



TVET Attractiveness: Thailand and International Perspectives

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Article info

Article history:

Received : 4 October 2019

Revised : 1 November 2019

Accepted : 27 November 2019

Keywords:

TVET Attractiveness, Technical and Vocational Education and Training (TVET), Thailand, International Perspective

Abstract

This article is written to reveal ideas, situations, and factors that influence the Technical and Vocational Education and Training (TVET) attractiveness by international perspectives. The documentary research was conducted. Data and information such as the research articles, academic documents, and empirical data, were collected to review for analysing and synthesising the TVET international situation and complex relationship model of factors that relate to TVET attractiveness. The conclusion of the article presents the TVET development in order to progress for attractiveness that must be developed as a holistic system. Developed and developing countries, including international organizations, both for-profit and non-profit, are the key components of a holistic system. There are many efforts to promote TVET in levels including policy level, supporting level, and practical level, by empirical beliefs, attractiveness that is the basis of country development. The factors relevant to TVET attractiveness are very complicated in the relationship. Finally, the relationship model of TVET attractiveness was initiated by documentaries review.

Introduction

Technical and Vocational Education and Training (TVET) has a highly critical role to play in supporting economic and social growth, moreover, it has played as a key part in UNESCO's mandate for education. It offers valuable benefits to individuals and enterprises in social, economic, culture, technology, and education development (Kitiashvili & Sumbadze, 2018; Meesuk, 2019). In addition, the importance of TVET has been mentioned in other organisation, World Bank, which place more priority of TVET than previous. The policy of TVET promoting is seen as the human resources investment and as a manner for supporting economic growth. As has

been summarised in the World Bank strategy, the bank considers system reform via assessments and evaluations, especially, assessment of learning and skills; including team skills, critical thinking, ICT, problem-solving, and creative thinking. This definition is for the entire education system: public schools, colleges, universities and training programmes. That reveals the learning and skills are not only in general education, but also in the overall education system. Learning and skills have been mentioned in the area of general education, higher education and especially in vocational education. Learning and skills training are significant and delivered by cross-sectoral working (UNESCO-UNEVOC, 2013).

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Recently, UNESCO (2016) issued the strategy for technical and vocational education and training (TVET) 2016-2021 which aims to enhance the TVET system and to support youths and adults with gaining skills required for appropriate work, employment, entrepreneurship, and lifelong learning. Furthermore, to contribute to the implementation of the 2030 Sustainable Development agenda. The strategy for TVET including (1) fostering youth employment and entrepreneurship -- this strategy aims to reduce youth unemployment. Because one of the recent problems for societies and economies is the rising youth unemployment both in developed and developing countries. Hence, TVET will equip youth with the skills required including skills of entrepreneurship. TVET can also increase productivity and increase wage levels and reduce access barriers to the world of work, enhance responsiveness to changing skill-demands by enterprises and communities, for example through work-based learning, and ensuring that skills gained are recognised and certified. In addition, TVET can also offer skills development opportunities for low-skilled people who are unemployed, out-of-school youth and individuals not in education, employment and training; (2) promoting equity and gender equality -- this strategy aims to reduce gender-bias of TVET programmes and lack of opportunities for skills development and proper work. Ensuring all women and men, youth and adults, have equal opportunities to develop and enhance their knowledge, skills and competencies; (3) facilitating the transition to green economies and sustainable societies -- this strategy aims to focus on ways to create effective partnerships across governments and between agents and institutions concerned at the national and local levels and ensuring and sharing knowledge development in the field of greening skills especially through the UNESCO-UNEVOC Network.

TVET has been discussed in many forums throughout the world. The contribution of changing and supporting, TVET has been discussed at the policy level including an increase in the skills gap within and between countries. After TVET became worldwide recognized as a major driving force of technological development and socio-economic growth which has caused policymakers to focus on improving TVET programmes to ensure that both youth and adult learners acquire the essential skills for poverty reduction and economic recovery. Policymakers worldwide have been reminded that TVET is the backbone to achieve skilled human resources for the manufacturing and services sector. They

have been responding to TVET system improvement by establishing educational policies at all education levels to be linked to the TVET system. There are many efforts of organisations, both private and public, to combine education and training depending on occupation and employment. Moreover, countries have increasingly promoted TVET during times of financial crisis and have used this advantage to address the policy measures to improve TVET attractiveness. TVET is interested in the input, process, output, and outcome. Cause the TVET attractiveness is considered the improvement of permeability and diversity of pathways and programmes, campaigns and improvement to guidance and counselling. (European Center for the Development of Vocational Training, 2014; Musyimi, Malechwanz & Luo, 2018).

Many countries policymakers have promoted TVET in order to respond to the current situation of the world. The model established regarding professional occupational competencies usually accounts for four aspects of competence: vocational knowledge, belief/values, motivational orientations, and self-regulating capabilities. Vocational knowledge is further divided into four subcategories including content knowledge, pedagogical knowledge and pedagogical-psychological knowledge as well as counselling knowledge. These have been delivered to various countries in order to manage vocational education and build TVET to be an attractive education (Zinn, Raisch & Reimann, 2019). We found that the results of the performance of promoting TVET still face problems. Four challenges confronting TVET are uncoordinated government, fragmented delivery, lack of recognition for technologists and competency gaps among instructors (Khirotdin, Ali, Nordin & Mustafa, 2019). The challenges cause TVET attractiveness to be discussed in both developed and developing countries (International Labour Organisation, 2017; Ismail, Adnan, Masek, Hassan, Hashim & Ismail, 2019; Henseke, 2019; Chakroun, 2019).

Hence, it is necessary to review the situation, opportunity, ideas, and the challenges of TVET through an international perspective as the aims of this paper is to summarise the TVET situation and how countries deal with TVET changes in their country, especially in TVET attractiveness. The analysed information review will be useful for vocational educators and educational policymakers to understand TVET in the ways of the development of TVET to meet the needs of society and to be a key to economic and social development.

International TVET attractiveness situation

Although there is a lot of effort to promote TVET by specifying in the national policy and enhance the implementation, many countries are still facing the problem that TVET is generally not as highly esteemed as other educational options, upper secondary or higher education. The attractiveness of technical and vocational education has shown to be low based on the information of the relevant documents and reports such as legislation on counselling practices, implementing documents, and the social factors by means of which the TVET education system can influence the individual's decision to enroll both student and parents. (Lovsin, 2014)

According to the Germany vocational education system, which is known to be the model of the TVET system that produces effective labour based on the labour market needs. Germany has a very powerful vocational education system and its dual apprenticeship system is based on strong coordination and mutual trust between the social partners including employers, chamber of commerce and industry, trade unions and government, at all levels from national to local. Germany has a vision that technology is being integrated into all professions and industries. It is transforming traditional occupational profiles in the majority of industries, products, processes and services are undergoing constant change, and new occupations are going to emerge. Moreover, in the labour market with innovations and the requirement for skills of the 21st century, TVET must have the know-how learned from theoretical coursework and imitation of skills by learners. The learners will require flexible skills to prepare themselves to be hired for jobs in the future. In addition, the traditional models of TVET which initial training have been inadequate in preparing workers for the continuously evolving labour markets (Kanwar, Bakasubramanian & Carr, 2019; Henseke, 2019; Moodie, Wheelahan & Lavigne, 2019)

In the year 2018, by the formal education system, England had approximately 40% of upper secondary enrolled in vocational education, less than 47% in Germany (Moodie, Wheelahan & Lavigne, 2019). England has called 'further education' which comprises of basic vocational education, higher vocational and technician programmes, retraining programmes, and several education programmes offering adults a second chance at essential learning. England has a model of apprenticeship reforms by replacing qualification-based 'frameworks' with 'employer-led standards'. The current problem of England's TVET is the lack of qualifications

and status of classroom-based teachers. England's effort to transfer TVET knowledge and skills from the workplace to education. Apprenticeships are facilitated by staff in various roles, each with their own form of professional formation, across different national TVET systems. This has set the UK government on the path of replacing the suites of qualifications that has made up apprenticeship frameworks to the introduction of apprenticeship standards. The employer-led apprenticeships have been designed in a way that varies significantly in content and complexity. Therefore, higher-level apprenticeships have been improved, many lower-level apprenticeships have less content and no qualifications (Esmond, 2019; Moodie, Wheelahan & Lavigne, 2019).

By the way, Australia is developing the vocational institution, system and teachers. In Australia more than half (55%) of students in upper secondary education enrolled in the dual education program, they have to study at least 1 vocational subject. Australia divides post-secondary education into vocational education and training, and higher education, sharply. Both sectors are of very similar size, but most private provider's share of publicly funded vocational education and training are equivalent to full-time students. This is the direct outcome of Australian federal and state governments, the model of 'marketise-privatise', first to marketise and then to privatise vocational education and training. By marketise, Australia means governments' allocation of resources are given by a competition, typically for students. This is said to make institutions have more competition by providing flexible and responsive programmes to respond to 'customer' need. Additional, privatisation means the prolongation of public subsidies are for profit private training providers and lets them subsidise and manage their programmes by themselves (Moodie, Wheelahan & Lavigne, 2019).

In Malaysia, a big challenge to the TVET situation is creating entrepreneurship as an available skill. Quality TVET graduates have become one of the major shifts as addressed in Malaysia Education Blueprint 2015-2025 which focus on delivering quality TVET graduates. Transforming TVET by the industrial and enterprise-led approach has three main strategies including (1) strengthening the governance related to TVET for better management, through the blueprint of the national qualification framework, and harmonising of various systems across both private and public TVET institutions; (2) enhancing the quality and delivery of TVET programme

to improve graduates employability, eliminating duplication of programmes and resources, enhancing cost-efficiency and expanding funding for TVET to increase enrolment; and (3) enhancing TVET branding to increase its attractiveness. These are the strategies that Malaysia has addressed to achieve TVET through promotional activities that highlight TVET as an attractive career choice (Ismail, Adnan, Masek, Hassan, Hashim & Ismail, 2019; Khirotdin, Ali, Nordin & Mustafa, 2019).

In Hong Kong, China's education reforms have been upgraded and modernised including what it now terms the VPET (vocational and professional education and training) sector. It has implemented curriculum reforms in terms of knowledge, skills, values, and attitudes that prepare learners. Unlike the previous system which Hong Kong inherited from the British colonial rule, the new model is designed to achieve the highest potential on multiple pathways including general education, TVET, higher education, and continuing education. TVET in Hong Kong is introduced at the senior secondary level via Applied Learning subjects (Pavlova, 2019). It allows TVET in Hong Kong to be interesting and attractive to students and parents decision to enrol. Moreover, the situation in China, China's transition rate from lower secondary education to higher secondary education has increased significantly, from 80.5 to 93.7 per cent. In light of this impressive progress, the Chinese government aimed at raising the gross enrollment rate in vocational education by 2020. Looking ahead, reforms in upper secondary education are necessary for China, given the increasing demand for a highly skilled labour force and China's fast demographic change as the young population cohorts decline. Quality and relevance in vocational and general education have been discussed for preparing the bottleneck in further expansion, regarding 21st century skills for a new career, employment or entrepreneurship.

On the other hand, there are not only positive changes towards TVET. In Iraq, the Kurdistan Region, the situation of TVET is an interesting matter. The government's poor recognition of vocational and technical schooling system. The enrolment in TVET is dropping but the increasing numbers of schools and teachers, and the budget for education has not increased. Consequently, the Kurdistan society considers TVET as a low-status education (Ismail, 2019). Similarly, in Australia, the problem that the Australian government faced is changing and reversing policies frequently, and have cut funding levels several times. Moreover, students'

fees have risen and the range types of programmes available to students have been cut, as Australian governments limit public funding to programmes are deemed to be 'in demand' in the labour market (Moodie, Wheelahan & Lavigne, 2019). Moreover, in China, the TVET procedure is also a barrier to TVET attractiveness such as the teaching focuses on the transmission of knowledge and the training of skills while neglecting the values of action learning. Without treating "work" as an entity, a holistic understanding and reflection of work cannot be developed, so that eventually the highest level of professional cognitive competence cannot be achieved. In practice, due to the lack of equipment, facilities and organisational conditions, vocational schools and colleges usually focus on theoretical knowledge acquisition or they fail to conduct in-depth work practice, thus neglecting the acquisition of experience. Furthermore, under the current student admission mechanism, most of the TVET students are those who are left behind due to low scores in university admission examinations and high school admission examinations. They are not usually good at deductive learning approaches based on abstract thinking; they have extreme difficulty in deriving theoretical learning from the work situation and are unable to realise the knowledge transfer (Zhao & Shen, 2019).

Thailand TVET situation

In the case of Thailand, there are national development policies which are applied from the National Economic and Social Development Plan. The national education development plan has been developed and comprises the general education plan, informal education plan, higher education plan, particularly, vocational education plan, coherently. All plans aim to develop all education levels in the country to deal with the changes in the world and the nation's economic, social and technology conditions. This influence the education sector to be responsive and develop as well as prepare the manpower to work in many sectors including industrial, commercial, agriculture, tourism, and services follow the needs of social, economic and labour market. This influence can be seen from Thailand's government focus and emphasize on education policy as an urgent mission (Meesuk, 2016; Meesuk, 2019). The department involved in human resources development is the Office of Vocational Education Commission (OVEC) with the main responsibility to conduct education for the improvement of Thai people's quality

of life. Its main aim is to enhance the knowledge, skills, experience and competencies of people for skilled careers to the labour market. Data from OVEC in 2019 revealed there are 913 vocational schools in Thailand classified as technical college, vocational college, polytechnic college, industrial and community education college, college of agriculture and technology, in addition, the college offers a variety of courses which are named by the type of subject taught (Office of Vocational Education Commission, 2019; Songthanapitak, Meesuk, Uapipatanakul & Jingjit, 2018).

In addition, Office of the Education Council (2018) has identified five proposals for vocational education reform in Thailand: (1) Develop the basic skills of vocational students, especially mathematics and basic skills, as they find that graduates have very low skills in this field. (2) Increase the budget for education. In particular, the availability of adequate supplies to provide quality teaching and learning. (3) Development of teachers by setting up vocational training institutes that offer a clear standard in addition offer Train the Trainer with the new knowledge in the enterprise. At the heart of vocational education is the development of teachers

as well as other levels of education. (4) Enhance external quality assurance. The improvement consists of the two indicators; one indicator is the educational achievement which includes indicators of learning and professional skills and the second indicator focuses on school readiness to measure the readiness of personnel. If the school is not evaluated the quality assurance agencies must follow up and assist in making improvement plans. It also punishes school administrators who cannot perform as planned. (5) Establish a central organization for the link between educational institutions and enterprises. Both in terms of placement of trainees and learners. Preparation of professional standards and Quality Assurance of establishment and quality graduates (Songthanapitak, Meesuk, Uapipatanakul & Jingjit, 2018).

As reported by the Center for Information Technology and Vocational Education, the Office of Vocational Education Commission. There is an interesting issue that the number of vocational students in the academic years 2016-2019 has not declined, both in public and private vocational schools. Moreover, there is a slight increase each year as shown in Figure 1.

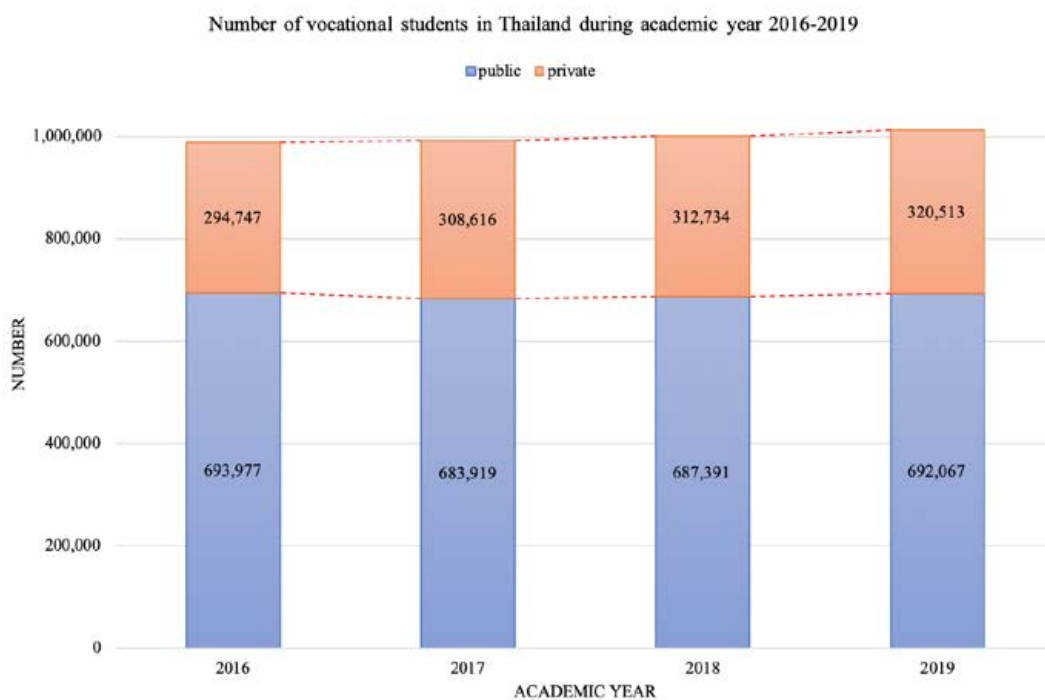


Figure 1 Number of Thai TVET students during the academic year 2016-2019

Thailand is facing the problem of vocational education such as in preparing the manpower for the labour market. As the input of education is student, the quality and achievement of vocational students have been declining (Ruamchomrat, 2015). Considering the likelihood of labour demand, from the study of labour market trend in Thailand during 2011-2021 by the National Statistics Office (2018). Based on the estimated data of workers who have worked for 5 years from the National Statistics Office during 2017 – 2021, it was found that the trend of workers decreases annually from 37.69 million people in 2017 to 37.37 million people in 2021. This could be due to developments in technology, where technology could replace the human workforce and business management style could also be changed. The data is shown in Figure 2. (Songthanapitak, Meesuk, Uapipatanakul & Jingjit, 2018).

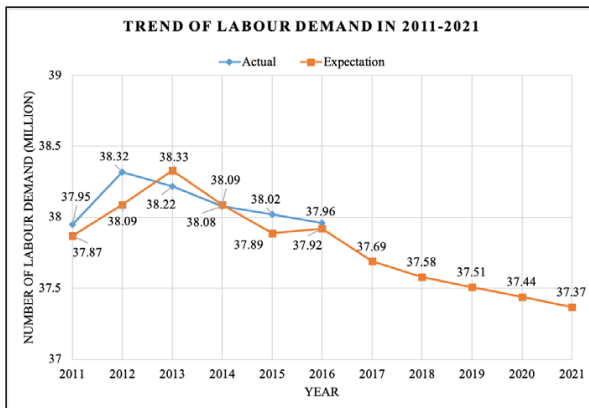


Figure 2 Trend of Labour demand in 2011-2021
Source: National Statistics Office Thailand (2018)

From the situation of Thailand, it can be seen that this is happening in the opposite direction. While the demand for labour is declining, the number of vocational students is stable and also slightly increased. But, the quality of students and the achievement of vocational graduates are not satisfied. Due to government offers beneficial policies and the popularity of vocational education and careers in society. Hence, consideration of TVET attractiveness should be mentioned including sustainability, feasibility, and quality of TVET both in terms of attractiveness to students and parents, and attractiveness to the enterprises. Therefore, it can be reliably stated that Thailand has an attractiveness in TVET.

Factors influence TVET Attractiveness

The concept of “attractiveness” is complex and can be defined in different ways, though it has two main focuses: (1) its subjective nature, or how the beholders sees it and (2) factors such as quality assurance, relevance to the labour market, recognised qualifications, and others. There are some factors that significantly influence TVET attractiveness such as student’s interest, parental roles, teacher’s teaching style, etc. (Ismail, Adnan, Masek, Hassan, Hashim & Ismail, 2019). In this article a review of the main factors which influence TVET attractiveness that is beyond the policy—and focuses on the initial process—including teacher qualification, curriculum and instruction development, the line between TVET and industry, TVET image and value.

Teacher Qualification

In developing countries, TVET teachers have mostly been trained under the traditional knowledge-based (vocational) educational system and have little understanding of the real situations in enterprises; on the other hand, ‘applied knowledge’ is a widely accepted concept; TVET teachers do not have enough knowledge and sensitivity to understand the difference between ‘applied knowledge’ and the knowledge in use. TVET college teachers, especially, possess several different qualifications or missing qualifications. Emphasis on teaching students means self-awareness and self-leadership. Teachers themselves need training, which is essential in building their competence in teaching the 21st century skills (Zhao & Shen, 2019; Zinn, Raisch & Reimann, 2019; Okon, 2019).

In developed countries such as Australia, that requires properly qualified and re-coursed teachers with enough time to engage in the scholarship of teaching and learning, and to research the way their field is changing. TVET teachers need to be supported to become a dual-professional who are industry experts as well as expert teachers. This process is important in supporting the most disadvantaged students to ensure they have access to programmes and support that helps them to succeed. In Germany, regulations extend to vocational teachers and to the in-company trainer. School teachers of general vocational subjects are required to undertake a master degree and preparatory practical service. In-company trainers are responsible for training apprentices in the workplace. They are required to be registered by the relevant organisation (Moodie, Wheelahan & Lavigne, 2019). The expectation of the teacher is not only a person who transfers knowledge and skills. A condition for

success of TVET is the ability of the teacher to analysis and identification of suitable work tasks that are conducive to students for competency development (Schroder, 2019). Hence, it can be concluded that the importance of teacher qualification is a factor that influences TVET attractiveness directly and indirectly via the trust of social and community on TVET quality.

Curriculum and Instruction Development

The traditional TVET curriculum of TVET institution is composed of two relatively independent didactic parts including theory courses and operational technical skill training called 'parallel curriculum'. Identifying the training contents relies mainly upon a transformation of discipline-specific knowledge generated from science and technology. The content of teaching is knowledge with 'fact' and 'symbol' as the main forms of the presentation without a direct connection with the world of work. Practical teaching emphasises to operation skills but without integration learning in real work situations and the work process. Therefore, it is difficult to meet the requirement of competence development and to achieve the educational goal (Zhao & Shen, 2019).

Curriculum development is a process of adapting the curriculum to social, economic and technological needs by means of necessary review and improvement. Strengthening TVET attractiveness by the development of curriculum including means of learning, activities, the pathway of student work in the future, and assessment and evaluation. International approaches to curriculum development based on job and occupation analysis such as Competence-Based Education, Work Integrated Learning, Dual Training System, and the DACUM (Development a Curriculum) method have been integrated. Their application has massively improved the TVET curriculum's relevance to practice and its effectiveness and attractiveness (Zhao & Shen, 2019; Kitiashvili & Sumbadze, 2018).

Countries conduct TVET by several models. The first model is the liberal market economy where enterprises, have the power to describe knowledge and skills relevant to the market. Second, the state-regulated bureaucratic model where the government, such as in France, has power and is responsible for deciding what knowledge and skills would be taught at TVET institution. Third, it employs a dual system, in Germany, where two models above are applied leading to public-private partnership (PPP). Despite the increase in entrepreneurship activities and programmes in the

educational institute, these activities and programmes are often being implemented beyond the curriculum. This causes difficulty for students to balance the concept of academic needs and entrepreneurship activities and integrate knowledge and skills in the classroom by themselves (Ismail, Adnan, Masek, Hassan, Hashim & Ismail, 2019).

Most teachers and instructors in TVET colleges do not possess up-to-date knowledge for solving technical issues. The instructors who are professionals tend not to stay in TVET colleges because of higher paying job opportunities. (Ismail, 2019). Hence, Work-based learning, in particular, for apprenticeship is drawing increased TVET attractiveness. It refers to all forms of learning which take place in a real work environment, providing individuals with the skills needed to successfully obtain and keep jobs and progress in their career. Work-based learning has a huge difference between classroom-based learning and laboratory-based learning. It combines elements of learning in the workplace with classroom-based learning. Several international and regional organisations have developed approaches and tools to support the promotion of work-based learning. For example, the European Training Foundation (ETF) published a handbook for policy-makers and social partners to understand some of the ways in which learning in the workplace can be encouraged and how its quality can be improved. More recently, the International Labour Organization (ILO) produced a Toolkit for Quality Apprenticeships with the view to improve the design and implementation of apprenticeship systems and programmes internationally. Furthermore, in details of potential changes that might affect the world of work in years to come, it is important that TVET curriculum and instruction will be changed to respond to learner's demographic changes, globalisation and technological progress which affects the workplace. (International Labour Organisation, 2017; Chakroun, 2019).

The link between TVET and Industries

More widespread forms of uncertain employment, income insecurity and the growing demand for general competences in the labour market may further contribute to the declining TVET attractiveness among high-achieving youth. Despite advantages at career start, vocational skills are at greater risk to become out-of-date when compared to current technological advancements (Henseke, 2019).

The concept of 21st century skills aims to meet the future demand on educational systems that emerge

from the socioeconomic megatrends. Therefore, the competencies can not be taught through instruction, but have to develop as the learner activity engages with tasks, learning situation must be designed didactically in such a way that they have a holistic character that comprises of planning, decision-making, execution, evaluation, and reflection, sequentially (Schroder, 2019). In addition, 'the employability skills' is the key to the current situation, which is classified into subject skills and transferable skills. The subject skills are the discipline-related skills and the transferable skills refer to the possibility of applying the knowledge acquired and used in different jobs (Okon, 2019). All skills that are needed are required to be built and developed in the education sector and the industrial/enterprise sector together and have been reflected by the curriculum with two parts of the study, one is in the school for initial knowledge and skills, another is in the industry/enterprise for applied and advanced knowledge and skills. Strong linkage between TVET and industry is necessary for the TVET system.

As mentioned, to promote TVET to be more attractive it should express how the TVET benefits the graduate and society. However, there is a lack of enthusiasm on the part of industrial enterprises. The government is supposed to play a role to facilitate cooperation and ensure that small and medium enterprises and local industries are offered interesting incentives to enter into cooperation with TVET colleges. This is related to the policy and if there is a lack of effective policy and regulation, cooperation between colleges and small and medium enterprises, and industries will remain superficial. In Germany, the cooperation between TVET and industries has been mentioned. A key success factor of cooperation in Germany is that technical-vocational training funds, venues, facilities and trained instructors are provided almost entirely by enterprises and industries. The government has a key role between TVET colleges and employers. It sets up the legal framework and delegates the authority to all relevant groups, including local chambers of commerce and industry, employers, labour unions, and related government departments. Moreover, most important, the government must act inclusively to ensure that everyone, individuals and organisations, have open access to TVET (Postiglione & Tang, 2019).

The practical approach should be enhanced in school and on-the-job through shadowing experiences, internship, part-time jobs, refresher courses, among other means. The learning process in school will be

improved by setting up virtual educational environments and linkage with the real work environment to enhance the linkage to the enterprises where the students can contribute by offering service as a class or individually. When TVET provides more real-life training, less theory, more hands-on training, therefore, the enterprises will be working closely with members of the academic community to avail them the opportunity to inject into the school system. The kind of skills they need and school adaptation of the academic programmes will be developed and adjusted. It allows for the TVET to become more strongly attractive to both individuals and industrial enterprises (Okon, 2019).

TVET image and value

Image and value could be highlighted as a major factor in determining the overall attractiveness of the organisation. Thus, recognition of TVET image and value are determinants to the success of TVET policies. TVET still lacks recognition in the labour market (Hamdard, 2019; Okon, 2019). This leads to a reduction in the rate of return on private and industry sector investments. The informal lack of recognition is mainly through the poor standing of qualifications issued while the formal is through the structures that issue the certificates.

The policymakers emphasize on the need for establishing more colleges to graduate skilled students. They attribute the problems to the declining value and poor attitude towards TVET. They reported the decline of desire for TVET because the government pays all its attention to certain colleges such as medical college, engineering college, science college, but has ignored TVET colleges (Ismail, 2019). This negligence has been emerging in developing countries, where students are not applying to TVET colleges because they believe they will not have a good future career by graduating from a TVET. Moreover, they and their families see the government and corporations pay attention to 'high-class' occupations particularly, therefore, they feel TVET will not offer them a good chance of getting hired. Moreover, Ismail (2019) has discussed that it is time for the government to re-evaluate TVET concept and people's view of TVET by reforming TVET which should explore opportunities for employment.

In the U.S., policymaker's have been pushing the positive image of TVET in high school, before they make a final decision to study in general education or TVET. Which TVET deters capable students from college and prepares them for jobs, takes the focus to the

occupationally relevant skills and credentials that graduates need for a smooth transition to adulthood. Empirical reporting finds that use of a nationally representative sample of early-career Americans shows that students tend to enrol in vocational classes based on whether such options are available to them (Daniel & Stange, 2019; Okon, 2019). In addition, Henseke (2019) reported that the demand for high-skilled labour is typically inferred indirectly from wage differentials and influence TVET attractiveness. In the case of Germany, there is good evidence for a substantial and steadily growing wage premium associated with higher education, especially in TVET for recent graduates. This influence TVET to become attractive to people, increasing enrollment and retention rates until graduation. The future benefits from enterprises are an effective factor for the student either in general education and/or vocational education. TVET attractiveness issues such as image and value are effected by its benefit, positive feedback, positive outcome, powerful opportunity to be hired, from society and enterprises.

The TVET attractiveness could be initiated by starting from TVET policies that should accommodate to the systems including teacher qualification, curriculum and instruction development, the link between TVET and industry, and establish TVET image and value. The complexity of the model is a holistic relationship that cannot be separated to develop only one part. Partial development can be done but it will not have much effect as seen from the previous evidence. The complex model can be shown in Figure 3.

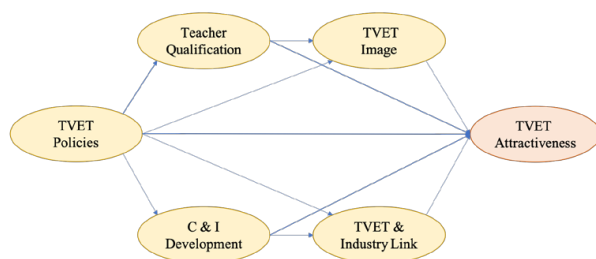


Figure 3 Factors influence TVET attractiveness

Conclusion

According to Moodie, Wheelahan & Lavigne (2019) who summarised about TVET development for progressing for attractiveness stated that a TVET must be developed as a system of institutions where TVET teachers are supported to develop as dual-professionals

who support, contribute to, and have a mention in, the development of their college. TVET should have sufficient readiness by adequate and long-term resourcing. Moreover, TVET makes its strongest contribution when it is based on strong trust and coordination between the social partners comprises of employers, trade unions, and government. TVET's roles go further than developing the student as a person, it should play a role in developing their communities, and local occupations and industries.

Many countries are faced with the decreasing number of vocational students. There is a lack of required skills and knowledge of TVET graduates. Although some countries have no problems with the learners decreasing, but found that the quality of the student mismatches to the needs of the labour market. But the role of TVET as being important to society and to the economic development is widely discussed. There are many efforts to promote TVET in levels including policy level, supporting level, and practical level, by empirical believes that TVET is the basis of country development. Countries are promoting TVET in several ways such as addressing the national policy to increase the proportion of vocational education students, supporting more funding and investment in TVET, expanding programmes that matched the workplace's needs, etc. (Henseke, 2019; Khirotdin, Ali, Nordin & Mustafa, 2019; Ismail, Adnan, Masek, Hassan, Hashim & Ismail, 2019; Chakroun, 2019)

The factors relevant to TVET attractiveness are very complicated in the relationship among factors, including teacher qualification, curriculum and instruction development, the link between TVET and industry, and establish TVET image and value. Its complexity is a holistic relationship and can not be separated in developing TVET to be attractive to a larger student base.

Acknowledgement

This article had the initial concept idea and inspiration from one of the issues in 2019 UNESCO-UNEVOC workshop in Korea that was arranged by the Korean Research Institute for Vocational Education and Training (KRIVET). Some of the basic data and information have been supported by RMUTT UNESCO-UNEVOC Network Centre, Thailand and the Regional Association of Vocational and Technical Education in Asia (RAVTE). The writers would like to express their special thanks to the Department of

Technical Education, Faculty of Technical Education, Rajamangala University of Technology Thanyaburi (RMUTT) which overall encouraged and supported the writing of this article.

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