

Systematic Review of Malaysia Technical and Vocational Education (TVET) Sustainability Framework to Increase the Marketability of Graduates Using PRISMA

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ABSTRACT

The marketability of Technical and vocational education and training (TVET) graduates is a key factor in promoting Malaysia's economic growth and development. Therefore, seeking a sustainable marketability framework for TVET will reduce educational wastage in TVET, increase enrolment, increase TVET sectoral contributions to GDP, and provide justification for taxpayer money used to finance the institution. Only a few studies have attempted to review the literature on this topic systematically. The Springer, Taylor & Francis, Scopus, and Google Scholar databases are employed in this systematic literature review, which is guided by the PRISMA (preferred reporting items for systematic reviews and meta-analysis) standards. A rigorous keyword search of the online databases produced 71 papers from 2017 to 2022, 29 of which were research that was relevant to the issue. The findings revealed that curriculum-related factors, skill gap factors, and poor stakeholder engagement are the basic factors impacting the marketability of the TVET graduate. The study recommends that The TVET regulatory bodies should strive to embark on curriculum revision to close the skill gap between the classroom and the industry, The curriculum of TVET should be improved and updated in every five years to catch up with industrial needs and there should be an effective partnership in all ramifications between TVET institutions and the industry.

Keywords: *Marketability of TVET Graduate; Sustainability Framework; Curriculum revision; 21st century skills; industrial linkage*

INTRODUCTION

Nations are striving to seize labour market opportunities by increasing the size and productivity of the labour force through vocational and technical skills programs, especially in emerging countries with high unskilled working populations (Omar et al. 2020). Technical and vocational education and training, or TVET, is intended to address the increasing demand for exceptionally qualified people with a variety of technical talents (Yusoff et al. 2020). After completing TVET, students will have the information and abilities necessary to be successful in the work market (Jane et al. 2017). The success story of the TVET program has made advanced countries like Portugal and Spain to established TVET due to its success in Germany (Spees 2018). The primary goal of TVET is to increase graduates' technical skills and develop the right building, design, and repair abilities that need the proper technology and infrastructure to guarantee that learners will have efficient, effective, and long-lasting employable capabilities (Omar et al. 2020). In addition to other factors, the need for high-quality TVET is crucial for Malaysia to rise to the level of advanced economies (Cheong & Lee 2016). Since TVET can address issues like unemployment, poverty, and the demand for individuals with a variety of capabilities, it is currently garnering more recognition than conventional postsecondary learning (Jane et al. 2017).

The current analysis emphasises the critical role that TVET plays in the economy of Malaysia, where it accounts for 36% of the working population, the second-largest industry-level contributor to GDP, at 37.8%. (Ridzuan & Abd Rahman 2022). The National TVET Campaign's launch demonstrated the Malaysian government's dedication to fostering the development of TVET sectors. During the National TVET Campaign's launch, the Malaysian Minister of Education highlighted that sixty per cent of the jobs envisioned to be created under the 11th Malaysia Plan were expected to require technological and vocational skills to boost the human productive capacity of the Malaysian industrial sector (Aziz, 2019). However, the extent to which students enrolled in TVET colleges as a feasible career option is impacted by the disparities in TVET graduate marketable job skills and industrial expertise (Omar. et al, 2020; Adewale, 2021).

MARKETABILITY OF TVET GRADUATE

Graduating students' employability or marketability of skills have been used interchangeably. A graduate's employability or marketability is defined as a collection of skills and knowledge that will help him or her get a job in the field of their choice (s). Employable or marketable

skills, also known as generic skills, workplace skills, transferable skills, and core skills, are non-technical competencies that learners need in addition to academic attainment to guarantee they are top-notch, competitive, and productive in their personality development and job position. Examples of these skills include communication, teamwork, moral values, leadership, and continuous learning. For graduates' employability, generic skills are extremely crucial for the growth of TVET graduates in the workspace (Husain et al. 2015). According to studies, TVET workers who possess these generic abilities would be more successful and like their work than those who simply possess technical skills (Haron et al. 2019a). The term marketability of graduate or employability skills could also be referred to as abilities that help people do well in work (Kenayathulla et al. 2019). Employability skills were discovered to be a distinct "position," "possession," and "process" (Byrne, 2020). Gaining employability skills helps graduates be more prepared for the workforce (Succi & Canovi, 2020).

According to the definition, a TVET graduate's marketability depends on their capacity to possess abilities that meet the demands and employment specifications of the sector. It might be difficult for recent graduates to get work because job roles and skill requirements have changed so much in the business. They must have the appropriate skills at the appropriate time and location (Haron et al. 2019b). Considering Malaysia is projected to become an industrialized economy by 2050 and the need for highly skilled personnel from the industries and services industries is constantly rising, the mismatch between the capabilities of TVET graduates and the industrial demand has caused a national worry (Haron et al. 2019b).

RATIONAL OF THE STUDY

Securing a job in this period of highly dynamic economic instability and fast-changing technological advancement is not easy compared to many years ago. The work environment and employment conditions are also changing towards the direction of economic and technological indices, making job duties and skills requirements to have changed so much that makes seeking employment is a challenging experience. Hence, the new graduates need to have the right skills at the right place and time (Haron et al. 2019b). Previous studies have shown that many employers prefer to hire foreign labour compared to local workers because of a lack of skilled and qualified workers while some employers believe that local graduates lack generic skills, especially thinking, and communication skills (Haron et al. 2019b). Their insufficient generic skills make them ineffective for organisation performance,

besides being unable to deliver creative and convincing ideas for organisational development (Haron et al. 2019).

Also, The Career EDGE model by Pool and Sewell (2007) was developed to create the model of TVET graduates' employability/marketability by Haron, et al. (2019) in the Malaysian context. The employability/marketability by Haron, et al. outlines some generic skills needed to equip TVET graduates for employment but however, but the model still failed to enlist other diverse skills that are extremely essential for TVET graduates, and curricular experience needed in the industrial world. It is based on this that the study seeks to systematically review of Malaysia Technical and Vocational Education (TVET) sustainability framework to increase the marketability of graduates using PRISMA.

FORMATION OF RESEARCH QUESTIONS

The aforementioned gap identified in the previous framework led the study to inquire:

1. What is the sustainable TVET graduate marketability framework for Malaysia?
2. Which component of the TVET graduate marketability framework is most important?
3. What is the role of stakeholders in the TVET graduate marketability skills development in Malaysia?
4. What kind of relationship is required by the stakeholders for sustainable implementation in Malaysia?

METHODOLOGY

PRISMA (Preferred Reporting Items for Systematic Review and Meta-Analysis) is the most widely used framework for systematic literature reviews (Peter & David 2020) and meta-analyses, as such, the methodology was employed for this study. Identification, screening, and inclusion are the first three preparation processes for articles prepared to utilise the PRISMA approach (Mengist, Soromessa, Legese 2020; Yusuf et al. 2022). The study began by the formation of research questions and searching articles on Malaysia Technical and Vocational Education (TVET) sustainability framework to increase the marketability of graduates while the study flows in the following order; rationale, objectives, eligibility criteria, information sources, search strategy, study characteristics, results of individual studies and discussion, data extraction, and analysis. Figure 2 below shows the PRISMA flow chart on the details methodological approach used in the study.

IDENTIFICATION

Identification is a procedure that is used to improve the significance of the keywords that are employed because it enhances the likelihood of receiving more relevant articles for the review (Yusop et al. 2022). This systematic review used four familiar databases which are; SCOPUS, Taylor & Francis, Springer and Google Scholar as seen below in Figure 1. SCOPUS is a highly competitive and always up-to-date world-class database. Taylor & Francis, Springer and Google Scholar are databases that allow for independent and extensive research in a variety of fields. It is also easy to access. Google Scholar has greatly extended its coverage over the years, making it a robust database of scholarly literature (Halevi, Moed, Bar-Ilan, 2017). SCOPUS is the highest-level peer-assessed journal in academic and corporate organizations around the world related to all fields of human endeavour (Yusop et al. 2022).

The keywords used are; "Marketability of TVET Graduate in Malaysia", "Sustainable TVET Marketability Framework in Malaysia" and "Sustainable Technical and Vocational Education for Graduates in Malaysia" when searching for research papers related to the Malaysia Technical and Vocational Education (TVET) sustainability framework to increase the marketability of graduates. The below diagram show spread of research articles based on the database of extraction at the identification and inclusion stage.

SCREENING STAGE

Duplicate papers in SCOPUS, WoS, and Google Scholar were found at this stage. From the SCOPUS, Springer, Google Scholar, and Taylor & Francis databases, respectively, a total of seventy-one (71) papers were gathered. After fifteen articles were published between 2016 and below, five duplicate articles, two non-English articles, five conference proceedings, and fifteen titles of articles that were outside the scope of the review were discovered in total, 29 papers were finalised and moved on to the next stage of this systematic review. To determine whether the remaining twenty-nine (29) papers met the requirements for the type of literature, language, time period, and global coverage, we carefully reviewed each one of them. It must be noted that although the topic of the review revolved around TVET in Malaysia, however, the review covers research articles from other countries to develop a marketability framework that is global and can be localized to the Malaysian context. Figure 2 below indicates in detail the screening stage used. Also, the used were published articles between the 2017 and 2022 six-year

time span for the purpose of recency of information and data. Table 1 indicate supplementary information on the

literature type, language, and time range of the articles used.

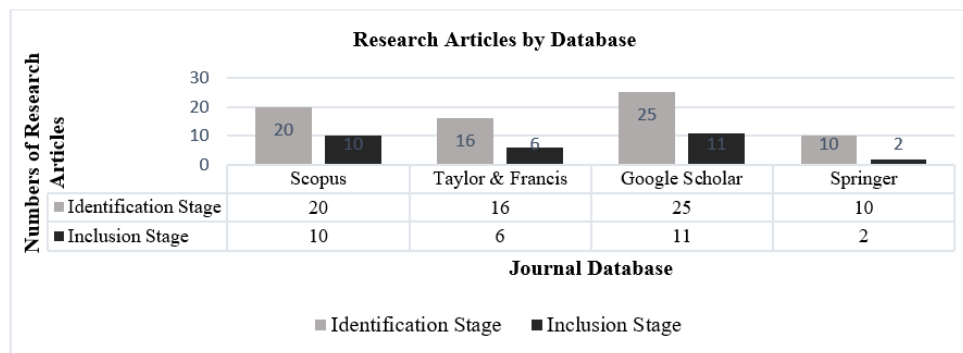


FIGURE 1. Research Articles by Database

TABLE 1. The Eligibility & Exclusion Criteria

Criterion	Eligibility	Exclusion
Types of Literature	Research articles	Conference proceeding, chapter in book, books
Language Choice	English Language	Other languages
Time Range	2017-2022	2016 and earlier
Country	Global	

ELIGIBILITY CRITERIA

At the second screening stage, the study re-examined the article title and abstract to ensure that all of the journal articles that made it through the initial screening stage met the requirements. Only articles that met the eligibility standards and complied with the two phases' criteria were

chosen by the study at this stage. Book chapters, books, book series, conference proceedings, and non-English language papers were excluded while papers published after 2016 are included to acquire accurate and high-quality data. Figure 2 below indicates in detail the eligibility criteria used in the study.

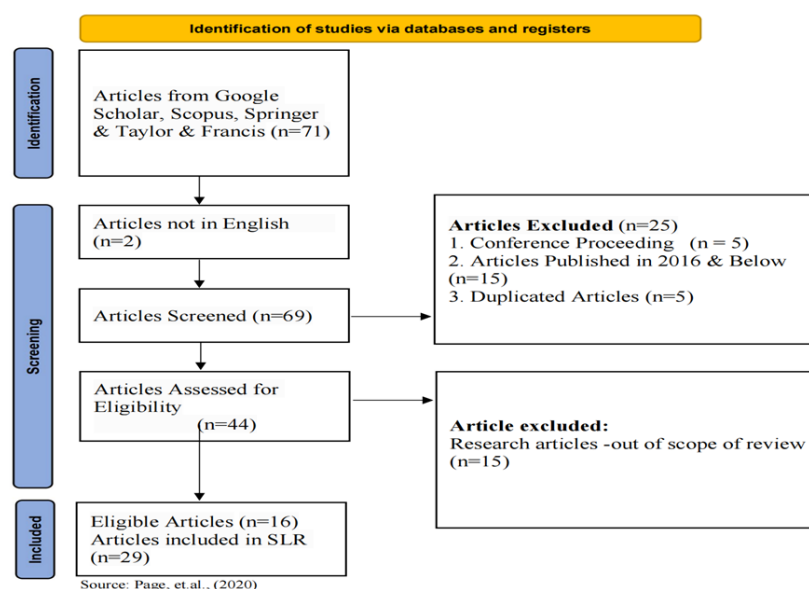


FIGURE 2. Prisma Diagram Flow Chart

DATA EXTRACTION AND ANALYSIS

Thematic analysis was performed on the set of twenty-nine (29) eligible papers, with the assistance of an extraction table provided in the appendix. This table directed the thematic analysis process, aiding in the extraction of details such as authors' names, publication years, research

methodologies, countries, findings, and journal names. The analysis of the findings in developing a sustainable framework for TVET graduate marketability indicated fifteen themes with eleven themes belonging to curriculum revision, two themes for industrial linkages and two other themes for policy intervention that must be used to develop a sustainable framework.

TABLE 2. Research Articles by Methodology

Methodology	Frequency (%)
Qualitative	20 (69)
Quantitative	9 (31)

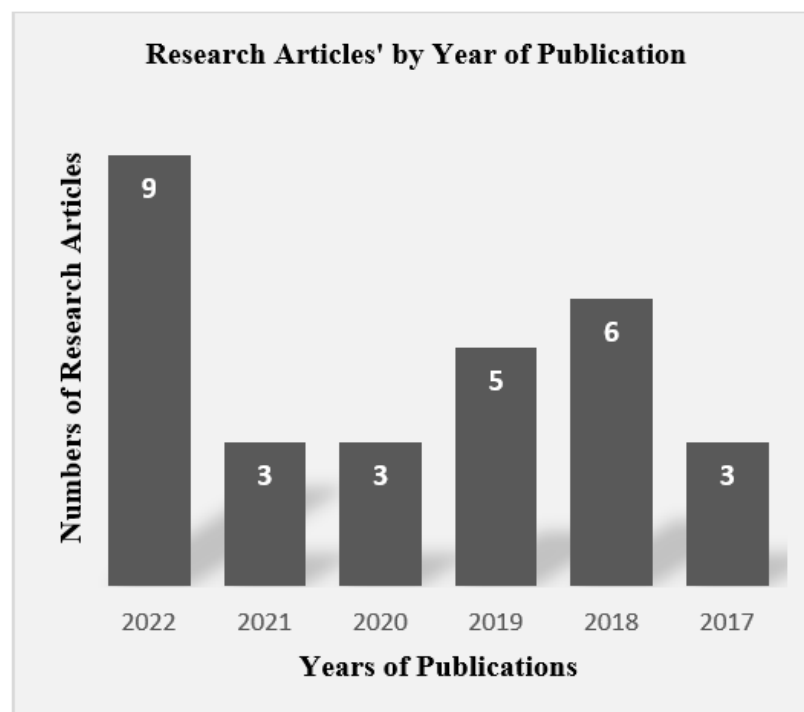


FIGURE 3. Research Articles by Year of Publication

Table 2, Table 3, and Figure 3 were derived from the extraction table. Table 2 provides an overview of the twenty-nine papers utilized in the review, revealing that 31% employed a quantitative research design, whereas

69% utilized a qualitative research design. Figure 3 further illustrates that the highest number of publications among the twenty-nine included in this study occurred in the years 2022, 2019, and 2018, respectively.

TABLE 3. Research Articles by Country of Study

Country	Number of research articles (%)
Botswana	1 (3)
Chile	1 (3)
Switzerland	1 (3)
China	2 (6)
Romania	1 (3)
Malaysia	21 (64)

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UK	2 (6)
Nigeria	1 (3)
Hong Kong	1 (3)
India	1 (3)
Thailand	1 (3)

Table 3. indicated that the majority of the papers used in this systematic review were carried out in Malaysia because the topic of the review revolves around the Malaysia TVET institution. However, in order for the review to have global coverage, research articles from Europe, Africa and other countries from the Asia continent were included.

ANALYSIS OF TVET MARKETABILITY STRATEGIES BY RESEARCH JOURNAL

Analysis of researchers' articles in Figure 4 below demonstrated that the highest number of papers, that is nine (9) recommend curriculum revision as a strategy for the marketability of TVET graduates, and six (6) papers posited that industrial linkage is necessary to close the skill gap among TVET graduate while five (5) papers buttress the need for the graduate to acquire 21st-century skills to be relevant in the workplace.

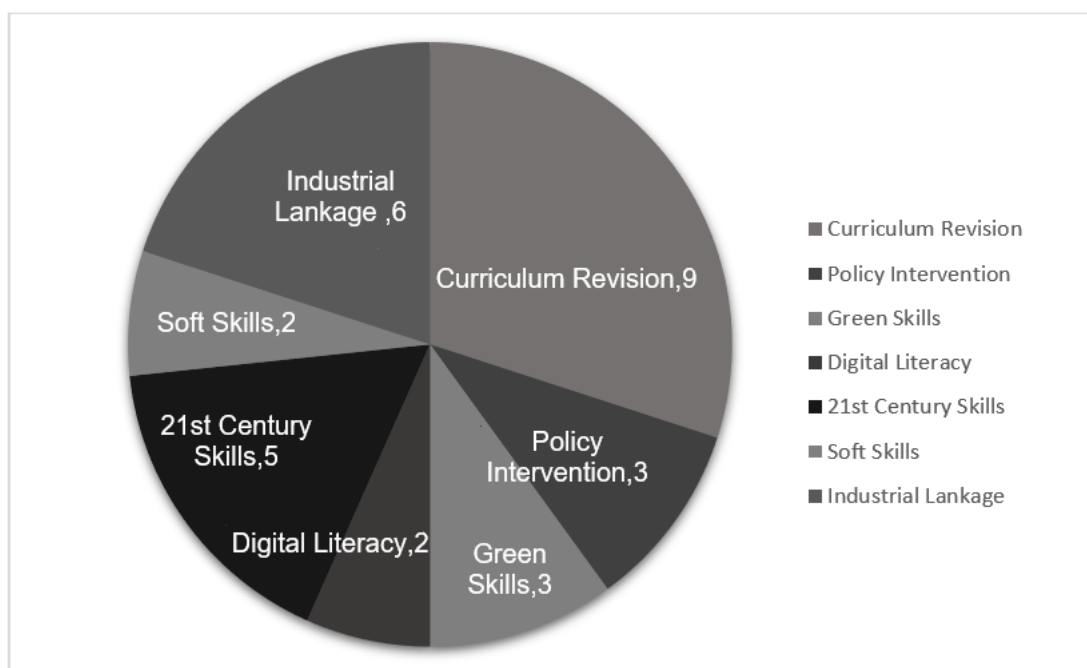


FIGURE 4. Analysis of Research Articles by Themes

SOFT SKILLS

Rodzalan et al. (2022) identify in the study that some soft and hard skills must be acquired by the potential graduates of Electrical and Electronic so as to bridge the skills gap in the industry. They identify the most importantly soft and hard skills from the perception of the academicians and industry players as the five top important soft skills include discipline, responsibility, problem-solving, cognitive skills and teamwork. The suggested framework of the study

proposes that the regulatory bodies should employ approaches to enhance TVET graduate employability and the emphasis on this also buttresses the reality of skills mismatch in the industry as the will pave way for constant awareness of the challenge. The findings of this study as well expect from the stakeholders ranging from policymakers to curriculum developers need to factor the required needed skills into the programs and training of the potential graduates in Malaysia, especially TVET

graduates. Additionally, academicians must develop their talents in all areas, including teaching, organising a variety of activities, and comprehending the present and future skills required by companies.

Cheng-Hu and Nga Thi (2021) came up with the findings that the perception of engineering students on what they relate to every moment has a significant effect on their self-efficacy. This is noticeable in the way they perform on the field with respect to their level of knowledge and skills, doubt of team ability, negative feelings and contest pressure. A qualitative data approach was used in the study to reveal that engineering students' self-efficacy remains unstable depending on the situation they find themselves. Research suggests further that negative impressions such as fear, boredom, fatigue, and anxiety can damage the self-efficacy of students and lead to low performance. On the other hand, positive emotions usually boost self-efficacy beliefs and in effect lead to success. The perception factor ultimately affects the employability and marketability of graduates. The framework points essentially that an adviser's credibility coming from the background of respect for teachers is crucial in Asian culture and indirectly remains a veritable tool to improve the self-efficacy of students and eventual success as a graduate.

INDUSTRIAL LINKAGE

In Malaysia, the issue of the TVET graduate skills gap is a school-based issue that is endangering Malaysia's potential for future productivity and economic growth (Mustapha, 2017). To generate graduates who are marketable and prepared for employment, integrated team linkages between training institutes and the industry have been established (Mustapha, 2017). The main issue is that the vocational school instructors themselves frequently lack industry exposure, have few routes for tertiary vocational education, have negative perception from the public, little industry engagement, numerous certifications and quality control systems which create mix-ups to the students and employers of labour, high dropout and failure rate, poor accessibility to TVET for special needs and minority groups, and lack of oversight body to ensure that the system is operating as intended. TVET institutions should analyze the curriculum and align with general market demand to address the problem of marketability (Bolli et al. 2018). Collaboration between academics and industry professionals can identify future needs and develop employment skills. The use of professional and technical terms promotes graduates' competency (DeWitt & Alias, (2021). Social discussion is recommended for effective policy formation, along with networks of cooperation between education providers, authorities for

certification and quality control, industry bodies, and TVET providers (Pavlova, 2019). Effective collaboration between regulatory agencies and specific enterprises is needed to support TVET provision, and flexibility in curriculum planning towards graduates' marketability is necessary. Omar, et.al, (2020) recommends projecting a positive image for TVET to attract the best students and produce balanced employees for various jobs. Ibrahim & Mat Nashir, (2022) emphasize the importance of collaboration between vocational schools and other players, and considering stakeholders' expectations for effective TVET programmes.

GREEN GRADUATE (GREEN SKILL)

TVET institutions should raise awareness of environmental benefits and promote green enterprises (Kamis et al. 2017). Teachers should be trained in sustainable and environmental education, and the community should implement green strategies. Saputri & Ediyono (2022) found that TVET graduates lack proper green skills training and that their abilities do not match industry demands. To produce marketable graduates, TVET institutions should incorporate green skills into the curriculum, collaborate with businesses on green work practices, and use relevant learning models.

In order to achieve the intended goals, Ridzuan and Abd Rahman (2022) analyse the prior efforts made by the Malaysian government to improve the state of the TVET program. They then advise additional efforts that would consolidate the earlier policy actions and programmes, which are; TVET programmes should incorporate green skills into their curricula, such as problem-solving techniques for dealing with environmental pollution and research techniques for the environment. These include knowledge of how to collect data, analyse it, and use green technology.

21ST CENTURY SKILLS

Haron, et.al. (2019a) highlighted the importance of generic skills in enhancing the marketability of TVET students. They proposed the "CareerEDGE" model to identify transferable or generic skills needed by TVET graduates, which include self-efficacy, self-confidence and self-esteem. Haron, et.al. (2019b) emphasized the significance of critical thinking, problem-solving and communication skills for vocational graduates to contribute meaningfully to the industry and reduce unemployment in Malaysia. Abdul Wafi, et al. (2022) concluded that there are seven main attributes that must not be found wanting in every graduate before their marketability could be guaranteed. They highlighted them to be leadership, critical thinking

and problem-solving, communication, lifelong learning and information management, teamwork, entrepreneurship skills and ethics, morals, and professionalism. Those graduate with these attributes is the most preferred graduate. The seven attributes are considered to be highly instrumental to the industry workforce. Jamaludin, et.al. (2020) found that the Technical Communication Pedagogical Model can enhance the employability of TVET graduates in Malaysia by emphasizing the importance of technical communication skills, including social literacy and oral presentation skills. English language proficiency was also identified as a critical factor in improving graduates' marketability in the industry. The study highlights the need for appropriate instructional objectives, learning content, effective delivery methods, and assessment strategies to be integrated into the TVET curriculum to enhance graduates' employability. Sa-Nguanmanasak & Khampirat (2019) found that the personality traits of TVET students, including organizational, relational, and leadership skills, significantly impacted their work output. The study also revealed that skills such as judgement, decision-making, knowledge acquisition and utilization, consistency, and adaptation to formal organizations influenced the quality of work. The study recommends that TVET colleges carefully choose workspaces for students and prepare them with essential skills to open doors to future employment and internship opportunities with local and international organizations.

CURRICULUM APPROACH

Rudhumbu (2022) studied the implementation of the TVET curriculum and identified challenges such as limited knowledge of lecturers on curriculum use (microsystem factor), curriculum design affecting classroom instruction (mesosystem), and external factors such as government policies and expectations (exosystem). To increase the employability of TVET graduates, the study recommends staff development procedures for instructors and collaboration with businesses for staff sponsorship in advanced studies. Alan and Ann-Marie's (2017) study found that the development of teacher-based assessment practices in TVET colleges can lead to shorter attention spans from trainees, which can ultimately jeopardize their skill competencies needed for job placement. The study recommended strengthening internal assessment to promote desired learning outcomes in TVET graduates. In Yeap, Suhaimi, and Nasir's (2021) study, they identified difficulties faced by TVET institutions in switching to online learning platforms and developing digital literacy among students and instructors.

The study proposed that better communication between policymakers, teachers, TVET colleges, and parents is needed to increase the efficiency of digital training, regulatory bodies should offer tools and Internet plans for students, and instructors should provide high-quality web-based platforms that promote ease of use for students. The Yusop et al. (2022) study highlights the importance of appropriate teaching strategies and assessment methods in TVET. Instructors should prioritize their knowledge and techniques in carrying out assessments using appropriate procedures, tools, and work phases, and incorporate technology for more effective assessments. Meanwhile, the Sadrina et al. (2018) study suggests that project-based learning (PBL) is more effective than the traditional lecture method, but supervisors in Malaysia's polytechnic schools lack expertise in PBL, necessitating a new framework for the polytechnic system. Omar, Zahar & Rashid's (2020) study explored the role of teachers in TVET institutions to ensure that students meet local and global labour market requirements after graduation. The study emphasized the importance of teachers' knowledge, attitude, skills, and empowerment, as well as the discovery trait of teachers to enhance students' marketability. To achieve this, the study recommends mentor and mentee programs between junior and senior professors for peer assessment of experiences and ideas, which would improve teachers' productivity and produce a reliable workforce that fits into the employment circle and contributes to the nation's technological advancement. Abd Samad, et. al. (2017) highlighted the key behavioural competencies and skills needed in the automotive industry, including qualification frameworks, skill standards, industrial relations, and community service programs.

The study suggests that collaboration between the government and the industry is necessary to develop a comprehensive roadmap that enables students to transition smoothly from college to industry with the necessary competencies required by the automotive industry. Jamaludin, Alias, and DeWitt (2018) recommend the adoption of industry-based curricula and activities to equip TVET graduates with both intellectual and physical job-specific abilities. The study identified four crucial curriculum revisions for TVET students, including holistic development, entrepreneurship, creativity, and lifelong learning. Rajadurai et al. (2018) found that employers prioritize personality-related factors over knowledge, intellectual prowess, and physical abilities. To produce marketable technical graduates, TVET institutions need to focus on developing attributes that are important to employers and incorporate them into the instructional experience.

POLICY INTERVENTION

John and Yusri (2021) suggest that establishing standards for uniformity in TVET institutions through appropriate quality assurance framework elements will make TVET graduates more employable. On the other hand, Wang and Wang (2022) note that social perception doesn't favour vocational education, and government intervention has worsened the marginalization of vocational graduates. They suggest that the government should focus on increasing the income status of vocational graduates, like Switzerland does, rather than increasing enrolment in vocational institutions to reduce economic inequality towards TVET graduates. The study by Ismail et al. (2019) found that male students in vocational institutions are more skilled in employability abilities in the hospitality industry than female students. The study suggests that in order to ensure performance and employability for all individuals, courses for skill development should consider gender inequalities. The equal distribution of male and female students' skill

acquisition is recommended to encourage healthy competitiveness in the job market.

RESULT

THE TVET MARKETABILITY FRAMEWORK

Haron et al. (2019) updated the Career EDGE model by Pool and Sewell (2007) to create a TVET graduate marketability model that includes generic skills, self-confidence, self-efficacy, self-esteem, and self-reflection. The goal of the model is to improve the employability of Malaysian TVET graduates by providing a reference for creating a program to develop their employability. However, the study suggests a new sustainable TVET marketability framework that incorporates diverse generic skills, curricular exposure, industrial experience, and the regulatory model. The framework also focuses on the relationships among stakeholders needed to achieve the desired learning outcomes for TVET graduates.

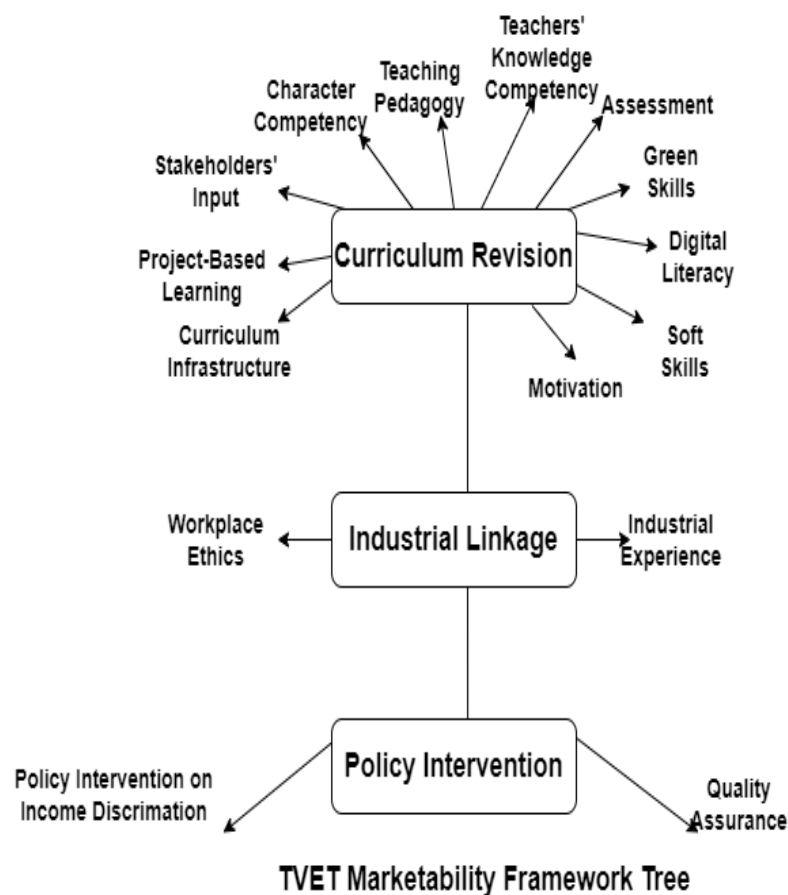


FIGURE 5. TVET Marketability Framework Tree

The above Figure 5 explicitly highlights the TVET marketability framework component from the synthesis of previous studies. The component is necessary for the effective marketability of TVET graduates is based on proper curriculum revision, sound industrial linkage and policy intervention from the government and TVET regulatory agencies. The first component is the curriculum revision stage, which entails effectively re-engineering the current TVET curriculum in Malaysia to industrial needs and global best practices. In this case, curriculum revision must address the skill gap in the area of green skills, digital literacy, character competency and soft skills (Rudhumbu 2022). Teachers play a critical role as end-users of the school curriculum in TVET education. Their knowledge

and teaching methods can impact the competency of TVET graduates required in the job market. Project-based learning is identified as an effective method to develop critical thinking, creativity, innovation, and problem-solving skills in TVET students (Sabrina, Mustapha, Ichsan 2018). Student motivation is also important in sustaining their interest in meeting industrial requirements, given the societal perception of TVET graduates' impact on student achievement motivation. Furthermore, the provision of curriculum infrastructure, including facilities for the effective implementation of revised curriculum, is necessary (Yeap, Suhaimi & Nasir 2021). All stakeholders should provide input on all aspects of the curriculum revision to meet industrial needs.

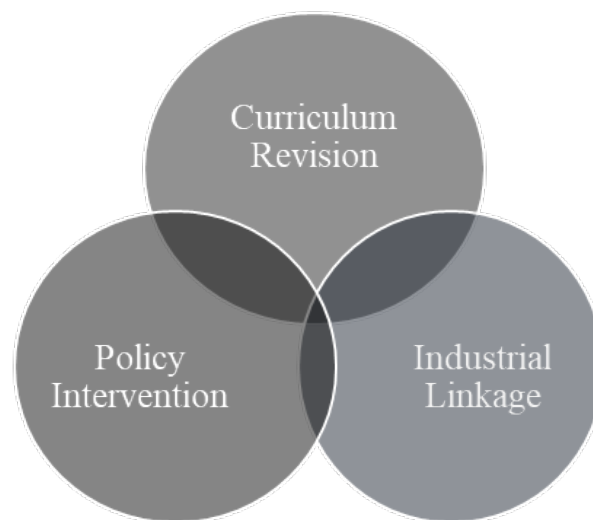


FIGURE 6. Interrelationship Of TVET Marketability Framework

Figure 6 above shows that the synergy between industry, educational policymakers, and TVET institutes is crucial in providing the required workplace ethics and industrial experience for fresh graduates. Constant curriculum revision, with input from the industrial economy, is necessary to enhance the marketability of TVET products (Adewale et al. 2022, Jimoh et al. 2020). The TVET program's primary goal is to create well-educated and skilled students that meet industry demands. To achieve this, TVET institutions and the private sector should strengthen their interactions through an industrial training scheme to provide real-world learning experiences (Haron et al. 2019a). Academic environments alone cannot guarantee graduate careers, but real-world work experiences enable graduates to apply their gained abilities to further the globalization of the workplace (Abdul Wafi, et. al., 2022).

CONCLUSION

In Malaysia, vocational and technical education has been identified as key players in the economic growth and development process of the country. However, the potential contribution of TVET institutions has been reduced due to a skill mismatch between the classroom experience and the workplace reality because the inability of curricular offerings is not in consonance with the requirement of the 21st-century job market. Also, the marketability of the TVET graduate is not encouraging because the skills of the TVET graduate are not relevant in the world of work as a result less or no effective collaboration between the TVET institutions and the industry. The lack of uniformity among quality assurance agencies for TVET equally hampers the productivity of the institutions and their product. Based on this necessary recommendation has been made to capture the curriculum factors, skill gap factors and stakeholders-related factors.

The followings are the recommendations of this study, which are;

1. The TVET regulatory bodies should strive to embark on curriculum revision to close the skill gap between the classroom and the industry.
2. There should be an effective partnership in all ramifications between TVET institutions and the industry.
3. There should be uniformity in the quality assurance standard applied to all TVET institutions.
4. There should be an effective reorientation of the public on the role of TVET in poverty to increase enrolment.
5. The curriculum of TVET should be improved and updated in every five years to catch up with industrial needs.
6. Government should increase the provision of ICT infrastructure and other facilities to TVET institutions.
7. TVET instructors' skills and capacity should be developed to capture up with needs of Z-generation learners.

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