THE DEVELOPMENT AND EVALUATION OF SOFT SKILLS EMPLOYABILITY CONSTRUCT AMONG MALAYSIAN TECHNOLOGY INDUSTRY WORKERS

SALLY SAAD FADHIL

05-4506832 pustaka.upsi.edu.my Perpustakaan Tuanku Bainun Kampus Sultan Abdul Jalil Shah PustakaTBainun ptbupsi

SULTAN IDRIS EDUCATION UNIVERSITY

2021

05-4506832 pustaka.upsi.edu.my Perpustakaan Tuanku Bainun Kampus Sultan Abdul Jalil Shah PustakaTBainun ptbupsi

THE DEVELOPMENT AND EVALUATION OF SOFT SKILL EMPLOYABILITY CONSTRUCT AMONG MALAYSIAN TECHNOLOGY INDUSTRY WORKERS

SALLY SAAD FADHIL

DISSERTATION PRESENTED TO QUALIFY FOR A
MASTERS IN MANAGEMENT
(RESEARCH MODE)

FACULTY OF MANAGEMENT AND ECONOMICS
SULTAN IDRIS EDUCATION UNIVERSITY
2021

UPSI/IPS-3/BO 32
Pind: 00 m/s: 1/1

UNIVERSITI PENDIDIKAN SULTAN IDRIS
SULTAN IDRIS EDUCATION UNIVERSITY

Please tick (✓)

Project Paper	
Masters by Research	✓
Masters by Mix Mode	
Ph.D.	

INSTITUTE OF GRADUATE STUDIES
DECLARATION OF ORIGINAL WORK

This declaration is made on the 13/08/2021.

i. Student's Declaration:

I, Sally Saad Fadhil –M20162002441 - Faculty of Management and Economics hereby declares that the dissertation /thesis for Master of Management titled "THE DEVELOPMENT AND EVALUATION OF SOFT SKILLS EMPLOYABILITY CONSTRUCT AMONG MALAYSIAN TECHNOLOGY INDUSTRY WORKERS" is my original work. I have not plagiarized from any other scholar's work and any sources that contain copyright had been cited properly for the permitted meanings. Any quotations, excerpt, reference, or re-publication from or any works that have copyright had been clearly and well cited.

Signature of the student

ii. Supervisor's Declaration:

I Associate Professor Dr. Ramlee Bin Ismail hereby certify that the work entitled, "THE DEVELOPMENT AND EVALUATION OF SOFT SKILLS EMPLOYABILITY CONSTRUCT AMONG MALAYSIAN TECHNOLOGY INDUSTRY WORKERS" was prepared by the above-named student and was submitted to the Institute of Graduate Studies as a partial/full fulfilment for the conferment of the requirements for Master of Management (By Research), and the aforementioned work, to the best of my knowledge, is the said student's work.

13 August 2021
Date

Signature of the Supervisor

UPSI/IPS-3/BO 31
Pind.: 01 m/s:1/1

UNIVERSITI PENDIDIKAN SULTAN IDRIS
SULTAN IDRIS EDUCATION UNIVERSITY

INSTITUT PENGAJIAN SISWAZAH /
INSTITUTE OF GRADUATE STUDIES

BORANG PENGESAHAN PENYERAHAN TESIS/DISERTASI/LAPORAN KERTAS PROJEK
DECLARATION OF THESIS/DISSERTATION/PROJECT PAPER FORM

Tajuk / Title: **THE DEVELOPMENT AND EVALUATION OF SOFT SKILLS EMPLOYABILITY CONSTRUCT AMONG MALAYSIAN TECHNOLOGY INDUSTRY WORKERS**

No. Matrik /Matric's No.: **M20162002441**

Saya / I **Sally Saad Fadhil**

mengaku membenarkan Tesis/Disertasi/Laporan Kertas Projek (Kedoktoran/Sarjana)* ini disimpan di Universiti Pendidikan Sultan Idris (Perpustakaan Tuanku Bainun) dengan syarat-syarat kegunaan seperti berikut:-
acknowledged that Universiti Pendidikan Sultan Idris (Tuanku Bainun Library) reserves the right as follows:-

1. Tesis/Disertasi/Laporan Kertas Projek ini adalah hak milik UPSI.
   The thesis is the property of Universiti Pendidikan Sultan Idris
2. Perpustakaan Tuanku Bainun dibenarkan membuat salinan untuk tujuan rujukan dan penyelidikan.
   Tuanku Bainun Library has the right to make copies for the purpose of reference and research.
3. Perpustakaan dibenarkan membuat salinan Tesis/Disertasi ini sebagai bahan pertukaran antara Institusi Pengajian Tinggi.
   The Library has the right to make copies of the thesis for academic exchange.
4. Sila tandakan (√) bagi pilihan kategori di bawah / *Please tick (√) for category below*:-

☐	SULIT/CONFIDENTIAL	Mengandungi maklumat yang berdarjah keselamatan atau kepentingan Malaysia seperti yang termaktub dalam Akta Rahsia Rasmi 1972. / Contains confidential information under the Official Secret Act 1972
☐	TERHAD/RESTRICTED	Mengandungi maklumat terhad yang telah ditentukan oleh organisasi/badan di mana penyelidikan ini dijalankan. / Contains restircted information as specified by the organization where research was done.
√	TIDAK TERHAD / OPEN ACCESS	

(Tandatangan Pelajar/ Signature)

(Tandatangan Penyelia / Signature of Supervisor)
& (Nama & Cop Rasmi / Name & Official Stamp)

Tarikh: 23 – August - 2021

Catatan: Jika Tesis/Disertasi ini SULIT @ TERHAD, sila lampirkan surat daripada pihak berkuasa/organisasi berkenaan dengan menyatakan sekali sebab dan tempoh laporan ini perlu dikelaskan sebagai SULIT dan TERHAD.

Notes: If the thesis is CONFIDENTAL or RESTRICTED, please attach with the letter from the organization with period and reasons for confidentiality or restriction.

DEDICATION

"And mankind have not been given of knowledge except a little"

Holy Qur'an / Al-Israa (85)

To my father and mother …

To the memory of my brother …

To my husband and my daughter for their love …

To my beloved friends for their encouragement and help

Thank you for being there with me.

ACKNOWLEDGMENT

"In the name of Allah, the Most Gracious and the Most Merciful"

I am deeply indebted to **Professor Madya Dr. Ramlee Bin Ismail** for his encouragement, advice, mentoring and research support throughout my master's degrees. I deeply appreciate Dr. Wan Salmuni Binti Wan Mustaffa for their support patience and tolerance during my research work. I reckon it is impossible to have my research career without the love and support of my husband Fawaz Jumma and my Daughter Minatullah. My deep appreciation for my parents for their support and prayers. I dearly appreciate you all. This research would not have come to fruition without all your help and supports. I also would thank Intel Microelectronics SDN BHD, the departments and other staff members for their cooperation in both pilot study interviews and the main survey. Furthermore, Special thanks to Analog Devices and National Instruments for their dedicated help offer for their cooperation in offering the support in collecting data of our survey. Finally, I would like to thank my best friends Dr. Alhamzah Alnoor from Basrah University, Dr. Adi Momani from Jordan University, Dr. Bilal Bahaa Zaidan and his Wife Roqaia Alaa for their support and encouragement. My special thanks and appreciation to Professor Madya Aws Alaa Zaidan and his wife Dr. Hamsa Aljudi for their support and encouragement.

Thank you. May Allah blesses you.

ABSTRACT

This study was conducted to explore the impact of soft skills on the employability of graduates and employees in technology industry companies of Malaysia. The objectives of this study are identifying the soft critical skills required by the technology industry sector in Malaysia based on Fuzzy Delphi Analysis, investigating the impact and importance of soft skills on employability and define the most influencing soft skills, and developing a new model which includes the soft skills factors that impact employability. This study was conducted based on a few theories in three domains: soft skills relationship with employability domain, second, soft skills and employability assessment domain, and third, soft skills model and instrument development domain. The leading theory that supports this study is the human capital theory. This study was based on a multi-method research approach. The first method was the Fuzzy Delphi method, which was utilised to identify soft critical skills through the preliminary study. The outcome of the preliminary study produced ten soft critical skills with the employability to form the study framework, namely: Communication Skills, Motivation, Teamwork, Integrity, Trust, Honesty, Attitude, Learnability, Responsibility, Innovation, and Employability. The second method was the Partial Least Square Structural Equation Modelling (PLS-SEM) to measure the influence of soft skills on employability of graduates in the technology industry sector of Malaysia. The data sample was collected from employees in two companies, namely Intel corporation and Analog Devices, that included 345 individuals selected based on a stratified random sampling method. In conclusion, the findings confirmed the influence of Communication Skills, Attitude, Integrity, Learnability, Motivation and Teamwork on employability, and this indicated that these skills are the critical factors for employability in Malaysian technology companies. The adoption of these soft skills will be impactful in terms of finding jobs for graduates in Malaysia.

PEMBANGUNAN DAN PENILAIAN KONSTRUK KERJA KEMAHIRAN LEMBUT DENGAN PEKERJA INDUSTRI TEKNOLOGI MALAYSIA

ABSTRAK

Kajian ini dilakukan untuk mengetahui kesan kemahiran insaniah terhadap kebolehkerjaan graduan dan pekerja di syarikat industri teknologi di Malaysia. Objektif kajian ini adalah mengenal pasti kemahiran insaniah kritikal yang diperlukan oleh sektor industri teknologi di Malaysia berdasarkan Analisis Fuzzy Delphi, menyiasat kesan dan kepentingan kemahiran insaniah terhadap kebolehkerjaan dan menentukan kemahiran insaniah yang paling mempengaruhi, dan membangunkan model baru yang merangkumi faktor kemahiran insaniah yang mempengaruhi pekerjaan. Kajian ini dilakukan berdasarkan beberapa teori dalam tiga domain, pertama, hubungan kemahiran insaniah dengan domain kebolehkerjaan, kedua, kemahiran insaniah dan domain penilaian kebolehpasaran, dan ketiga, model kemahiran insaniah dan domain pengembangan instrumen. Teori utama yang menyokong kajian ini adalah teori modal insan. kajian ini dilakukan dengan menggunakan pendekatan pelbagai kaedah. Kaedah pertama adalah kaedah Fuzzy Delphi, yang digunakan untuk mengenal pasti kemahiran insaniah kritikal melalui kajian awal. Dapatan kajian awal menghasilkan 10 kemahiran insaniah kritis dengan kebolehpasaran untuk membentuk kerangka kajian, iaitu: Kemahiran Komunikasi, Motivasi, Kerja Berpasukan, Integriti, Kepercayaan, Kejujuran, Sikap, Kemampuan Belajar, Tanggungjawab, Inovasi, dan Kebolehpasaran. Kaedah kedua ialah Pemodelan Persamaan Struktural – Kaedah Kuasadua Terkecil Separa (PLS-SEM) untuk mengukur pengaruh kemahiran insaniah terhadap kebolehpasaran graduan dalam sektor industri teknologi di Malaysia. Sampel data dikumpulkan dari pekerja di dua syarikat, iaitu Intel corporation dan Analog Devices, yang merangkumi 345 individu yang dipilih berdasarkan kaedah pensampelan rawak berstrata. Penemuan ini mengesahkan pengaruh kemahiran Komunikasi, Sikap, Integriti, Kemampuan Belajar, Motivasi dan Kerja Berpasukan terhadap kebolehkerjaan, dan ini menunjukkan bahawa kemahiran ini merupakan faktor kritikal untuk kebolehpasaran dalam syarikat teknologi Malaysia. Penerapan kemahiran insaniah ini akan memberi kesan dalam mencari pekerjaan untuk graduan di Malaysia.

TABLE OF CONTENT

05-4506832 pustaka.upsi.edu.my Perpustakaan Tuanku Bainun Kampus Sultan Abdul Jalil Shah PustakaTBainun ptbupsi

LIST OF FIGURES

LIST OF TABLES

LIST OF ABBREVIATIONS

ABET	Accreditation Board for Engineering and Technology
AHP	Analytic Hierarchy Process
AI	Artificial Intelligence
ASTD	American society for training and Development
AVE	Average Variance Extracted
CR	Composite Reliability
DV	Dependent Variable
GDP	Gross Domestic Product
GE	Graduate Employability
GoF	Goodness of Fit
HCA	Hierarchical Cluster Analysis
HEIs	Higher Education Institutions
HR	Human Resource
HTMT	Heterotrait-Monotrait ratio
ILM	Institute of Leadership and Management
IS	Information Systems
IV	Independent Variables
MCO	Movement Control Order
MIDA	Malaysia Investment Development Authority

MITI	Malaysia Ministry of International Trade and Industry
MoHE	Ministry of Higher Education Malaysia
OECD	Economic Co-operation and Development
OMDS	Ordinary Multi-Dimensional Scaling
PJyE	Programa Juventud y Empleo
PLS	Partial Least Squares
SEM	Structural Equation Modelling
TOPSIS	Technique for Order Preference by Similarity to Ideal Solution

LIST OF APPENDICES

CHAPTER 1

INTRODUCTION

1.1 Overview

This chapter outlines this work by providing a brief background on the research, clarifying the research problem, and then presenting the research objectives and questions to resolve the problem statement. Furthermore, the scope and significance of this research are presented in this chapter.

In the next section, a brief research background regarding the research topic is presented. The third section defines the problem statement of this research. In next section 1.4 and section 1.5, research objectives and research questions are presented, respectively. The next section summarises the related theory of this research. The significance of this study is in section 1.7, while the scope of this study is presented in

section 1.8. The thesis outline can be seen in section 1.9. Few terms used in this thesis were defined in section 1.10. Finally, the summary of this chapter can be seen in section 1.11.

1.2 Research Background

The possession of technical skills is no longer sufficient for Graduates in the highly competitive marketplace (Dean, 2019). They must possess soft skills in addition to technical skills to be competent (Hassan, 2015). According to Kaur and Sharma (2008), graduates possessing academic qualification only would not secure a job in the 21st century. Furthermore, Noor Ismail (2011) study revealed that Malaysian graduates with good grades did not guarantee employment. They need to acquire soft skills, work experience and a good command of English as a communication skill. According to Bustamam (2015), employability skills are the deciding factor in hiring graduates by potential employers in the current workplace. Graduates must have a balance of hard and soft skills, transferable to an ever-changing world, skills that will serve them in their initial job search as well as into the future (Daellenbach, 2018). There is an increase in the labour market competition. Hence, Higher Education Institutions (HEIs) are called upon to prepare better graduates with employable skills (Chen et al., 2018).

The concept of soft skills is difficult to define due to the complexity and integration of multiple qualities that contribute to effective interaction with other people (Miller et al., 2013; Tulgan, 2015). Nevertheless, soft skills are an important

characteristic feature, personal and professional skills, that employers desire and pursue when hiring employees (Al-Alawneh, 2011; A. B. Ali et al., 2017; Makhathini, 2016; Robles, 2012a; Tulgan, 2015).

In the context of graduate employability, Yorke (2006, p.8) defines employability as "a set of achievements and skills, that makes graduates more likely to gain employment and be successful in their chosen occupations". In Malaysia, graduate employability is an important aspect of education (Zainuddin et al., 2019). Graduate employability measures the students' effectiveness in developing hard skills and soft skills, making them compete in the labour market (Zainuddin et al., 2019).

Technological trajectories determine the division of labour and occupational structure within the national economic system as the new technological specialisation expedites the shift in its industrial structure (Cacciolatti et al., 2017). The infusion of technology in society has forced education, employment and the labour market (Khodeir & Nessim, 2020). To compete with the the industry's labour market, students must explore new areas of knowledge in their respective fields, and keep updating their skills to be competitive in the labour market (Daellenbach, 2018). Along with soft skills, ~~a~~ technical knowledge of the field is equally important. This knowledge is termed as hard skills, where employers are generally looking for candidates with both hard and soft skills (Teng et al., 2019). The government of Malaysia has issued a policy under which employment is given to the student based on the degree. It is not only estimated the position of the employee in the industry but also estimates the annual salary every individual should receive from the industry on the basis of their degree (Zainuddin et

al., 2019). The Malaysian government strongly emphasizes the importance of human capital development, since it is one of the factors that contributes to the development of the Malaysian nation (Sail & Alavi, 2010). This emphasis is essential, especially in the international level competency context in today's era of globalization, where technology growth brings changes at work to impact to individual workforce knowledge and skill (Sail & Alavi, 2010).

Historically, globalisation played a critical role in Malaysia growth as a nation and its subsequent development. Every crucial aspect of globalisation involving technology, information flows, trade, and human capital has left significant imprints on Malaysia's economy and society (Cassey, 2019). Hence, technology development is an essential key in increasing economic growth. It leads to international standards of work environment and improves the industry's level in the global market (Çalışkanaa, 2015). The globalization impact has changed the international situation to where human resources serve the critical role of enhancing the development and infrastructure of a country. As a result, employees with soft skills and knowledge will benefit from integration into the global economy. In contrast, those who lack skills and experience are destined to fall further behind (Salleh et al., 2010).

The fourth industrial revolution is about to start in the upcoming years. This revolution will be more focused on bringing new technologies into the industry to improve service quality (Beraza, 2018; Elliott, 2017; Hwang, 2016; Teng et al., 2019; Van Hooijdonk, 2017). The other industrial revolution will demand new professional skills to be adopted by employees (Eberhard et al., 2017). In this context, it should not

be a surprise that the knowledge, skills and abilities required by employers during the Fourth Industrial Revolution are different compared to the current knowledge, skills and abilities (Gabriela-Maria & Mihaela, 2019). It is estimated that many jobs shortly will be delegated to artificial intelligence (AI) or become automated (Frey & Osborne, 2017). Hence, employees and future employees need to consider work arrangements in a standardized form that may no longer be dominant in the future. Working from home, from other continents, with multiple employers at once, project work, just for a limited time, and using online platforms are increasingly common. Employees must invest in developing specific skills that will be harder to replace by artificial intelligence, such as soft skills, creative thinking, cross-cultural competencies, etc. In the digital era, with hyper-connectivity and machine/human interactions, employees need to constantly keep up to date with their knowledge and develop new skills related to using new technology (Gabriela-Maria & Mihaela, 2019).

1.3 Problem Statement

The economic challenges and changes arising out of the rapid globalization resulted in soft and hard skills. Hence, all businesses call for soft skills as they enable them to achieve growth and competitiveness. However, students passing out of educational institutions do not possess these skills, even though they are good at hard skills, such as technical knowledge and competency (Hassan, 2015). The most common and trending topic on the employment and unemployment ratio of people is based on the lack of soft

skills, which are required in handling the latest development of industries (Clarke, 2018).

In Malaysia, one of the industry's main issues is the lack of soft skills among the graduates (MOHE, 2012). Initially, the problem starts from the education level, where universities worldwide face intense criticism that their curricula are insufficient to train graduates with the required soft skills. Hence, graduates are still struggling to find jobs, although test results are improving (Hassan, 2015). In addition, many graduates are not qualified for the workplace today because they are steeped in theory but unable to communicate, handle projects, or work in a team. Therefore, the right skills required for graduates to enter the workplace need to be clearly understood (Seetha, 2014). In literature, researchers concluded that a low employability rate results from the mismatch between what the universities are teaching and what is required of the skills based on the needs of the industries (Tapsir, 2017). As graduates produced by the higher learning institutions are ultimately meant to serve as human capital for the nation, feedback from the industry is vital in determining the necessary attributes that they must possess to effectively function in a work environment (Ahmad, 2013). The current employment market in Malaysia requires the graduates to be more workplace competent, hence requiring the necessary soft skills for the job (Adnan et al., 2017)

The selection of qualified human resources is a crucial success factor for organizations (AlQudah et al., 2014). It is vital to employ a highly-skilled workforce to remain competitive and productive in the global marketplace (Williams, 2015). Hence, employers are increasingly looking for highly skilled employees, where soft skills are

required within the work environment (Yusoff et al., 2012). Unfortunately, a significant percentage of the local graduates in Malaysia still lack relevant soft skills and competencies, leading to their unemployment in Malaysia's highly competitive labour market (Hairi et al., 2011; Rahman et al., 2017). Furthermore, several factors that might increase the unemployed graduates' percentage can be summarised as the quality of graduates do not match industry demand, the overall personality of graduates reflect lack of self-confidence during interviews, poor communication skills, and courses offered by Universities do not match industry demand (Hassan, 2015).

The industrial growth, quality of products and services, and individuals' behaviour in the industrial environment are firmly based on employees' soft skills. The financial result and achievement of any industry are strongly dependent on the soft skill of its employees (Cimatti, 2016). This is the reason why many industries are now focusing on the soft skill of their employees. In addition, the advancement of technologies and virtual workplaces, which includes some situations like work from home, grabs more industrial attention towards improving the soft skills of its employees (Dall'Amico & Verona, 2015). Based on the Organisation for Economic Co-operation and Development (OECD) survey in 2019, Malaysia has performed very successfully in recent years compared to other emerging market countries. The Gross Domestic Product (GDP) is growing tremendously, and the financial sector remains robust and stable. To maintain the employment in such a growing and adapting economy, successful implementation of measures to leverage household income, notably by promoting entrepreneurship, investment in skills, boosting productivity and improving employability (OECD, 2019). The current industrialization situation of Malaysia

requires more people with high education and high competency towards a technologically changing workplace. Hence, improving graduate's soft skill is a necessity of time (Adnan et al., 2017).

Research and development activities had played a central role in the advances achieved in Malaysia in its endeavour to transform its economy from dependence on agriculture and raw materials exports into a diversified economy characterized by exporting high-tech electronics and striving to become a knowledge-based economy (Akoum, 2016). The technology industry sector is the future of manufacturing, where conventional models are making way for greater technology adoption through efficiency and flexibility towards sustaining competitiveness in the labour market (MITI, 2018). Based on the World Bank reports, the technology industry is impactful on the economy to keep pace with the global economic development (Raja et al., 2013; World Bank, 2020). Furthermore, Malaysia's official portal reported that the technology had contributed around RM289.2 billion Ringgit to the economy (DOSM, 2020). As a result, the technology industry sector of Malaysia was selected as a case study to measure the influence of soft skills on graduate employability.

This research aims to identify the soft critical skills needed by the technology industry sector of Malaysia from graduates to be competent in the labour market. Furthermore, this study proposed a framework that helps technology companies to enhance their career selection by utilizing soft skills along with hard skills, resulting in an enhanced employee selection system.

1.4 Research Objective

The main objectives of this study are:

1- To identify the soft critical skills required by the technology industry sector in Malaysia based on Fuzzy Delphi Analysis.
2- To investigate the impact and importance of soft skills on employability and define the most influencing soft skills.
3- To develop a new model which includes the soft skills factors that impact employability.

1.5 Research Questions

This study will address the underline questions:

1- Which soft critical skills are required in the technology industry for candidates to get jobs?
2- Which soft skills are impactful on Employability in the technology industry sector of Malaysia?
3- What is the model that shows the influence of soft skills on Employability?

1.6 Research Conceptual/Theory

Few theories were reviewed to establish the framework of this research. These theories are focusing on three domains: the soft skills importance and their relationship with the employability domain, the soft skills measurement within employees and candidate's domain, and the utilisation of questionnaire instrument for soft skills assessment within employees and jobs candidates. This study was conducted based on a few theories in three fields: soft skills relationship with employability domain, second, soft skills and employability assessment domain, and third soft skills model and instrument development domain. The leading theory that supports this study is the human capital theory for the first domain. Furthermore, other theories, like consensus, conflict and control theories, support this study in the second and third domains, respectively. Further details can be found in chapter two, section 2.8.

1.7 Operational Definitions

The following terms were utilised for this study to be defined for clarity and clarification during the survey. Some of the terms will be further explained in the literature review. The operational definitions are as follows:

a. **Soft skills** are based on the personal lifestyle, behaviour towards others and sophistication in the society (Alsabbah & Ibrahim, 2013; Rainsbury et al., 2002). The soft skills in this study were used as the independent variable, where they will be tested with the employability (dependent variable).

b. **Hard skills** are technical field; specifically in the sector in which employee is working, hard skills show the ability towards the industry and professional work (Adnan et al., 2017; Page et al., 1993; Weber et al., 2010). The hard skills will be defined in the literature review to differentiate between them and soft skills.

c. **Panel of experts** is a group of expert people in a specific industry; they can make a high level of decision (Manakandan et al., 2017). In this study, the experts' panel was used to achieve the validity test for the developed questionnaire before starting the pilot study.

d. **Employability** is an individual's quality towards finding the job and working with ethics and industry policies (Forrier & Sels, 2003; Van der Velde & Van den Berg, 1999). This is the dependent variable of this study. It will be measured based on a questionnaire and measure the influence of soft skills on it.

e. **Communication** is an interpersonal discussion regarding the industry and another non-technical gossip (John, 2009; Timm, 2005). This is one of the soft skills utilised in this research. There will be a hypothesis between communication skills and employability to be tested.

f. **Motivation** helps maintain the growth potential and hopes to improve further for both industry and individuals (Kroth, 2007). This is the second soft skill that will be measured through the developed survey. Furthermore, the influence of this skill on employability will be measured.

g. **Teamwork** is the person's quality to act in a group to achieve better goals than working individually (Hackman & Hackman, 2002). Teamwork is another soft skill used as the independent variable to be measured and tested against employability in terms of impact and influence.

h. **Integrity** has a faith to act and complete task" C.S. Lewis (Lewis, 2001) (p. 14). This is another soft skill to be utilised in this research. Furthermore, the influence of this skill on employability will be measured.

i. **Trust** is a quality to believe in other and their work and emotions (Govier, 1998). Trust is one of the independent variables that will be used in this study. These independent variables will be measured to understand the influence of these skills on employability

j. **Honesty** refers to an individual's quality to be loyal to society and industry to improve self-personality as an employee (Besley, 2005). This is another soft skill that will be used as an independent variable of this study.

k. **Attitude** is an emotional thing produced through cumulative experience in the industry or social life (Venes, 2017). The attitude was selected as the independent variable of this study.

l. **Learnability** (i.e. lifelong learning) can be defined as the skill needed to make a learner equip the necessary knowledge to function efficiently (Al-Oraini & Kaur, 2007). Learnability is a critical skill from a technology industry perspective, as explained further in literature. Hence, it will be selected as an independent variable for this study.

m. **Responsibility** is a characteristic that employers are looking for because it is ultimately and synonymously associated with trust (Cortez, 2014). This skill will be used as one of the independent variables of this research. There will be regression analysis shown in chapter 4 to measure the influence of the independent variables on the dependent variable.

n. **Innovation** is the ability of an individual to think about a new possibility of technology, event or management to improve quality and productivity (Lawson & Samson, 2001). This is the tenth soft skills utilised in this study as an independent variable.

1.8 Significance of Study

The accelerating pace of technology is transforming industries and business models to keep updating the skills that employers need and to develop the employees' skills based on these changes. In addition, based on the World Economic Forum reports, increasing demand for high growth professionals has further driven the increased value of soft skills due to their impact on growth and prosperity in the new economy (Forum, 2016; Ratcheva et al., 2020).

This research concentrates on the influence of soft skills on graduate employability in the technology industry sector of Malaysia since the selection of the best candidate in the industry will improve employee performance and lead to business success. Furthermore, this study identifies the soft critical skills needed for graduates to be competent in the technology industry sectors of Malaysia. Finally, it proposes a framework that helps the technology industry companies enhance their career selection by defining each candidate's required soft skills before offering the job through the developed instrument questionnaire.

1.9 Scope of Study

This research focuses on identifying the required soft skills in the technology industry sector of Malaysia. The technology industry sector was selected as a case study to measure the importance and influence of soft skills on graduate employability. First, a preliminary study was conducted to define the soft critical skills based on technology industry experts' feedback. Two technology companies were targeted for this study, namely, Intel Corporation and Analog Devices, for the main study data collection. In addition, another company, National Instrument, was targeted for the questionnaire pilot study analysis. After that, the impact of these soft skills on employability were measured to derive the model that helps Malaysian graduates to develop their soft skills to be competent in the labour market and helps companies to select their employees based on their soft skills requirements.

1.10 Thesis Layout

This study comprises five chapters. A brief introduction and overview of the research are provided in Chapter one. Furthermore, the problem statement, research objectives, research questions, scope and significance of the study were presented in this chapter. Chapter two provides an in-depth investigation on soft skills importance in making graduates competent in the labour market. A systematic review was conducted to further analyse and understand the previous works in literature. Chapter three presented the research methodology followed in this research to achieve study objectives. Chapter

4 presents the results and discussions achieved from this study. Finally, chapter five summarises the research contribution, conclusions, and future work.

1.11 Summary

This chapter introduced an overview of this study, the problem statement of this research, objectives, scope, and significance. In addition, the research justifications were presented in this chapter. The problem statement was defined and discussed in this chapter to validate the purpose of this work. Furthermore, the objectives of this research, along with the questions, were determined.