational students. This, in turn, contributes to the overall development of private vocational education administration. The development of the characteristics of private vocational students leads to the advancement of private vocational teachers. Similarly, when the characteristics of private vocational teachers are developed, it results in the progress of private vocational students. Moreover, the development of private vocational education administration contributes to private vocational students acquiring the characteristics required by the labor market. Business establishments provide work training rooms and skilled personnel knowledgeable in vocational training to create a conducive environment for student internships. They support educational institutions with appropriate tools and equipment, enabling students to practice practical subjects in preparation for vocational training in the business establishment. Additionally, they ensure that personnel with expertise in managing the dual vocational training are available and cooperate with the organization. Working together with unity and responsibility, the establishment participates in selecting learners as desired. It supports educational resources in collaboration with colleges, facilitates the transfer of knowledge and new technology, and encourages students to think analytically. Additionally, the establishment provides welfare, ensuring appropriate and fair remuneration. Furthermore, it facilitates student learning and trains teachers in business establishments to develop expertise in using teaching media. Colleges and establishments jointly determine systematic evaluation methods through various means, such as establishing a committee to assess teaching and learning outcomes. Additionally, establishments actively participate in teacher supervision. As well as, Sittiraja Thanakrit (2015), dedicated that educational institutions with beautiful and shaded physical environments tend to enhance teaching and learning management. Students are encouraged to think analytically and synthetically, particularly in communication. Moreover, modern teaching media, including digital systems and online platforms, are utilized for effective teaching. According to Chaemchoy (2016), executives must explore novel methods to connect ideas and knowledge, utilizing technology to transmit them to students in a world where communication technology is prevalent. In such a society, creativity should not be overlooked. And Kanlayalak (2015), mentioned that cooperation between educational institutions and business establishments is essential for jointly developing plans, setting strategic policies and action plans, establishing curricula for the learning process, implementing measurement and evaluation systems, and designing educational plans collaboratively. As well as, Chomjai Teerawut (2011: 31), summarized that the principles of vocational education management as follows: Vocational education enables individuals to enter the labor market by developing their skills. Competency development is essential for achieving full competitiveness in the labor market. Moreover, vocational education serves as the foundation for national economic growth. It is an education for production aimed at strengthening the economic system and fostering social unity. Vocational education at the secondary level prepares people to enter the labor market. Vocational education must be organized to meet the manpower needs of society and the nation. Vocational education is evaluated using economics as a benefit. Pratumchat Nattawut (2013:7), emphasized the importance of collaborative learning planning among students in the dual vocational education system, vocational educational institutions, and establishments. This involves practical work in the workplace to develop students' practical skills in environments closely resembling real work settings. The learning process should progress from easy to difficult tasks. Additionally, students are required to study theoretical subjects in educational institutions and undergo practical or vocational training on-site. The ultimate goal is to prepare a skilled workforce that meets the needs of enterprises entering the labor market. In accordance with the National Education Standards Framework, the National Vocational Qualifications Framework, and standards for vocational qualifications at each level, as well as adherence to professional standards, there is a promotion of coordination and cooperation in organizing education. This involves the development of joint curricula between institutions, educational establishments, agencies, business establishments, and various organizations at the community and local levels, all with the mission to provide vocational education. This mission is in accordance with the National Education Act B.E. 2542, as well as its subsequent amendments in B.E. 2545, and the Vocational Education Act B.E. 2008. The Office of the Vocational Education Commission manages vocational education to achieve its objectives, focusing on implementing courses and organizing teaching and learning processes to develop competencies. This collaboration involves all sectors, especially through the "Dual Vocational Education Management System," resulting from agreements between educational institutions, vocational education providers, and establishments, including state enterprises or government agencies. This encompasses curriculum organization, teaching and learning management, and measurement and evaluation. Students spend part of their time in educational institutions and practical work in the workplace as part of the dual education system (Dual Vocational Training, 2019: 2).

Suggestion

1. Suggestions for applying Research Results

- 1.1 Administrators of private vocational colleges can utilize the findings of the scenario of dual vocational training in private vocational colleges under the office of vocational education commission in the next decade (2021-2036). This will enable them to make recommendations for planning the operation of private vocational colleges in the dual education system for the future. Promoting dual vocational training in teaching and learning, as well as providing effective bilateral education for students, is beneficial. This ensures that establishments have workers with the necessary knowledge, skills, and expertise to meet the needs of entrepreneurs.
- 1.2 Administrators of private vocational colleges can utilize the findings of the scenario of dual vocational training in private vocational colleges under the office of vocational education

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commission in the next decade (2021-2036) in planning and preparing for the implementation of a dual education system within their own colleges, to support future changes.

2. Suggestions for Next Research

- 2.1 Research and development of dual vocational training in private vocational colleges should utilize information technology to enhance the management of dual vocational training programs towards a systematic and sustainable future.
- 2.2 Research should be conducted to investigate the factors influencing the provision dual vocational training in private vocational colleges under the Office of the Vocational Education Commission.
- 2.3 Research and development of personnel to prepare for the development of dual vocational training curricula at all levels in private vocational colleges, as well as in establishments that jointly provide education should be conducted.

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