

Systematic Literature Review: Factors Influencing The Lack of Participation in TVET Among Students: Motivational Aspects

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Abstract

TVET is an area that encompasses education, training and skills related to various branches of work, services, production and lifelong learning (UNESCO, 2015). This systematic literature review aims to identify the factors of lack of participation in TVET for students in education in Malaysia. The methodology of this study is based on the concept of PRISMA (Preferred Reporting Items for Systematic reviews and Meta-Analyses) as a survey method using major databases such as Web of Science, ERIC and Scopus. A thorough search of the electronic database revealed 19 studies on TVET involvement in Malaysia published between 2015 and 2022 based on predefined criteria and keywords. A review of these articles shows that there are four aspects of motivation studied by freelance researchers in several countries. Some future recommendations for Scholars are given at the end of the study.

Keywords: Perception, Tvet, Malaysia, Systematic Literature Review.

Introduction

Technical and vocational education (TVET) is expected to provide opportunities for the younger generation who are inclined in the field of Science and technology education which is intended to meet the workforce particularly in the industry of Malaysia. In order to achieve this goal, TVET actively offers programs to help the younger generations who are able to deal with problems systematically and creatively in the field of engineering and technical (Che Ibrahim et al., 2021).

TVET's policy is to provide equity, access and give quality education to the younger generations who are interested in the technical and vocational fields. Based on TVET empowerment program, the Ministry of Education Malaysia gives effort to grow the skilled generations' competency in the early stages involving teachers, schools, and students in hope that Malaysia would be on par with developed countries. The Fourth Shift of the Malaysian Education Blueprint 2015-2025 outlines TVET as an important pathway for vocational education and skills development as a lifelong learning.

Motivation is seen as one of the basic aspects that influence today's young generation in choosing the field they want to venture into (Omar, 2020). Motivation is a high desire in a person who has high driving force to achieve success. According to Jasmi (2012), the influence

of motivational elements can have an impact on the performance of a field. A study by Clements and Kamau (2018) found that students are categorised as having a proactive career behaviour when venturing into an employability training program. According to Locke & Latham (2013), motivation can be a stepping stone for an individual to excel in one's job.

Issues of Perception In The Field Of TVET

Motivation is influenced by the perception that TVET is a second-class education. The problem for lack of involvement among students as early as secondary school in the field of PTV as the main focus for MOE. The Auditor-General's 2019 report in Series 2 stated that the output achievement of the TVET programme had not yet reached the targets set out in the 11th Malaysia Plan (11MP). The number of TVET students for 2016 to 2020 showed a decrease from 24.6 percent to 1.0 percent. The report said the number of TVET students decreased from 139,699 students in 2016 to 99,589 students in 2020. Hence, this study aims to identify the motivational aspects that affect the lack of participation in PTV to students.

Through thorough investigation, one of the current issues faced by the Malaysian community in obtaining information on Vocational Technical Education is the lack of knowledge on TVET. The government has allocated RM29 million through Budget 2021 in order to implement TVET programs under MOE but has not achieved its objectives because the admission of students to universities for Bachelor's degrees is still at a low level (Moe, 2021). The option for technical and vocational studies is also often mistaken as the last field of choice in Further Studies (Abu Rahim, 2019). As a result, the program is only suitable for selected group of students. This will change people's thinking. As a result, TVET has become the least choice among society. (Omar, 2020).

This results in the public being less interested and prepared in the teaching and learning process in the 21st century in the field of TVET. As well as the progress of education in the country is feared to be incompetent globally and will continue to fall behind. In fact, many graduates will be unemployed due to the society's lack of interest in TVET (Othman, 2020). The stigma regarding gender to venture on this field has always been an issue among the public's point of view. The stigma still exists in today's national education especially involving the perception of the people in this country who assume that technical-based education programs cannot be mastered even though technology is advancing (Abu Rahim, 2019). The lack of exposure in this field has left the students behind.

Due to the lack of interest and readiness in the teaching and learning process in the 21st century, they do not get information accurately and correctly (Che Ibrahim, 2021). They lack exposure to the direction of technical and vocational education (Arifin, 2015). In addition, the willingness of parents to send their children into technical and vocational streams is less encouraging because they think that their children only get a second-class education. This can be evidenced when the lack of youth participation in technical and vocational streams (Abu Rahim, 2019). Meanwhile, MOE responded to students in venturing into technical and vocational streams in the challenges of the Industrial Revolution 4.0 (IR 4.0). In line with the development of the 2022 budget allocation for TVET and also with the establishment of the shared prosperity for Vision 2030, the government has provided various facilities for the community.

Study Objectives

1. Identify the factors influencing the lack of participation in PTV in the early stage of schooling.

2. Identify the main factor influencing the lack of involvement of PTV to school students in motivational aspect.

Study Questions

The research questions that guide the writing of this study are:

1. What are the factors influencing the lack of participation in PTV in the early stage of schooling?
2. What is the main factor influencing the lack of involvement of PTV to school students in motivational aspect?

Methodology

The study of motivational aspects that affect the lack of involvement of school students in TVET was analysed using the systematic literature review (SLR) method. There are four stages of the SLR method proposed (Menggist et al., 2019) and also carried out in this study namely, identification, screening, qualification and inclusion. At the introductory stage, several keywords have been selected to find articles that are relevant to the study to be carried out. The main keywords chosen were "TVET" and "Perception". The use of alternative keywords and synonyms in the Malay language is also used, namely "TVET" and "Perception". The word 'and' is used for the discovery of a broader article on students' involvement in PTV as early in school stage. Whereas according to (Aliyu, 2017) the word 'or' should be used to accommodate alternative spellings and synonyms.

Table 1:
Database Search

Database	Keywords
SCOPUS	TITLE-ABS-KEY ((((“tv*et*perception” OR “tv*et*challenges”)))
ERIC	TITLE-ABS-KEY ((“tv*et*perception”))
GOOGLE SCHOLAR	TITLE-ABS-KEY ((((“perception *tv*et” OR “challenge*tv*et”)))

The survey conducted in this study focused on three types of journal databases, namely Web of Science (WOS), Scopus and ERIC. This WOS journal database is a solid database that has more than 34,000 journals covering various fields such as arts and Humanities, Social Sciences and so on. Google Scholar, built by Clarivate Analytics, has more than 118 years of files and 161 million data records. While the Scopus journal database is in the form of abstracts where literature collections have been used by more than 3000 world corporate institutions, work and academia. Scopus provides data that includes conference proceedings, books as well as scientific journals related to various fields.

Through searching using selected keywords, Scopus indexed 12 journals related to TVET, Google Scholar indexed 1110 journals related to the perception of TVET while ERIC indexed 19 journals about the perception of TVET. Zhao (2014) mentions that more accurate results can be generated by using several different databases through systematic review methods.

This systematic literature review only uses data published by journals in 2015 to 2023. Using the systematic literature review method, a total of 19 journals related to TVET perception can be analysed. Exclusion and inclusion criteria have been established during the screening phase to select articles.

Table 2:

Admission and exclusion criteria

Criteria	Entry	Exclusion
Types of literature	Journal, Proceedings	Book series, chapter in books
Languages	Malay and English	other than Malay and English
Index timeframe	2015 to 2022	< 2015
Used by	TVET fields and perception in education	No relation with TVET

A duplicate paper was chosen as the first step in selecting the article. The initial screening process (Screening) was carried out on 50 articles using Malay and English keywords. This process collects 50 articles related to the perception of TVET and successfully listed in the initial screening. Then, each of the listed articles was analysed for eligibility according to admission and exclusion criteria. Finally, this systematic literature review has selected articles that focus on the perception of TVET involving motivational aspects. The title and abstract sections have been filtered to narrow down the number of study articles to choose from. Through this process, a total of 14 articles were excluded because they did not meet the full criteria of the focus of the study.

A total of 19 articles were eligible to be selected based on two entry focuses, namely the perception of TVET involvement in schools and the relevance of motivational aspects that affect the field of TVET in Malaysia. Therefore, a comprehensive study was carried out as the next step. Figure 1 shows the flow chart of the guided SLR (Prism) applied in this study.

Systematic Literature Review Highlights Flow Chart (Prisma)

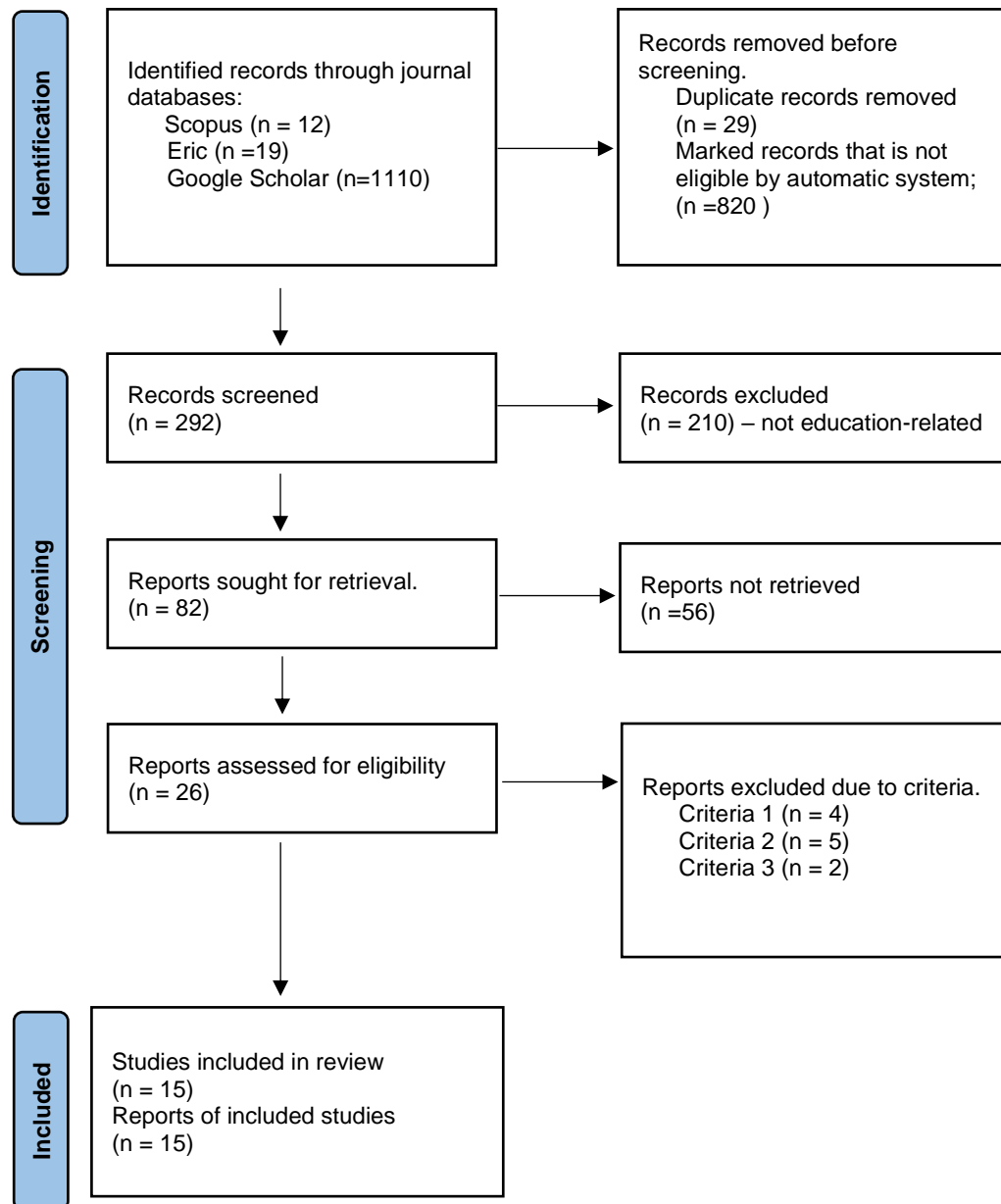


Figure 1: Prism flow chart

No	ARTICLE AUTHOR	Title	Year	Country	MOTIVATIONAL ASPECTS	
					INTRI	EKSTRIN
1	Hong, C. M., Ch'ng, C.K., & Roslan, T.R.N	Influencing factors student enrollment in TVET based on perception	2022	Malaysia	/	/
2	Mohd Firdauz Zulkifeli	Soft skills elements of TVET education students during Practical Training	2022	Malaysia	/	
3	NORHIDAYAT BINTI JAMALUDDIN	Public Perception On Finding Information About Tvet In Malaysian Society	2022	Malaysia	/	/
4	Mohd Hazwan Mohd Puad	The Influence Of Student Motivation In Employability Training Programmes In The Era Of Industrial Revolution 4.0	2021	Malaysia	/	/
5	Muhamad Hariz Muhamad Adnan et.al	Social media analytics framework to improve Students interested in STEM and TVET Education	2020	Malaysia	/	
6	Khuzainey Ismail	TVET instructor issues and challenges in Malaysia	2019	Malaysia		/
7	Ana Ana, Isma Widiaty, Dewi Eka Murniati	The applicability of Competency- Based Assessment for TVET trainees: comparing between Indonesia and Laos	2019	Indonesia		/
8	Zatul Iradah Abdul Karim	Employability Skills Model for Engineering Technology students	2019	Indonesia		/
9	Jegatheesan Rajadurai, Noraina Mazuin Sapuan	Employability of technical graduates from higher education institutions (HEIs) offering technical and Vocational Education and training (TVET): case from Malaysia	2018	Malaysia	/	
10	Krittinee Nuttavuthisit	Vocational education for Sustainable Community Development: building collaborative efforts in Myanmar and Vietnam	2017	Myanmar	/	/
11	Ismail, S., and Mohammed,	Employability skills in TVET curriculum in the Federation of Nigeria University Of Technology	2015	Nigeria		/

12	Nur Fatin Binti Mohd Sauffie	Transformation of technical and Vocational Education in Malaysia: Shaping Future Leaders	2015	Malaysia		/
13	Wan Nur Azlina Ibrahim et.al	Impact of entrepreneurship education on entrepreneurship Students ' desire for technical and Vocational Education and Training institutions (TVET) in Malaysia	2015	Malaysia	/	
14	Nur Afifah Binti Abdul Razak et al	Leadership style of technical and vocational lecturers in Teaching and learning	2015	Malaysia		/
15	Mohd Jalil Ahmad	TEVT in Malaysia: challenges and hopes	2015	Malaysia		/

Findings and Discussion

The result of systematic literature review highlights that there are 19 studies have been identified related to the perception of TVET involvement from the aspect of motivation in the field of Education. Based on these studies, motivation can be divided into two namely intrinsic motivation and extrinsic motivation. Past researchers have touched on two aspects of intrinsic motivation and four aspects of extrinsic motivation. There are seven studies that show intrinsic motivation affects the perception of TVET involvement. Another 12 studies showed that extrinsic motivation influenced the perception of TVET involvement in Malaysia.

Motivational Aspects Affecting Lack Of Participation In Ptv As Early As School

Intrinsic Motivation

Intrinsic motivation or better known as internal motivation is a personal motivator that influences behaviour resulting in the quality of work in an engagement.

Self-motivation

TVET graduates are seen to have less interest in learning to work on their own despite the country's policy of encouraging the emergence of new and young people in the field of entrepreneurship (Koya (2019). Most TVET graduates and students do not see entrepreneurship as a career choice (Hassan and Omar; Hussin; Mohamad, 2017). Research on TVET students towards self-employment is an issue that is often on focus because the participation of skilled workers at the middle level and involvement in the creation of Revolution 4.0 is needed to generate national economic growth.

Students do not have confidence in choosing TVET due to lack of motivation (Zelege,2018). In the study of Jegatheesan Rajadurai (2018), the employability of TVET graduates is quite low due to their performance being influenced by knowledge, abilities, skills and personalities that are still at a low level. This is also supported by the Wan Nur Azlina (2015) study, which states that the competence and knowledge of vocational students is still at a moderate level.

Interests

In Malaysia, career options for graduates in TVET courses are still in low demand. Mohammed et al. (2019) in its study on entrepreneurship the Global statistics Monitor (GEM) found that only 50.37 per cent of Malaysians chose entrepreneurship as a career choice. The 2016 Global

Statistics Entrepreneurship Monitor (GEM) study also found that Malaysia remained one of the lowest countries in choosing entrepreneurship as a career of choice at 44.10 per cent compared to the highest and medium scoring countries Indonesia (69%), China (70.3%) and Thailand (77.7%). The results of these statistics clearly show the interest as well as the desire of Malaysians interest in entrepreneurship as a career choice is decreasing (Mohammad et al., 2019).

Mohammad et al. (2019) argues that one of the reasons Malaysians have no interest in TVET is the lack of confidence to be competitive. Bahtiar et al.2015 states that vocational talents in students need to be nurtured. Muhamad Hariz (2020), stated that the declining interest of students in TVET was influenced by less effective social media marketing strategies. However, Wan Nur Azlina (2015), found that students' interest in TVET entrepreneurship is high in line with the desire for entrepreneurship in vocational and technical fields in Malaysia. Nur Afifah (2015), stated that students tend to be interested in technical and vocational careers depending on the leadership style of the teaching staff.

Extrinsic Motivation

Extrinsic motivation is an impulse from outside and around that produces actions that affect an individual's behavior.

Job Guarantee

A study by Law (2018) found that non-vocational courses are often preferred due to brighter employment opportunities. Employability has become a worrying problem on a global scale especially as the world moves towards the Fourth Industrial Revolution. In TVET, Ismail & Mohammad (2015) suggested that the value skills that should be possessed by any student of TVET-based programs, are related to the issue of marketability.

Employability skills can be defined as the ability of an individual to be employed and have a need for expertise, knowledge and understanding in a related field (Darce Pool & Sewell, 2007). Employability also describes a person's ability to participate, represent and take incentives (Abdul Karim & Maat,2019).

In an Indonesian study, it was found that the standard requirements of TVET field Employment Standards did not achieve the outlined objectives. Thus, the thinking, motivation and awareness of Indonesian students, as well as problem-solving skills such as innovative thinking and student collaborative skills, are strengthened through multimedia in the direct Problem-Based Learning Approach (DPBL) along with computer network assistance for teaching and learning (Winarmo et al., 2018).

Based on studies in Malaysia, the country is focusing more on the transformation of employability skills model where the proposed skills can be identified such as communication skills, teamwork skills, problem solving skills, self-management skills, planning and organization skills, technical skills, learning skills and entrepreneurial skills to address the concerns often raised about the industry's demand on the quality and quantity of TVET graduates (Kamaliah et al. 2018, Dogara et al.,2019; and Hassan et al., 2018). The emphasis on skills acquisition is due to the high unemployment rate among graduates mostly young people who are not trained in advanced technology and challenging economy (Kamaliah et al., 2018).

Social Environment

In Myanmar, the challenges faced in TVET programmes revolve around the lack of support from the government in terms of funding campaigns and dissemination of information. As a result of the Covid-19 pandemic, the delivery of TVET in Myanmar is limited as education is delivered through online. Meanwhile, in the Nigerian study, the issue of vocational school construction and the number of TVET classes were factors in the lack of TVET involvement from the infrastructure aspect. Therefore, the state of Myanmar desires that effective technical subject education should be imparted starting at the primary level.

In Bakar's study (2011), researchers found that the infrastructure facilities for the training process of students in TVET institutions are incomplete due to the high cost. In addition, insufficient TVET teaching staff also makes TVET one of the areas that is seen as lacking (Ismail, 2019). This is further reinforced by a study (Nur Fatin, 2015) which shows the development of technology has provided challenges in producing skilled students. In addition, the study of Kuzainey Ismail (2019), shows that the readiness of instructors in going through the Industry 4.0 phase also affects the learning environment of students in the selection of TVET fields.

Several studies have noted the influence of society that also contributes to the triggering factor of low numbers to TVET enrollment (Omar, Ismail Rashid, Rauf, Mohd Puad & Zakaria, 2020; Chan, 2018; Mohd & Isa, Satu, Noor, 2016). Public perception is seen to doubt the qualifications of TVET students (Nashir & Karim, Zulkifli, 2020). Government policy in Malaysia that confuses students to choose the field of institutional TVET because there are two different accreditation bodies namely Malaysia Qualification Agency MQA and DSD Skills Development Department (Mohd Amin, 2016). This policy also gives doubt on the quality of TVET students (Rasul Ashari, Azman & Rauf, 2015).

Recommendations**Improving the perception of TVET**

Improving the perception of TVET by conducting a campaign that focuses and targets the main groups, who are students and their parents, aiming at increasing the benefits and attractiveness of TVET. The campaign will highlight the potentials of entering the job market with TVET qualifications, such as high starting income salaries, career paths and types of jobs with the recognition of Sijil Kemahiran Malaysia (SKM) which provides more job opportunities in the public sector. There are variety of ways to support the campaign, such as news that highlight the achievements of TVET students on television, radio, celebrity talk and even become the main face of a magazine. Teachers in the school will also be given the responsibility to guide and encourage students.

Creating a group of counselling teachers who are responsible for establishing friendly relations with TVET institutions can exchange information about TVET program so as to guide students effectively. They can provide information as a guide to the community to make choices towards vocational and technical streams. Indirectly, schools can produce students who are technically-inclined. A greater focus on the TVET system with emphasis on hands-on training and job-specific skills. A learning approach that encourages direct student and industry participation in skills training programmes as well as the use of facilities and equipment in the TVET industry can attract participants. This approach can double the impact of efforts to introduce TVET to the community.

Expanding TVET system access

Expanding access to the TVET system by improving the quality of TVET instructors. This method is implemented by collaborating TVET training with industry through the expansion of existing and part-time teaching staff programs in collaboration with TVET institutions. It is needed to exchange information about the current needs of the industry by undergoing training programs in the industry to gain exposure and knowledge of the latest technology. At the same time, it would be able to improve and strengthen the TVET instructors' existing skills. As for the part-time teaching staff, this step would be able to encourage them to become instructors. Instructors who possess up-to-date knowledge of industry developments will have an impact in students' learning to prepare them for working environment. This can also strengthen the skills in the program that has been done for youth in further improving the TVET system.

Conclusion

In conclusion, this systematic literature review was conducted to reveal the factors of the lack of involvement of the younger generations in the field of TVET as early as primary and secondary schools in Malaysia. Based on the research conducted, this study which focuses on motivational factors as the main influences of student involvement in the field of TVET has not yet been highlighted.

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