

## Employability Skills Needed for TVET Graduates in Malaysia: Perspective of Industry Expert

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### Abstract

Employability skills are an especially vital attribute for TVET graduates with regard to career readiness. Nevertheless, many studies have noted the gap between TVET graduates' employability skills and industry needs. Industries need TVET graduates who possess communication skills, interpersonal skills, critical thinking, problem-solving and entrepreneurial skills. However, studies have often found TVET graduates to have problems communicating effectively and to be lacking in self-confidence. This qualitative study was conducted to identify the employability skills required by industry from the perspective of industry experts themselves. The study established that TVET graduates need social and communication skills, technological literacy, teamwork and leadership skills. Therefore, stakeholders in TVET need to be mindful of these factors to produce TVET graduates who possess employability as required by industry. Simultaneously, the success of this collaboration relies on strategic planning between TVET institutions and industries.

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**Keywords:** *Technical vocational education and training (TVET), employability skills, TVET graduates, industry expert.*

### 1 Introduction

Graduates' employability skills are a concern in the world of higher education as they affect the marketability of graduates. Various authors have offered definitions of the term employability based on their studies. Lankard (1990) defines graduate employability skills as academic competencies, interpersonal skills and other attributes such as personality, a positive attitude and behaviours. A later study by Fugate et al. (2004) defines employability skills as the act of preparing graduates to secure jobs successfully and prove their worth to employers as they progress on their career path – a key factor in securing their positions. Meanwhile, Esa et al. (2006) defines employability skills as communication skills, analytical skills, information management skills, technological literacy, teamwork and leadership skills. A recent study by Kamerade and Paine (2015), meanwhile, asserts that employability skills

must involve the individual qualities required by employers. Therefore, Technical and Vocational Education Training (TVET) plays a significant role in providing graduates with the employability skills needed by industry.

A study conducted by the Institute of Labour Market Information and Analysis (ILMIA) in 2018 revealed that there is a need to create an appropriate and relevant education system to produce competitive and resilient TVET graduates. The study found that TVET graduates have weaknesses related to employability skills such as teamwork, adaptability, critical thinking, leadership and communication skills. As such, efforts to empower TVET are seen to be somewhat stunted as TVET graduates are not yet fully equipped with the requisite skills, competitiveness and entrepreneurial characteristics to explore new opportunities which, in turn, can effect a shift from a job-searching landscape to one which creates jobs.

### **1.1 Employability Skills among TVET Graduates in Malaysia**

In Malaysia, TVET is an education programme that aims to produce skilled graduates to meet the current needs of industry. Ashari and Rasul (2014) state that a highly skilled workforce can be achieved through optimising industry's involvement in the TVET system. Ramlee (2017) also noted that the Malaysian TVET system needs to focus on increasing its attractiveness to prospective students, providers and industry players, in addition to increasing the quality of TVET instructors. Therefore, TVET institutions and industries need to work together to identify the employability skills needed by TVET graduates (Yusof et al. 2017).

Employability skills are also closely related to career readiness. Lombardi et al. (2012) define career readiness as the knowledge, skills and learning strategies that provide outcomes to individuals including readiness to work, on-the-job training and the impact of workplace behaviour. Meanwhile, Othman and Hasan (2019) define career readiness as the readiness of an individual to venture into a chosen career field. Mat Yazid (2010) emphasises that the graduate job market no longer depends solely on academic excellence, but the quality of employability skills which can affect their marketability. Therefore, it is the responsibility of TVET institutions to ensure that graduates are prepared to enter the field of employment by possessing the relevant skills and employability in their respective fields.

Nevertheless, many studies have identified a gap between the employability skills of graduates and the skills required by the industry. Studies conducted by Mohamed et al. (2007), Mustafa et al. (2010), and Makhbul et al. (2015) found that there are skills gaps or weaknesses related to employability skills. They found that industries need TVET graduates who possess communication skills, interpersonal skills, critical thinking, problem solving and entrepreneurial skills. A study conducted by Makhbul et al. (2015) reported that employers saw a relatively large skills gap related to graduate performance in terms of ethics and values, thinking skills, leadership, decision making and problem solving. Meanwhile, the study of Samad et al. (2019) suggested that more effective TVET curriculum planning could help to improve graduate employability skills to meet the needs of industry.

TVET institutions and industries must nurture mutual understanding through the sharing of knowledge, practices and equipment. According to Aminuddin (2011), and Ashari and Rasul (2014), the success of the TVET ecosystem in Malaysia relies on a few factors such as partnerships and interactions between TVET institutions and industry, especially in creating a TVET curriculum sharing advancements in technology. In other words, TVET in Malaysia must be industry-driven to make it more oriented to the needs of industry.

## **1.2 Research Question**

To understand the employability skills required by industry, it is essential to obtain the perspective of industry. Accurate and in-depth input will help stakeholders to prepare TVET graduates for the needs of industry in the future. This paper focuses on data from industry itself. The research question is: What employability skills do TVET graduates in Malaysia need?

## **2 Literature Review**

There has been a long-standing discussion on the employability skills gap between industry and graduate competencies. According to Rehman and Mehmood (2014), there is a gap between industry requirements and the quality of graduates produced by learning institutions. The crucial employability skills needed by industry include problem solving, critical thinking, the ability to communicate effectively and to work in a team. Rao and Sivasree (2015) support this statement by stating that industry needs individuals who possess good employability skills. Employees are actually an industrial asset, as individual attributes affect the success or failure of the operation in the respective industry.

As a developing country, Malaysia is actively empowering the TVET system to meet the needs of numerous industries. However, TVET institutions in Malaysia still face the issue of bridging the employability skills gap as required by industry. A study conducted by Esa et al. (2013) found that career readiness among TVET graduates is low and that they had difficulty communicating effectively. Kee et al. (2018) found that most TVET graduates in Malaysia possess technical skills, but their employability is hindered by weak social skills relating to communication, low self-esteem, and poor adaptability in the workplace. In order to produce competitive and holistic TVET graduates, immediate initiatives need to be taken to bridge the gaps.

## **3 Methodology**

This study applied qualitative research methods to collect data via a semi-structured interview protocol. According to Hammarberg et al. (2016), qualitative research methods are applied to answer questions about meaning, experience and perspective from the standpoint of the participants. Therefore, this study uses an informational qualitative approach to share the

experience and understand the perspective of industry experts on the employability skills TVET graduates need in Malaysia.

### **3.1 Participants**

Six participants are involved in this study, selected on the basis of three criteria:

- Minimum of 10 years working in any related industry
- Experienced in supervising and managing skilled workers
- In possession of academic qualifications or professional certifications in their fields of industry

### **3.2 Instruments**

In order to gather the information and data needed, a semi-structured interview protocol was developed to assist the in-depth interview sessions with the participants. According to Adams (2015), a semi-structured interview employs a blend of closed and open-ended questions, often accompanied by follow-up *why* or *how* questions to seek out the independent thoughts of each participant.

The interview questions focused on the employability skills industries expect of TVET graduates in Malaysia, in no particular sequence. According to Castillo-Montoya (2016), this method allows the researcher to develop the interview session based on the responses given by participants. It also gives the researcher the opportunity to create new questions spontaneously to obtain more information from the participants.

The interview protocols were validated by two academic experts with PhD qualifications from a local university.

### **3.3 Procedure of Data Collection**

Participants in this study were selected by the human resources departments of their respective organisations based on the above criteria. The six participants were contacted via email. Interviews were conducted via Google Meet. All interview sessions were recorded. Prior written consent was obtained from the participants.

### **3.4 Procedure of Data Analysis**

The data analysis of this study takes the form of thematic analysis with the following procedures: Firstly, all interviews were transcribed and participants were asked to verify the transcripts before the researcher began analysing the data. Secondly, information was coded to the data that related to employability skills needed by TVET graduates. All of the codes were categorised into several themes. The process was carried out with the help of ATLAS.ti version 8 software. Finally, researchers prepared a set of expert consent forms to validate the emergent themes derived from the data.

### 3.5 Validity and Reliability of the Study

According to Cohen (1960), the reliability of qualitative data in the form of interviews must be evaluated by two or more independent experts. Cohen also introduces the Cohen Kappa Index analysis for assessing the reliability of qualitative data and to find the degree of alignment of the analysis unit with the emergent themes. The findings and themes of this study have thus been validated by three qualitative experts in the field of TVET with a score of 0.94 (very high) in the Cohen Kappa Index analysis.

## 4 Findings

In identifying the employability skills needed for TVET graduates in Malaysia, four themes emerged from the data collected. These are shown in Figure 1:

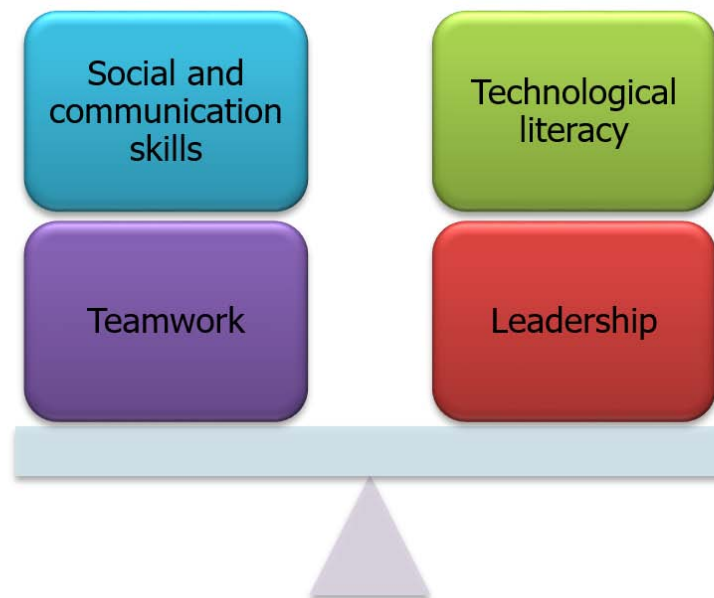


Figure 1: The Employability Skills Needed for TVET Graduates in Malaysia

### 4.1 Profile of Participants

Six industry experts from various backgrounds were interviewed. Three of the participants are from international companies and three from local companies. All of the industry experts meet the criteria set by the researcher, such as having a minimum of ten years of experience in supervising and managing staff and having academic qualifications or professional certification in their field. To protect participants' anonymity, pseudonyms were used to illustrate the profile of industry experts:

Table 1: **Profile of Industry Experts**

Pseudonyms	Company	Sector	Years of Experience	Position
Mr Iqbal	A	Electrical and Electronics (E&E)	13	Project Supervisor
Mr. Habieb	E	Automotive	10	Technician Supervisor
Mrs. Zahraa	C	Fashion Technology	31	Managing Director
Mr. Izzaz	D	Hospitality and Culinary	11	Sous Chef
Mr. Hamka	E	Heating, Ventilation, and Air Conditioning (HVAC)	34	Senior Manager, Dept. Of Research and Development
Mrs. Deena	F	Beauty and Spa therapy	15	Managing Director

#### 4.2 Social and Communication Skills

Social and communication skills are among the employability skills needed by TVET graduates in Malaysia. In the interviews, the industry experts revealed that most TVET graduates in Malaysia possess satisfactory technical expertise. Their weaknesses become apparent in oral communication skills.

*“I can see that most TVET graduates possess good technical skills, but are quite weak when they have to interact with customers. They seem confused and don't know how to communicate effectively.”*  
(Mr. Iqbal)

Apart from being technically competent, TVET graduates are expected to interact well with their colleagues. In other words, they are expected to have effective social skills:

*“Academic qualifications alone can't guarantee a place for TVET graduates. They must be able to get along and socialise well, especially with their co-workers.”* (Mr. Hamka)

*“In the world of fashion, we need to socialise well. We need competent employees, but they must also be able to impress customers with their speaking abilities. Plus we need them to be presentable at all times. Not only in their appearance but also regarding their oral skills. Body language and facial expressions are also important in attracting customers and profitable prospects.”* (Mrs. Zahraa)

Beyond expecting good informal communication skills, the industry experts also want TVET graduates to have good presentation skills:

*“As a member in an R&D team, presentation is unavoidable. We must present our findings and results to upper management. Most TVET graduates in our team lack self-confidence when it comes to presentation. Sometimes it is because of a language barrier, but mostly they just don’t have the skills. So, for me... it is crucial for them to develop these presentation skills. These abilities carry considerable weight in evaluating their achievements.” (Mr. Hamka)*

### **4.3 Technology Literacy**

Apart from possessing technical expertise in their particular field, TVET graduates are expected to be technologically literate. According to industry experts, TVET graduates with computer skills and technological proficiency will find it easier to get a job:

*“In today's technological era, TVET graduates must know how to use computers. A lot of equipment has been digitised and it requires tech savvy people to work on it.” (Mr. Habieb)*

*“In addition to having technical skills, TVET graduates must be proficient in using computer software for documentation, reporting and filing. It will be easier for them to get hired if they have these skills.” (Mr. Hamka)*

*“Based on my experience, most TVET graduates are competent when it comes to hands-on work... I have no doubt of that. However, I find that many of them are not computer literate and struggle to use basic Windows Office for documentation. In my opinion, they must have basic computer skills to be relevant to the job market.” (Mrs. Deena)*

### **4.4 Teamwork**

Apart from communication and technology skills, TVET graduates are also expected to have an aptitude for teamwork. Industry experts see teamwork as an important characteristic for the success of an organisation. Productivity in industry is closely related to effective teamwork:

*“Teamwork is absolutely essential for a company to achieve its targets. Without good teamwork, a company can collapse at any time. We need frequent discussion and ensure we move together as a team. Only then can we achieve our goal.”(Mr. Iqbal)*

In many industries, all departments are interrelated and important to different processes. Therefore, effective communication and teamwork must be practised every day by team members:

*“Teamwork is important in the HVAC industry. We have many departments such as R&D, assembly, electronics and marketing.*



*Each of these departments is very important, each demanding different expertise. Therefore, this industry only needs those who can tolerate and are able to work with others.” (Mr. Hamka)*

*“The culinary field requires members to cooperate and tolerate each other. This industry has strict targets, which need to be completed within a set time frame. The environment in the kitchen requires planning to ensure that we can achieve this target.” (Mr. Izzaz)*

#### **4.5 Leadership**

The fourth area of employability skills required by TVET graduates in Malaysia is leadership. According to the industry experts, leadership is a vital management function that helps to direct an organisation's resources to improve efficiency and to achieve its goals. As for TVET graduates, those with leadership skills will have better prospects for promotion. Beyond career advancement, leadership is integral to directing a team towards its goal:

*“Many TVET graduates are shy and don't want to stand out. If they remain shy, it will be difficult for them to be promoted or given better opportunities. The industry is always in need of backup in leadership. These skills are a must for all TVET graduates.”(Mr. Habieb)*

*“In every organisation, good and efficient leadership is necessary. One of the most important functions of a good leader is to provide a vision for the organisation. At the same time, a good leader must act as a problem solver and motivator. Therefore, TVET graduates who want to work in industry must be able to lead their teams in the future.” (Mr. Iqbal)*

### **5 Discussion**

One of the key findings of the data is that employability skills needed for TVET graduates in Malaysia include social and communication skills. Industry experts think that TVET graduates must have good social and communication skills. These skills must be learned directly and indirectly at campus level. This is consistent with a study conducted by Noorazman et al. (2017) that suggests the implementation of more programmes and activities to develop graduates' skills to socialise and communicate during their studies. Meanwhile, research conducted by Dwiyantri et al. (2021) recommends that TVET students who want to work in the logistics industry should develop their social and communication skills such as negotiating, oral communication, presentation, and critical thinking. The industry experts also revealed that poor communication skills among TVET graduates may hamper the success of an organisation. This finding is consistent with research conducted by Krishnan et al. (2019) that noted that weak communication skills among TVET graduates will affect their performance in dealing with customers.



The second area of employability skills needed by TVET graduates in Malaysia is technological literacy. Industry experts stated that, along with the current advancement of technology and the 4.0 industry revolution, TVET graduates need to acquire technological knowledge, including basic computer skills. This is reflected in research by Esa et al. (2006) which states that TVET graduates should be technologically literate and proficient in information management skills, teamwork and leadership to be competitive in the job market.

Teamwork and leadership are also identified as essential employability skills for TVET graduates in Malaysia. The industry experts emphasised that teamwork is a significant attribute in achieving a company's goals. At the same time, they claimed that most TVET graduates lack self-confidence in a leadership sense. A study conducted by Makhbul et al. (2015) found that a relatively large skill gap was expressed by employers in relation to graduate performance in terms of ethics and values, thinking skills, leadership, decision making and problem solving. Research by Mohamed et al. (2007) found that TVET graduates with excellent employability skills, such as the ability to work with minimal supervision, who are technologically and computer literate, and have leadership skills, are more likely to get hired by industry. Consequently, it is the responsibility of TVET institutions and TVET graduates themselves to foster and prepare the employability requirements of industry: social and communication skills, technological literacy, teamwork, and leadership.

## **6 Conclusion**

This study has emphasised the employability skills needed for TVET graduates in Malaysia from the perspective of industry experts. The experience and findings of industry experts enabled the researcher to identify employability skills needed for TVET graduates in Malaysia. The findings identify four main employability skills needed, namely social and communications skills, technological literacy, teamwork and leadership. In the future, the findings of this study can be used by TVET institutions and TVET graduates themselves to prepare themselves with the necessary skills. The findings of this study are also in line with current studies by Ali et al. (2018) and Samad et al. (2019) who note that TVET graduates in Malaysia are required to have traits such as communication skills, decision-making skills, responsibility, integrity, punctuality, the ability to work in groups, adaptability and flexibility in most situations. Fundamentally, strategic collaboration with industry is essential to ensure that TVET institutions can supply quality skilled workers to all industries. It is abundantly clear that industry involvement in providing such information is crucial to TVET institutions and TVET graduates themselves. This will promote an effective and competitive TVET ecosystem in Malaysia. Subsequently, initiatives such as strategic collaborations between TVET institutions and industries need to be supported by implementing traineeships or workplace-based training programmes to develop TVET graduates' employability skills. It is believed that such programmes can provide exposure related to the authentic situation of working in industry.

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