

**The Development of The Malaysian Vocational Education
and Training System**

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Abstract

The vocational education and training (VET) sector in Malaysia has experienced significant change over the last 10 years. This thesis aimed to identify the challenges facing VET development in Malaysia and consider the lessons that can be learnt from Australian and Singaporean VET experiences. This research explored the challenges using a mixed methods approach (qualitative and quantitative) to answer the research question from a multiple stakeholder perspective. The 42 respondents included policymakers, chief executive officers (CEOs) from industry, CEOs from registered training organisations (RTOs), VET instructors and trainees. There were 34 respondents from Malaysia involved in the interviews. Two policymakers and two CEOs of RTOs from Singapore and Australia were also involved in the interviews. An online survey was answered by 209 Malaysian respondents.

Significantly, the literature review, including literature from Malaysia, Australia, Singapore, the United Kingdom, Europe and the United States, focused on the development of VET policy and the ideas associated with vocational education theory, human capital theory, systems theory and threshold theory, program theory, employability theory, collective skills formation, stakeholder engagement and the capability approach. The literature review provided an overview of the motivations behind government initiatives to expand skills development initiatives using different models, the shifting of responsibility for employability to the employee and promoting inclusivity within the nation. While VET objectives were overt, the need for socially inclusive results were not. There is a need to consider economic, social and education contexts when developing VET systems, given the diversity of Malaysian society.

The argument is made within the thesis that the development of VET policy has been largely led by government and legislation, rather than industry. The thesis suggests that challenges inherent in the development of a VET system arise from the gaps between VET policy and practice, rhetoric and implementation. While the presence of policy mechanisms for system efficiency was acknowledged by stakeholders, VET policy was characterised by respondents as incremental rather than long term. Most stakeholders acknowledged the importance of lifelong learning and for the need for Malaysia to become a learning nation. The lack of a single agency to monitor skills development was considered an obstacle for effective skills development within the country. Accordingly,

this thesis proposes a set of recommendations to address these challenges and provides directions for future research.

Declaration

This is to certify that:

1. the thesis comprises only my original work towards the PhD
2. due acknowledgement has been made in the text to all other material used
3. the thesis is less than 100,000 words in length, exclusive of tables, maps, bibliographies and appendices.

Signed 

Dated 30th October 2017

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List of Abbreviations

ASEAN	Association of South East Asian Nations
AQF	Australian Qualifications Framework
AQTF	Australian Quality Training Framework
AVETRA	Australian Vocational Education and Training Research Association
BREXIT	British Exit from European Union
BRIM	<i>Bantuan Rakyat 1 Malaysia</i> (People Help 1 Malaysia)
CA	capability approach
CAGR	cumulative annual growth rate
CBT	competency-based training
CEO	chief executive officer
CET	continuing education training, Singapore
CIAST	Centre for Advanced Skills and Training Institute
CME	coordinated market economy
CTSTC	Central Trade Standards and Testing Committee (CTSTC)
DSD	Department of Skills Education
EQF	European Qualifications Framework
ETP	Economic Transformation Programme
FEMAC	Federation of JPK(MLVK) Accredited Centres – (JPK/MLVK – Department of Skills Education)
GDP	gross domestic product
HDI	human development index

HRDC	Human Resources Development Council
HRDF	Human Resources Development Fund
IAL	Institute of Adult Learning Singapore
ILO	International Labour Organization
IT	information technology
ITE	Institute of Technical Education
LME	liberal market economy
MARA	<i>Majlis Amanah Rakyat Malaysia</i> (Peoples Trust Foundation)
MDG	millennial development goals
MNC	multinational corporation
MoE	Ministry of Education
MQF	Malaysian Qualifications Framework
MSC	Malaysian Skills Certificate
MOHR	Ministry of Human Resources
NCVER	National Centre for Vocational Education Research
NDTS	National Dual Training System (NDTS)
NOSS	National Occupational Skills Standards
NPISHs	non-profit institutions serving households
NVQ	national vocational qualifications
OECD	Organisation for Economic Coordination and Development
PEMANDU	Performance Management & Delivery Unit
PPP	private–public partnerships

PTPK	Skills Development Fund Corporation (Perbadanan Tabung Pembangunan Kemahiran)
RPL	recognition of prior learning
RTO	registered training organisation
SCS	social construction of skills
SFS	skills formation strategy
SME	small and medium enterprises
SQF	skills qualification framework
TAFE	Technical and Further Education
TDA	TAFE Directors Australia
TVET	Technical Vocational Education and Training
UK	United Kingdom
UNESCO	United Nations Educational, Scientific and Cultural organisation
UNEVOC	United Nation's International Centre for Technical Vocational Education and Training
US	United States
VET	vocational education and training
VTM	vocational training manager
VTO	vocational training officer
WDA	Workforce Development Agency Singapore
WSQ	workplace skills qualifications
WEF	World Economic Forum

Chapter 1: The Malaysian Vocational Education and Training Landscape

‘The most complicated skill is to be simple.’ Dejan Stojanovic

1.1 Introduction

The Malaysian vocational education and training (VET) system has undergone substantial change over the last decade. This research aimed to understand the key factors that have affected the development of the Malaysian VET system, modelled on the Australian and Singaporean VET systems.

VET has been promoted extensively in Malaysia, with the Malaysian government (Economic Planning Unit, 2010) identifying investment in VET as an essential requirement for achieving ‘Vision 2020’, a target to achieve developed nation status. The government’s Economic Transformation Programme (ETP) has a skilled workforce target of 50% (by 2020) to achieve developed nation status. The Malaysian Education Blueprint 2013–2025 identified a VET plan to strengthen the training of skilled graduates by introducing vocational education in lower secondary schools and transforming vocational secondary schools into vocational colleges.

These initiatives have been viewed as investments in the quest to drive VET momentum in organisations, individual workers and economies. The Eleventh Malaysia Plan also indicated several ambitious targets, such as the 50% skilled workforce target and full youth employment, with an additional allocation of one billion Malaysian ringgit for VET, up from the current 100 million ringgit VET budget. The plan includes several ‘highs’ that have not yet been achieved—high skills, high-wage jobs, high levels of productivity and improved levels of socio-economic performance—along with improving equity outcomes for the disadvantaged in the labour market (Parkes, 2012). The Malaysian Education Blueprint 2013–2025 acknowledges this view and stresses the need to improve equity outcomes. The failure of many economies and individuals to achieve the ‘highs’ outlined in the Malaysian Vision 2020 document has been criticised.

Against this backdrop, this research aimed to further understand the challenges facing the development of Malaysian VET, VET policy trends, the evolution of skills formations

systems, the engagement of VET players, the promotion of inclusivity and the parallels and exemplars that Malaysia can draw from Australian and Singaporean VET systems.

It is imperative to describe the historical development of VET in Malaysia to gain an understanding of the key factors that have affected the Malaysian VET system. VET reform in Malaysia has been modelled on VET reforms in Australia and Singapore. Malaysian policymakers have looked towards developments in Australia and Singapore because of similar national priorities associated with economic growth and global competitiveness. Specifically, policymakers have focused on national agendas on skills formation and greater links with higher education. In an increasingly competitive global economy, higher education has been under tremendous pressure to reconsider how graduates are produced, particularly in relation to employability and employers' expectations. With increasing VET student demand for higher education opportunities to improve career prospects, policymakers have had to rethink ways to develop career pathways for VET graduates.

Willmott (2011) stated that the Australian model, in particular the Australian Qualification Framework (AQF), has been used as a precursor to the Singaporean VET system. He identified that Singapore, an island city state that was once part of Malaysia, has been consistently praised for its VET development. For Brown (2010), Singapore's VET system has been increasingly used as a best-practice model by other Association of South East Asian (ASEAN) countries.

Yet, persistent criticism of the Singaporean VET system has continued, with the goal of developing an inclusive Singaporean society at stake (Ye, 2016). The advent of technology has increased inequality. The Singaporean Gini coefficient has worsened over the last 35 years, inconsistent with stability in other developed countries. The Gini coefficient (also known as the Gini index or Gini ratio) is a measure of statistical dispersion that is intended to represent the income distribution of a nation's population. It is the most commonly used measure of inequality. A Gini coefficient of zero indicates perfect equality, while a Gini coefficient of one (or 100%) signals maximal inequality. Conversely, there has been commentary about Australia consistently aspiring to maintain an egalitarian system with wage-fixing mechanisms and targeted low unemployment (Atkinson & Leigh, 2007; Jones, 1975; Saunders & Hobbes 1988;). While Australia may not be considered a low inequality country, egalitarianism has been a significant issue in Australian political debate (Briggs, Buchanan & Watson, 2006; Castles, 1996). Garnaut

(2002 pp. 1-9) argued that the Australian concern for equity has always been in the forefront.

While discussions about economic outlook have largely focused on gross domestic product (GDP) growth, there has been very little debate on human capital, the people who keep the economic engine running. The World Economic Forum (WEF) report (2013) attempted to address this issue by studying how well countries around the world make use of their respective work forces. The report presented a human capital index (HDI) that was used to compare the performance of nations on key measures of learning and employment. The HDI measures countries' ability to maximise and leverage their human capital. The index assessed 124 economies for learning and employment outcomes across five distinct age groups, on a scale from 0 (worst) to 100 (best). The HDI examined the extent to which 124 countries were investing successfully in the education, skill levels and employment rates of their populations. The index was based on the concept that cultivating talent, rather than amassing capital, is key for countries seeking to increase innovation, competitiveness and long-term growth. A key feature of its methodology was a 'generational approach'. By categorising a population into five age groups, the index considers the different skills, knowledge and employment opportunities relevant to people at various stages of life. The report relied on the premise that a nation wishing to optimise its population and encourage skills development should focus on four factors: education, workforce and employment, health and wellness, and an enabling environment. The report argued that human capital is far more important than any other resource.

WEF executive chairman Klaus Schwab stated:

The key for the future of any country and any institution lies in the talent, skills, and capabilities of its people. By providing a comprehensive framework for benchmarking human capital, the report highlights countries that are role models in investing in the health, education, and talent of their people and providing an environment in which these investments translate into productivity for the economy (World Economic Forum Human Capital Report, 2013)

Of relevance to this study, and VET more broadly, is the report's conclusion that is of significance to VET:

Business must rethink its role as a consumer of 'ready-made' human capital. Some companies understand this and are already investing in the continuous learning, re-skilling and upskilling of their employees, but most employers still expect to obtain pre-trained talent from schools, universities and other companies. Instead, business must work with educators and governments to help education systems keep up with the needs of the labour market. At the same

time, given the rapid and ongoing changes in the skill sets required for many occupations, business must re-direct investment to on-the-job training and lifelong learning in order to remain competitive and talent management must be a critical part of any company's growth and innovation strategy. And while business cycles can naturally lead to peaks and troughs in employment, any socially responsible business in today's deeply interconnected and transparent world must consider how it can contribute to mitigating these risks and uncertainties. (World Economic Forum Human Capital Report, 2015 p.28)

The results from the 2015 report indicate that, with the exceptions of Singapore, Japan and Australia, the rest of the Asia-Pacific region has some work to do. The report ranked Japan fifth, Australia thirteenth and Singapore twenty-fourth in its 2015 Human Capital Index report. Singapore's drop in the rankings over the last three years has been attributed to the nation's worsening Gini coefficient.

While there is a strong correlation between a high HDI and a prosperous economy, the HDI specifically considers how income is reflected in the population. Growing income inequality has a detrimental impact on the population. Malaysia, with a Gini coefficient of between 0.46 and 0.42 for over three decades, stands among the highest one-quarter of income inequality countries worldwide. To become a more progressive and prosperous nation, where everyone can share equally in available and potential amenities, benefits, opportunities and services, economic growth is vital. However, it must be accompanied by increased incomes and reduced inequalities. Investments in education, training and healthcare are crucial to enhance the quality of human capital. Further, comprehensive and adequate social protection for the vulnerable must be a high priority (Castles, 1996).

A study of the key factors that have affected the Malaysian VET system, modelled on Australia and Singapore, enables a review of both successes and failures. The exemplars and challenges in the development of the VET system, best practices in skills formation systems, engaging VET players, programs to promote inclusivity and VET reform in both countries will offer both a historical analysis and learning for the future of the VET system in Malaysia. Additionally, the experience of maintaining a high HDI in terms of learning and employment opportunities, and the challenges of dealing with income inequality in both countries, will offer Malaysia valuable lessons.

1.2 The Malaysian Story

Malaysia is a multiethnic country due to significant migration that occurred during the pre-independence days, during British rule (Dannecker, 2005). Migration has been

consciously discouraged post-independence through stringent immigration policies. Given the fragile political and social situation in Malaysia, the government has been conscious of the political implications of altering the multiracial, multiethnic and multi religious nature of the country's demographics. The population consists of Malays, Chinese, Indians and the tribes of Borneo. The political system is based on race. The perceptible economic growth of the country created many jobs for Malaysia's 28 million people, creating an 11.61 million-strong workforce, leading to racial harmony.

According to the Malaysian Education Blueprint 2013–2025, Malaysia has a skilled labour shortage of more than 700,000 workers, a figure that is expected to grow. The Malaysian government is determined to bridge the widening gap between the demand for skilled labour and the available pool of trained workers with greater investments in the vocational education and training sector. Up to 3.3 million new positions are expected to be added to the workforce by 2020, with at least 46% of them requiring jobholders to be trained to the level of a vocational diploma or certificate. In contrast, the education roadmap of the Malaysian Ministry of Education estimated that just 22% of new jobs created in the lead up to the 2020 target will require university degrees.

The country has addressed the skills shortage with several policy directions, given that policymakers in Malaysia are driven by economic rationalism (Khoo, 2011). With soaring government expenditure, the government pushed for privatisation and a free-market economy attractive to investors. This required a skilled workforce capable of meeting industry needs. Malaysia has adopted several educational and training initiatives, such as government-sponsored funding and the creation of the Human Resources Development Fund (HRDF) and a Vocational Training Fund. The government has released an education blueprint that emphasises employability. Policymakers perceived investing in a VET approach and VET reform as supporting the productive development of the workforce.

Policymakers in Malaysia have viewed VET as a way of increasing the international competitiveness of the workforce and to enable better control of learning outcomes and greater returns on education investment. The goal of this policy agenda towards VET, as stated by the government, was to make young Malaysians skilled and employable (Wilkinson & Yussof, 2005). The logic is that with an available, skilled and productive workforce, foreign direct investments can continue to grow as investors and employers

will not be deterred by perceived skills shortages. Thus, the Malaysian workforce will be gainfully employed.

To close the supply-demand gap, the government has set out plans to create at least 50,000 additional places annually in the vocational education system. Enrolment at vocational facilities has accounted for just 10% of upper secondary students, a figure the government wants to double, as it is well below the 44% average of Organisation Economic Co-operation and Development (OECD) countries. Malaysia has also fallen short of some of its neighbours like Singapore with 40–60% of secondary school students pursuing vocational education (Malaysian Ministry of Education, 2013). The government has persistently warned that if Malaysia does not radically improve its vocational system to ensure it meets the demands of a changing economy, the country risked falling behind regional rivals. The government has emphasised that the core strengths of the education system in all developed nations are technical and vocational education.

The economic policy of being a cheap investment destination was no longer applicable to Malaysia and other low-cost economies, such as China, Indonesia and Thailand, have negated Malaysia's competitive edge. Malaysia must seek other economic strategies other than offering low-cost investments to foreigners. The goal of becoming a developed and high-income nation by 2020 has weighed heavily on the minds of policymakers. The Talent Corporation study (see Chapter 3) pointed out that this goal required key structural reforms that were essential to improve Malaysia's world competitive rankings. Hence, policies prioritising a skilled workforce have been developed.

Additionally, in the short term, skills shortages have been traditionally addressed by immigration (Rasool, Botha & Bisschoff, 2012). Malaysia has also become the Asian country with the most significant reliance on foreign workers (Pillai, 1999). Nearly 20% (2.2 million) of Malaysia's workforce are foreign workers, excluding illegal workers. There are an additional 2.2 million illegal foreign workers (Amnesty International, 2010). Currently, it is estimated that there are about 3.5 million foreign workers in a total workforce of about 12 million (Pillai, 1999). These figures are close to official Statistics Department estimates. There has been a heavy dependence on foreign skilled workers, employed on labour contracts. For example, the Malaysian construction industry provides employment for 800,000 workers, representing 8% of the total workforce; 69% of these are foreign workers (Abdul-Rahman, Wang, Wood, Low, 2012).

In the meantime, the outflow of talent has also been a critical concern. Malaysians have long migrated to work in countries and regions such as Australia, Brunei, Hong Kong, Japan, Canada, New Zealand, the United States (US), United Kingdom (UK), Singapore, Taiwan and the Middle East (Kanapathy, 2008a; Wells, 1996). This has added to skills shortage. Nonetheless, the inflow has far exceeded the departures (Castles & Miller, 2003; Kaur, 2010).

The relationship between migration and development has been complex. The factors that encouraged the flow of migrants to seek employment in Malaysia have resulted in the huge influx of foreign workers, particularly illegal workers, to Malaysia. Unlike developed nations, immigration has not featured on the policy agenda of the government. Talent Corporation of Malaysia, in the *Malaysia has Talent* report (see Chapter 3), describes the introduction of initiatives such as structured apprenticeship programs. While the Malaysian VET approach is based on strategies adopted by Australia and the UK National Vocational Qualification Frameworks, there has been insufficient analysis to determine the effectiveness of the policy (Zain, 2015).

1.3 Historical Development of Vocational Education and Training in Malaysia

Wong and Ee (1975) reported the occurrence of discussions as early as 1897 to set up trade schools to prepare Malay boys to work as railway technicians. Loh (1975) stated that the local government of Selangor engaged several local craftsmen to teach the trade to students in Kuala Lumpur. Similar training was organised in Perak. Othman (2003) reported that the British colonial government appointed a commission in 1902 and later established a technical training school for the public works department to train technical assistants.

Apprenticeship courses were conducted and, on successful completion, apprentices found employment in public works, surveys and railway departments. In 1919, the government established a committee to study the needs for technical and industrial education. This resulted in recommendations for expanding technical education and the industries covered. The recommendations included establishing trade schools using the local language to instruct, as well as building a new technical school using English to instruct, providing improved training facilities and better salaries (Loh, 1975, p. 111). Full-time three-year trade courses for mechanics, fitters, machine workers and technicians were

offered with the opening of the Federal Trade School in the capital of Kuala Lumpur in 1926 (Ahmad, 2003). Student intakes were small and the school mostly served the public works department. The Department of Education took over the school and started to cater to the needs of mines, plantations and the private sector. Awards from the City & Guilds, UK were offered. Subsequently, three additional trade schools were built in other cities to prepare apprentices to work in several trades. These developments were the forerunner for institutionalised vocational training to meet the economic needs of the country (Pang, 2008). Maznah (2001) noted that the pioneer Technical School was renamed Technical College in 1945, and then upgraded to Universiti Teknologi Malaysia, a full-fledged university.

A study to review the education system led to the Razak report, recommending a unified education system for all Malaysians. The report promoted the policy of establishing a vocational stream together with the general secondary school system (Lee, 1972). Further, it recommended that technical education and training be organised into three levels: technical colleges that offered full-time courses for those who had completed five years of secondary education; technical institutes that offered three-year courses for those who had completed three years of secondary education; and trade schools for those who had completed primary school (these schools were mostly located in rural areas). The objective was to ensure employment (Wong & Ee, 1975).

The Rahman Talib report, published in 1960, recommended further changes to the technical and vocational school system (Lee, 1972). The report highlighted the fact that there were only eight rural trade schools in 1960 with a total student enrolment of 616. The proposal that up to 70% of students be given the opportunity to learn manual skills in post-primary schools was unsuccessful due the lack of qualified vocational teachers. While specialised vocational training was available at upper secondary level, student enrolment in vocational and technical schools in 1969 was only 3,786, compared to the secondary school enrolment of 468,816 (Pang, 2008).

The Rahman Talib report was considered significant to the Malaysian VET system, as it brought about the segregation of the formal secondary school into academic and vocational schools (Ministry of Education, 2007). These vocational schools continue to conduct two-year trade courses. In 1979, the Cabinet Committee formed to study the implementation of the national education policy, included reviewing the technical education and vocation training system (Pang, 2008). The 1979 Cabinet Report

reaffirmed the need for the country's upper secondary system to comprise both academic and vocational streams (Ministry of Education, 2007).

1.4 Structure of Malaysian Vocational Education and Training System

Skills training has become an integral part of the Malaysian education system. It was apparent that the Malaysian VET system had adopted a well-defined form, governed by three pathways to develop Malaysia's workforce: higher education, technical and vocational education and skills training (Pang, 2011).

While the Ministry of Education was entrusted with higher education, several other ministries managed the other two pathways. This resulted in an acute lack of coordination and justified the need for a single coordinating body, such as the National Vocational Training Council (Ahmad, 2003). Rashid and Nasir (2003) echoed similar views when highlighting the three different pathways: academic, technical, and vocational education and skills training. The emergence of National Occupational Skills Standards (NOSS) resulted in another component of skills training.

German consultants, who undertook a study on designing a dual training system in Malaysia from 1997–1997, identified a structure that included three subsystems, excluding tertiary and higher education (Blumenstein et al., 1999). The study differentiated technical and vocational training undertaken by the Ministry of Education from training undertaken by other ministries and highlighted NOSS.

The first subsystem included technical and vocational education conducted in schools at the upper secondary level and under the purview of the Ministry of Education, resulting in the Malaysian Certificate of Education. These students had several choices, including pathways to a university degree, diploma courses in polytechnics and various other training programs conducted by other ministries, besides direct employment to the labour market.

The second subsystem included vocational and technical training under the purview of other ministries, as well as private training institutions classified according to the level of occupational skills standards and the certification system. The qualifications included the Malaysian Skills Certificates, diplomas and advanced diplomas.

The third subsystem included the standardisation and certification of occupational skills standards based on the NOSS and certification system. While the system started with

three levels, a new five-level skills qualification framework (SQF) was introduced, followed by the adoption of an accreditation approach in 1993. The National Vocational Training Centre conducted the accreditation of training centres and courses (Pang, 2008).

The Asian Development Bank commissioned Australian consultants to undertake a strategic review of the Technical Education and Skills Training (TEST) in Malaysia (DEETYA, 1998, p. 1). In assessing the position of TEST, the study confirmed that vocational education and training under the purview of the Ministry of Education was a major component of the Malaysian public-sector VET system. The training conducted by other ministries using NOSS were considered the other major component. Pillay (2005) categorised Malaysia's VET system into five pillars:

1. Public higher education system catering to school leavers. This includes polytechnics, community colleges and technical schools under the Ministry of Education, training institutions under the Ministry of Education and other Ministries, such as Youth and Sports, and Entrepreneurial Development.
2. Malaysian SQF—a five-tiered system based on NOSS and introduced by NVTC in 1993.
3. HRDF—employer-led training fund to promote employee training.
4. Private higher education under the purview of the *Private Higher Education Institutions Act 1996* and accredited by the National Accreditation Board.
5. Continuing education and training.

1.5 Legislation

Six pieces of legislation have been enacted and are still in force. They are viewed as drivers of skills training (Tan, 2002 pp.191). These main pieces of legislation are:

1. *The Skills Development Fund Act 2004* (Act 640). This was promulgated to establish the Skills Development Corporation to manage the Skills Development Fund. The Fund was established to provide skills training loans to trainees of approved programs based on NOSS.
2. *The National Skills Development Act 2006* (Act 652). This was enacted to promote, through skills training, the development and improvement of a person's abilities, needed for vocation. This was considered very significant for it was the very first time national legislation was introduced solely for skills training and development. Skills training was clarified and given a

statutory interpretation that differentiated it from other components of the nation's education and training system. Skills training was defined as 'work-based work and industry oriented activities which aim to provide the knowledge, skills and attitude required for effective and efficient performance of a task or job, and includes refresher, further, updating and specialized job-related training' (MOHR, 2006, pp 8). The Act provided NOSS with statutory standing after 13 years of existence. It provided for the establishment, review and use of NOSS. Further, it provided for the implementation of a Malaysian Skills Certification system, leading to five levels of awards, Level 1 and 2, certificate, diploma and advanced diploma. This offered a legislatively backed skills pathway within the country's national qualification framework (Pang, 2008).

3. *The Human Resources Development Act 1992* (Act 612). The Act was enacted to provide for the imposition and collection of a human resources development levy with the objective of promoting employee training. It provided for the constitution of a Human Resources Development Council (HRDC). It covered specifically selected industries that the government considered critical for the economic growth of the country. The HRDC was a private-sector led initiative with most council members (10) representatives of employers and employer associations. Employees were represented by a union representative and the government by four officers from relevant Ministries. The Council was led by a representative from the private sector. Two independent members were appointed by the minister. Initially, 1% of the employee payroll was collected and reimbursements provided to approved training. The government provided an initial matching grant of RM50 million. Subsequently, the Council was corporatised to reflect the role and renamed the HRDF.
4. *The Education Act 1961* (Act 550). The Act takes a macro view of education and includes all forms of training, including skills-based, job-based and continuing training. Technical education includes the provision of skills training, specialised training related to specific jobs, upgrading skills and vocational training.
5. *The Private Higher Educational Institution Act 1996* (Act 555). The Act enacted to regulate private higher educational institutions in Malaysia also adopts a broad view of education. The Act shows its intent by considering

training as a component of education, such as a course of study that includes a training program.

6. *National Accreditation Board Act 1966* (Act 556). The Act reiterates that training is part of education. From the perspective of the Malaysian legislative framework, skills training has always been part of education. This includes higher education.

Pang (2008) states that only after the two critical developments, the *Skills Development Fund Act 2004* (Act 640) and the *National Skills Development Act 2006* (Act 652), did skills training assume a preeminent position with relevance to education.

1.6 National Occupational Skills Standards

Occupational skills standards in Malaysia can be traced as far back as 1969, when the government sought the assistance of the International Labour Organization (ILO) to establish standards to support trades testing and apprenticeship training. It was only in 1972 that the development of trade standards caught the attention of policymakers, with the creation of the Central Trade Standards and Testing Committee (CTSTC). With the formation of CTSTC, seven trade standards committees were developed and national trade standards were developed for three trades: motor vehicle mechanics, refrigeration and air-conditioning mechanics. These were the earliest form of skills standards in Malaysia.

NOSS was introduced following the 1992 decision of the National Vocational Training Council to implement measures to improve the vocational training certification system. This decision introduced two major policy initiatives: the adoption of the accreditation approach for the national skills certification system and the use of a competency-based training approach. This led to skills standards being developed based on new framework and methodology. These skills standards became known as NOSS.

A significant achievement of these two initiatives was the *National Skills Development Act 2006*. With this Act, the development of NOSS was covered by a legislative framework. There was specific provision for the establishment, review, amendment and use of NOSS for curriculum development, assessment and certification. Thomas (2007) indicated that 1,571 different training institutions have been accredited to offer 6,575 training programs; 68% of these are private institutions. The public-sector institutions are run by several ministries, leading to a fragmented approach lacking in cohesion.

1.7 National Dual Training System

With the government's focus on creating a knowledge workforce that would use their workplace as a prime learning environment, policymakers introduced the National Dual Training System (NDTS) in 2005 with the objective of producing 31,500 skilled workers by 2010 (MLVK, 2005). Further, the government aimed to strengthen VET and incorporate the dual training system project practised in Germany (Blumenstein et al., 1999).

The NDTS was designed as a two-year training program with 70% of the learning taking place in the workplace and the remaining 30% at training institutions (MLVK, 2005). The idea of 'training occupations' was introduced to designate a training program to be selected for NDTS implementation. The National Occupational Core Curriculum was used to design and develop curriculum, training and assessment. It was perceived as a new form of training documentation, as it was different from training resources used in existing NOSS-based training. This was due to its workplace orientation (Wan Ahmad, 2007).

1.8 Drivers for Skills Training

1.8.1. Budget Allocations

The need for foreign direct investments to grow the Malaysian economy and investors' insistence for skilled workers has been a major factor in the government's focus on VET (Zain, 2015). The government has continued to make major budget allocations to grow VET in Malaysia, with allocations for education amounting to close to 24% of the national budget (Malaysian Budget, 2014).

1.8.2. Tax Incentives

Tax incentives were offered to organisations undertaking VET, upgrading the facilities and expanding capacities. An investment tax allowance of 100% of qualifying capital expenditure incurred within 10 years of the first incurrence of the capital expenditure. The allowance could be used to set off up to 70% of statutory income; the (30%) balance was to be taxed at the prevailing income tax rate (Zain,2015).

1.8.3. Vocational Education and Training Reform

The reform agenda has included the transformation of the VET curriculum in line with industry needs; transformation of VET institutions; collaboration with strategic industry partners; transformation of VET assessment; and transformation of the VET organisation. The development of the VET system has been heavily benchmarked with Singapore and Australian VET systems.

1.8.4. Vocational Education and Training Providers

The government has encouraged the development of VET providers, even though it has been the main provider (Zain, 2015). The ministries of education, human resources, youth and sport, community development, state governments, and government-linked agencies were involved in VET provision. Twenty-one industrial training institutes, 14 national youth skills institutes, three advanced technology institutes and 162 *Majlis Amanah Rakyat Malaysia* (MARA) Skills Training institutes, in addition to private training providers, were offering VET programs due to skills funding managed by the government.

1.8.5. Political Support

The political will of the government, with an eye on ensuring youth employment, adopted a strategic transformation of VET. With the need to achieve Vision 2020 and become a developed nation by 2020, the government's Tenth Malaysia Plan (Economic Planning Unit, 2010) set a target of a 50% skilled workforce by 2020 (Transforming Education as an Engine of Growth, Economic Transformation Programme: A Roadmap for Malaysia, 2013).

The Tenth Malaysia Plan identified strategies to meet market demands for continued economic growth. The decision was to improve perceptions of VET, the quality of VET instructors and the development of industry-based curricula. Finally, the quality delivery of VET was to be a focus (Mohd, 2011). Industry bodies were appointed to ensure the relevance of NOSS. Malaysian skills certificates were adopted as the national certification of VET. A new initiative to brand VET, called Skills Malaysia, was introduced. There was enormous pressure to ensure the success of VET reforms politically (Dason, Hamzah & Udin, n.d.).

In conclusion, VET has been promoted extensively, with the Malaysian government identifying investments in VET as an essential requirement for achieving Vision 2020, a

target to achieve developed nation status. This research aimed to further understand the evolution and goals of investment in the Malaysian VET system, policy framework, the features of VET policy, the engagement of existing VET players and the parallels and exemplars that Malaysia can draw from the Singaporean and Australian systems. The historical development of VET in Malaysia assisted in gaining an understanding of the key factors that have affected the development of the Malaysian VET system. VET reform in Malaysia has been modelled on VET reforms in Singapore and Australia. Malaysian policymakers have looked towards these countries because of similar national economic growth priorities. While the Human Capital Index places Japan, Australia and Singapore as forerunners in creating learning and employment opportunities, countries such as Singapore have been challenged with the task of managing income inequalities. Malaysia has been characterised by a multiethnic and multireligious population, fuelled by significant migration in the past. The current severe shortage of skilled workers has led to a significant foreign worker population. To overcome the dissatisfaction among the local population, Malaysian policymakers have made significant investments in VET. While VET can be traced back to early trade schools established by the British before independence, currently investments are being made in all three subsystems of Malaysian VET: schools, VET institutions and NOSS, based on a strong legislative agenda and drivers to promote skills training.

1.8.6. Thesis Structure

The following is a brief overview of the thesis chapters:

Chapter 1: The Malaysian Vocational Education and Training Landscape

The Chapter begins by tracing the historical development of the Malaysian VET to the current position that includes the drivers for skills training.

Chapter 2: Vocational Education and Training Systems

In Chapter 2, I review the different models of VET provision and VET systems. The apprenticeship programmes, institutional arrangements and the reform initiatives are discussed from multiple perspectives. The variations between countries are also discussed.

Chapter 3: Literature Review

In Chapter Three, I review a range of literature that is relevant to the study. The chapter begins by reviewing Malaysian VET policy developments in the context of globalisation. The literature review also provides an overview of the motivations behind government initiatives to expand skills development initiatives and the shifting responsibility for employability to the employee. A brief overview of the background to the changes that have taken place with the evolution of Malaysia from a low wage economy to the current economic transformation goals is then given. The literature review takes in current and emerging priorities in VET from lifelong learning, employability, stakeholder engagement, and the need for inclusivity. It also reviews the collective skills formations systems, the composition of Malaysian society and participation levels in education. Finally, the review considers VET developments in Australia and Singapore.

Chapter 4 Methodology

In Chapter Four, I describe the methodology used for this research and the justification for choosing a mixed methods approach. I outline the research questions, methods of analysis, data sources, data collection methods, ethical considerations and research limitations.

Chapter 5 Data Analysis

Chapter Five is the ‘data story’ chapter from the qualitative phase of this research. The interviews in relation to the various research questions were captured into themes. The data from 42 respondents: policy makers, CEOs from Industry, CEOs from RTOs, VET instructors and trainees is analysed to identify similarities and differences.

Chapter 6 Quantitative survey results

Chapter Six is the ‘data story’ chapter from the quantitative phase of this research.

Chapter 7 Discussions

In Chapter Seven, I look at the data as a whole. I do this by reviewing the data and discussing the data in relation to the literature and the primary themes that have emerged.

Chapter 8 Conclusions and Recommendations

In my final chapter, I return to the overarching research question and present the summary of the data. This section presents what the mixed methods approach adopted in this research reveals about the challenges facing the development of VET in Malaysia.

The chapter concludes with evidence that addresses the research question successfully as what it set out to identify, namely, the challenges facing the development of VET in Malaysia through the lens of VET policy trends, skills formation systems, engagement of VET players, the impact of VET on minimising inequality and the lessons from Australia and Singapore. The chapter closes with conclusions and recommendations.

Overall, my study further develops conceptual understandings of development of VET systems and proposes recommendations to address the challenges facing the development of Malaysian VET system.

Chapter 2: Vocational Education and Training Systems

‘Everything must be made as simple as possible. But not simpler.’ Albert Einstein

2.1 Introduction

To gain clarity on how VET systems work in social, economic and pedagogical terms, there is a need to understand different approaches from various disciplines, such as education, politics, economics and history. It is necessary to include issues of learning and teaching, the institutional perspective and the development of curricula that includes the underlying pedagogical and didactical understanding.

This research aims to address the challenges facing the development of VET in Malaysia. To grasp a full understanding of the term VET, it is important to understand how VET systems are understood in countries where vocational education is considered more mature than Malaysia’s system.

Greinert (1994) distinguished three basic models of VET (market, school-based and dual) that focus on institutional responsibilities, cooperative structures and the role of the state in shaping a VET system. Deissinger (1998, p. 367-387) stated that VET is usually organised in three modes:

- Full time in a vocational school, college or higher education institution with neither practical training nor employment contracts.
- Formal skill formation in a company setting in some form of employment.
- Acknowledged VET program that uses part-time school-based and company-based modes of learning known as the ‘dual system’. This includes apprenticeships that offer opportunities for vocational learning within an ‘occupational’ context.

Kell & Fingerle (2006, p. 453-484) stated that a VET system is influenced by culture and its meaning may differ from country to country. VET can mean a specific pedagogical objective to be achieved against existing tensions between education and work or occupation, a descriptive term that stands for individual learning arrangements and processes linked to pedagogical objectives, a product of such processes and an overarching term for the organisation of technical and/or vocational learning in the typical strata of modern educational systems.

Stephen (2010) outlined six principles inherent in a successful VET management system to achieve the objectives set by policy makers starting with relevance to the labour market, access to information for trainees in an equitable way, quality of delivery, standardisation of the curriculum, inclusion of soft skills within the curriculum and funding availability to support the trainees for successful completion of the programme. A review of four USAID approaches to technical and VET in South Africa, Indonesia, Georgia and Morocco between 2007 and 2012 examined how the four programs performed according to nine elements of highly effective VET systems. These elements were found to be a part of effective workforce development systems in a 20-country study conducted by USAID in 1997. Each program is defined by its purpose, policy framework, content, organisation, staffing, partnerships, impact and sustainability. Differences in programs can be attributed to the unique skills, challenges and gaps of each country. The 1997 USAID study concluded that the most effective VET programs targeted for successful youth employment shared nine common characteristics. They were identified as leadership and accountability, demand-driven design, open access, portability of skills, continuous improvement, public-private partnerships, sustainable financing, replicability and economic and social impact. The report highlighted that given that youth employment is critical and the fact that close to 1.3 billion young people aged between 15 and 30 live in the developing world, and 50% of them are unemployed, employment becomes critical to maintain social, economic and political stability.

Malaysia is no different. There has been a pressing need to ensure the youth cohort does not turn into a generation of unemployed adults. A lack of valuable and relevant skills in global and local economies has constrained economic growth, jobs and income. Strong, demand-driven VET has been considered to be potentially one of the most important tools for skilling young people, both in and out of school. With a huge youth and multiracial population, job creation is critical to keep pace with new entrants to the job market and maintain social cohesion (Pang, 2011).

VET looks very different in developed nations than it does in developing nations. In developed countries, VET has played a prominent role in preparing people for employment. While there are variations within each of the developed countries, their systems benefit from close communication and linkages with the private sector and education system, substantial private-sector investment, industry-wide skill standards, a collaborative process of curriculum development for learning at schools and workplaces, high-stakes exit exams leading to well-paid technical jobs in their economies, and deeply

rooted industry, trade associations and other intermediaries who bring various stakeholders together to hold one another accountable and share costs and benefits (Volkoff & Perry, 2001).

This has not been the case with developing nations such as Malaysia. A major challenge has been the difference in perceptions of vocational education in various cultures and countries (Wahba, 2012). In Malaysia, and Asia more broadly, VET has been deemed a second-class choice and an option for the underprivileged, while in some parts of the world it is highly valued. Additionally, in developing countries, there is little history of collaboration among employers and education (Wahba, 2012). There has been no substantial link between vocational education and economic growth strategy. While Malaysia has an economic transformation program and policymakers realise the importance of youth employment and VET, there has inadequate funding (Pang, 2011).

In Singapore and Penang (Malaysia), the role of private sector in VET was different from mainstream VET. Private companies have collaborated with multinational corporations (MNCs) by offering their low-skilled workforce for assembly work in special duty-free economic zones. Skills development centres are sited within the parks, which was a deliberate strategy to develop the specific skills required by the MNCs.

VET systems should be viewed beyond the lenses of politics and economics. They must be perceived as historical entities, as each country's system reveals a national characteristic that corresponds with organising principles unique to each country (Allemann-Ghionda, 2004, p. 23). There is a need to understand institutionalisation in addition to having a social and economic understanding of various vocational pathways (Deissinger & Hellwig, 2004). Further, it is important to examine the evaluation of VET in general. For instance, the European Qualifications Framework (EQF) creates challenges for countries that differ in VET and underlying traditions regarding full-time VET and company-based training. On the other side of the spectrum, for example in India, where most of the population works in the unorganised sector and where the focus is on employability, the goal of policymakers and VET is linking adult education and literacy to skills development (Singh, 2012).

The dual system operates in some countries, such as Germany, Switzerland and Denmark, as a traditional apprenticeship program. In countries such as Australia and the UK, apprenticeships have been reinvented in the last two decades (Dolphin, Lanning & Cable, 2011). This is largely due to the reform agenda, which aims to develop alternative routes

into employment to meet labour market expectations. In the field, there are various 'systems solutions'. The differences are thought to arise from the uniqueness of each country's culture due to historical foundations. These can only be understood by examining macro-social processes, and concrete political and institutional contexts (Busemeyer & Nikolai, 2010, p. 504). The German dual system can only be understood with respect to the history of the nineteenth century but also against the background of 'specific division on labour' between the relevant stakeholders operating in the social market economy context of post-war Germany (Greinert, 1994).

While the terms and characteristics of the various institutional settings in which VET can operate may differ, VET is debated internationally, mainly at the level of European VET policy. Discussion also involves supporting countries on the threshold of establishing effective VET systems (Deissinger, 2010). Rahn (2009) remarked that despite the cultural characteristics, VET systems are viewed in institutional terms. Structure, institutional responsibilities, communication mechanisms between stakeholders, the role of government and companies, and innovations and change within VET systems are key issues.

2.2 Differences in Institutional Arrangements

While governments in developed countries have been preoccupied with increasing their human capital, there is significant deviation in VET skill provision models across many countries (see Table 2.1).

Table 2.1: VET skill provision models

Direct State	Corporatist Networks	Local Firm Networks	Institutional Companies	Free Markets
Initial VET				
France	Germany	Italy	(France)	(UK)
Italy	(Japan)	(Japan)	(Japan)	USA
Sweden	(Sweden)		(Sweden)	
UK			(UK)	
			(USA)	
Further VET				
(France)	(Sweden)	Italy	France	(Germany)
Sweden		(Japan)	Germany	Italy
			Japan	UK
			Sweden	USA
			UK	
			USA	

Note: Country names in parentheses indicate that this is a minor model within the country in question
Source: Crouch, Finegold and Sako (1999, p. 10).

Crouch et al. (1999) outlined a useful taxonomy for analysing these models. These will be described more extensively in Chapter 3's literature review, particularly the basis of variations among the models.

2.3 Comparative Perspectives

As the thesis aimed to understand the challenges of the development of the Malaysian VET system and to comprehend the Singapore and Australian challenges, a look at the European model is necessary given the benchmarking with European countries, in particular Germany. Workplace learning as an institutionalised setting of initial skills formation is heavily emphasised in Europe (Zebeck, 2009). Most European countries have emphasised apprenticeship systems. Apprenticeship systems are described as the traditional model for training for work and life in a company.

While Germany and Switzerland have focused on apprenticeship systems, the UK and Australia have tried to address historical deficits, with attempts to revive the apprenticeship system (Deissinger, 2008). Germany has used the dual system as a form

of mass education system, unlike the UK and Australia. In these countries, VET is represented by only one type of vocational learning with weakly formalised routes into employment that is part of an open-market training system. In Australia, recent apprenticeship innovation policy has led to some formalisation via training packages; in the UK formalisation has been achieved through the National Vocational Qualifications (NVQ).

As opposed to Germany's dual training system, apprenticeships in the UK and Australia correspond with the competence-based approach in terms of skills formation and certification (Smith, 2010). Deissinger (2008a) highlighted the differences between Germany and the UK's apprenticeship cultures. Ryan (2007) identified the absence of minimum training periods as the striking difference between the two countries. In the UK, demonstrated competence in the performance of work tasks is the sole requirement of NVQ certification. Educational attainments are only considered if they are part of competence; otherwise, they are discarded as redundant.

The German VET system is regarded as a good example of the multifunctional and multi-institutional role that VET can take. Vocational schools basically serve three functions, depending on the course and institutional setting (Deissinger & Ruf, 2006):

- Vocational preparation, usually for a period of one to two years, with the intent to enable young people to pursue an apprenticeship by improving their value in the training market.
- Further education, usually for a period of two to three years, with the intent of leading young people to high school qualification.
- Vocational training, usually for a period of two to three years, with the purpose of enabling young people to achieve a portable market-relevant occupational qualification outside the dual system.

2.4 Subsystems of Vocational Education and Training

Deissinger (2012) referred to the peculiarity of how subsystems of VET function and the difficulties encountered when changes occur in institutional settings, objectives or curricular patterns of existing VET institutions. He identified two major research projects.

First, societies associate different values with workplace learning than they do with classroom instruction in VET. Second, there are differences in the structures and

functions of hybrid qualifications. With respect to the first issue, while the UK, Italy and France have well-established school-based VET, they find it very difficult to attract companies to provide high-quality training for young people (Deissinger, Heine & Ott, 2011). German companies have persisted with a strong apprenticeship system, which has survived the intensified industrialisation of the nineteenth century. There is a consensus in the German VET debate that company-based and school-based training represent different pedagogical logic, based on diverging paradigms of learning. While at the vocational school level, there is tension between skills formation and progression to higher education, apprenticeship training is supposed to occur within an economic environment with a strong bias on non-educational purposes.

Dolphin et al. (2011) indicated that even for part-time vocational schools, the curricula in Germany places occupational content alongside additional general education on a regular and mandatory basis. This is quite different from the liberal attitudes that govern apprenticeships in England or Australia. Switzerland and Germany have similar VET systems, even though the Swiss system has proven to be more flexible in terms of progression to higher education (Gonon, 2001). In Germany, apprenticeships have their roots in the craft sector, with 25% of apprentices trained in firms. In the UK and France, apprenticeships exist alongside full-time VET and their relevance for skills formation tops the political agenda. However, this skills development does not seem to be a priority in practical terms, as both countries have been struggling to restore the apprenticeship system.

In the UK and France there is strong state control. Conversely, in Germany, full-time VET plays a minor role against the background of the mighty dual system (Deissinger, Aff, Fuller & Jorgensen, 2013). The dual system is loved and supported by the state, employers and trade unions. Undoubtedly, the high level of participation in post-secondary compulsory education in Germany's VET system can be attributed to the apprenticeship system. The need for modernisation due to globalisation had put a strain on the German VET system. The push to revise training schemes, the introduction of 'learning fields' in vocational part-time schools, and the reform of full-time vocational schools' curricula had stretched the system, which faced major pressures (Bader & Sloane, 2000). The relevance of qualifications to labour markets took precedence. This led to a greater political focus on the relevance of VET to the labour market. The function of vocational colleges was perceived as a vehicle to enter higher education, rather than as a deliverer of labour market qualifications.

The second issue relates to the ‘hybrid qualifications’ often associated with the European perspective, in which the focus is on the various subsystems of education in a given country. Permeability between vocational and general education has emerged as a major focus of European education and training policies and an objective of the EQF. Hybrid qualifications have a ‘hub function’ as they serve both as a preparation for entry into working life and an access point to higher education. In the European context, this includes recognition of prior learning (RPL) and accreditation of prior learning. The European issue of progression is closely tied to the specific internal structures of the national VET systems. Apprenticeships in Germany are strongly rooted in disjunct but interdependent subsystems; the mutual interaction among them contributes to stabilising the vocational track within the VET system in a stronger way than in other countries (Deissinger, 1998).

Learning cultures strengthen VET. VET is highly relevant to the careers and life perspectives of young people. A multilevel approach described by Schriewer (1987) included the concept of learning cultures. It offers a methodology comprising five dimensions:

1. Strength of, and respect for, vocational education
2. Knowledge and understanding of vocational pathways
3. Financing of VET
4. Prime focus of apprenticeships
5. Quality assurance of in-company training.

In conclusion, there is a need for clarity on how VET systems work. This must be understood from multiple perspectives rather than through the lenses of politics and economics. While the three modes of VET have largely been market-driven, school-based and dual systems, there have been several variations between countries. It is essential to understand that several factors are essential for a successful VET initiative: relevance to market, access, quality delivery, standardisation, inclusion of soft skills and funding. While it is acknowledged that VET is a useful option to skill young people, perceptions of VET have been negative. The emphasis on dual systems and institutional arrangements has varied from country to country. Hence, a comparative perspective is needed to understand the factors essential to drive a successful VET program. In Chapter 3, a literature review will offer a range of relevant literature to inform the study.

Chapter 3: Literature Review

‘Simplicity is about subtracting the obvious and adding the meaningful.’ John Maeda

3.1 Introduction

The Malaysian VET policy experience has mirrored developments on the international front, mainly in the OECD. The OECD, an international economic organisation of 34 countries, was founded in 1961 to stimulate economic progress and world trade. Member countries are committed to democracy and the market economy, providing a platform to compare policy experiences, seek answers to common problems, identify good practices and coordinate the domestic and international policies of its members. Malaysia is just like many other nations in seeking an economy that focuses on youth employment and a highly skilled workforce to increase societal incomes. Hence, it is critical to research the literature on the various theories that have influenced Malaysia and other similar countries.

Drawing mainly on literature from Malaysia, the UK, US, Europe, Singapore and Australia, this chapter will first discuss the Malaysian VET policy, associated ideas about vocational education theory, human capital theory, systems theory, threshold theory, program theory, employability theory, collective skills formation and stakeholder engagement before reviewing the capability approach (CA). Finally, parallels and exemplars from Malaysian VET development, with Australia and Singapore, will be studied.

The logic supporting these ideas will be explored with specific reference to the development of VET, the benefits and challenges. The role of the various theories will be explored to extract and critique their influence on the governance of VET policies in macro-economic development and the benefits and beneficiaries of VET investment at societal, organisational and individual levels. Malaysian society composition, roles of VET stakeholders and varieties of institutional arrangements in this process, as manifested in differences in VET policy solutions, are explored. The review on how VET investment will create beneficial outcomes is also studied. This chapter ends with a synthesis of the literature, proposing that there are supporting theories and models that

define how the development of the VET system can create favourable outcomes for stakeholders.

The literature surrounding policy analysis of VET in Malaysia, particularly comparative research, is sporadic from a Malaysian context. Most research on VET has primarily involved developed countries rather than developing nations such as Malaysia. This review will include the key issues related to the research questions such as the Malaysian VET policy, skills formation systems, stakeholder engagement, the role of VET in minimising inequality and lessons from Australia and Singapore.

The Research Question

What are the challenges facing the development of VET in Malaysia?

Associated research questions:

- What are the VET policy trends in Malaysia?
- How have the skills formation systems evolved in Malaysia?
- How have the existing players in Malaysian VET been engaged?
- How has skills training minimised inequality within Malaysia?
- What are the lessons from Australia and Singapore?

3.2 Malaysian Vocational Education and Training Policy

3.2.1. Impact of Globalisation on Malaysia

Globalisation issues and changes in the world economy, and the creation of a new economy in which people work differently, have highlighted the importance of VET and skills in the policy area. The new economy is a consequence of globalisation, which can be defined from an economic perspective as the growing integration and interconnection of markets, market competition, investment, production networks and strategic alliances (Sturgeon, 2001 pp. 4–5). Conversely, the industrialised economy was one with Fordist production methods and the bureaucratic organisation of work, in which work was distilled into discrete tasks, each requiring limited skills (Briggs & Katay, 2000). In the industrial economy, the manufacturing sector provided most jobs, creating high-income levels for low-skilled and mainly permanent manufacturing jobs (Gilbert, 2005).

While it can be argued that globalisation began many years ago, the process of globalisation has hastened rapidly due to advances in information and communication technologies. Other nations, particularly in Asia, began to compete in the industrial economy against developed Western nations; they could provide similar and sometimes better products more cheaply (Buchanan, Briggs, Considine, Schofield & McIntyre, 2000). With trade liberalisation and greater mobility of capital, low-skill production plants could be set up in these countries, where labour costs were cheaper than they were in developed nations. The low-wage economy benefited Malaysia greatly in the early 1970s through the establishment of free trade zones. However, it can be argued that this is now inconsistent with the high-income goal of Malaysia (as described in Malaysian Vision 2020). The recommended policy response of developed countries to address these challenges was to pursue initiatives that encouraged constant innovation to improve their ability to produce high-quality products and services. (Aldcroft, 1992; Boshier, 1980; Porter, Crocombe & Enright, 1991; Flude & Siemenski, 1999; Harbison, 1973; Tight, 2002).

The underlying policy assumption or program theory is that these initiatives would result in the continued economic survival and competitiveness of developed countries. Further, this would result in a fundamental shift in the labour market to the creation of a greater number of higher-skilled jobs that demand higher wages—the creation of the ‘high-skill, high-wage vision’ or the ‘knowledge society’ (Porter, 2006). Funnel and Rogers (2011) described program theory as one that provides a clear picture of how change occurs and how performance can be improved. Program theory explains how an intervention such as VET contributes to the achievement of results that produces economic growth and employment.

Any discussion about the dominance of skills in the policy sphere would be incomplete without discussion of the changes that have occurred in labour relations in many developed countries. Increased liberalisation and market competition has fundamentally altered the perception of the labour market. The psychological contract that was characterised by lifelong employment in exchange for employee loyalty (Evans, Hodgkinson & Unwin, 2002) is no longer relevant in an increasingly competitive world. The decline of manufacturing jobs and subsequently the increased unemployment strengthened the need for a change in the nature of employment relationships (Rudman & Rudman, 2000). The dominant theory characterising the new psychological contract is employability theory.

While this may indicate that the focus of VET policy can be economically biased, Bound, Lin and Rushbrook (2014), when discussing Singapore's focus on lifelong learning, contended that Singapore is moving beyond an economic focus to develop greater inclusivity and address social issues. However, they admitted there is considerable tension between rhetoric and desired intent. They discuss culturally relevant practices that develop a globally relevant workforce through the implementation of a lifelong policy.

The central tenet of employability theory is that workers' survival in the new economy depends on them increasing and adapting their skill levels to ensure they are always able to find employment and avoid social exclusion (Rainbird, Holly & Leisten, 2002; Tight, 2002). This became part of the motivating force behind public policy in many developed countries for expanding government skill development initiatives and education in general. Former labour secretary of the US government, Robert Reich (1992), argued that improved performance in VET and higher education generally was a new source of competitive advantage. He argued that the best policy response in this context was to expand VET and attract and retain knowledge workers. In the UK, the National Institute of Economic Studies compared the performance of matched cases of British and German firms in basic metalworking products, kitchen furniture, women's outer wear and hotel sectors, and examined the relationship between VET performance and firm performance (Prais, Jervis & Wagner, 1989). German firms consistently outperformed their British counterparts; this was attributed to weaknesses in its skill development strategies. This provided further evidence to support calls for an increase in skill investment through the improvement and expansion of VET and higher education.

In an increasingly competitive globalised world, the way people work and the purpose of work has changed. More flexible work arrangements are now evident, such as workers changing jobs more frequently and being generally more mobile, and the growth of arrangements such as contract work, temporary work and contingent workforces (Naswall, Hellgren & Sverke, 2008). Hence, skills and education, along with a policy mechanism to support lifelong learning, is perceived as the new guarantee of employment security and the path to increasing competitiveness in the labour market and among organisations and nations, as higher-skilled workers would be able to produce high-end goods and services that are in greater global demand. Many assumptions underpin the arguments outlined above. The first concerns the precise nature of the skills and education investment required to create socio-economic growth for societies and workers. The second relates to how these outcomes are created, and the assumptions about the roles of

different stakeholders engaged in the process. The third relates to how these outcomes are evaluated.

3.2.2. Building an Inclusive Society

VET is a widely recognised approach to build an inclusive society. This is because building equitable socio-economic growth leads to overcoming poverty and the social exclusion that comes with it. The fact that VET leads to work, and work leads to income and development is the reason many countries seem to favour VET, but they fund general and higher education (Robert Jjuuko, 2010). Malaysian policymakers have subscribed to this view (contained in the Malaysian Education Blueprint 2015), which has increased allocations to VET substantially.

Vocational theory highlights several important ideas towards building an inclusive society. Blankertz (1985, p. 108) stressed the importance of an educational concept oriented to universality and individuality over an education for industriousness: one that was likely to lead to class applications as they may be perceived as education for the poor. His argument that vocational education should be freed from the grip of a historically shaped culture of vocation and life has resonated loudly in debates on vocational education. Commentators have highlighted that Malaysia is gripped by social prejudices towards VET (Loose, Spöttl & Zahir, 2008).

There is also the view that a focus on learning sites is relevant given that economically and pedagogically learning in a workplace setting is viewed as a favourable setting of VET. However, there has also been criticism that the ‘hidden curriculum’ leads to prioritisation of firms’ interests. VET researchers have fervently focused on vocational education theory, the German context and school-based VET, as it is more closely linked to a manifest and pedagogical understanding of learning (Blankertz, 1982). Interestingly, the focus of the debate in countries like Malaysia and Singapore is on whether existing VET systems lead to building an inclusive future. Alternatively, VET in the UK has been associated with workplace learning, which is based on the ‘market model’ (Greinert, 1994). While this does not mean that VET only takes place in companies or is driven by pure economic reasons, the UK’s ‘outcomes-based’ approach has led to significant government involvement (Jessup, 1991). The UK program has a very tightly regulated assessment and accreditation system (Hayward, 2005, p. 78). Participation in school-based VET has increased due to dissatisfaction with in-company training, which either lacks quality or career relevance (Grubb & Ryan, 1999).

Additionally, the CA highlights the five components for human development (Sen, 1993, pp. 44). CA postulates a new theoretical framework about wellbeing, development and justice (Nussbaum, 1988; Nussbaum & Sen, 1993; Sen, 1992, pp. 14, 24). CA purports that freedom to achieve wellbeing is a matter of what people can do and be, which dictates the kind of life they are effectively able to lead. This theory is generally conceived as a flexible and multipurpose framework, rather than a precise theory of wellbeing (Sen, 1993, p. 48; Robeyns, 2005, pp. 30–49). CA can be understood as a conceptual framework for a range of normative exercises that include the assessment of individual wellbeing, the evaluation and assessment of social arrangements and the design of policies and proposals about social change in society.

CA prioritises the functioning, beings and doings of people, and their capabilities to achieve this functioning, such as access to education opportunities and the ability to be socially accepted. This stands out from other views that focus on subjective areas, such as happiness and material wellbeing (i.e., income). Nussbaum (2011) focused on two key areas: quality of life and social justice. The two clusters share a focus on what people can do and be. These clusters share a commitment to five principles:

- Treating each person as an end
- Focusing on choice and freedom rather than achievements
- Pluralism about values
- Being deeply concerned with entrenched social injustices
- Ascribing an urgent task to government.

CA is said to be a normative theory rather than an explanatory theory. It does not explain poverty, inequality, wellbeing, quality of life or social change. However, it helps to conceptualise these concepts.

There have been several points of debate in the CA literature. The questions of which capabilities should be selected as relevant and who should determine the aggregation of the various dimensions into an overall assessment have figured prominently. Some have argued that every capability is relevant and should count in moral calculi (Vallentyne, 2005). Others have argued that considerations of justice require a differentiation between morally relevant and irrelevant, and morally bad capabilities (Nussbaum, 2007; Pogge, 2007).

Criticisms persist about whether CA can be operationalised (Sugden, 1993) and for its failure to provide a coherent list of capabilities (Qizilbash, 1998). Addressing this, Nussbaum (2000, pp. 11–15) developed a central human capabilities list. Nussbaum’s well-known list contains prescribed capabilities grouped together under 10 ‘central human capabilities’: life; bodily health; bodily integrity; senses, imagination and thought; emotions; practical reason; affiliation; other species; play; and control over one’s environment (Nussbaum, 2007, 76–78). This was justified as each capability is needed for a human life to be ‘not so impoverished that it is not worthy of the dignity of a human being’ (Nussbaum, 2000, pp.72). Every human on earth is entitled to these capabilities. While the list is at an abstract level, there is an argument for it to be translated into implementation and policies at a local level, taking into account local differences. While Sen consistently refused to defend any list of capabilities (Sen, 1999; Sen, 2005, pp. 151–166), this did not prevent him from using particular selections of capabilities. Sen’s CA is a moral framework. It proposes that social arrangements should be primarily evaluated on the extent to which people can promote or achieve freedom or functions they value (Haq, 1995). There is a need to go beyond skills policies to understand inequality and adopt a high-skills environment and a sectoral approach to promote inclusiveness as highlighted by CA.

The drivers of change for wage inequality have been technology, policy and education (Salverda, 2008; Salverda & Nolan, 2016). Tracing the sources of inequality to the drivers of change has been deemed important to address the inclusiveness agenda (Sung & Ramos, 2014). While VET is generally perceived as an answer to education and training reform, there is a need to examine the contexts and issues of VET implementation.

3.2.3. Composition of Malaysian Society and Contexts

Economic, social and educational contexts are three frequently emphasised frames of reference. Regarding the economic context, there has been tremendous criticism about education and its relevance to the world of work. Education has been scrutinised with work-based criteria and related outputs such as productivity. Efficiency has been measured by criterion such as productivity. Countries continue to battle against global inflation and increasing workplace standards. Employers argue that graduates are unable to meet the standards required by workplaces. These developments have led education to become more vocational than it has been in the last 20 years. The economy and the world of work have become very complex. There have been neoclassical economic arguments

that income distribution should be based on marginal physical productivity. People need to be paid in terms of marginal productivity of additional units of production (Samuelson & Skidmore, 1970). Nevertheless, the determining of income through industrial relations is complex to understand.

The way people were prepared for the world of work has changed and VET was a consequence of this change. Economic rationalism has been pushed to the fore by these developments (Pusey, 1991). Economic factors have increasingly become the rationale for educational decisions and the success of educational decisions has been largely decided by economic results. Workforce preparation methods have been questioned by issues of relevance. Relevance is related to whether a person's work preparation is related to the standards required to be productive at work. While there has been some protest at the deviation from education from life preparation to vocational preparation, the focus on economic reasons remain dominant. In terms of curricular development and content, occupational education has moved into universities (Harris, Guthrie, Hobart & Lundberg, 2001).

There has been significant debate on the definition of education, without any consensus (Hirst & Peters, 1970). Education was considered preparation for life in an inclusive way, while training was deemed job preparation. VET was referred to an activity limited in cognitive demand and was associated with a certain standard of skills proficiency (Snook, 1973). Training has been associated with occupations, which has led to it being referred to as competence-based training, with the word education removed from the term. Proponents of VET believe that general outcomes associated with education can be described in competence terms and measured (Baumgartner et al., 2009).

To understand VET, the education and economic contexts alone are inadequate. There is a need to understand the social necessity that goes beyond conventional notions related to learning and work preparation. It is important to understand the relationship between work roles, their status and rewards, as these may be offshoots of social rather than economic factors. Supply and demand can be shaped by social organisation. This is one reason for the existence of trade unions and professional bodies.

One of the crucial dimensions missing frequently from Malaysian VET discussions is the nation's societal composition and the issue of participation in education (Pang, Naruman & Sim, 2010). Malaysia is a multiracial, multiethnic and multireligious country organised on race-based politics and this leads to persistent debates about equal access and funding

opportunities. While Malays have focused on skills acquisition with the objective of finding employment in the manufacturing sector, the Chinese have focused on acquiring trade-related skills in the informal sector, without necessarily having recognised qualifications. The bottom 40% of the population in a Malaysian context refers to the socio-economically disadvantaged lowest 40% of the population from an earnings perspective, which includes Indians, have missed out on participation in education due to a lack of access given their historical placement as labourers in plantations.

Within the Australian Standards Framework, objective elements are present that are the basis for VET in Australia. Yet the social construction of skill (SCS) has been powerfully shaped by the underlying social expectations of a society deeply rooted in traditional cultures. At times this has led to the undervaluation of the comparative worth of work (Barnett, 1993). Many myths have been legitimised within society and these have led to their acceptance as the reality of social organisations and social rules. These practices are then used to justify the social division of labour and the value placed by society on different types and levels of skills and the rewards given to those who possess them. The way skills have been defined, characterised, recognised and remunerated are only partly shaped by objective factors. SCS has been largely shaped by underlying social expectations, which are deeply embedded in traditional cultures, and the interplay of social and political power between management, unions, government and different categories of employment. The distinction between professionals and trades has been determined by social conventions rather than logical deduction. For instance, social conventions and not necessarily technical factors have determined that lawyers have university degrees while horticulturalists have diplomas. While economic factors such as supply and demand have played a part in determining the rewards for skills and knowledge, the argument that SCS has shaped the value of knowledge and skills has increasingly been considered by policymakers. Further, market forces have been subject to social modification. The relationship between training, education and employment has been complex and affected by SCS. This is due to educational practice, productive activity and class cultures (Moore, 1990). Education and training have produced representations of workplace requirements as the bases of selection and instruction (Moore, 1990). However, this has been distorted by social norms unrelated to economic factors. The appropriateness of competency standards in university education can be said to have a basis in SCS.

Given that Malaysia is a diverse society with several races and religions, SCS is believed to be strong. For example, Indian citizens, who currently constitute about 10% of the population, were historically the bulwark of the working population. While the Indian population has now gone down in percentage, the numbers have been significant enough within Malaysian society to affect social attitudes. Social problems in Malaysia have been largely attributed to displaced Indians. The ethnic Indian share of Bursa Malaysia capital stands at a negligible 1.1%; 90% of Indians earn below RM 3,000 monthly; and 'contribute' to 30.6% of crime and 70% of violent crime (Malaysian Insider, 2015).

Malaysia is affected by social hierarchy; hence, the values accorded to certain occupations are conditioned by social attitudes. For instance, within the Indian community in Malaysia, the caste system is rampant. A caste system is a process of placing people in occupational groups. It has been practised in India for several centuries. While it is rooted in religion and is part of Indian society, it is based on a division of labour. The caste system dictates the type of occupations people of a certain caste can pursue and the social interactions they may have. Although the purpose of the caste system was to give people an identity and generate employment through a formal training approach known as the Guru (similar to the apprenticeship scheme). In this system, the Guru is the expert and the Shisya is the learner. Through practice, castes became ranked in hierarchical order. The caste system has four main classes, based originally on occupation and later by birth. Over time, a member of one caste could not move into another caste. Due to its rigidity, lower castes were prevented from aspiring to climb higher. Therefore, economic progress was restricted and discrimination became the norm. Rewards were related to the caste system. This has resulted in the Indian government passing legislation (i.e., affirmative action policies) to minimise discrimination. In descending order, the classes are classified as:

- Brahmin:
 - consist of those engaged in scriptural education and teaching, essential for the continuation of knowledge
- Kshatriya:
 - take on all forms of public service, including administration, maintenance of law and order, and defence
- Vaishya:
 - engage in commercial activity as businesspeople
- Shudra:
 - work as semi-skilled and unskilled labourers

- Harijans:
 - work in menial roles.

While the caste system has affected most of the Malaysian-Indian working population, class divide has affected the Malay, Chinese, East Malaysians Dayaks, Kadasuns and others within Malaysia. These deeply rooted societal prejudices have affected equity and access to education and training, irrespective of the economic context. While education and training could produce what the workplace needs, high-context cultures such as Malaysia (Hofstede, 2010) have distorted this intent. Economic and social factors have created considerable tension between tertiary education (higher education) and VET.

3.2.4. Vocational Education and Training Policy Implementation

Socio-economic data have supported the logic that investments in the acquisition of skills and education are highly beneficial to workers and societies. Highly skilled and educated workers experience lower levels of unemployment, higher wages and better health outcomes (Dyson, Keating, Edgar & Geare, 2005; Harbison, 1973). However, VET policy rhetoric that mentions the benefits of skills and education in generalised terms has been criticised. A variety of skills initiatives have been lumped in with other forms of higher education, such as diploma and degree programs. There has been little attempt to identify differing types of VET initiatives in terms of goals, content, design, quality or quantity. Nevertheless, it has been assumed that all types of VET, irrespective of differing characteristics, have led to highly skilled workforces earning increased wages. The use of VET in broad generalised terms to cover all aspects of post-secondary training and learning has been unhelpful, as the distinction is not made between different types of post-secondary training provisions and their distinct purposes. Grubb and Ryan (1999, p.10) rightly argued that distinguishing between the different types of VET provisions is critical to effective VET policy implementation. To this end, they offered a useful typology of VET provisions:

- Pre-employment VET, which prepares secondary school leavers for entry into the labour market
- Upgrade training, which provides learning opportunities for employed workers' job advancement and other purposes
- Retraining for displaced workers to assist them in finding alternative employment
- Remedial VET that provides learning opportunities to individuals who have been marginalised in the mainstream education sector and labour force.

Grubb and Ryan (1999) further argued that different types of VET provisions have unique goals and target different segments of the labour force. It is essential to make these distinctions clear in the policy dialogue and identify the implications for VET system development. For example, using the employment rate of trainees to assess upgrade training demand can lead to inflated inferences of successful program performance, as this type of VET provision targets the employed. Thus, VET policy dialogue would benefit from greater specificity in program and goal definition.

There is a widespread belief that VET has been mostly implemented with insufficient debate and analysis (Harris et al., 2001). Discussions about Malaysian VET policy implementation typically involves the ETP and Vision 2020, a target developed by the Malaysian government to secure a developed nation status with a skilled workforce target of 50% (ETP, 2012). While policy initiatives such as Vision 2020 are discussed with a long-term focus, Malaysian policymaking has been marked by incrementalism (Faizi, 2011). Pal and Maxwell (2004) noted that incrementalism in policy reform has occurred because it is easier to address complex issues incrementally. Choices are made through consideration of what has been done in the past, and policies unfold gradually, taking shape per the realities of the situation.

While it is extensively accepted that education and training is one of the reliable roads for creating socio-economic growth, it is often taken for granted that VET easily connects its graduates to work opportunities. The long-held view that education does not create jobs is yet to firmly inform VET policy and practice at different levels of decision-making. Numerous studies have strongly suggested that employment is a product of a solid marriage of sound macro-economic and social governance policies and actions.

The underlying ideas behind systems theory provide a better understanding of the relationships between the various subsystems. VET has been viewed as a system for pragmatic and scholarly reasons. Luhmann and Schorr (1979) indicated that systems theory helps people understand the relationship between subsystems in a given society, their interaction, specific working principles and the way they establish a difference between themselves and their environment. When examining VET as a system, the various levels on which it operates become relevant as well. VET systems are not viewed only at the macro level. While the macro level is usually associated with institutions and structural features, VET must be understood in pedagogical and didactical contexts. Kell

(2006) differentiated between four system levels: macro, exo, meso and microsystem. With VET, macro and micro represent the structural framework and learning processes. The exo system indicates the strong determining systems that influence VET, such as employment and the education system. Meso refers to the sites where learning takes place, such as schools or companies. There is evidence that the links and interdependence between these systems make a given system unique, and infuse it with greater character and quality compared to other subsystems. Further, studies have indicated that for the poor, and more so the unemployed youth, to disengage themselves from economic deprivation, there must be an enabling environment (Palmer, 2007). The enabling environment relates to both internal and external factors.

The internal enabling environment is one in which education and training are delivered. This includes all factors that combine to ensure the education and training process generates the desired skills, such as up-to-date training equipment and materials, competent and motivated teachers, and social support. A narrow curriculum coupled with inappropriate teaching and inadequate preparation for the real world of work is a serious hurdle for securing employment. On the contrary, the external enabling environment is critical for enabling VET beneficiaries to translate the gained capabilities and competencies into economic and social returns. It is inclusive of all factors that stimulate or hinder the transformation of education and training into desired long-term economic and social outcomes. These factors include a sound labour market regulation regime and a vibrant domestic economy to guarantee consumption of goods and services made or supplied by graduates.

The question of how pathways and mechanisms determine the transition from school via VET into employment has remained an important one for VET policymakers. Mertens (2005) stated that threshold theory contributes to understanding the complex relationship between the various subsystems and the transition within the education system. Threshold theory explains the complex relationship between where learning (competencies) take place and where they are applied (workplace). This model highlights the difference between threshold one and threshold two. Threshold theory explains the specific problems of integration and progression respectively. While threshold one represents the transition from general school education to VET, threshold two indicates the borderline between VET and employment.

No single analytical framework can compare the VET systems of different countries because each is uniquely based on various national and cultural contexts. It is difficult to understand the complex mechanisms that link education and employment, as labour markets in each country are structured differently. While Germany is driven by occupation-structured labour markets that are interlinked with training occupations in the apprenticeship system, the UK and Australia have more open and unstructured labour markets (Doeringer, 1991). This simply means that the transition into employment and subsequent career pathways are more independent or less independent from formal qualifications.

Discussions about the pathways and mechanisms from school into employment using VET systems and policy in Malaysia has centred on creating a skilled workforce that is focused on youth employment. Khoo (2011) referred to this as being driven by economic rationalism because it is based on an economic perspective. Despite advances in educational access and attainment, global youth employment continues to attract government attention because most countries today have a youth bulge (Subrahmanyam, 2015). A 2012 ILO report stated that youth are three times more likely to be unemployed than adults are.

The higher likelihood of youth unemployment has been attributed to the growing mismatch between the supply and demand for skills. This mismatch has disproportionately affected the youth, particularly in developing countries and Malaysia is no exception. Tashima (2013) reported that some countries have an excess supply of skilled workers but a shortage of skilled jobs. In Egypt, slow economic growth has meant that not enough jobs are being generated to employ the 750,000 new entrants to the labour market each year, including 200,000 university graduates (Subrahmanyam, 2015). As a result, 70% of Egypt's unemployed are between 15 and 29 years of age, and 60% have a university degree. In some instances, young jobseekers struggle because employers require cognitive, non-cognitive and technical skills that young people do not possess. In fact, while jobs exist, the skills do not. In OECD countries, unemployment among young people who have not completed secondary schooling was nearly twice as high as it was among those with tertiary degrees (Scarpetta & Sonnet, 2012, p. 8). These challenges have defeated transformational attempts to build an inclusive future for the youth.

Recent evidence has indicated that VET yielded higher returns than either general secondary education or higher education, largely due to its focus on developing work-

relevant skills (Kuépié, Nordman & Roubaud, 2009, p. 505; Herschbach, 2009, p. 947). Countries with embedded systems of vocational training and apprenticeships, such as Austria and Germany, have successfully maintained low youth unemployment rates (Biavaschi et al., 2012, p. 12). While the global trend towards a VET focus is understandable, for VET to have significant impact on youth unemployment, it must undergo reform and align with market needs. The design and implementation of specific youth-focused VET programs will ultimately be determined by knowledge of ‘what works’ (Subrahmanyam, (2015). Unfortunately, very little research has focused on past interventions that support youth unemployment. A review of the World Bank’s Youth Employment Inventory showed that nearly all these evaluations took place in OECD countries (Betcherman, Godfrey, Puerto, Rother & Stavreska, 2007, p. 28). Similar findings emerged from a recent study of training programs across 90 countries; only one-third were subjected to any kind of evaluation, and only 9%, mainly in OECD countries, measured net impact and cost (Farès & Puerto, 2009). Therefore, a stronger evidence base is needed to guide future VET policy.

A 2004 Malaysian Ministry of Education (MoE) and 2004 UNESCO study (National Education, 2013) identified that approximately 85% of school ‘dropouts’ came from poor families. Low academic achievement, low interest and disciplinary problems coupled with poverty have caused these students to leave school. They are at greater risk of dropping out and eventually being consumed into the workforce as young unskilled workers without an opportunity to participate in the education system. The Malaysian government has committed to transforming education (Transforming Education as an Engine of Growth, Economic Transformation Programme: A Roadmap for Malaysia, 2013). To make education more inclusive and holistic, the dual track of secondary education was introduced. Yet, evidence from most developed nations suggests, partly because of subtle issues around social class, that this type of approach can in fact become ‘divided and divisive’ (Tomlinson, 2001). This new policy initiative, in which students were streamed at Grade Six level (i.e., after six years of schooling) into academic and vocational routes, was introduced by the government after the launch of the NOSS.

In summary, the pace of globalisation has accentuated changes, moving the onus from the employed to the employee. This has led to government programs to expand skills development initiatives. The need to build an inclusive society rests on an educational concept that is oriented towards universality and industriousness, instead of perceptions of VET as an education for the poor. There is a need for a metric for wellbeing and

freedom to improve inclusivity. The need to consider economic, social and education contexts when developing VET systems is important given the composition of Malaysian society. The SCSs needs to be understood within the VET landscape. While VET policy implementation is targeted towards improving youth employment and building a skilled workforce, an enabling environment and whether education creates jobs needs to be considered when formulating and implementing VET policy. While the logic that skills and education investment leads to socio-economic growth may be relevant, development goals (i.e., high-wage, high-skills jobs and increased productivity) require much qualification. While this logic may be credible, there is a need to identify the distinctions among different measures being employed, different skills and VET offerings, including their limitations and peculiarities. Depending on the nature of the indicator used and the type of VET initiatives examined, labour markets, industries and workers may experience different results.

3.2.5. Skills Formation Systems

Policymakers in most nations have acknowledged the need for availability of human capital for sustained economic growth, a nation's competitiveness and the growth of inclusivity. The rapid pace of globalisation has increased the focus on skills, as it has been deemed important for a nation's competitiveness. Policymakers are under constant pressure to increase their investment in education and skills development.

If skills development is so desirable and important, why has it been so hard to develop skills and why do countries adopt differing approaches? This has been a perplexing question for policymakers. Many studies have argued that development and availability of skills is not a rational choice. Rather, it is rooted in the institutional context of political economies (Hall & Soskice, 2001). Human capital comes in different forms and the availability of different kinds of human capital varies between countries. This has important consequences for economic growth and social inclusion.

Busemeyer (2009) defined 'skill formation regime as a self-reinforcing configuration of institutions at the intersection between labour markets and education and training systems' (pp 4-5). Skills formation has to be viewed in relation to the other domains in the political economy. A change in the skills formation domain has consequences for the development of adjacent spheres, such as industrial relations and labour markets. Institutional skills arrangements are not outcomes of rational decisions of firms interested in reducing transaction costs. On the contrary, they are institutions 'fraught with tensions' (Mahoney

& Thelen, 2010, p. 10). Skills systems are institutions that are temporary and contested solutions to ongoing conflicts about distribution of power (Busemeyer, 2009).

Collective skills formation systems are usually found in countries designated as 'coordinated market economies' (Busemeyer, 2009). They have been admired by observers for their ability to combine low levels of youth unemployment, while developing high-quality occupational skills that serve as a foundation to the nation's competitiveness (Finegold & Soskice, 1988). Collective skill formation systems include the training (often firm-based) apprenticeships collectively organised by businesses, employer associations and unions with government support and cooperation in implementation, funding and monitoring (Busemeyer & Trampusch, 2011, pp. 4, 34). Firms are intensely engaged in financing and administering workplace-based training. While intermediary associations play a prominent role in the administration and reform of these systems, the systems provide portable, certified occupational skills. The training takes place in schools and companies, usually in the form of dual apprenticeship training.

Three insights have characterised skills formation systems (Busemeyer, 2009). Collective skills systems are deemed to be vulnerable with fragile institutional arrangements. They are not self-sustaining and need the continuous support of relevant stakeholders. Skills formation systems are considered largely conditioned by labour-division decisions made between firms, employer-led associations and the government on the provision and funding of the skills development. Four points of conflict have been identified such as who pays for the training, who provides the training, who controls the oversight of the provision, who controls the linkage between VET and general education.

The decisive causal factors that have shaped political struggles over these points of conflict are characteristics of firms (logic of membership) and the balance of power between business and labour (logic of influence) (Streeck & Schmitter, 1999). The development of skill formation systems has been regarded as a dynamic political process, dependent on the outcome of various political struggles regarding institutional design and transformations during critical junctures in the past. It is important to understand that collective skills systems have important economic, political and social consequences.

From the viewpoint of human capital theory, there are several puzzling questions such as why would firms want to invest in employee training without the guarantee that apprentices will stay after training and why would a significant part of the youth

population choose vocational training instead of higher education, a move that significantly reduces students' enrolments in countries with collective training systems.

Partial answers can be found in neo-industrial economics, which explains firms' irrational willingness to invest in vocational training because of labour market imperfections (Becker, 1993). In countries with low turnovers, firms believe that apprentices will remain in their employ and provide a greater internal choice of high-potential talent (Acemoglu & Pischke, 1998). Apprenticeships have become a gate-keeping device for internal recruitment; companies use apprentice training to identify high-potential talent. Yet this view has been criticised as a partial view, as it does not explain the variations of labour market imperfections across countries. Further, it does not consider the diversity of skill regimes (Busemeyer, 2009). It remains unclear if firms created these labour market imperfections as part of skills formation strategies or whether they were caused by exogenous factors, such as politics and society.

On the contrary, scholarship in the tradition of institutional political economy pays close attention to the embeddedness of training institutions in a dense network of political and socio-economic structures, such as collective wage bargaining, corporate governance, financing, labour markets and industrial relations (Thelen, 2004). This explains how a firm determines its strategies in skills formation. The dense network of institutional constraints imposes 'beneficial constraints' on firms, encouraging them to invest in skills development (Streeck, 1992) even though beneficial constraints create conflict between various stakeholders. While stakeholders' training preferences are socially constructed, history provides a greater understanding of these preferences. The development of skills formation systems may be deemed a dynamic political process. While it may develop according to empirically observable regularities, it is not predetermined. Three critical junctures have been identified in the process of skills formation systems: industrialisation, neo-corporatised paradigm and globalisation (Hall & Thelen, 2009).

The varieties of skills formation systems have been explained with typologies, as they bring order to complexity and made it easier to understand institutional change. In the comparative literature, there are various typologies to differentiate between national training systems (Ryan, 2007). The literature revealed several crucial dimensions of variations in the institutional design of training, such as the dominant venue of training; degree of standardisation and certification of skills; degree of stratification and

differences in the system of occupational degrees; role of the state; linkage between skills formation systems: and other socio-economic institutions such as industrial relations.

The contrast of Germany's high-skills system and the UK's low-skills system shows how the embeddedness of training institutions shapes incentives to invest in skills formation (Finegold & Soskice, 1988). One dimension is the dominant venue of training, which is the workplace for Germany and Denmark, and schools for France and Sweden. Two other dimensions are the degree of standardisation and certification of skills, and the degree of stratification and differences in the system of occupational degrees (Blossfeld, 1992, p. 172). The state plays a role in solving the issue of collective action among firms. Three forms of skills provision were identified: direct state involvement, the role of employer associations or corporatist networks, and market-led, on-the-job training. The institutional approach focuses on the role of the state in skills provision and differentiates between liberal, bureaucratic school-based and dual apprenticeship systems (Greinert, 1994).

In the last decade, skills systems gained prominence in the comparative literature on capitalism. The *Varieties of Capitalism* facilitated greater understanding of modern capitalist economies and systems of skill formation (Hall & Soskice, 2001). This text identified two distinct types of capitalist economies: liberal market economies (LME) prevalent in countries such as the US, UK and Canada; and coordinated market economies (CME) prevalent in countries such as Germany, Sweden and Japan. The distinction between CMEs and LMEs has hidden the considerable variation in the realm of skill formation within these types. LMEs and CMEs can be differentiated by the primary way in which firms coordinate with each other and other actors, such as trade unions.

A crucial differentiating dimension is the specificity of skills (Hall & Soskice, 2009, p. 17). Do they provide general or specific skills? LMEs such as the US focus on general skills, leaving on-the-job training to firms. CMEs such as Germany focus on technical education in vocational schools, leaving workplace training to firms, leading to dual apprenticeship programs. Firms in LMEs primarily coordinate their actions by way of hierarchies and market mechanisms. Firms in CMEs depend extensively on non-market forms of interaction in the coordination of their relationships with other actors. They consider five spheres in which firms must develop relationships with others namely industrial relations, vocational training, corporate governance, interfirm relations and employee relations.

These spheres distinguish LMEs from CMEs (Hall & Soskice, 2001). The *Varieties of Capitalism* approach enabled greater understanding of institutional similarities and differences within developed nations. The framework supported the comparison of national political economies by understanding how firms resolved coordination issues in these five areas. This text argued that skills formation systems offered complementarities between institutions and created mutual and beneficial interaction effects (Stephen, 2008). They are considered responsible for the nation's economic performance. While other varieties of capitalism, such as dependent market economies and hierarchical market economies have been studied, the original study has only included these two types. The economy type indicates how ready a nation is for innovation, distribution of income and employment (see Table 3.1).

Table 3.1: Characteristics of Liberal Market Economics and Coordinated Market Economies

Criteria	LME	CME
Mechanism	Competitive market arrangements	Non-market relations
Equilibrium	Demand/supply and hierarchy	Strategic interaction among firms and other actors
Interfirm relations	Competitive	Collaborative
Mode of production	Direct product competition	Differentiated, niche production
Legal system	Complete and formal contracting	Incomplete and informal contracting
Institutions' function	Competitiveness Freer movement of inputs	Monitoring Sanctioning of defectors
Employment	Full time, general skill short term, fluid	Shorter hours, specific skill Long term, immobile
Wage bargain	Firm level	Industry level
Training & education	Formal education from high schools and colleges	Apprenticeship imparting industry-specific skills
Unionisation Rate	Low	High
Income distribution	Unequal (high Gini)	Equal (low Gini)
Innovation	Radical	Incremental
Comparative advantage	High-tech and service	Manufacturing
Policies	Deregulation, anti-trust, tax-break	Encourages information sharing and collaboration of firms

Source: Hall and Soskice (2001).

Estevez-Abe, Iversen and Soskice (2001) identified three types of skills formation systems: firm specific, industry/occupation specific and general skills. These typologies explain the variety of training regimes across countries. The theories underpinning these typologies emphasise the importance of firms' training behaviour to a dynamic political economy of skills formation systems. Firms need to be supported by the government and/or employer associations when they invest in skills development. This support is offered in the form of financing, provision of training, certifying and standardising skills.

A key criticism of the *Varieties of Capitalism* was that it cannot explain the variations of skills formation systems within CMEs (Anderson & Hassel, 2008). The criticism levelled against the original *Varieties of Capitalism* framework was that a functionalist approach to comparative institutional advantage does not resolve the question of institutional origin, genesis and change (Hall & Thelen, 2009). The *Varieties of Capitalism* position explained the persistence of two ideal typical capitalisms by referencing differing institutional equilibria, which result from the interplay of ‘institutional complementarities’, and hold that institutional reforms flow from shifts in coordinating mechanisms.

Busemeyer and Trampusch (2011) found three different variants of skill formation within CMEs. LMEs were identified as a rather homogenous country group in various typologies of comparative political science (Castles, 1993; Esping-Andersen, 1990). However, a closer examination reveals more differences in their VET systems than previously assumed. *Varieties of Capitalism* was more interested in understanding the effects of skills formation systems on political economies rather than on the historical origins of skills formation systems. Streeck (2009) criticised the approach as static and functionalist.

The decision on the division of labour between firms, associations and the state in providing and financing skills is a core factor to explain the differences between different skills regimes. For instance, research has shown that in LMEs, apprenticeship (as a main method of intermediate skill formation) faced an early decline in the US at the beginning of the twentieth century. While its institutions remained more stable than the UK (Thelen, 2004), they have not developed enough to solve the problem of its ‘low-skills equilibrium’ (Finegold & Soskice, 1988). Even though VET performed poorly in the UK, other findings highlight the superior performance of its counterparts in Australia (Smith 2010; Toner, 2001a) and Ireland (Grubb & Ryan 1999), despite their common origins with the British system. Research has not yet developed a common research framework that can explain the observed differences.

Hall and Thelen (2009) introduced actor-constellations into the *Varieties of Capitalism* framework, as their continuous support was needed for the sustainment and reform of institutional equilibria. Regarding institutional change more generally, there has been a threefold move away from punctuated equilibrium models (Baumgartner et al., 2009) towards approaches that are more sensitive to influences of timing and sequencing on policy change (Hall & Soskice, 2003), incremental institutional change (Mahoney & Thelen, 2010; Thelen, 2009) and diverse actor-constellations between firms, workers,

intermediary organisations and governments (Culpepper & Thelen, 2008; Hall & Thelen, 2009; Thelen, 2004).

Other than Thelen's (2004) study of intermediate skill formation in the US and UK, these innovations in institutional change theories have rarely been applied to comparisons of skill formation among LMEs, when the political driving forces of apprenticeship reforms remain unclear. Busemeyer and Trampusch (2011) highlight the work that tried to remedy these research gaps by analysing the political processes that underlie the variation of apprenticeships within the LMEs of the UK, Australia and Ireland. It compared the development and political driving forces of apprenticeship reforms in the three countries from the 1980s until 2017. Despite the common origins of apprenticeships, these countries embarked on different development paths since the 1980s in the aftermath of the economic crises caused by two oil price shocks, the related problem of stagflation and Brexit (the UK choosing to leave the EU).

The main evidence of the empirical puzzle as to what the reasons may be for the different development of apprenticeships in these countries suggests a strong connection between the development of apprenticeships and industrial relations. They seem to have followed parallel paths. Despite efforts in all three countries to reform their systems towards the German dual apprenticeships model, the UK failed to develop a high-quality collective apprenticeship system with joint governance and shared costs between employers, apprentices and the state. This differed from developments in Ireland and Australia (until the mid-1990s), which were more successful in their move towards the German model. Regarding the structure of industrial relations that apprenticeships are embedded in (Busemeyer & Trampusch, 2011; Culpepper & Thelen, 2008), similar developments can be identified. The UK followed a unilateral, monetarist approach that strengthened market forces and minimised the political influence of unions (Rhodes, 2000). The other two countries followed social partnership approaches towards macro-economic policies and industrial restructuring. In Australia, industrial relations were strengthened by accords between unions and governments (Schwartz, 2000), but a later gave way to market-friendlier approaches in the mid-1990s. Since 1987, Irish industrial relations were governed by tripartite pacts between the social partners (Donaghey, 2009). The study analysed these differences in tracing the evolution or 'non-evolution' of advanced apprenticeship systems in the three countries by using a combination of actor-centred institutionalist and power-resource approaches. To address why apprenticeships have developed differently, the study attempted to answer two questions.

First, the study showed which trajectories the countries followed in their reforms and which were the political driving forces behind these institutional developments. The argument here was that governments' relationships with capital and labour for the direction of apprenticeship and industrial relations reforms was more important than the partisan composition of government. The classical approaches of power-resource theories contend that left-leaning political parties (Esping-Andersen, 1990), favoured apprenticeship and industrial relations systems that dispersed costs and responsibilities among major stakeholders (employers, apprentices/unions and the state), while right-leaning political parties favoured employer-led, free-market approaches. However, recent research and exploration beyond the classical approaches indicates that we can only understand the reforms of apprenticeships and industrial relations in the context of relationships between governments and employers (Busemeyer & Trampusch, 2011; Thelen, 2009). Massively grown exit-options for capital check the scope of left-leaning parties to place costs on employers for politico-economic reforms. However, it has been argued that reforms of apprenticeship systems that consider and encompass the interests of unions and employers in a fair way build cooperative industrial relations that can no longer be unilaterally imposed on social partners, as was still possible under 'embedded liberalism' (Ruggie, 1982). In the Malaysian scenario, while the parties in power have always been right leaning and for free-led market approaches, the progress of apprenticeships has been slow due to indecision about who funds the program.

Second, the political sustainability or fragility of reforms towards a collective apprenticeship system should be explained (Busemeyer, 2009). Political sustainability, as understood here, means that policy change leads to institutional change in a double sense. It can be understood as policies that effectively reform the apprenticeship system, so that envisaged goals (cost sharing, effective certification, high-skill production, etc.) are achieved. Further, and more fundamental for sustainable institutional development, is that the central stakeholders follow the newly instituted rules. In this case, employers need to accept the 'beneficial constraints' placed on them and recognise the merits of institutional reforms. This is critical for them to actively support the institutional development direction if they are confronted with newly imminent changes. In this regard, the second central hypothesis is that the development of cross-class coalitions is a necessary condition for a sustainable institutional development towards collective apprenticeship systems. In the absence of such cross-class compromises, collective apprenticeship systems are expected to be fragile, continuously challenged and liable to problems of

collective action, credible commitment, market failure and ultimately subject to nonstop new reforms. In the Malaysian context, in recent times, the government has led skills development initiatives with full funding, unlike the Singaporean model of shared costs. The Malaysian apprenticeship program is funded by the HRDF, which collects 1% of the payroll as employer contributions to fund appropriate and approved apprenticeships and training.

Collective skills formations systems are different from other models. Explaining the evolution of differences in skills formation systems requires an examination of historical institutionalist and firm-centred approaches. The division of labour between firms, employers' associations and the state in the financing and provision of training remains a core difference between the various skills formation systems. The development of skills formation systems is shaped and influenced by the factors that address collective action problems. Martin (2005) outlined the theories of understanding employer collective action and identified three reasons that motivate firms to cooperate: an agreement that regulates competition between firms in training to avoid the poaching of staff; dynamics of labour mobilisation; and class conflicts and state interventions in the economy. If this collective action of firms is accepted, what options do employers have to finance and provide skills training?

Busemeyer and Trampusch (2011) proposed a common analytical framework by developing a political economy-based model of collective skill formation. A skill formation system is regarded as a dynamic political process. Building on the firm-centred approach of the *Varieties of Capitalism* approach, Busemeyer (2009), following on the work of Blossfeld (1992) and Thelen (2007), distinguished between the liberal solution of narrow on-the-job training found in countries like the US, the segmentalist solution of self-regulation found in countries like Japan, the statist solution of state-run training found in countries like Sweden, and finally the collective solutions in which the firm, employers' associations and state collaborate to finance and provide training, found in countries like Germany. Depending on the degree of firm and state involvement in collective skill provision, this model identified four different regimes such as liberal (low firm and state involvement), statist (low firm involvement but high public commitment), segmentalist (high firm involvement but low public commitment) and collective (high firm and state involvement).

Firm involvement is high when coordination is sufficiently high to prevent poaching of trained workers (logic of membership). Government involvement is driven by the relationship and balance of power among the state, employers and unions (logic of influence). Two dimensions of variation have been used to describe the variety of skills regimes starting with the degree of firm involvement in the provision of initial vocational training and the degree of public commitment involving state funding; and followed by the policing of skills formation monitoring through certification and standardisation through the formulation of occupational skills profiles.

The institutional set-up acknowledges VET as a viable alternative to academic higher education. A two-by-two matrix describes the variety of skills training regimes in advanced industrial economies (Busemeyer, 2009).

Table 3.2: Skills Formation Regimes in Advanced Industrial Economies

Degree of public commitment	Statist	Collective
	H	H
	Liberal	Segmentalist
	L	H
	Degree of firm involvement	

Source: Busemeyer and Trampusch (2011, p. 12).

An understanding of skill formation systems in CMEs is essential for several reasons. Thelen (2004) identified these as the development of curriculum; setting training standards; skills certification; apprenticeships or direct training; the active involvement of employers; and employers' associations and unions. These were deemed as essential for specific skills provision because of the need to monitor investments in skills formation. Skills provision should closely match future economic, technological and organisational changes with labour market relevance.

Ryan (2007) classified the countries through qualitative indicators, such as the characteristics of VET, existence of apprenticeships and whether the educational system offered vocational in addition to academic degrees. Quantitative indicators were largely determined by the distinctions between education and training systems. Collective training systems were characterised by four key areas:

1. The high involvement of firms and the role played by intermediary associations in the administration and reform of the collective training system
2. The portability of the vocational qualifications
3. Certified occupational skills, standardised and recognised on national labour markets
4. VET takes place both in schools and firms.

Varieties within the group of skills formation systems depends to a large extent on the relationship between the autonomy of the firm and the extensiveness of outside interferences. The logic of influence and the logic of membership explains the variety of skills regimes between liberal, segmentalist, static and collective training systems. Conflicts about the role of the state and firms' involvement have been repeatedly set around four points of painful conflict: who controls, who provides, who pays and the relationship with higher education (Busemeyer, 2009).

Several institutions manage the provision of VET in Malaysia. In Malaysia, education and vocational education in schools is governed by the MoE. VET within industry is governed by the Ministry of Human Resources. According to the Census, small and medium enterprises (SMEs) now represent 97.3% (645,136) of the nation's 662,939 establishments (SME Solutions 2012). The Malaysian environment is largely dominated by SMEs organised by employer associations, some of which are unionised and involve collective bargaining.

In summary, collective skills formation plays a crucial role in defining access to secure and high-skilled employment (Hall & Soskice, 2001). The fragility of skill formation systems requires continuous political support and stakeholder engagement. While a common analytical framework has been proposed (Busemeyer & Trampusch, 2011), the experiences of each country are different and variations are evident.

3.3 Stakeholder Engagement

Malaysia has adopted a 'high firm and high government involvement approach' (Pang, 2011, p. 6). Most current policy analysis is based on the premise that to build VET theory, it is important to seek the opinions of various stakeholders (Parkes, 2012). There are serious implications for policy analysis when stakeholders' perspectives are ignored or assumed. For example, in a New Zealand study, Parkes (2012) argued that VET policy increased participation. However, evaluation was limited and the study ignored

stakeholders' views. The study found that the policymakers and stakeholders' logic on VET policy evaluation was contradictory and diagrammatically opposed. While one stakeholder saw VET policy as socially beneficial for all stakeholders, the other disagreed.

VET practice faces a challenge in that desired behaviours would be difficult to enforce if stakeholders' values that are crucial for success are ignored (Coffield, 2004). Smith and Billet (2004) outline employer approaches to financing skills formation. High-employer commitment systems occur in countries where employers take a high degree of responsibility for skills formation. Malaysia established the HRDF in 1993 through the *Human Resources Development Act* to enable employer-led training efforts.

In comparison to other nations' VET systems, Singapore's strategy involved strong stakeholder engagement. The commitment and conviction from the government and the strong partnerships with industry and unions resulted in a tripartite partnership. The efforts to gain and build industry support with accessible programs in sectors that did not have a skilling system earned it recognition. The focus on both specific and generic skills enabled employee mobility (Becker, 1993). Subsidised funding to achieve a 'mass roll out' demonstrated government commitment to other stakeholders. Continuous evidence-based research and policies developed the credibility of VET (Willmott, 2011).

VET policies were also hampered by several challenges, as evaluation is limited to a small range of quantitative indicators, such as numbers of trainees and completion rates for VET qualifications. This is underpinned by the assumption that these indicators reflect mutually beneficial outcomes for all VET stakeholders. Harvey and Harris (2008) reported that the lack of policy evaluation and stakeholder engagement in New Zealand led to poor results. Although New Zealand's Industry Training System is managed in a decentralised manner and has expanded VET, the original aims of VET policy were not achieved. The discussions in New Zealand to develop a Unified Skills Strategy included the New Zealand Skills Strategy Discussion Paper and the Tertiary Education Strategy for 2010–2015; the focus was on workplaces in the process, improved completion rates and discussions centred on three questions: what is the value of industry training, how is the value realised and how is that value assessed (Ryan, 2007).

A review of the relevant literature showed the inadequacy of VET policy literature and the lack of critical analysis of the variety of VET outcomes, the differences in VET offerings and organisation, and the roles differing VET stakeholders play or do not play

in the process of creation of VET outcomes. The likely exception is the research of Grubb and Ryan (1999).

This section will examine first the impact of economic theories that have significantly influenced the formulation of VET policies, the assumptions made about the value-creation process of VET, the role of various stakeholders and the gaps in the theories. Further, the literature on the roles of stakeholders and the assumptions of these models will be explored. Human resource development theory is also reviewed to discover how it may inform the VET value-creation process, and the roles of stakeholders in the process. Finally, the pedagogical issues related to learning in workplaces are reviewed, again from the perspective of examining the linkages to VET policy.

Several economic theories support this program theory of economic growth through skills development. Three mutually reinforcing ideologies were summarised as being behind this thinking (Mournier, 2001). Neoclassical, endogenous growth, and factors proportion theories have supported the general agreement that skills improvements are critical for economic growth in a globalised world while Schumpeterian and neo-Schumpeterian theories have argued that the level of workforce skills leads to innovation and competitiveness. The neoclassical theory of income distribution and human capital theories propose that the highly educated have higher-income levels and greater employability, as 'incomes are related to labour productivity', which in turn 'is related to education and skills levels' (Mournier, 2001, p. 1). 'On-the-job training clearly illustrates the effect of human capital on earnings, employment, and other economic variables' (Becker, 1962, p. 2).

Put simply, Becker argues that firms would be unwilling to pay for general training, as workers stand to gain more and this will prompt them to use these skills to seek jobs elsewhere. Firms' willingness only increases if costs are shared with workers, or as described earlier, partial answers can be found from neo-industrial economics, which explains firms' irrational willingness to invest in vocational training because of labour market imperfections. In countries with low turnovers, firms believe that apprentices will remain and add high-talent options to the internal market (Acemoglu & Pischke, 1998). Firm involvement is high when coordination is sufficiently high to prevent poaching of trained workers. Firms would be willing to invest in training specific to their unique characteristics if the firm gains more. Due to the non-portability of specific training, workers would not rationally invest in this themselves. Becker (1962) also argued that income

differentials could be explained by the differing levels of investment in human capital among individuals, and that the more able ‘tend to invest more than others’ (p. 48).

Becker’s view has been criticised as being framed in the context of a perfect labour market that does not exist. There is no need for government intervention to provide for skills development in the perfect labour market envisioned by Becker, as the market would provide that. Criticism has centred on imperfections in the labour market, lack of funds for skills development and unfair access to education and training (Acemoglu, 2003).

When viewed together, these theories lead to certain assumptions about the roles and responsibilities of stakeholders in the value-creation process. The three stakeholders, employees, employers and the state, are often mentioned in the literature. Training providers are frequently left out of the discussion. The first stakeholder (the employee) have individual responsibility for skills development, mainly general training, which fits with the employability theory. Nevertheless, how this investment leads to desired outcomes for the employee is not explained fully in any of these theories. The absence of the nature of the investment, details on differences among the sectors in the economy and labour markets makes the logic weak. The second stakeholder (the employer) has a motivation to provide specific training; it benefits the firm. Rather than detail how specific training leads to improved firm performance, it is simply assumed. Further, there is no distinction about the nature of specific training or interaction with employees’ general training. The third stakeholder (the state) has a prominent role to play given the differences among workers and the inequity in society. The initiatives targeted to address these issues and labour market outcomes often differ in quality and form (Grubb & Ryan, 1999). Yet, it is debated that all forms of state interventions are expected to lead to the accomplishment of equity outcomes and socio-economic growth. The fourth stakeholder is the training provider. With public- and private-sector partnerships in a globalised economy, access to information and competitive tendering is critical.

These theories describe the program theory on skills as formulated by policymakers. That is, workers invest in education in their search for higher incomes; they then offer firms more skilled labour, which positively affects productivity. The outcome is increased national economic growth, ending in higher per capita income (Mournier, 2001). While critics of Becker support his theory of skills for socio-economic development, they argue for state intervention due to market failures and for the need for optimal levels of skills investment. What is significant in observing this debate is how it has been shaped by

influential policymakers and academics (mainly from the field of economics) (Acemoglu, 2003; Becker, 1962; Harbison, 1973). Even more conspicuous is how the viewpoint of a powerful few came to be translated virtually across-the-board into public policy on skills, without much contest. Of further interest is the skills policy rhetoric claim that skills would not only deliver the high-wage, high-skill vision, but would do so for all. Although developed nations have been fascinated with human capital development (Malaysia's Vision 2020 aim to reach high-income nation status is testament of this), there is no consensus on how to achieve it. As described in Chapter 2 in the discussion of institutional arrangements, Table 3.3 provides a typology of skills provision across several countries.

Table 3.3: Dominant Forms of Skills Provision Across Different Countries: Initial and Further Vocational Education and Training

Direct State	Corporatist Networks	Local Firm Networks	Institutional Companies	Free Markets
Initial VET				
France	Germany	Italy	(France)	(UK)
Italy	(Japan)	(Japan)	(Japan)	USA
Sweden	(Sweden)		(Sweden)	
UK			(UK)	
			(USA)	
Further VET				
(France)	(Sweden)	Italy	France	(Germany)
Sweden		(Japan)	Germany	Italy
			Japan	UK
			Sweden	USA
			UK	
			USA	

Note: Country names in parentheses indicate that this is a minor model within the country in question. Source: Crouch et al. (1999, p. 10).

Crouch et al. (1999) provided a useful taxonomy for analysing these models. Fundamentally, the bases of variation among the models are the institutional frameworks behind the employment relations climate of the specific country and sometimes specific industry, and the program theory on the government's role in the VET sector.

When VET is provided directly by the government, the logic for such involvement has been explained by human capital theory. This assumes of imperfect competition in the marketplace. This could be a lack of access to information, underinvestment in skills development and inadequate training. The resulting market failure leads to government intervention to fill the gap (Briggs & Katay, 2000). Is VET for the common good or individual good? This subject has been debated. Does the government have an obligation? The position of policymakers affects their program theory of how VET policy is to be implemented and funded. Nevertheless, a successful VET policy must ensure that it meets the needs of industry and business. The government is not the stakeholder here—employers are. The government may not understand industry’s needs unless there is significant dialogue and consultation. A state-led VET system that is not aligned to industry requirements lacks credibility, resulting in lower training numbers.

This has led to a counter policy response in the form of the free-market VET model (Briggs & Katay, 2000). This should be observed within the setting of the wider public-sector reform agenda of these countries. One program theory underpinning these reforms is that the market and market-type mechanisms lead to a more efficient and effective way of delivering public services, including VET. The responsibility for VET design, and to some extent VET funding, is subject to market forces. Firms volunteer their participation in VET based on their needs, which leads to industry-led models (Chappell, 2002; Flude & Siemenski, 1999; Hayward & James, 2004).

Even within VET-providing countries that pursue the free-market model, there are variations. The market-led competency model has been pursued (with variations) in the UK, New Zealand and Australia (Ashton, 2014). The competency-based model has its origins in the quality movement in education, with the broader concept of the new economy. In this model, it is assumed that skills can be defined as discrete competencies or tasks that can be classified into documented unit standards (Harris et al., 2001). This model has been supported by the development of a national qualifications framework. VET qualifications are attached to the framework and defined by unit standards at various levels. The framework is expected to provide both employers and employees with a skills standard that can be used to define employability and productive potential. The role of the state is to develop this framework and stimulate VET engagement with funding to intermediate institutions such as training providers. One additional feature is the availability of the flexible mode of delivery. This model views the workplace as a learning site and led to the rise of workplace assessors. The theory of the new economy advocated

the high-skills, high-income approach. While the quality of educational output was a concern, policymakers are attracted to this model because it aims to improve VET quality by ensuring specified standards are met, documented and developed across various sectors of the economy (Bailey & Merritt, 1995). This model indicates that supply of skills is adequate and promoted greater measurement of outcomes that fit the public-sector reform agenda and the quality of public service delivery (Bailey & Merritt, 1995; Field, 1990).

Despite its strengths, this model has not been without criticism. One major criticism is the focus on supply of skills without consideration of demand or public policy encouraging firms to adopt skills-intensive competitive strategies (Finegold & Soskice, 1998; Keep, Mayhew & Payne, 2006). In the UK context, the model was designed to accommodate employers' needs with flexibility in delivery, RPL and on-the-job skills assessment without the use of approved assessors and this led to concerns over the quality of VET. Due to this, VET has lower status and uptake. Dieckhoff (2008) commented after a comparative study of three VET systems (UK, German and Danish) that this model has led to poor labour market outcomes with lower levels of income and rising unemployment. Research in various Asian countries, such as Taiwan, Singapore and South Korea, has raised concerns over the scarcity of state-led VET systems, supporting the premise that state intervention is sometimes required to foster rapid economic development (Ashton, Green, Sung & James, 2002; Green, Caracelli & Graham, 1989). Yet, there is also evidence that despite the poor VET experience in the UK and US, economic performance has been superior (Wolf, 2002, p. 43). The findings revealed that the relationship between skills and economic performance is complex, and not adequately explained by the prevailing program theory (Wolf, 2002).

The goal of the competency model is to make knowledge explicit and transferable. If this goal is met, the skill gained is threshold rather than providing a competitive edge to firms (Strathdee, 2005). If it is transferable, critics argue that it is easily copied or imitated by others. This model assumes standardisation is the key to skills development and all industries desire to use that model (Smelt, 1995). The argument that qualifications do not necessarily mean skills acquisition and an attainment of a skills standard is more of credential system led stakeholders to question the value of VET qualifications (Wolf, 2002). In between these state-led and market-led models, there have been other models varying by state or market intervention as described in Table 3.3: the corporatist model (Germany and Denmark), local firms network model (Italy) and institutional companies

(Briggs & Katay, 2000; Crouch et al., 1999). All three models demonstrate cooperation between stakeholders.

In the case of the corporatist model (or the German dual system), the system of apprenticeship is based on an institutional framework of cooperation among industry groups, government and firms, that is constrained by regulation and law. In the case of local firms network model, skill development is nurtured through cooperation and sharing among firms. In the institutional companies model, skill development is cultivated in the context of an employment relations climate of high trust and a lifelong employment contract between employers and workers. While these models have challenges, there is a high level of consensus among commentators on their efficacy in delivering higher levels of productivity and competitive advantage for the respective countries (Ashton et al., 2002; Culpepper & Finegold, 1999; Dieckhoff, 2008; Green et al., 1989; Porter, 2004).

Designing skills policies has led to considerable debate. Do they complement or compete with one another? Is certified training promoted by competency-based models the right way or should the focus be on early education and critical thinking rather than VET (Acemoglu, 2003; Hanushek & Woessmann, 2007; Ingram & Neumann, 2006, Wolf, 2002). Government intervention should not be automatic, but specific to the needs of industries, as they differ in size and importance to any economy (Smelt, 1995). While VET policies were designed to achieve a multiplicity of outcomes (Hayward & James, 2004), attribution and evaluation of VET is difficult because several other variables are involved. There has been considerable tension in answering the question as to who should lead the policy: employers or the government.

This also poses a structural problem. If national economic development and productivity is a critical outcome, who is best positioned to lead such a policy, employers or the government? While government- and school-led strategies run the risk of irrelevance, employer-led strategies run the risk of ignoring individual, national and industry-wide concerns (Billett & Hayes, 2000).

An aim of VET policy was to ensure active labour market policies and an inclusive society. Youth employment, social peace, and equitable representation of all sections of society were some of the key aspirations (Sung & Ramos, 2014). VET was also deemed to be a second opportunity for those who had been unsuccessful in the formal education system. The success of such programs tends to be evaluated differently (e.g., the number of beneficiaries who have completed training and who are in long-term employment, and,

to a lesser extent, income levels after training). Does success using these criteria contribute to increased productivity? The goal was to equip the target population with in-demand and highly rewarded skills.

While this is the political aspiration, there may be different goals requiring different types of interventions. Does the target population have access to opportunities? Who leads and what model is appropriate? Employer-led systems do not necessarily lead to increased access vis-a-vis government-led systems, as employers have no obligation to provide training, unless their buy-in is obtained. It is obvious that no one system meets the needs of all contexts and each model is mediated by its unique national and organisational cultures and institutional arrangements.

In summary, the different arrangements in VET assign varied roles for key stakeholders in providing VET and creating the desired outcomes. While state-led models highlight the role of training institutions in the delivery of VET, competency models provide equal valuing of VET qualifications. The state-led model is criticised for minimising the role of employers in influencing VET quality and relevance, which also decreases benefits for trainees. The competency model has been criticised for creating incentives for training providers to increase VET provision without corresponding responsibility for VET quality (Wolf, 2011). The research on the corporatist, local firm and institutional companies models highlights the role of labour market arrangements, workplace and sector contexts in the use of and delivery of VET, and its outcomes, particularly, the role of employers in valuing and using VET initiatives.

3.4 Vocational Education and Training Systems in Australia and Singapore

The comparison of national VET systems facilitated benchmarking and reform. The goal is to examine the variables that define VET success. Policymakers are eager to explore the exemplars and failures of VET in other countries. The dynamic nature of VET, linked with economic and social issues, labour market links, industry partnerships, financing, governance, institutional arrangements and collective skills formation make a study of robust VET systems important for countries like Malaysia. Nevertheless, VET systems research is problematic because systematisation is a recent event (Keating, Perry, Volkoff & Medrick, 2002).

For instance, Germany, France and the UK provide strong contrasts in their VET systems. Germany, along with Japan, is most admired for its skills formation processes, mainly through the apprenticeship system: the dual system. However, these nations are not without criticism. Shortage of training systems, flexibility of skills formation systems and the suitability of having up to 60% of young people in an occupational and craft-based vocational training pathway at a relatively early age are issues that Germany has had to deal with (Keating, Medrich, Volkoff & Perry, 2002). Germany's industry-based VET system contrasts with the centralised and statist traditions of education and training in France. The UK system has been criticised for the principle of voluntarism. Within Asia, countries like China, Japan and Singapore have grown rapidly. The process of skills formation in Singapore has been studied frequently, yet there is often criticism for the significant state intervention and paternalism. While China's approach has been criticised for the disruption to industry and society, Japan has found a linkage with industry weakening.

Malaysian policymakers challenged by skills shortages and frustrated by a lack of confidence in training outcomes were particularly attracted to the Australian Vocational Qualification system and that of neighbouring Singapore. Singapore adopted the Australian model with variations. Singapore was once a part of Malaysia and is a microcosm of the latter, with its similar diversity and societal composition. Pang, Naruman and Sim (2010) outlined some reasons Malaysian policymakers were specifically attracted to Australian and Singapore VET. They identified the need to build greater confidence in training outcomes and improve the integrity of qualifications and winning industry trust of industry with a proper national recognition of qualifications and pathways for skills upgrading. A more open and competitive VET market with improved access to information, focus on quality training, the role of training providers with links to training packages, a system to ensure national consistency, building partnerships to develop the capability to deliver the training and improve the effectiveness of public funding were some of the reasons outlined.

3.4.1. The Australian Model

In Australia, the training reform agenda focused on productivity and competitiveness. National vocational competency had become a pattern of economic instrumentalist conception of skill formation policy (Stevenson, 1992). This was consistent with the

industry-driven approach. Anderson (1996) reported the evaluation of market reform in Australian VET to evaluate the impact and outcomes of market reform in VET. The key questions were does the reform agenda lead to changes in VET and does it influence labour market activity, workforce participation and social inclusion. Australian policymakers considered VET as central to economic growth and business productivity. The VET reform agenda, while multifaceted, was concentrated on getting better results for students, employers, training providers and taxpayers.

The goal was to sustain economic growth, raise productivity and ensure a skilled workforce was in place to meet the needs of the economy. With growth resulting in new job openings and replacement jobs for those leaving the workforce, additional qualifications were deemed to be required. A proactive response required an understanding of labour market functioning. Government and industry had to respond to skills shortages and oversupply of skills. There was an urgent need to improve skills at all levels: language, literacy and numeracy for labour market and social participation. Working with industry, increasing employee engagement and providing pathways to higher education were deemed important. The focus on apprenticeships to minimise their decline and the need to lift workforce participation to 69% to ensure social inclusion led Australian policymakers to embark on a reform agenda (Skills Australia, 2010).

The Australian government began with a reform agenda deemed to be ambitious by commentators. Anderson (1996) commented on the application of market principles to the funding and provision of VET. He stated that this ushered in a period of far-reaching and unprecedented reform at all levels of VET. Formerly funded, regulated and provided almost exclusively by government, VET is increasingly characterised by user-pays systems, deregulation and competition between public and private providers. Market forces are becoming the chief determinants of the production and consumption of VET.

The goal was to lift the quality of VET, improve employment opportunities and make the economy competitive. At the inaugural meeting of the Council of Australian Governments Industry and Skills Council on 3 April 2014, a commitment was made to ensure a skilled workforce and an environment for Australia to be competitive and achieve a robust economy. Six objectives for VET reform were highlighted:

1. A national VET system that is governed effectively with clear roles and responsibilities for industry, the Commonwealth and the states and territories.

2. A national system of streamlined industry-defined qualifications that can respond flexibly to major national and state priorities and emerging areas of skills shortages.
3. Trade apprenticeships that are appropriately valued and utilised as a career pathway.
4. A modern and responsive national regulatory system that applies a risk-management approach and supports a competitive and well-functioning market.
5. Informed consumers who have access to the information they need to make choices about providers and training that meet their needs.
6. Targeted and efficient government funding that considers inconsistencies between jurisdictions or disruption to the fee-for-service market.

The Australian Qualifications Framework is the national policy for regulated qualifications in the Australian education and training system. The system included the quality-assured qualifications from each education and training sector into a single comprehensive national qualifications framework. In 2011, the Australian Skills Quality Authority (ASQA) was established as the national regulator for Australia's VET sector. The main purpose was to regulate training providers who provide nationally recognised VET qualifications under the *National Vocational Education and Training Regulator Act 2011*. Australian VET is characterised by training packages. These are qualifications in which training and assessment of competency takes place against occupational skills standards. The National Register on VET provides all information about available courses, ensuring equal access to information. Reporting standings have also been stipulated for training providers. Students are given unique student identifiers before being issued a qualification or statement of attainment.

In December 2013, a VET Reform Taskforce was established to obtain feedback from the industry and training providers to improve the provision of VET. The main aim of the reform agenda was to build a better VET system, led by industry. The VET reform agenda is one of the four pillars of Australia's Industry, Innovation and Competitiveness Agenda. Major initiatives such as the Industry Skills Fund and trade support loans were introduced to offer 200,000 training places and streamlined training to meet the needs of medium and small industries and businesses.

Some challenges that have emerged in Malaysia, such as the industry relevance of qualifications, industry partnerships, quality and integrity of qualifications, the coordination and management of training providers and funding, are no different to Australian experiences. The best practices and shortcomings of Australian VET will add value to the Malaysian case for reforming VET.

3.4.2. Singapore Experience

Willmott (2011) reiterated the convergence of policy agendas around new roles for skills formation and workforce development in supporting economic growth when outlining the Singaporean VET strategy. Connectivity with higher education, industry involvement, developing T-shaped skills profiles (i.e., a combination of workers with technical skills and workers with generalised skills) and employing low-wage and marginalised workers was emphasised. National skills formation planning and strategies in Singapore were designed to support economic development and they have implications for vocational and continuing education systems (Willmott & Karmel, 2011). Singapore successfully reduced the number of unskilled workers from 65% in 1998 to 48% in 2009, although this was partly attributed to immigration inflows. The government estimated that the percentage of skilled workers in the workforce would increase to about 63% by 2015 from 38% in 1998 (Willmott, 2011). Singapore has emphasised the establishment of outcome measures, which can be used to judge performance of the system and individual providers.

Singapore's strategy has been one of benchmarking with other nations. The German apprenticeship system, the adoption of the DACUM (developing a curriculum) model for curriculum development, the focus on Australian Occupational Skills standards and links to industry were lessons learnt from other nations. The Economic Strategic Committee (Ministry of Finance, Singapore, 2010) described the focus of VET as a concerted effort to minimise low-skills workers by having them participate in skills development. Singapore also established several institutions to ensure sustainability of VET with the Workplace Development Agency (WDA), forming the Institute of Adult Learning in 2008 as part of the Continuing Education and Training Master Plan.

Willmott (2011) highlighted a World Bank report of countries placed on four quadrants. The model developed was based on the parameters of low employment and low productivity (Malaysia was placed here), low employment and high productivity, high

employment and low productivity and high employment and high productivity - Singapore was on the border line and Australia was placed here.

Policymakers emphasised the need for Singapore, being a small nation, to avoid a mismatch between skills and jobs through greater planning. The Singaporean experience of managing skills shortages with a centralised management of certification (unlike Australia's decentralised certification system) was possible due to the smallness of the country and the state-led nature of the initiative. In a study conducted for the Singapore Government, Willmott (2011) outlined the need for a strategic focus on pedagogy, participation and the development of the VET workforce.

The introduction of Workplace Skills Qualifications (WSQ) was based on the following parameters:

- Industry leadership
- Open access
- Skills focused
- Competency based
- Trainer standards
- Continuing education framework
- Quality assurance.

Keating et al. (2002) highlighted the Singaporean success to the compulsory school education and the 'factory school approach' in which the vocational school resembled a factory. With the mass rollout delivered with strong government involvement that included a mix of funding, tax breaks and subsidies, Singapore issued close to 1.7 million statements of attainments, 32,000 qualifications and supported the formation of 497 training organisations by end of 2010. This is significant given that Singapore has a population of only three million and a working population of 1.5 million. A Center on International Education and Benchmarking (2016) report highlighted Singapore's success in rebranding VET and overcoming the stigma associated with it. However, Singapore has also been criticised for significant state intervention and paternalism.

3.4.3. Criticisms

VET reform in Australia and Singapore has not been without problems. Willmott and Karmel (2011), reporting for the Institute of Adult Learning Singapore, highlighted

successes and failures in VET pedagogy, instructor training, regulatory approaches, certification, and linkage to training packages and assessment. One criticism of the Singaporean approach was it has been too classroom centric and not open to change. Nevertheless, it must be acknowledged that with the Skills Future initiative introduced in 2016, some of these criticisms have been addressed.

Skills Future Initiative launched in 2016 in Singapore places an innovative emphasis on workplace learning and assessments. Singapore is transitioning from CET to Training and Adult Education. The WDA no longer exists. One half is now called the Workforce Singapore and is located within the Ministry of Manpower. One other half including IAL and the Council for Private Education is now part of the Ministry of Education. Both manage various aspects of skills initiatives creating communication challenges. This Skills Future Initiative aims to improve skills and encourage greater industry participation through workplace education and assessment.

In Australia, VET funding is based more on activity than performance outcomes. The current demand approach has also been criticised. While the open approach to access and eligibility is an asset, there is also concern that this may result in learners with the most intense learning needs not gaining the funding required to meet their needs, compared to learners with higher-level qualifications. The VET funding framework is provider and individual focused; funding arrangements are not necessarily transparent to enterprises (Hart, 2010).

There is a possibility that Malaysian policymakers have not acknowledged some of these problems. A comparative analysis of VET policy enabled the comparison of policy implementation between countries. While VET policy implementation by itself may seem similar, there are social and governance differences between countries. The level of government and industry involvement varies from country to country. Hall and Soskice (2007) argued that globalisation leads countries to diverge as each country seeks to specialise in their areas of competitive advantage. A comparative study focused on frames of reference and grounds for comparison. The frames of reference include the provision of VET and the learning outcomes reflected in the workplace. The grounds of comparison were participation, quality of delivery, completion rates, financing and stakeholder satisfaction. In summary, there are issues, trends and lessons from Australia and Singapore that can support the development of Malaysian VET.

3.5 Conclusion

In conclusion, the literature review provided an overview of the motivations behind government initiatives to expand skills development initiatives and the shifting responsibility for employability to the employee. While the objectives of VET are overt, the need for socially inclusive results are also important. Economic, social and education contexts must be considered when developing VET systems given the composition of Malaysian society.

Human capital refers to the stock of knowledge and related attributes essential to perform productive work to generate economic value. It is an aggregate economic view of humans within economies. The connection of investment in human capital development to education, and the role of human capital in economic development has been cited as justification for government-funded education and training. Conversely, the CA theory postulates a new theoretical framework about wellbeing, development and justice.

The SCSs needs to be understood within the VET landscape. While VET policy implementation is targeted towards youth employment and a skilled workforce, an enabling environment and the question of whether education creates jobs needs to be analysed when formulating and implementing VET policy. While the logic that skills and education investment leads to socio-economic growth may be relevant, development goals such as high-wage, high-skills jobs and increased productivity requires qualification. While this logic may not sound, there is a need to identify the distinctions among different measures being employed, different skills and VET offerings, including their limitations and peculiarities. Depending on the nature of the indicator used and the types of VET initiatives examined, labour markets, industries and workers may experience different results.

Collective skills formation plays a crucial role in defining access to secure and high-skilled employment (Hall & Soskice, 2001). The fragility of skill formation systems requires continuous political support and stakeholder engagement. While a common analytical framework has been proposed (Busemeyer & Trampusch, 2011), the experiences of each country are different and the variations are evident. Different arrangements in VET assign varied roles for key stakeholders in providing VET and creating the desired outcomes. While state-led models highlight the role of training institutions in the delivery of VET, the competency model values VET qualifications equally. The state-led model has been criticised for minimising the role of employers in

influencing VET quality and relevance, which also decreased trainees' benefits, while the competency model has been criticised for creating incentives for training providers to increase VET provision without corresponding responsibility for VET quality (Wolf, 2011).

The research on the corporatist, local firm and institutional companies models highlights the role of labour market arrangements, workplace and sector contexts in the use and delivery of VET, and its outcomes, particularly the role of employers in valuing and using VET initiatives. Benchmarking with other VET systems that have endured similar lessons and challenges is important for developing a robust Malaysian VET system. Issues, trends and lessons learnt in Australia and Singapore can support the development of Malaysian VET.

Chapter 4: Methodology

4.1 Introduction

This chapter describes the methodology used for this research. The previous chapters identified the gaps evident in research on the Malaysian VET system. The literature surrounding policy analysis of VET in Malaysia, particularly comparative research, is sporadic. Most of the research on VET has primarily involved developed countries rather than developing nations such as Malaysia. One of the crucial dimensions frequently overlooked in Malaysian VET discussions is the nation's societal composition and the issue of participation in education. The SCS is powerfully shaped by the underlying social expectations of society, which deeply rooted in traditional cultures. This leads to the devaluation of certain skills. The different types of VET provisions must be distinguished for effective VET policy implementation. For VET system development, multiple stakeholder views need to be considered. The paradigm underpinning skills formation strategies, institutional arrangements and stakeholder engagements has not been made explicit. Further, they have not been subject to empirical research to test their validity and applicability to an understanding of research in the field.

The methodology seeks to address these gaps, in terms of the research questions driving the research and the methodological approach. The discussion commences with the research questions and rationale, followed by a description of the research design and analytical framework, and the limitations and boundaries of the research.

4.2 Research Questions and Rationale

4.2.1. The Research Questions

What are the challenges facing the development of VET in Malaysia?

Associated research questions:

- What are the VET policy trends in Malaysia?
- How have the skills formation systems evolved in Malaysia?
- How have the existing players in Malaysian VET been engaged?
- How has skills training minimised inequality within Malaysia?
- What are the lessons from Australia and Singapore?

The aim of this research was to further understand the evolution and goals of investment in the Malaysian VET system, the policy framework, the features of VET policy, the engagement of existing VET players, and the parallels and exemplars that Malaysia can draw from Singapore and Australia.

4.3 Research Design

The study used a mixed methods design, as it facilitates the collection, analysis and mixing of quantitative and qualitative data to understand the problem completely (Creswell, 2002; Tashakkori & Teddlie, 2003). Using both methods assists with understanding and interpreting the effectiveness of VET policy through a range of data types. The use of both qualitative and quantitative methods enables a complete analysis (Green et al., 1989). Mixed methods relate to the research question, as there are multiple levels of influence on VET policy.

Nevertheless, the research design is guided with a heavy emphasis on a qualitative approach, as it is more suited to answering research questions that are exploratory in nature. Both the ‘what’ and ‘how’ are examined (Merriam, 1998). To an extent, the research philosophy is informed by Hanberger’s (2001) characterisation of postpositivist research. This view rejects rational positivist assumptions of a single truth that can be discovered using scientific methodology (Hanberger, 2001, p. 14). Postpositivists instead adopt a relativistic epistemological paradigm that asserts that there are multiple ways of understanding the world depending on one’s perspective, and that there is no one valid form of knowledge (Hanberger, 2001). Postpositivism is a meta theoretical stance that evaluates and alters positivism. Positivists believe that the researcher and subject of inquiry are independent of one another. Postpositivists conclude that the researcher’s background influences what is being observed. Just like positivists, they pursue objectivity and recognise the effects of bias. They believe that human knowledge is not cast in stone, but based on inferences. Since human knowledge is considered conjectural, the confirmation of these assumptions is justified by a set of claims that is subject to further modification upon closer examination. Nevertheless, it is not a form of relativism and largely maintains the idea of objective truth. They believe that reality exists, even though it can only be understood imperfectly.

The research design can be described as a multiple stakeholder investigation using in-depth interviews and secondary data sources to critically understand the development of the Malaysian VET system. The aim of the exploratory research was to gain an in-depth

understanding of the perspectives of the selected research subjects, rather than seeking to gather data to make broad generalisations (Gerring, 2001). In keeping with the central principles of qualitative research, the research gives preference to multiple data sources (Denzin & Lincoln, 2005, p. 3). The respondents include chief executive officers (CEOs) from industry, policymakers, registered training providers, VET instructors and students, and supportive secondary data and documentary evidence, which was either qualitative or quantitative in nature. In line with the main research question and the associated questions, the research was designed to collect and analyse the perspectives of the respondents/stakeholders. Stakeholders are defined as groups that directly affect, or are affected by VET through their engagement with it. From the literature related to collective skills formation, categories of stakeholders were identified:

- Policymakers from the government and/or government agencies
- CEOs of vocational training providers
- Trainers/instructors from vocational training providers
- Trainees from vocational training providers
- CEOs from manufacturing and health sectors.

Conventionally, policymakers and industry interest groups have been highly significant in shaping the development of VET (Salaman, Storey & Billsberry, 2005, p. 5). Stakeholders from each category identified for this research are discussed below.

4.3.1. Policymakers from the Government and/or Government Agencies

Policymakers from the government and/or government agencies have a significant interest in the development of a Malaysian VET system, given the Malaysian government's aspirations to achieve the goals of a skilled workforce, youth employment and Vision 2020. They have considerable influence on the direction of VET policy, including the funding, implementation and monitoring of the system. This includes implementing active labour market policies and human resources planning. The agencies are entrusted with the responsibility of establishing and maintaining the qualifications framework and quality assurance. Since the research also compares Malaysian VET with Australian and Singaporean systems, the perspectives of policymakers from these countries were also considered.

4.3.2. Chief Executive Officers of Vocational Training Providers

The Federation of Malaysian VET Training Providers is a coalition of training providers seeking to implement and deliver the VET agenda. They seek to influence government policy and industry training. They represent managerial and business perspectives. Since the research also compares Malaysian VET with Australian and Singaporean VET, the perspectives of registered training providers from these countries were also considered.

4.3.3. Trainers/Instructors from Vocational Training Providers

Trainers/instructors are an integral part of delivering VET programs. They are key stakeholders and critical to the success of the VET system.

4.3.4. Trainees from Vocational Training Providers

The trainees/students from training organisations are key stakeholders. They are significant because they pursue the VET qualification and their views are important to the further development of the VET system.

4.3.5. Chief Executive Officers from Manufacturing and Health Sectors

This research focused on two key areas that are deemed important from the Malaysian economic perspective. The manufacturing sector is critical because of the large contribution it makes to the Malaysian economy; the health sector is also important, given the current emphasis on health costs.

4.4 Justification of The Significance of The Research and How It Will Contribute to Knowledge

The research is significant as it will clarify the challenges facing VET development in Malaysia. Given that most of the literature is from developed countries, this research will contribute to knowledge of VET development in developing countries. It will also offer recommendations to inform policy initiatives. The study will consider successes and failures from Australia and Singapore and their relevance to developing countries such as Malaysia. Further, the study will add to the knowledge of collective skills formation systems in demographically diverse countries such as Malaysia and the engagement of stakeholders. This research aims to contribute to VET policy planning by informing national policymakers of the research results.

This research contributes to both practical and academic knowledge. In terms of academic contribution, it adds to the field of vocational education research by expanding its application to the public policy area, as it relates to skills initiatives. Specifically, it explores the inclusion of multiple stakeholders' perspectives and theories, and the exploration of the interplay among stakeholders in collective skills formation.

The final product is a critical analysis of the connections between public policy and outcomes within and among stakeholder groups. A theory of how skills policies create value and are evaluated from a multiple stakeholder perspective is an outcome that can be tested through future empirical research. This fills in part of the gap in evaluative research on skills, which largely ignores stakeholders' perspectives, especially at the organisational level, and within the Malaysian context. This research is unique because previous investigations of comparative stakeholder perspectives have been confined to employers and employees. The recommendations will inform future direction on a more effective development of VET development and skills policies generally.

4.4.1. Research Approach and Methods

One aim of this research was to gain an understanding of the challenges facing VET development in Malaysia by examining how VET policy framework has evolved over the last 10 years and by studying the features of Malaysian VET policy, including the level of engagement of Malaysian VET players. The aim was to study the parallels and exemplars of the Australian and Singaporean VET models.

Alkin (2004) proposed the evaluation theory tree framework for understanding the evolution of policy analysis. There are three major branches—the methods branch, the values branch and the use branch. This has been driven by the increasing complexity of policy problems and the continuous need for accountability brought on by public-sector reform initiatives. Driven by these demands, the methods used in policy evaluation have evolved to embrace interpretive methods of enquiry. This has resulted in a field typified by mixed methods of enquiry, which are contingent on the context and politics surrounding the research subject (Fischer, Miller & Sydney, 2007).

Understanding the challenges of VET development in Malaysia requires both quantitative and qualitative data. Policy documents, reports and stakeholders' engagement require a mixed methods approach, as it is most appropriate given the range of data types required. Policy analysis is a qualitative method that will be extensively used. This is required to

understand and interpret VET policy development from stakeholders' perspectives, each of whom has widely different stakes and roles.

The mixed-method approach is emerging as a third methodological movement (Cameron, 2009) and is defined as 'research in which the investigator collects, analyses, mixes and draws inferences from both quantitative and qualitative data in a single study or a program of inquiry' (p. 4).

4.4.2. Justification of the Research Approach and Methods

In a survey of 106 papers with an empirical design presented at Australian Vocational Education and Training Research Association (AVETRA) conferences, 22% used mixed methods (Cameron, 2009). Thus, mixed methods approaches are being increasingly used by VET researchers to incorporate qualitative and quantitative methods for a fuller and more comprehensive account of the research problem (Creswell, 2002).

There is the possibility of multiple stakeholder views, as each experience is likely to be different. Their views on the value of VET are also likely to be different. While policymakers focus on increasing trainee participation and completion rates, industry views VET from the perspective of employability. The development of the VET system can be better understood by understanding multiple stakeholder perspectives and contexts.

Quantitative methods alone are unlikely to lead to greater understanding of multiple views. Thus, qualitative methods were included, resulting in a mixed methods approach (Johnson, Onwuegbuzie & Turner, 2007). However, this research, while considering the prospects of differing viewpoints among stakeholders, leans towards an interpretive constructionist position that is 'concerned with the lens through which people view events, the common expectations and meanings through which people interpret what they see and what happens to them' (Rubin & Rubin, 2005, p. 28). This research also takes a hypothetico-deductivist approach, as defined by Wengraf (2001). This approach draws on prior theory on VET and its related fields to generate a particular assumption that is to be verified through data collection and analysis.

4.5 Research Method

The research aimed to study the challenges facing the development of VET in Malaysia. This was achieved through a mixed methods approach, which allows the inherent duality of the data to be analysed given the comparative VET policy analysis of three countries. The study will analyse the development of the Malaysian VET system by reviewing the challenges facing VET development in Malaysia, VET policy trends in Malaysia, evolution of skills formation systems in Malaysia, engagement of existing VET players in Malaysia, impact of skills training on minimising inequality within Malaysia, lessons from Australia and Singapore.

The goal of this approach was to understand the problem from multiple contextual positions. The goal of the quantitative phase of research was to identify stakeholder satisfaction using a web-based survey questionnaire. The goal of the qualitative phase was to interview key decision-makers among the various stakeholders to gain information about their experiences and satisfaction with VET policy from a stakeholder perspective. Government policy documents were also reviewed to understand the problem better.

This design prioritises the qualitative method, because qualitative research methods are the major aspect of data collection and analysis in the study. Open-ended questions provide insight into VET reform from particular stakeholder positions. The results of the two phases will be integrated during the discussion of the study outcomes. The questions to be identified through the analysis of the related literature will support the development of the survey questionnaire and the structured interview guide. Participants who are 'information rich' will be purposefully selected (Patton, 1990, p. 169).

The mixed methods approach will also allow the presentation of multiple perspectives of individuals to 'represent the complexity of our world' (Creswell, 2002, p. 194). The advantages of this design include its suitability for a single researcher to implement and its exploratory qualities (Creswell & Clark, 2007). Further, it is useful when unexpected results arise from the quantitative phase of the study (Morse, 1994).

4.5.1. Research Plan

The data collection process commenced with the literature review, from which stakeholder groups were identified. It then proceeded with the collection of data from policymakers and other respondents, which was then consolidated and analysed. This

analysis guided the collection of data from employers/managers and trainees in the selected organisations.

In-depth, face-to-face, one-on-one interviews were conducted with each interviewee using a core set of key questions. The interviews were conducted with respondents who were most likely to answer the questions; the goal from these interviews and research design was to gain depth of understanding, rather than quantifying data results (Rubin & Rubin, 2005). A research question map was carefully designed to ensure that question guides aligned directly to the research questions. Question guides were consistently used for each interview and the data captured under each question/heading. This process greatly assisted in the codification of data, which will be discussed in Section 4.4.3.

Appendix One to Seven provides additional details on the questions used for stakeholders and the consent form. Additionally, probing questions were used during the interviews to seek clarification and additional data. The research design and data sources were expected to provide respondent triangulation, as well as ensuring the representation of multiple stakeholders. This is particularly important for the multiple stakeholder approach in VET policy research to understand their views and experiences, and how these shape their engagement with and valuing of industry training (Salaman et al., 2005).

Interviews with policymakers were conducted first. This assisted in setting the context for interviews with other stakeholders and increased the chances of handling all pertinent research issues. Opinions were not ascribed to individuals or specific organisations. Instead, the analysis refers to specific stakeholder groups, for example, policymakers and industry training organisations. To conform to ethical standards, information provided by participants was not disclosed to others. Also, organisational anonymity is maintained to protect the organisations. For this reason, copies of secondary data were referenced, but not included in the findings. Some quotations used in the analysis chapters were deleted to maintain interviewee anonymity.

4.5.1.1. Secondary Data

When it was needed and when available, secondary data such as evaluation reports, business reports, documents associated with industry training administration (description of courses, training agreements, training assessments etc.) were examined. The aim was to establish chains of evidence to support information provided in interviews at case study sites, and to ensure construct validity through multiple sources of evidence.

4.5.2. Data Security

All interviews were transcribed. Transcription notes and summaries of interview results were stored as stipulated under the university's ethical guidelines.

4.5.3. Data Analysis

A comparative approach was used to analyse the data collected from the stakeholders. The policy process is constantly intersected by the often-competing value systems of its stakeholders. The analogy of policy as a well-crafted argument is useful, in that good policy must consider opposing positions, argumentative issues and most importantly, the fact that assumptions and evidence of policy have both strengths and limitations (Fischer, 2003). The question then arises, if policy is a crafted argument, whose voice is it? Is it possible for the policy process to be dominated by stakeholders wielding more political power, to the detriment and exclusion of others? A well-crafted policy argument, including policy evaluation, should consider the different voices (and by extension values and concerns) of its stakeholders, for the purposes of nurturing democracy and greater understanding of policy. A strength of this data analysis methodology is that it provides a useful construct to interrogate the data collected, and to communicate the research findings. It also provides a systematic way for delineating 'who is saying what and in what context' (Barbour, 2008, p. 216). Therefore, the final analysis represents a synthesis of understandings that come about by combining different individuals and stakeholders' detailed reports of their experiences with industry training (Rubin & Rubin, 2005).

There are two potential drawbacks with this methodology. First, analysis runs the risk of being swamped by an assortment of views, which makes data analysis intractable (Torvatn, 1999). To minimise this risk, thematic analysis was used as a complementary data analysis tool. This involves identifying themes or patterns within the data. Drawing on the guidance provided by Barbour (2008), this entails 'identifying patterning in (the) data' and doing some counting while stopping short of 'making statistical inferences' (p. 217). The second potential drawback is concerned with the unearthing of the assumptions of different stakeholders, the risk of researcher bias and presuming participants' assumptions. The challenge is that research participants may not always be aware of the assumptions that underpin their perspective, and may not be able to articulate these with clarity. To minimise researcher bias, it is critical to ask many probing questions, to adequately capture participants' perspectives, while ensuring that questions are not asked in a way that casts judgment on respondents' actions or motives (Patton, 1990).

Summaries of the interviews were also provided to participants, to give them the opportunity to state whether their views were sufficiently captured.

As the question guides were used consistently for all interviews, these provided natural categories for codification of the interview and secondary data. From the analysis under the different codes, themes emerged and developed, both through the lens of stakeholder group responses, and the comparative paradigms. These data were then synthesised into global themes or the revised logic that emerged from the data (Attride-Stirling, 2001).

4.5.3.1. Quantitative Data Collection

The quantitative phase of the study focused on gauging stakeholder satisfaction using a survey questionnaire accessible to a targeted 200 participants over the web. Open-ended questions were also included in the questionnaire. Data were collected between a fixed period. The survey questionnaire was prepared at the stage of data collection.

An advantage of web-based surveys is that participant responses can easily be stored in a database and transferred to Statistical Package for Social Sciences formats. Consent can be obtained over the web. Response rates can be improved with the use of autoresponders. To solicit a relatively high response rate, a three-phase follow-up sequence was adopted (Dillman, 2000). Participants who did not respond by the set date were sent an email reminder five days after the survey URL was distributed. Ten days later, a second email reminder was sent, and two weeks later, the third email reminder was sent.

4.5.3.2. Data Analysis

Descriptive statistics was used to screen all variables. All survey items were summarised in text and reported in table formats. Reliability refers to the accuracy and precision of a measurement (Thorndike, 1997). Validity refers to the degree to which a study accurately reflects or assesses the specific concept or construct that the researcher is attempting to measure (Thorndike, 1997). Reliability and validity were strengthened by pilot testing the survey instrument with a small group of people who were involved with the study, and with a group of experts to seek their feedback on the data collection tools (Robson, 2009). Observation protocols and record-keeping sheets were piloted and maintained.

4.5.3.3. Qualitative Data Collection

The qualitative phase in the study focused on semi structured interviews. Interviewing is a way to collect data and gain knowledge about individuals. Kvale (1996) regarded interviews as ‘an interchange of views between two or more people on a topic of mutual interest, sees the centrality of human interaction for knowledge production, and emphasizes the social situatedness of research data’ (p. 14). The primary technique used was in-depth, semi structured face-to-face interviews in three countries, involving 42 participants as indicated in Table 4.1.

Table 4.1: Interviewees

Number/Country	Malaysia	Australia	Singapore
Policymakers from the government and/or government agencies		2	2
CEO vocational training providers		2	2
Trainers/instructors with five vocational training providers	5 x 2 = 10	-	-
Trainees with five vocational training providers	5 x 2 = 10	-	-
CEOs from manufacturing and health sectors	5 x 2 = 10	-	-
Total of 42		34	4

Review of the literature included critical discussions published by local universities, AVETRA, National Centre for Vocational Education Research (NCVER), WDA Singapore and Singapore-based research organisation Institute of Adult Learning (IAL). The secondary data on VET students and policy debates were sought through Ministry of Human Resources (Malaysia) publications.

4.5.3.4. Data Analysis

Data collection and analysis proceeded simultaneously in the qualitative phase (Merriam, 1998). All data obtained through interviews and information gained from secondary sources of information were coded and analysed for themes. In policy analysis, qualitative research and qualitative data analysis answered certain important questions more efficiently and effectively than quantitative approaches (Coolican, 2009). It allowed for the understanding of how and why certain outcomes were achieved. The focus was not simply on what was achieved, but answered questions relating to relevance, satisfaction and impact of the initiatives. Qualitative methods value unique individual views.

Systematic and transparent approaches to the analysis of qualitative data are almost always regarded as essential for rigour. Lincoln and Guba (1985) proposed four criteria for evaluating interpretive research work: credibility, transferability, dependability and confirmability. A qualitative content analysis is valuable when the study requires an interpretative paradigm; the goal is to identify important themes within a body of content, and to describe the reality created by the themes. Data preparation, coding and interpretation are essential stages to support conclusions and develop new knowledge. Glaser and Strauss (1967) suggest the use of constant comparative method when developing categories inductively from raw data. The coding scheme was validated on a sample. Coding sample text, checking coding consistency and revising coding rules is an iterative process and should continue until sufficient coding consistency is achieved (Weber, 1985). Finally, all text was coded and checked to prevent uncertainty about the meaning of the codes. The coding consistency was assessed and conclusions drawn from the coded data. This stage involves drawing inferences from the data. Activities involve exploring the properties and dimensions of categories, identifying relationships between categories, uncovering patterns and testing categories against the full range of data (Bradley, 1993).

4.5.3.5. Establishing Credibility

Creswell (2003) reported that the criteria for judging a quantitative study and a qualitative study differ markedly. The uniqueness of a qualitative study precludes it from being replicated in another context unless it is believable, coherent, insights gained are visible and the instrument utility is evident through a process of verification rather than through traditional measures (Eisner, 1991) and trustworthiness (Lincoln & Guba, 1985). To validate this phase of the study and establish that the information is in sync with reality (Merriam, 1998), four primary forms were used.

1. The use of triangulation—converging different sources of information (interviews, documents, artefacts)
2. Respondent checking—seeking feedback from participants on the accuracy of categories and themes
3. Present comprehensive explanation and descriptions to explain the findings
4. External report audit—seeking the support of an independent member to conduct a thorough review of the study and report (Creswell, 2003, p. 196-197).

4.5.3.6. Researcher's Role

I am a lifelong student and an ardent advocate of VET. I knew some respondents, although I am neither their superior nor manager. Interviews were conducted to avoid an imbalance of power and status between participant and interviewer (Marvasti, 2003). I did not have any authority over them. Therefore, I am unlikely to have influenced their responses. Yet, I was aware this may introduce a possibility for subjective interpretations of the phenomenon studied and create a potential for bias (Locke, Spirduso & Silverman, 2004).

Qualitative data analysis must be selected purposefully, as the role of the researcher is given critical attention. A situation may arise in which the researcher must take either a neutral or subjective view. While qualitative data analysis can take many forms, it should be different from quantitative research in the focus on language and meaning, as well as approaches to analysis that are holistic and contextual, rather than reductionist and isolationist. It involves answering two questions:

- What do I do with the data collected?
- How do I report them?

This was managed through the process of reflexivity. According to Ball (1993) 'reflexivity connects dialectically the social and the technical trajectories of fieldwork' (p. 33). Steedman (1991) stated that reflexivity requires awareness of the effect the researcher has on the process and outcomes of research. This involved a continuous process of reflection, the development of critical self-awareness, examination of the relationship with respondents and analysis of how this may affect responses.

As the research also involves qualitative interviews, it had to be recognised that respondents' answers are not necessarily straightforward. Meanings are interactively and culturally constructed. The interview is an interactive, meaning-making process. Therefore, the interpretation of the qualitative data requires reflection on the entire research context. Reflexivity involves making the research process a focus of inquiry, laying open preconceptions and becoming aware of situational dynamics in which the interviewer and respondent are jointly involved in knowledge production (Fontana & Frey, 1998). Reflexive practices provide opportunity for revising questions as the research project progresses. Particular attention was given to the choice and wording of the question. The use of 'pilots' to test questions and overcome issues of bias and power also helped overcome this issue.

Considering reflexivity in this background and in the context of this study, researchers have had to acknowledge personal beliefs, personal bias and recognise that ‘knowledge cannot be separated from the knower’ (Steedman, 1991 pp 53). By being reflexive and accepting its value in this study, I have endeavoured to state the problems and assumptions that underpin me as a researcher and position the research in the social and cultural context to remove personal bias. My reflexive practice was managed via the maintaining of a research journal. Such a process enables the researcher to reflect on the study and deepen the understanding of the research process itself (Watt, 2007).

4.5.4. Limitations

Several access challenges led to possible limitations in the research, including the small sample and variation in the availability of secondary data. Identifying respondents and seeking their time was a prolonged and time-consuming process, which at times led to research fatigue. The lack of secondary data in some instances was a challenge. These limitations were not considered detrimental to the data collection and analysis process on two counts. First, interviews with policymakers and other respondents revealed variations among workplaces in terms of their level of sophistication in VET engagement, with related training practices being managed with different degrees of formalisation. Therefore, the absence of secondary data is viewed as a reflection of that reality. Second, the use of different interview sources provided adequate levels of data corroboration.

4.5.5. Ethics

As research ethics is about the use of fundamental ethical principles, trust is an important element. The discussion of ethical principles in research always raises Milgram’s (1974) famous demonstration of obedience. Milgram’s participants were deceived. They were unable to withdraw from the study.

Permission, power issues and ownership issues were managed by seeking informed consent, and ensuring anonymity and confidentiality. The permission of those involved in the research study was sought through an informed consent form, to ensure their privacy, anonymity and the proper use of data. The research has been approved through the University Ethics Committee, Federation University Australia, Human Research Ethics Committee.

4.5.6. Participant Informed Consent, Anonymity and Confidentiality

Informed consent is required when the study involves individual participation. Participants have the right to withdraw at any point in the interview process. Participants should be introduced to the purpose of the study, how the results will be published and how confidentiality and anonymity will be preserved. All participants' anonymity and confidentiality will be ensured, as it is an important element of good ethical practice. Participants will be guaranteed that their responses will remain anonymous and they will not be named in any way. Pseudonyms will be used at all stages of data collection, analysis and thesis writing. Particular care will also be taken during the general presentation of research findings to ensure that participants' narratives, examples and quotations will not be easily identifiable. Conclusions cannot be so obvious or precise that they could be attributed to a particular individual.

Chapter 5: Data Analysis

‘Data! Data! Data! I can’t make bricks without clay!’ Sir Arthur Conan Doyle

5.1 Data Analysis: Policymakers

‘In God, we trust; all others we must bring data.’ W. Edwards Deming

5.1.1. Introduction

In this section, data from interviews with policymakers are presented, discussed and analysed. These respondents were selected to represent the voice of policymakers, who were identified as significant stakeholders (see Table 4.1). They were from Malaysia, Singapore and Australia.

Malaysian policymakers have a significant interest in the development of the Malaysian VET system. This is because of the growing youth population (Department of Statistics, n.d.) and the total dependency population being 53% of the total population. Only 47% of the population are working adults. The unemployment rate in Malaysia has increased to 3.8%. The desire to achieve developed country status by 2020 highlights the importance of a skilled workforce. Malaysian policymakers set the policy and direction of VET and fund and monitor its implementation. In addition, they are responsible for maintaining the qualifications framework and quality assurance framework. This chapter will draw attention to exemplars and challenges faced by Australia and Singapore. Two respondents from each country (Malaysia, Singapore and Australia), were interviewed and pseudonyms were used to ensure confidentiality. While six respondents constitute a small sample and pose a limitation for this research, the aim was to seek qualitative information from policymakers in the field, who represent the voice of government. The interview with each respondent took approximately 40 minutes and was divided into four parts:

1. Evolution of the VET system over the last 10 years
2. Features of VET system in the country
3. Engagement of VET players
4. Lessons learnt

An interview guide was used to guide the interview process. The questions were designed to obtain policymakers’ views on the development of VET policies in each country. Findings are categorised under the 16 questions detailed in the interview guides (see

Appendices 1–7). Data were analysed and several broad themes identified with reference to VET system development.

The aim of this research was to understand the development of VET in Malaysia, the VET policy agenda, the engagement of existing VET players and the parallels and exemplars that Malaysia can draw from Singapore and Australia. It is essential to revisit the research question to understand the intent of the questions.

What are the challenges facing the development of VET in Malaysia?

Further, it is important to consider the associated research questions:

- What are the VET policy trends in Malaysia?
- How have skills formation systems evolved in Malaysia?
- How have the existing players in Malaysian VET been engaged?
- How has skills training minimised inequality within Malaysia?
- What are the lessons from Australia and Singapore?

5.1.1.1. Themes

Data were analysed based on the following main themes (see Table 5.1):

- skills strategies for an inclusive society
- private–public partnership (PPP) and engagement
- reforming VET policy
- skills formation strategies
- unique Malaysian challenges

Table 5.1: Policymaker Themes

Themes	Keywords
Skills strategies for an inclusive Society	Skills utilisation Social integration Sustainable development
Private–public partnership and engagement	Collaboration Cost-effective delivery
Reforming VET policy	Quality Relevance Regulator mechanism funding
Skills formation	Lifelong learning culture Formal learning Individual learning
Unique Malaysian challenges	Ethnic diversity Perceptions Equity

5.1.1.2. Skills Strategies for an Inclusive Society

There has been much commentary about inclusivity. Inclusiveness is perceived as a multidimensional concept that goes beyond income distribution and poverty reduction:

The approach ... is essentially a ‘people-centred’ approach, which puts human agency (rather than organizations such as markets or governments) at the centre of the stage. The crucial role of social opportunities is to expand the realm of human agency and freedom, both as an end in itself and as a means of further expansion of freedom. The word ‘social’ in the expression ‘social opportunity’ ... is a useful reminder not to view individuals and their opportunities in isolated terms. The options that a person has depend greatly on relations with others and on what the state and other institutions do. We shall be particularly concerned with those opportunities that are strongly influenced by social circumstances and public policy. (Dreze & Sen, 2002, p. 6).

Policymakers have explored innovative ideas and fresh perspectives on how a skills policy can be strengthened to advance and promote an inclusive society. They have explored policy options for a more inclusive society in which skills, education and training of the workforce may have a greater role in enabling workers to achieve greater economic growth. The aim is to ensure every member of society can participate in all aspects of life: political, social, economic and civic activities. An inclusive society is a society that overrides differences of race, gender, class, generation, and geography, and

ensures inclusion, equality of opportunity and capability of all members to determine an agreed set of social institutions that govern social interaction. (Expert Group Meeting on Promoting Social Integration, Helsinki, July 2008).

The focus on sustainable development and social inclusion resulted in the development of millennial developmental goals (MDG), which are perceived as an ambitious framework for development with several targets and indicators to monitor the progress. MDG 1 aimed to eradicate extreme hunger and poverty. MDG 2 aimed to achieve full and productive employment and decent work for all citizens. MDG 3 focused on social integration to ensure the minimisation of social disparities and inequalities (World Summit for Social Development, Copenhagen, 2005).

Dr Chan, a senior policymaker, viewed Malaysia's approach towards developing a skills strategy for an inclusive society as related to skills utilisation and social integration. This has led to a focus on a combination of initiatives to help raise income among low-wage skilled workers. Under-utilised skills are common in low-wage sectors such as retail and hospitality, which have a low demand for skills. In these sectors, workers are lowly paid. Initiatives have included strengthening the role of skills qualifications with VET as well as some forms of social transfers like BRIM Cash Aid¹ of RM500 for low-income families. The goal is to include those who feel 'left out'.

Conversely, policymaker Dr Ismail contended that Malaysia's approach is one of sustainable development and social integration. Sustainable development requires a skilled workforce. Hence, the continued emphasis on Skills Malaysia, a VET branding initiative. There is not an endless supply of foreign workers. Malaysia has been criticised as a 'sweat shop', a perception that the country must act to erase. Employers' federations have been vehement in their objections to the implementation of a minimum wage and have persisted with demands for more foreign workers. Unions have argued that the fruits of labour are not being shared properly between capital and labour. Controversy and debates surrounding the issue of 'minimum wage' are creating social tensions. Thus, the decision was to implement minimum wage and allow more foreign workers on a selective basis. This approach aims to find sustainable development initiatives suitable for different stakeholders.

¹ Bantuan Rakyat 1 Malaysia) RM500 Cash

Zul believed that in Singapore, VET policy strategy is built around the concept of higher value and work that is more productive. The emphasis has been on lifelong learning recognising the challenges posed by a globalised world where skills depreciate rapidly. Zul believes that it should be about training, and disagrees with the Malaysian approach of social transfers. Thus, policymakers have set up a high-skills ecosystem that leads to working with different social partners in promoting continuing education and training (CET) to improve the position of low-wage workers through increased job quality and skills utilisation.

Chan pointed out that the aim of social transfers is to cushion people from the worst effects of rising unemployment and falling incomes. This is why Malaysia offers a free biannual handout of about US\$100 to all households earning below US\$800 per month (Bantuan Rakyat 1 Malaysia 2017).

This aligns with the view of some commentators, such as Marmot (2013), who argued that social transfers are useful to reduce poverty for jobless households who are heavily reliant on social transfer income. Social transfers help support wellbeing and reduce inequalities through redistribution of income, thereby helping to promote social solidarity. They ensure an adequate standard of living across all life cycle groups. Social transfers also play a key role in addressing the social determinants of health (Marmot, 2013).

Nevertheless, for Zul, the sustainability of this mechanism is questionable due to the strain on national resources. According to Zul, Singapore's policy of empowering individuals and valuing craftsmanship has enabled individual mastery, which has helped develop skills strategies for inclusive growth and sustainable development. The role of the CET system has been to support the development of mastery through subsidised training.

To put this in perspective, in-kind social transfers² consist of individual goods and services provided to individual households by government units (including social security funds) and non-profit institutions serving households (NPISHs), whether purchased on the market or produced as non-market output by government units or NPISHs. These items can include social security benefits, other in-kind benefits, social assistance benefits and transfers of individual non-market goods or services.

² OECD glossary of statistical terms

For Gary, the Singaporean challenge is dealing with success. Singapore's economy has had remarkable growth. The adoption of VET has been successful, with 40% of school leavers opting to study at polytechnics. Self-esteem and the image of VET is no longer a major challenge. The current issue is one of inclusive growth, which is essential for social integration. Singaporean policymakers now question how to raise the wages of workers and make skills strategies contribute to an inclusive society. Further, they question how to manage the disparity between the haves and the have-nots.

For Chan, the objectives of VET in Malaysia have been articulated clearly by the government, which identified key goals to alleviate poverty, reduce youth unemployment and the inflow of foreign workers, improve the numbers of skilled workers and ensure the country reaches high-income status by 2020. The ETP aims to achieve inclusive growth and greater social integration. Communications have been extensive to ensure VET has a rightful place in policy formulation.

Gary was of the view that while Singapore has successfully built skills and ensured higher rewards, its approach to the construction of a sector skills strategy is new. Unless this is successful, it will be difficult to simultaneously support sustainable development and an inclusive society.

Ismail discussed the need for Malaysia to review the proper functioning of the labour market for sustainable development. Growth rate of average wages and minimum wages must be in tandem with economic growth. This growth must be commensurate with inflation and wages for similar qualifications must be uniform. This requires engagement with all social partners and strong political leadership.

Steven commented that in Australia, the policy pillars for VET have generally worked. According to Steven, the development has been sustainable because of the significant role of skills councils. To ensure sustainable VET development, the emphasis is on industry leadership. This is needed to ensure the national training system produces skilled individuals who are able to contribute to economic growth and prosperity.

Chris viewed the national system of competency-based qualifications (related to occupations) as consistent throughout Australia and the National Qualification Framework as a fairly consistent regulatory framework.

The data highlight that skills development strategies, not social transfers alone, lead to an inclusive society. Policymakers view an inclusive society as one that leads to greater

social integration. Improving low-wage jobs through job quality, skills utilisation and continuing education is important for minimising social disparities, inequalities and social tension. The sustainable development of a high-skills ecosystem can only be possible when built on the concept of higher value and productivity with the support of industry.

5.1.1.3. Private–Public Partnership and Engagement

There has been much commentary about PPP in VET (Tansen, 2012). The collaboration between public and private sectors can increase both the quality and quantity of provision, complementing and challenging state provision. Industry can support the development of a skills strategy and pioneer innovations in delivery. There have been recommendations for VET PPPs for a range of areas, such as developing policies, determining funding systems and developing curriculum frameworks. Such collaboration could take place at many levels, including the macro (policy) level, meso (sector) level and micro (enterprise) level. The 2004 Bonn Declaration and the 2008 Manila Declaration advocated PPPs as pivotal to human-centred sustainable development. One of the eight goals of the MDG publicised by the UN General Assembly in 2002 included the development of a global partnership for development. Globally, the world's countries and leading development institutions sought cooperation with the private sector. Engagement and collaboration can exist in many forms. This includes working with the private sector in reviewing NOSS standards, engaging it in curriculum review, creating linkages between VET institutes and industries in curriculum review, exposing VET instructors to real-life scenarios in industry and communicating the benefits of VET to the public (Udin, Saleh, Musban & Ramlan, 2014).

Chan was of the view that public–private collaboration has a key role to play in the development of VET with the government recognising that working alone is not conducive to achieving the objectives. Unless the partnership works, it will not be sustainable in the long term.

Ismail commented on the need for the private sector to 'step up their act'. The state alone cannot provide sufficient access to high-quality training. The private sector must intervene to fill the gap. A collaborative journey with clearly delineated responsibilities that are complementary rather than independent of one another will help advance the skills development journey. Collaboration can enhance the quality and quantity of skills provision. Strengthening the partnership requires an understanding of private-sector

needs and the macro-economic needs of the nation. Strategies need to be identified and operationalised for a successful partnership and innovative delivery.

The Skills Development Fund is a good example of public–private collaboration in Malaysia, according to Ismail. The HRDF, modelled on the Skills Development Fund of Singapore, is a best-practice model. The industry-led fund contributes a statutory levy of 1% of the payroll, which then is reimbursed to employers for approved training in line with the identified industry needs and economic plans of the nation.

Chan believes that while Malaysia has liberalised the education sector for private-sector participation, the goal of minimising the mismatch between the talent pool and market requirements remains a high priority. The educational system, both public and private, produces entrants to the labour force either with qualifications that are irrelevant or do not match the requirements of the economy. The government has done the bulk of the work in producing a skilled workforce. Over 70% of trainees are from government-led institutes, but the qualifications are very low (levels one and two). There is too much course overlap between provider agencies. The private sector and industry need to engage to ensure cohesion in skills development for cost-effective delivery.

The Malaysian government, according to Ismail is drawn by political pragmatism and views VET as enhancing employability and uplifting income levels in line with Vision 2020. Industry links, relevant curricula and practical delivery are critical to enhancing employment opportunities. Collaborating with the private sector to build the national skills standards gives the process credibility. Undoubtedly, in Malaysian VET, industry must have a place at the table. In some sectors, industry has a very strong voice and are highly present in VET decisions. In some industries, this is not the case. From his analysis of Australia and Singapore, Ismael believes Malaysia must increase the visibility of VET to ensure industry-led leadership and relevance to the labour market.

For Chan, there is a need to re-engineer the dual training experience in Malaysia. The German system, in which approximately 20% of trainees are trained in larger companies, is an example of a sector that strongly collaborates with industry, business organisations (such as chambers) and unions.

In Malaysia, 1.3 million certificates were issued by the end of 2015. Ismail’s hope is that this output is relevant and acceptable to industry. NOSS must partner with industry and be industry driven. It cannot be solely driven by the public sector.

Zul attributes the success of the WSQ in Singapore as a national credentialing system to collaboration with the private sector. The standards are championed by the WDA and industry partners from different sectors, which makes it relevant to the labour market. Training, development and assessment give individuals recognition for key competencies that companies look for in potential employees. A sectoral approach to skills development is needed, in which all stakeholders have clearly defined roles. Singapore's aspiration of a highly skilled system that results in cost-effective delivery is only going to be possible with the involvement of the sector.

Again, for Zul, it has not always been easy for Singaporean policymakers. He believes there have been 'many a slip between the cup and the lip'. Intentions and policies have not always translated into results. Some sectors have had challenges adapting to economic changes. It has been difficult to work with these sectors. Retail, food and beverage, security and cleaning services are some of the sectors that have not been well organised. Statistics are difficult to obtain from poorly organised sectors. Given that they are small enterprises, it has been far more difficult to engage business owners, unlike the banking, information technology, aviation or luxury hotels sector.

Gary commented on the role played by the Singaporean clan-based guilds and associations that have been part of the Singaporean way of life. Collaborating and engaging with them to be part of the Industry Skills Councils is a positive move. Additionally, partnering with world-class companies to build CET centres within the company has made the training very cost effective and the 'place and train' programs hugely successful.

Steven observed that in Australia, while funding was largely government based, the skills councils are largely led by industry. Skills councils reflect the importance of industry. Collaborative relationships with industry are in place. Directors of the relevant organisations are from social partners such as unions and employers; skills councils are industry-led. Skills councils represent different sections of the economy. They provide data about industry needs, gaps, demand and supply. More importantly, people affected by VET have influence in their areas of expertise. Industry certainly has a place at the table.

For Chris, one key success for Australia is linkage with industry. Skills councils have played a key role in connecting with industry. There is clear national leadership and reasonable clarity in what is wanted for VET. Fragmentation and duplication have largely

been managed and the role of private sector has been institutionalised. VET must be driven by supply and demand. Australian skills councils are industry led.

The data show that collaborative partnerships between public and private sectors can increase both the quality and quantity of provision. For sustainable skills development, responsibilities must be clearly delineated between private and public. For policymakers, working with industry ensures credibility, relevance and recognition. CET centres within large companies in Singapore are an example of ensuring cost-effective delivery. The German model of dual training is another cost-effective model. Some poorly organised sectors have been more challenging to collaborate with, leading to gaps in policy goals and implementation. The industry-led nature of Australian skills councils is a good example of a working partnership. VET should be driven by supply and demand.

5.1.1.4. Reforming Vocational Education and Training Policy

A VET reform study on Malaysian and Australian VET systems, funded by the ILO,³ discovered five major components that focus on key elements of the VET system:

1. VET policy, systems and management
2. The quality and relevance of VET
3. Management of VET institutions and training of vocational and technical teachers
4. Skills development for improving industry competitiveness
5. Access of underprivileged groups to VET.

Three building blocks of a quality national VET system were identified in the Australian and Malaysian systems:

1. A national qualifications framework
2. A rigorous quality assurance system
3. Programs of learning relevant to industry needs.

The study also focused on industry advisory arrangements, national qualification frameworks and quality assurance in VET.

While commenting on VET reform in Malaysia, Chan commented on the need for a robust VET system that should enable the matching of demand and supply for skills important

³ VET Reform: Australia Malaysia VET study, International Labour Organisation 2009

for economic growth. Industry wants skilled talent that meets its needs and VET graduates wish to be employable. Skills development needs to be relevant. VET in Malaysia is divided into three streams: higher education, technical and vocational education and vocational skills training. It has been managed by several ministries and agencies. This has led to fragmented administration, poor coordination and duplication of responsibilities. It has resulted in lower-quality provision, irrelevant training and increased spending on bureaucratic expenses rather than skills development. Efforts need to be made to engage all players and improve coordination of skills development. It is important to note that there are 500,000 school leavers in Malaysia annually and vocational secondary school enrolments have dropped. VET is not a mainstream option among students. While the prime minister announced the rebranding of VET as Skills Malaysia in 2011, there is still a need to engage students, families and communities.

According to Ismail, the legislative push and simultaneous campaign to promote public- and private-sector partnership is the hallmark of VET reform in Malaysia. The single interconnected structure, nationally endorsed naming criteria, positioning and linking of qualifications has positively affected industry acceptance. The regulatory mechanism has been strengthened. The introduction of NOSS was the first step to improve the national vocational training and certification system in Malaysia. This decision led to two major policy thrusts: the adoption of the accreditation approach in the national skills certification system and the enhancement of the competency-based training approach in the country's training system. NOSS outlines the minimum requirement of knowledge and ability required to perform the roles and functions of an expert worker according to their profession. It is used as a reference for the industry, career path of a skilled worker and for training purposes. It is a performance specification that is expected of competent personnel who are qualified for a profession. It reflects the occupational structure for each level and the career path of the occupation.

Additionally, for Ismail, the development of the Malaysian Qualification Framework (MQF) has been a great step forward. The standards of qualifications are clearer and it reinforces quality assurance policies. There is accuracy and consistency of nomenclature of qualifications. The MQF is designed to be a unified system of qualifications offered on a national basis. This includes all education and training institutions in the public and private sector, as well as workplace training and lifelong learning experiences.

However, for Chan, the MQF could be more responsive to change, more flexible to accommodate new kinds of qualifications that may arise due to changes prompted by globalisation and the pace of change in technology. While the MQF architecture is clearly expressed as competency standards or learning outcomes, and VET is aligned to the ETP, there needs to be greater engagement with industry.

For Ismail, the MQF includes all three pillars: skills, vocational and higher education sectors. The SQF, shown in the first pillar of the MQF framework, reflects the skills qualifications awarded in Malaysia. It will serve as an instrument that develops and classifies qualifications based on criteria that are approved nationally and on par with international best practices at the skill level attained by the learner. Ismail believes that although the MQF is relatively new and has been adopted from international best practices (e.g., Australia and Germany), Malaysia has benefited from watching the successes and failures of other countries. The criticism that Malaysia has adopted them without adaptation is not true. The goal has been to make VET relevant to industry in Malaysia.

Chan acknowledged that the dual training experience has been heavily borrowed from Germany but adapted to suit Malaysian conditions. Further, Chan was of the view that the Skills Malaysia branding was a positive step to encouraging parity of esteem among academic, professional and vocational qualifications. However, the issue of multiple agencies managing VET is a significant problem. Additionally, self-esteem issues continue to plague VET; there is a need to improve perceptions of VET. This starts with quality of provision, which will hopefully lead to improved job outcomes and a reduction in unemployment. Quality provision was cited as a high priority for Chan. The development of relevant skills can boost the employment prospects of VET graduates. Once this happens, the community's perception of VET greatly improves, which boosts the standing of VET among employers and the community.

Surprisingly, Chan and Ismail appeared unapprehensive about the quality of provision of public-sector VET institutions, despite the consensus on the low quality and irrelevance of its offerings. They both advocated for better regulation of private-sector provision, which they believe is more difficult to regulate. This includes measures on effective management of VET institutions, better coordination to manage duplication and ensuring the funds allocated are used for training rather than frivolous expenses.

According to Chan, the regulation of private training providers is of paramount importance. There is a need for regular dialogue and constructive engagement.

Consistency of quality delivery must be emphasised and they should be part of a tripartite council with employers to ensure mutual gains. Like Singapore, there needs to be a system to accredit corporate training centres. Regulatory mechanisms should enforce punitive action to weed out unscrupulous providers. Recognition of the quality of training should be provided through a type of star rating system.

The major issue that concerned Ismail was youth employment. Ismail believes it begins with the four Es—equal access, employability, employment creation and entrepreneurship. Training must be relevant. Malaysia can certainly learn from Australia and Singapore in all four areas. Singapore has found a way to manage low-skill jobs.

Chan contended that Malaysia can learn from the Australian experience of finding closer links to the world of work. Apprenticeships are essential and industry participation is vital to success. We can learn from both Australia and Singapore. The workplace and the classroom can be two powerful learning environments. Hence, the dual training system should be developed. In Singapore, strong government leadership is a champion for VET. The government takes on a coordinating role and engages with all stakeholders to ensure relevant provision. This ensures that there is no demand and supply mismatch. Despite strong government intervention, there is no excessive bureaucracy and engagement is an ongoing factor. Malaysia can learn from this approach and accept that engagement is a continuous journey.

To Zul, Singapore is a very competitive place. While skills have become currency in the globalised world, this currency depreciates as labour market needs evolve and individuals become unemployable. This has happened every time Singapore has encountered an economic challenge. Many professionals find their skills no longer relevant to industry needs. This leads to the unfortunate situation in which skills do not convert to jobs and growth. He contended that there is a need to rethink the relationship between skills and outcomes. To him, this thinking needs to be constructed between the individual and the firm, and addressed at the systems level to build a high-skilled ecosystem and ensure industry relevance.

Gary viewed VET reform as ideally focused on ensuring industry relevance and reflecting emerging skills demands, greater mobility between occupations, strengthening and supporting the apprenticeship system and improving participation and completion rates. To him, it is about responsiveness to change, anticipating change rather than reacting to it. The WSQ in Singapore is not just a VET initiative, it is a fundamental philosophical

belief to empower the individual. The CET Master Plan 2020 was a result of a dialogue in which all stakeholders, including civil society groups, were involved.

For Zul, reform has included curriculum changes to make it employment specific, relevant to industry, competency based, capacity building and able to introduce stronger evaluation methods. The shift from an input-oriented curricula to an outcome-oriented one has been a key priority. In the European Qualifications Framework (2008) learning outcomes are defined as statements of what a learner knows, understands and can do on completion of a learning process, which is defined as knowledge, skills and competences. Additionally, the integration of vocational training within the education system and the qualification recognition framework is a priority for policymakers.

According to Gary, Singapore has evolved over the last decade and the WDA has taken on leadership for WSQ. Several institutions with clearly defined roles and responsibilities are in place. Organisations such as the IAL and Centre for Skills, Performance and Productivity are some of the initiatives that showcase the importance of VET within the Singaporean system. The most strategic change implemented by WDA in Singapore is the shift in training funding support, from 80% going to employees (via employers) to 80% going to individuals directly to empower them to select their own training.

In Australia, Steven emphasised the role played by industry skills councils. The councils have ensured industry representation, resulting in funding being directed towards priority areas. However, changes have since been made to shift the emphasis to student contributions. This has made skills development relevant to workplace needs. The logic behind the AQF wheel is to communicate the simple message that VET does not have to be ladder based, it is flexible. The goal is to create flexible pathways.

Similarly, Chris pointed out Australia's focus on four themes: industry responsiveness, quality and regulation, funding and governance, data and consumer information. This is all about driving Australian VET reform. To him, reform was based on getting industry to embrace leadership to develop training products that are responsive to the emerging skills needs and supportive of occupational mobility.

For Steven, strengthening the apprenticeship system and increasing participation in training to ensure VET relevance is key for VET reform. He also commented on registered training providers being distinguished to reflect quality organisations. They are an important part of VET system, as are training packages.

In conclusion, the data show the importance of VET reform to drive VET policy, systems and management for quality and relevant VET provision. The management of VET institutions and teachers, the development of skills to remain competitive and the access of underprivileged groups to VET have been highlighted. VET must be both demand and supply driven. Coordination of VET should be efficient and effective, instead of multiple agencies driving VET. NOSS and MGF have been instrumental in driving VET but there needs to more responsiveness to change as skills depreciate in a fast-moving world. Training providers must be regulated to ensure quality provision. There needs to be closer links to the work of work, with initiatives such as industry skills councils.

5.1.1.5. Skills Formation

Skills formation was viewed as providing lifelong learning opportunities. Lifelong learning has been broadly defined as learning that is pursued throughout life in a flexible and diverse way, and available at different times and different places. It reaches beyond schools and throughout adult life, and is based on four pillars of education for the future: learning to know, do, live and be (Delors, 1996). Formal learning takes place within an institution established for learning leading to a recognised outcome, such as a qualification. Non-formal learning happens outside a dedicated learning institution, even though an intended learning outcome may be present. Informal learning is often by intent (Watson, 2003, p.2).

The European Lifelong Learning Initiative defines lifelong learning as ‘a continuously supportive process which stimulates and empowers individuals to acquire all the knowledge, values, skills and understanding they will require throughout their lifetimes and to apply them with confidence, creativity and enjoyment, in all roles circumstances, and environments’ (Watson, 2003, p. 3). Learning has been frequently associated with formal education. Employees need to respond to changing employment needs, as the skills they possess may become obsolete with the current pace of change and globalisation. Policymakers have emphasised the need for lifelong learning for employees to stay relevant in the marketplace. The European Commission (2001, p. 9) found lifelong learning had four objectives: personal fulfilment, active citizenship, social inclusion and employability.

The Swedish National Agency for Education developed a conceptual framework for lifelong learning on two dimensions: lifelong learning that recognises an individual’s learning throughout a lifetime and life-wide learning that recognises the formal, non-

formal and informal settings. Qualifications should provide economic empowerment. Learning needs to support career progression, re-entry into learning and empower individuals to be productive citizens (Keep & Payne, 2004, p. 246).

Singapore outlined a vision for lifelong learning to consolidate the successes of the nation's past and challenging future. Two key factors were highlighted: lifelong learning and employability. Employees need to learn broad basic skills, and more importantly, have the capacity to learn new skills. The aim was to have a thinking and learning workforce so that Singapore can become a nation where learning is a national culture (Bound et al., 2014, p. 173–187).

Chan commented that the strategy for lifelong learning is focused on the individual and is organised to support individual learning at different stages of life. For this to happen, various stakeholders must be engaged. There is an urgent need for all policy pillars to be in place and work in a consistent manner. Policies should provide incentives to employers to invest in high skills and disincentives to hire foreign talent.

According to Ismail, the Malaysian socio-economic context should be considered. Unless immediate economic needs are addressed, the acceptance of the lifelong learning concept in the mindset of the population is a challenging task. To him, the *Swedish Individual Training Leave Act* is a good example of encouraging learning. It aims to achieve two goals: to encourage social and occupational mobility, and to facilitate access to education for employees with the lowest levels of compulsory education. The right to training is supported by the full employment guarantee and funded by public loans and stipends. Ismail stated that Malaysian public policy regarding adult education should have an increased focus on those who have the greatest need for education, such as those without the necessary qualifications.

To Gary, there is much support for lifelong learning in Singapore. The National Trade Union Congress called on the government to help workers conduct regular reviews of the Skills Future to reskill the workforce for greater productivity. Further, it stated publicly its intent to make lifelong learning a part of Singapore's culture. Qualifications embed the awards of three sectors in one system. The distinctive feature of the framework is the encouragement it provides for articulation to higher-level awards, particularly within sectors. Credit transfer and RPL have also been encouraged by governments.

Zul recommended using tax to motivate spending on VET. Individuals undertaking education and training, and firms providing education and training to employees can be entitled to tax benefits. For Steven, training packages within the VET sector are also designed to encourage people to acquire, over time, higher levels of skills by explicitly linking awards at different levels.

As for Chris, while it may seem that there is no formal policy for lifelong learning, there is encouragement for lifelong learning. VET has been criticised for its focus on youth, while older workers are completely marginalised when skills become obsolete in hard-hit sectors. However, apprenticeships and traineeships have no age barriers, and the number of older people taking up such training contracts has increased in recent times. Age restrictions have been lifted as well.

In conclusion, the data revealed that lifelong learning is a continuous process that supports and empowers individuals to remain relevant in workplaces dominated by rapid change. Initiatives such as tax benefits and Skills Future encourage lifelong learning. While there may seem to be a lack of formal policies for lifelong learning in some instances, there is much encouragement for lifelong learning.

5.1.1.6. Unique Malaysian Challenges

Malaysia is unique given its ethnically diverse population. Policymaking has largely been incremental and subject to the pressures of race-based politics. Historically, public training institutions were largely Malay based, while private training was populated by Chinese and Indians (Rasul, Ashari, Azman & Rauf 2015).

Chan viewed Malaysian diversity as a strength despite the challenges of reaching a political consensus on policies. While the goal of VET from a policymaker's perspective is reducing poverty and unemployment, implementation has been an issue.

Ismail believed that as more and more people acquire employable skills and generate income through wage-earning jobs or self-employment, some implementation issues will fade away. He agreed that given the acceleration of social exclusion, there is a need to rethink the way policy has been implemented. It must be done in a more equitable way. Ismail suggested that unskilled workers have been threatened by foreign workers, the lower-educated people have been threatened by competition from medium-educated peers for elementary jobs. This is because tertiary- and medium-educated individuals are unable to remain employable. This prompts them to seek jobs in the low-skills job market.

To him, while policymakers, employers, industry, training providers, trainees and instructors are key stakeholders, so too are families, higher education and the broader community. This synchronises with the view that family is an integral part of high-context cultures like Malaysia (Hofstede, 1980).

VET in Malaysia, according to Chan, has been a last choice for trainees, who are largely from the lower-economic strata of society, which is very race based. Malays and Indians form the bulk of the trainee population. The Chinese have either opted for the informal sector (joining family businesses) or moved on to the high end of VET, such as A Cut Hair Academy or the building sector. Low completion rates have thwarted the objectives of developing a skilled workforce. Improving completion rates requires the continuous engagement of trainees, families and race-based politicians who base their politics on racial factors.

According to Ismail, the Malaysian Human Resources Ministry aimed to address equity and perception by launching Skills Malaysia. VET reform projects aimed at supporting change consisted of ambitious programs that focused on improving public perception of VET. Dismantling the deep-rooted fixation that anything other than higher education is not befitting the family status has been a challenge.

He referred to the South Korean experience that has been documented by the World Bank (2009), which provided learning lessons for other nations seeking to build strong public and private partnerships. Private and public-sector cooperation in Malaysia needs to be strengthened. Ismail identified an urgent need for the roles of government and the private sector to be determined according to national priorities. While the government takes responsibility for planning, financing and regulation, the private sector takes gradually increasing responsibility for provision and delivery of training services. The lessons from Korea point towards the creation of a skills development system that forms the architecture of a long-term sustainable ecosystem that includes the private sector and adapts to future changes in labour markets and economic circumstances.

Chan stated that another major challenge has been the issue of trainer competency. The quality of training needs urgent attention. New teacher training arrangements, such as the vocational trainer officer qualification through the Central Advanced Skills Training Institute and Ministry of Human Resources have helped but are still inadequate.

In conclusion, the data summarise the unique Malaysian challenges of ethnic diversity and politics-driven policy implementation. The challenges that have arisen due to perceptions of unfairness and inequitable representation in VET have been dealt with initiatives such as Skills Malaysia. In high-context cultures like Malaysia, the family is an integral part of trainees' decision-making. Therefore, they must also be engaged. The shortage of competent vocational trainers has created challenges despite government efforts.

5.1.2. Conclusion

This section has analysed the data from policymakers from the three countries: Malaysia, Singapore and Australia. The data indicate that in relation to VET, policymakers understand the importance of reform for effective and efficient management of VET policy implementation. Through the data, a case can be proposed that while VET policymakers are aware of the need for skills development strategies to be socially inclusive and sustainable, they also are concerned with the challenges that thwart skills development. They recognise that social transfers alone will not boost inclusivity and there is a need for CET. They are concerned about getting workers out of low-wage jobs and are aware that the pace of change depreciates skills, creating the need for lifelong learning to ensure workplace relevance.

Malaysia's ethnic diversity gives rise to perception and equity issues. In high-context cultures like Malaysia, the family is an integral part of trainee decision-making and must be engaged. The sustainable development of a high-skills ecosystem can only be possible when built on the concept of higher value and productivity with the support of industry. Collaborative partnerships between public and private sectors can support the increase of both the quality and quantity of provision. Working with industry gives the process credibility, relevance and recognition. It is also a cost-effective model. Industry-led skills councils in Australia are a good example of a working partnership.

5.1.3. Summary

Policy makers are both aware of the need for reform for socially inclusive and sustainable policies as well as the obstacles to achieving them. They recognise that social transfers alone are inadequate, and skills development is essential for inclusivity. Malaysia's ethnic diversity gives rise to perception and equity issues. Collaborative partnerships are essential to build a high skills eco system and achieve policy objectives.

5.2 Data Analysis: Chief Executive Officers (Registered Training Organisations)

‘Start with the end in mind’ Steven Covey

5.2.1. Introduction

This section presents the findings from interviews with CEOs from registered training providers. CEOs of registered training providers have a unique role to play in implementing VET policy. CEOs’ views represent training providers’ perspectives. The aim of this chapter was to identify their views in response to the research questions.

As outlined earlier in Chapter 4 (see Table 4.1), there were six interviews for this group (two each from Malaysia, Australia and Singapore). To ensure the anonymity of participants, pseudonyms have been used. While the number of respondents was small, which can be acknowledged as a limitation of the research, the purpose was to obtain a dipstick view from training providers. The goal was to seek the views of registered training provider CEOs, who are at the learning site and who are critical in implementing VET. Their views contribute significantly to the data.

Each interview took approximately 60 minutes. The open-ended questions in the interview guide focused on the following areas and allowed for the identification of themes. The questions were designed to obtain a sense of how CEOs of selected RTOs perceived key factors that affect the development of VET system in their respective countries. The findings are categorised under the questions detailed in the interview guide. Further, the data analysis also uncovered several recurring themes. These themes are discussed against the backdrop of the literature review and the development of the VET system in Malaysia, Australia and Singapore.

It is essential to revisit the research question to understand the intent of the questions:

What are the challenges facing the development of VET in Malaysia?

It is also important to consider the associated research questions:

- What are the VET policy trends in Malaysia?
- How have skills formation systems evolved in Malaysia?
- How have the existing players in Malaysian VET been engaged?

- How has skills training minimised inequality within Malaysia?
- What are the lessons from Australia and Singapore?

The aim of this research is to further understand the evolution of Malaysian VET, the policy framework, the features of VET policy, the engagement of existing VET players and the parallels and exemplars that Malaysia can draw from the Singaporean and Australian systems. The interview guide is attached in the appendix (see Appendices 3–5).

5.2.2. Themes

Table 5.2: Chief Executive Officer (Industry) Themes

Themes	Keywords
Governance and policy	Policy Funding Agency coordination VET implementation
Relevance	Employability Environment Linkages with policy
Engagement	Collaboration Transparency
Lessons learnt	VET leadership Image of VET

5.2.2.1. Governance and Policy

The European Training Foundation⁴, an EU agency, commented that governance has close links with the performance of education and training policies. It influences the strategic development and implementation of policies. Governance drives the key pillars on which policies are devised and executed (Allen, 2001).

In general, RTO CEOs stated that the evolution of VET over the last 10 years has been significant, despite governance and policy issues and competing pressures from various stakeholders. They highlighted the dynamics, enablers and barriers to effective,

⁴ European Training Foundation, a EU agency is based in Turin, Italy supports countries develop human capital

transparent and accountable governance of the VET system and the extent to which changes in policy and governance have led to successes and challenges for VET development and delivery. Funding support and the struggle to shape curricula to meet industry needs has also been an issue for RTOs. Despite these challenges, all CEO participants from Malaysia, Australia and Singapore expressed like-minded views that covered similar themes, such as the need for coherent public policy and transparent governance. Themes were identified in the data that indicated that in some cases, the views of CEOs of RTOs were similar and in others, unsurprisingly different due to the diverse social and political natures of the countries.

The data showed that CEOs were critical when referring to VET policy rhetoric that mentions the benefits of skills and education in generalised terms. As detailed in the literature review, Grubb and Ryan (1999) argued that distinguishing among the different types of VET provisions is critical to effective VET policy implementation. The CEOs identified a need for pre-employment VET, upgrade training, retraining for displaced workers and remedial VET to be differentiated.

Ali, for example, the CEO of a Malaysian registered training provider has had experience in Malaysia VET for close to two decades. He has worked with public and private VET organisations. He spoke about the legislative agenda and the need to build strategic governance capacity at all levels: national, state and district.

The Malaysian National Education Policy, with the introduction of the *Private Higher Educational Institutions Act 1996 (Act 555)*, the *National Skills Development Act 2006 (Act 652)* and the Education Blueprint⁵ has given great impetus to VET. The drive towards creating a developed nation and achieving the goals of Vision 2020 clearly indicate the nation's dedication to a streamlined VET policy and the national VET blueprint. Links with national aspirations are visible. In the last five years, there have been significant policy changes (e.g., to VET funding). This researcher believes Malaysia must build governance capacity at all levels, rather than deferring all decision-making to Kuala Lumpur.

According to Ismail, the CEO of a RTO and a veteran in the provision of Malaysian VET, funding has been a challenge. While the issue of funding private-sector VET has been

⁵ The Malaysian Education Blueprint commissioned in October 2011 and released in Sept 2012 included strategies to improve the nation's education system with the identification of 11 shifts/strategies.

dealt with through the creation of the Skills Development Fund Corporation in Malaysia, there has been insufficient funding for trainees.

The policy objectives of Malaysian VET have been to address the nation's socio-economic challenges. With the objective of developing a skilled workforce and ensuring employment for the bottom 40% of the population in terms of earnings to eradicate poverty, the applicants are hardly the ones who can independently afford VET. Several RTOs have also been challenged and have experienced great difficulties because of a lack of funding. With 1,200 private training centres and 400 government training centres, the growth of VET is restricted by quotas and a lack of funding. Without funding, low- and middle-income families will not be able to afford training. There is a mismatch in the funding system with the 'buying places' approach adopted by the Skills Development Fund. The system is not viewed as transparent by most RTOs. It is supply driven rather than demand driven. Funding remains a serious and contestable issue, as it does not align with national aspirations.

While there has been a clearly enunciated legal framework and a national strategic direction for VET, the plethora of ministries handling VET has resulted in fragmented implementation. Ali commented on the need for greater coordination between the various agencies involved:

There is a need to have a central application system for VET as now being practised by higher education in the public-sector universities in Malaysia. There is a need to harmonise accreditation and have a single agency to accredit VET programs like in Australia. Such a move with single agency leadership will streamline implementation.

For Chan, a CEO of a Singaporean RTO, governance and policy is critical for VET success:

In Singapore, there was a marked difference in the way the government handled the 1998 and 2008 recessions. Policies and governance changed with changing times. New policies were introduced to reflect linkages with nation's vision. WSQ under the WDA was created and the CET agenda was placed under the Ministry of Manpower. This kept the focus on VET and employment, unlike prior to 1997 when the MoE focused on the pre-education sector. With a single body managing the provision of CET, it was easier to differentiate VET provision and enable greater coordination between government ministries and agencies. CET became more coordinated and focused.

Low, another CEO from a Singaporean RTO concurred with this view and added:

It has all been on focused coordination with a strong legislative agenda. The key is that VET implementation is market driven. While some sectors have been easier to organise, some have proved to be more challenging. This could be due to the way the sector has been organised.

According to Chris, who runs an Australian RTO, one of the significant developments has been the emphasis on RPL:

RPL provides recognition for vocational knowledge or skills gained on the job either by informal or unstructured learning experiences. This can lead towards the completion of a recognised formal qualification. This is significant given the broader socio-economic objectives of VET and national context.

For Steven, the quality framework is important for effective governance:

The RTOs are governed by the AQF, which specifies the requirements for assessments and RPL. Additionally, the AQF Register of Authorised Accrediting Authorities comprises authorities that accredit AQF qualifications including those responsible for accrediting the qualifications which they themselves deliver, and authorities that authorise providers to issue qualifications. ASQA manages the process.

The data show that the CEOs of RTOs in the three countries identified several significant policy and governance challenges: linkage with national aspirations, legislative agenda, funding and the need for coordinated implementation with single agency leadership. It is quite apparent that training providers did see the strong need for government intervention and a coherent policy that supports the nation's goals with VET. The RTO leadership also expressed the need for coordinated action. While industry is viewed as a dominant driver and the government as the champion, training providers are perceived as key players to enable the nation to achieve VET objectives. Inadequate funding was cited as a major obstacle.

As reviewed in the literature review, skills formation systems are characterised by three insights (Busemeyer, 2009). First, collective skills systems are fragile institutional arrangements and require the continuous support of stakeholders. Second, skills formation systems are largely conditioned by the decisions made on the division of labour between firms, employer-led associations and the government on the provision and funding of skills development. The third refers to four points of conflict: who pays for training, who provides training, who controls the oversight of the provision and the linkage between VET and general education.

5.2.2.2. Relevance

For VET to be considered successful and useful, it must be relevant to stakeholders. VET was identified by policymakers as a reliable method for creating socio-economic growth goals. They also identified VET as connecting its graduates to work opportunities. This view was often deemed to be taken for granted. Employers wanted VET graduates to be employable with relevant workplace skills. RTOs wanted to have a VET provision that was considered useful by employers. Trainees, of course, wanted to be employable.

As reviewed in the literature, the long-held view that education does not create jobs is yet to firmly inform VET policy and practice at different levels of decision-making. Numerous studies strongly suggest that employment is a product of a solid marriage of sound macro-economic and social governance policies and actions. Luhmann and Schorr (1979) indicated that systems theory allows greater understanding of the relationship between subsystems in a society, their interaction, specific working principles and the way they establish a difference between themselves and their environment. When looking at VET as a system, the various levels on which it operates become relevant as well. VET needs to be understood from pedagogical and didactical perspectives. Studies also indicate that for the poor, and more so the unemployed youth, to disengage themselves from economic deprivation, there must be an enabling environment (Palmer, 2007). The enabling environment relates to both internal and external factors.

The internal enabling environment is one in which education and training are delivered, while the external enabling environment is critical for enabling VET beneficiaries to translate gained capabilities and competencies into economic and social returns. While RTOs are responsible for the internal environment (the quality of training provision), the external environment is dependent on several other variables, such as legislation, funding, streamlined implementation and the creation of a learning culture.

For Ali, private-sector RTOs being organised under an association has been very beneficial in terms of relevance:

The private sector has been formalised under FEMAC. The dialogue with government and industry helps the RTOs stay relevant through a pulse check of the needs of the nation and employers. The rating system differentiated the quality of RTOs and provided incentives. Those with three-star ratings and below received no funding, four-star ratings received specific funding based on quotas, while five-star ratings received unlimited funding, subject to funds availability. From 2015, government-based RTOs are also required to go

through the star rating system. It is not just about delivery but also the issue of funding that determines the sustainability of VET provision.

According to Ismail, while relevance is important, it is also about differing standards in VET provision:

Too many agencies and ministries manage their own VET institutions. There are different standards. There is limited authority and unclear roles and responsibilities. Curricula is different, delivery is different. The outcome is that there is no relevance to the working world, defeating the original purpose of providing employment.

The Singaporean experience was to build an evidence-based policy and practice in VET to stay relevant. As indicated by Chan:

In Singapore, it was only in recent times, the public policy action to support workforce development and to develop a comprehensive CET sector was initiated. CET was started with the formation of the Singapore WDA in 2003. Singapore had challenges building the infrastructure but has moved rapidly to build an evidence-based policy and practice in VET, referred to in Singapore more broadly as CET. This initiative ensured the relevance of VET provision to industry.

For Low, the key to remaining relevant was to manage changes happening at the global and national levels:

While the number of low-skilled workers decreased in the late 1990s and early 2000s, this was deemed to be major issue for worker development policy. Given that the Singapore economy was changing from a manufacturing one to a service-based one, the government had a serious look at both VET and employment policy. The abrupt change due to the impact of globalisation led to many being without jobs. Yet, the newer industry faced challenges getting talent. While unemployment was managed by retrenchment of foreign workers, it was still politically challenging.

Chris commented on the need for the reform process to be consultative:

Many agencies operating outside the relevant federal departments were brought in as part of the reform process. The development of the training packages was reviewed recently. The key was to involve industry in a more relevant and significant way.

Steven observed the differences among employers:

There is a view that large businesses have a greater voice than SMEs. The needs of small business are different. The environments are different. Policy implementation remains a thorny issue. With the reforms, hopefully the

challenges will be addressed and VET will remain relevant to all players within industry.

To Ali, the government has emphasised the need for industry to have skilled workers. This has been demonstrated with several reform initiatives, giving industry a greater say. However, he believes RTOs are only enablers. Employers and students are the key drivers; RTOs are facilitators.

Ismail stated that the drive towards creating a developed nation through Vision 2020, which clearly outlines national goals, infrastructure must be created to develop a skilled workforce:

The Eleventh Malaysia Plan identifies VET as a game changer for the future socio-economic prosperity of Malaysia. There must be linkage with national plans.

On the contrary, for Low, relevance is all about reducing the number of unemployed:

Basic education in Singapore is guaranteed by law. Being a small country dependent on just people, the goal is to ensure every single citizen is skilled and employable. The goal is to reduce the number of unskilled workers and organise industry into sectors to ensure employability. Another goal is to promote portability and mobility.

For Steven, it is about a competitive VET marketplace:

The training market is open and funding is more diverse. Having a strong pool of RTOs is important, as customers should have choice. A competitive training market is a key goal.

The data from the interviews with the CEOs of RTOs indicate the need to stay relevant for VET to be successful. This includes making graduates employable, participating in a strong competitive training market, organising industry into sectors, linkage with national plans, building evidence-based policy and practice, managing change, ensuring adequate funding and finally, ensuring consistency of quality in VET provision.

As examined in the literature review, while employment is the product of economics and governance, the goal of any employment policy is to address unemployment and build an inclusive society, minimising socio-economic gaps. The main theory driving the approach towards building an inclusive society is vocational theory. Blankertz (1985, p. 108) stressed the importance of an educational concept that was oriented to universality and individuality against an education for industriousness—one that was likely to lead to class

applications because they may be perceived as education for the poor. His argument that vocational education should be freed from the grip of an historically shaped culture of vocation and life has resonated loudly in debates on vocational education (Gonon, 2006). The CA purports that freedom to achieve wellbeing is a matter of what people can do and be, and thus, the kind of life they are effectively able to lead.

While the aim of effective public policy is to identify challenges and resolve them, problems can emerge in countless numbers of ways and require different responses. With several stakeholders competing to advocate their positions and mobilising allies to support their stance, government must be goal focused. While VET is widely recognised for generating employment through skills-based work and creating a more inclusive society, there is a strong need for evidence-based policy and practice. Further, there is need for an internal and external enabling environment that is crucial for allowing VET beneficiaries to translate gained capabilities and competencies into economic and social returns (Jjuuko, 2010).

5.2.2.3. Engagement

The CEOs of Malaysian RTOs highlighted the fragmentation of VET implementation, with multiple agencies coordinating VET implementation leading to a lack of collaboration. This was identified as a significant challenge to engage VET players. VET for employability and sustainable livelihoods has been identified as a major priority by governments given the evidence that VET can improve socio-economic status. Yet, government policymaking in VET is more intuitive than research based (Maclean, 2011). The understanding that collective skills formation plays a crucial role in defining access to secure and high-skilled employment was not reflected at the grassroots of government. Collective skills formation is only possible with continuous support, stakeholder engagement and governance (Hall & Soskice, 2001).

From the first Malaysia Plan until the latest (Eleventh) Malaysia Plan, the VET sector was categorised into two terms: education and training. While ‘education’ was used by the MoE, ‘training’ was used by various ministries such as the Ministry of Human Resources, Ministry of Youth and Sports, Ministry of Rural and Regional Development and the Ministry of Agriculture and Agro-Based Industry. The MoE was responsible for the polytechnics, vocational colleges, technical schools and community colleges. The other ministries operated a varying number of institutes (e.g., Industrial Training Institutes, National Youth Skills Institutes, MARA vocational institutes, and private skills

training institutions). Pang (2011) and Othman (2003) highlighted that Malaysian VET was divided into three streams:

- higher education
- technical and vocational education
- vocational skills training.

There are two accreditation bodies: the Department of Skills Education (DSD) and Malaysian Qualifications Agency (MQA), a division within MoE. While DSD performs accreditation for the skills sector, MQA performs accreditation for the vocational and technical sector, and the academic sector. The two bodies have different standards and processes for accreditation, resulting in multiple qualification systems. Segregation between skills and technical and vocational sectors by the MQF created confusion among students and employers on the value of the certificate (Pang, 2011).

Overall, the VET sector is fragmented, with multiple qualification systems and agencies, making it difficult to synchronise. This highly fragmented administration has resulted in poor coordination and duplication of responsibilities. Additionally, it resulted in the allocation of funding to bureaucracy rather than training. Engagement among and between various VET players has been a major challenge from a Malaysian perspective.

Ali commented that while stakeholders may include the government, employers, industry associations, instructors, trainees and RTOs, he perceived each stakeholder differently. To him, the relationship was defined by the power possessed by each stakeholder. Employers were identified as the significant stakeholder, the principal recipients of VET, because they were guaranteed of a steady flow of skilled workers:

The employers are key as they are the ones who provide the employment opportunity. Without them, it does not really matter how good the students are or how good the provision of instruction is or how well the funding is, there would simply be no employment. They need to be engaged as they will be evaluating the outcomes of the VET system.

This view runs contrary to the literature review and reinforces that the long-held view that education does not create jobs does not inform VET policy and practice. Numerous studies strongly suggest that employment is a product of sound macro-economic and social governance policies and actions.

For Ismail, all VET players need to be engaged for quality VET provision:

To me it is not about this or that. Every single VET player needs to be engaged and there needs to be close collaboration between all players. However, transparency is important. In the Malaysian system, the RTOs in the public sector and the RTOs in the private sector are treated differently by the government even though the employers prefer the business-driven approach of the private sector. Improving the confidence in quality provision. The lack of transparency hinders engagement.

For Ali, engagement is about building confidence in VET implementation:

Assessments remain a serious issue. While DSD certificates are looked upon favourably, apprenticeships are not promoted enough. Again, dualisation at the school level is too early. It does not make provision for late bloomers. Dualisation is not by choice but by IQ [intelligence quotient]. This is not a reflection of success in life.

Ismail stated that the trainee should be a key focus because they are important stakeholders:

After all, the macro goal is to ensure the national objectives are met. With about 500,000 school leavers, only 230,000 get into higher education with 45% in public-sector universities and the remaining in private-sector universities. 110,000 get into VET with 70% in government RTOs and 30% in private RTOs. There is another 110,000 unskilled who get into the workforce. The national objective is to minimise the number of unskilled workers in the country.

This is a thoughtful view of a unitarist viewpoint. It also reflects practical and pragmatic concerns (Lamm & Rasmussen, 2008). The unitary perspective views the organisation as a team 'unified by a common purpose' (Storey, 2000). This view considers all people within the team as part of one team with one goal and loyalty structure. It considers that there are no barriers between groups or departments that could lead to differences and go against the notion of common values and goals that would not be advantageous to the organisation. However, other respondents took a more pluralist view, and tended to shy away from identifying a principal stakeholder.

Ali commented about the dispute that arose recently between policymakers and the industry association. The policymakers decided to arbitrarily use employers' funds for other forms of funding, such as globally recognised international certification.

With the formation of the Malaysian Federation of RTOs, it has been possible to engage the Department of Skills Education and the Skills Development Fund. Lack of transparency and arbitrary decisions do not lead to engagement. The myopic view of policymakers and regulators unfortunately leads to engagement sessions without outcomes.

Ismail commented about the labs conducted by the Performance Management & Delivery Unit (PEMANDU).

While the departments involved in VET may have not engaged the RTOs, PEMANDU with the task of driving the government's ETP has convened labs with the stakeholders to focus on VET. It is just that the engagement can be more coordinated and regular.

RTO leaders from Singapore and Australia viewed the engagement process in a variety of ways, as exemplified in the following comments.

Chan stressed the need for constant dialogue:

In Singapore, the dialogue with the industry associations has been very structured and frequent with the well-organised sectors such as the banking, information technology, and aviation industries. Nevertheless, it has been challenging with security, retail and other such industries.

Low highlighted the need for institution building. According to Low, Singapore, has built institutions that drive change through a streamlined engagement process:

With the formation of WDA and the IAL, the feedback to and for between policymakers and industry and RTOs has been a regular one. Institution building is key. Singapore CET is modelled both on the UK and Australian VET and AQF system; there has been a strong industry engagement in the design of occupational skills standards through the sector-based industry and training councils.

For Chris, there is evidence of strong industry engagement:

In Australia, the stakeholder engagement has been at all levels. The very fact that training packages are developed with the cooperation of industry to meet the training needs and RTOs are authorised to deliver the training packages is an indication of strong industry engagement.

Steven stated it was the open-market system that drives engagement:

The collaborative and transparent process that ultimately led to the development of an open training market has made the training market more competitive with more private RTOs gaining funding. The AQF and organisations such as industry skills councils that are independent, industry-led boards brings together industry, educators and governments to jointly decide on a common industry-led agenda for action on skills and workforce development. While decisions on funding have been contestable, generally there has been dialogue and discussions on VET in an open way.

The words ‘industry’ and ‘stakeholder’ have multiple meanings among stakeholders. In the interviews, there was a tendency for those taking the more unitarist view to define it as employers, while those with a more pluralistic client perspective tended to have a broader definition. Still, there was no standard definition, an inconsistency that appeared in the policy literature although not specifically acknowledged. So, on one end, industry is defined as employers. At the other end of the spectrum, after analysing the various interview comments and the policy literature, industry seems to be a specific value chain bound by the production of a common set of goods and services, which includes customers, employers, managers, taxpayers and government, but whose boundaries are quite permeable.

The variations in definitions of the principal beneficiary have implications for the evaluation of VET. These variations reveal that the definition of value is potentially both political and subjective, as it is shaped by who is deemed to hold decision-making power at particular points of engagement.

It is also clear that the tension in the literature (as exemplified in the comparative analytical framework) reflects real-life tensions among stakeholders involved in the VET implementation process. That tension is expressed through the varying orientations of VET, whether it is unitarist or pluralist in outlook. If VET is fundamentally unitarist, given the power that employers exercise over the engagement process, this may translate into VET being more instrumental in nature to the neglect of developmental concerns, such as employability and development of trainees. Therefore, the role of employers and how they execute that role can impede the VET engagement process for other stakeholders. For example, employers may insist on certain types of training that may not result in trainees being adequately skilled to compete in the wider labour market; this is accepted against better judgement. Conversely, there is a competing view among some stakeholders to make VET pluralist in its outlook, and to provide balance to all stakeholders’ needs. Thus, there is no clear-cut preference for one paradigm. The data present a reality that is fraught with tensions between pluralist and unitarist concerns, and which is shaped by the power bases of the different stakeholders.

In summary, each of these countries are at different points of the developmental timeline. While Australia has had considerable lead time to revisit and review some of its policies and adopt best practices, Singapore has capitalised on its focused approach and smaller population to move faster. Malaysia must harmonise and streamline VET implementation.

In general, there was consensus that the value of the VET system can only be gauged by the impact it has on stakeholders.

5.2.2.4. Lessons Learnt

Understandings of VET and the lessons learnt over the last 10 years can be explored using the framework published by TAFE Directors Australia (TDA) on six criteria:

- Governance:
 - national VET policies
 - national agencies
 - national coordinated funding
 - nationally developed pathways between education sectors
- Industry engagement:
 - national skills councils
 - advisory boards
 - research component
 - workplace training and placements
- Competency-based standards:
 - nationally endorsed
 - skills aligned to specific occupations
 - skills aligned to level of competence
- Qualifications framework:
 - nationally endorsed
 - competencies aligned to levels of qualifications
 - pathways to and between school, vocational and higher education
- Quality standards for providers:
 - nationally endorsed
 - registration standards for providers
 - standards for regulators
 - audit process and schedule
 - standards for course development
 - standards for data capture and analysis
- Delivery and assessment:
 - qualified teachers and trainers
 - RPL

- flexible learning options
- moderated and validated assessments.

For Ali, there is a need to address the disconnect between variables in the implementation process:

In the Eleventh Malaysian Plan (2016–2020), six strategic thrusts and four game changers have been identified. Accelerating human capital development is a strategic thrust and one of the game changers is the focus on VET. The feedback from the VET players is clear; there is disconnect between what the graduates possess and what the workplace needs. To ensure supply and demand is more or less equal, there is a need for continuous dialogue. Formal institutions as in Australia and Singapore need to be developed and built so the process operates seamlessly. Governance needs to be improved. The legislation supporting VET and the national skills standards are what I would say is the face of Malaysia VET. The downside is the inconsistent assessment process leading to doubts on the integrity of qualifications.

Ismail was articulate on the need to erase the perception that VET is for underachievers:

There needs to be cooperation between all the VET players across the full value chain. There is a need to change the perception that VET is for underachievers and this calls for continuous interaction with all stakeholders.

Ali also expressed frustration with the assessment process:

Setting competency standards and curriculum development has been a well-defined process but assessments have been very inconsistent. Given the fact that assessments are centralised and is coordinated by DSD makes the process not that transparent. It would be welcome to have DSD take the initiative for a better dialogue with the stakeholders to ensure confidence in the qualifications and quality outcomes. While the certification from DSD adds some value, the assessments are a contentious issue.

He further added:

The Skills Development Fund and the NOSS are the key to Malaysia's VET system. We still have some way to go with industry engagement. It has been a challenge even though FEMAC has promoted industry engagement. Critically, we have to change the way VET is viewed in Malaysia. We have to change the paradigm of professions. Again, the public-sector RTOs and private-sector RTOs are treated differently and that is just unfair. The integrity of qualifications has to be improved. The requirement that all vocational training instructors must be certified by the government-based Centre for Advanced Skills and Training Institute (CIAST) has been unhelpful. The quality of instructors does not meet industry standards. And RPL for instructors has just been introduced.

Ismail was critical of the multiple agencies managing VET:

With the government now recognising the need for VET as a game changer and the plan to have a single agency to accredit skills training is lessons learnt over the last decade. This is certainly an attempt to model the success of Australian and Singaporean best practices. The Malaysian government has to recognise that the school system has failed and there is a need for remedial training. With disciplinary and social problems abound, there is a need for VET not just to consider skills but also to develop a whole person.

He further discussed the need to partner with industry to make VET a career of choice:

The need to partner with and engage industry to adopt industry relevant qualification is a lesson learnt and the concerted effort to make VET a career of choice rather than one for school dropouts and low achievers is a good move. Skills Malaysia is a good attempt to rebrand VET in Malaysia. In the west, VET is structured and professional. Government commitment and support is on a more sustainable basis. The Malaysian government should champion VET, not the private sector.

Ali considered the rebranding of Malaysian VET as a good move:

The Malaysian government has created the Vision 2020 plan and the ETP with the goal of becoming a high-income nation with a per capita income of US\$15,000. Skills Malaysia is an attempt by the Ministry of Human Resources to rebrand VET and change the paradigm of professions and the perceptions of Malaysian society. Examples of A Cut Academy trainees getting high-income jobs as chefs and the Automotive College trainees getting high-paying jobs as mechanics in Porsche and Mercedes Benz have been touted as great examples of full trainee employability with high income. The media has to play a role and highlight the VET awards at national, ASEAN and world competitions.

Ismail talked about a success story and spoke of the need to scale up such experiences:

PPPs have been only successful in recent times. For instance, in the Iskandar Regional Economic Corridor, Lego Land had a shortage of workers in the hospitality trades. With the Malaysian VET RTOs' private association, 450 were trained to meet the requirements within 18 months. Private RTOs must be funded and encouraged to create an infrastructure.

He further added the need to learn from Singapore and Australia:

Licensing and certifications are key. Portability of qualifications is another factor. Funding is another area that requires a review. Without funding, there is unlikely to be any growth in VET. Yet there is much to do to stop the misuse of funding. And, also improve the delivery and assessment of VET in Malaysia.

For Ali, the focus on numbers is not a reliable yardstick:

The bias on numbers of participants on VET and statement of attainments issued and the correlation to funding makes this whole thing untenable. Everyone wants to put people on the program, irrespective of whether it is valuable or not to the trainees.

Ismail concurred with improving the image of VET.

Policy initiatives like Skills Malaysia have improved the branding of VET. Policy initiatives such as those that led to the development of industry-led bodies has led to improved coordination with industry. The formation of 21 industry-led bodies is a significant development. Additionally, the VET fund, *Perbadanan Tabung Pembangunan Kemahiran* (PTPK), and the Skills Development Fund Corporation has boosted the development of training providers as well. Yet, VET has not been able to attract quality students as it is seen as for those who failed in the school system.

There is a mismatch in the way VET should be seen and how it is being seen. There is a need to improve its image. One strategy is to help clients find their way around VET. There is a need to improve the image of VET and make learning pathways seamless.

Again, for both respondents, it was about funding and improving the image of VET:

The Malaysian National Education Policy has been focused on employment. While funding for VET has been increased, VET is still seen as a program for unemployed underachievers. It is not about a career of choice. Hence, there is a need to rebrand VET and communicate the pathways to higher education in a better way. Parents are concerned about the stigma associated with VET and they express concerns about quality and employability given that the loans have to be paid back with 3% interest within six months of graduation or working.

For Chan, it has been all about institution building:

Building the institutions such as WDA and IAL and streamlining VET implementation is the biggest lesson learnt. Singapore identified eight features of VET as a result of the lessons learnt. Clear vision and mission focus has been on addressing the lower 25% of the school cohort. This has created alternate pathways.

Two key developments can be identified with Singapore's CET. The Employability Skills System and the WSQ system. Ten employability skills groups were identified, including literacy and numeracy. This was based on the UK's key skills model and the Business Council of Australia's employability skills. Courses were offered at operator, supervisory and managerial levels. The CET Master Plan 2020 and the ASPIRE apprenticeship system were designed to overcome what the government calls the 'flipping burgers' syndrome'.

Low discussed industry engagement pre- and post-1998 as lessons learnt and the need to appeal to society rather than just a few defined groups:

Since the 1998 economic crisis, the government has put action plans in place to translate the gains from the lessons learnt: strong industry engagement and ensuring the unskilled are brought into the WSQ. The goal is on the slogan *Hands-on, Minds-On, Hearts-on* campaign to keep the focus on making trainees employable. The rigorous curriculum development in partnership with industry. The goal is to make VET more appealing to society.

The Singapore CET system is characterised by strong industry engagement through sector-based industry skills and training councils and the national WSQ framework. VET has to be socially inclusive. Equality and access is key, the goal is to make learning a way of life.

For Chris, the reform journey was a lesson learnt:

The AQF and VET reforms are a result of the lessons learnt, there is still much to be done. One of the other lessons learnt is attendance on a course is not necessarily learning, the trainee could just be a passenger.

Engagement was important for Steven:

Several of the reforms, looking at the adequacy of the training packages and bringing in industry representatives who have greater grassroots knowledge are all part of the lessons learnt. The RTOs are a backbone of Australian VET. Greater consistency is achieved by the way they are governed. Training packages also are a key feature of Australian VET. The industry is engaged in their development to meet industry needs.

In summary, the CEOs of the RTOs identified lessons learnt as the need to build institutions, coherent leadership, industry engagement and a focus on reforms for the success of VET implementation.

5.2.3. Conclusion

The data show that Malaysian RTOs viewed government-supported funding as critical for their survival; they see private RTOs as more business driven than public-sector RTOs are. They viewed governance and policy, staying relevant in a world dominated by change, continuous engagement with stakeholders, the need to erase negative perceptions of VET and the need to learn from Australia and Singapore best practices as essential. While the Australian and Singapore CEOs outlined their lessons learnt, Malaysian CEOs pinpointed the issues of fragmented management and inadequate funding in the VET landscape.

The history of government-led funding also reveals that with demand-led philosophy underpinning the structure of funding, some sectors with longer histories of training have received more funding over time (Green et al., 2003). Government funding was also

viewed as both saviour and the devil. Respondents viewed it as driving training investment, but when viewed in tandem with performance reporting system, it creates irrational incentives. There is a proliferation of irrelevant and low-level qualifications (Department for Innovation, Universities and Skills, 2007). While the focus is on creating a skilled workforce, the spending of funds without achieving desired results is the unintended outcome.

The strategic HRD/VET logic views government VET investment as a means to a desired end and makes no allowances for potential distortion. When viewed through the critical HRD and stakeholder lenses, it can be argued that funding, at least in some instances, is not only the means to achieve outcomes, but can be an end. The financial viability of an RTO becomes more important than skills acquisition. This paradigm can consider how different values among stakeholders can alter behaviour in response to system incentives (Parkes, 2012).

Kazmi (2013) identified a study by TDA, the peak body representing the government-owned Technical and Further Education (TAFE) providers in Australia. TDA conducted research into the VET systems of five selected countries. Six features were intrinsic to the VET system in Australia. This was used as a baseline for a five-country comparative study, and how this has been developed, reviewed and refined:

1. Governance
2. Industry engagement
3. Competency-based standards
4. Qualifications framework
5. Quality standards for providers
6. Delivery and assessment.

Again, care must be given to the social and cultural fabric of every country when discussing a system. Taking an evidence-based approach in using this model, the stages for development for each of the six features were considered and ranked in a nominal way. The goal was not to provide a definitive achievement but to understand the features of the country's VET system using the six stages of VET system development:

1. Clarity of pathways and articulation within VET provision
2. Clarity in delivery and assessment regimes
3. Clear qualifications framework

4. Presence of a competency-based system
5. Presence of quality standards for providers
6. Presence of industry engagement.

5.2.4. Summary

Malaysian RTOs highlighted the need for government-supported funding and perceived private RTOs as more business driven than public sector CEOs. While funding was essential as it was driving training investment, but when viewed in tandem with performance reporting system, it was seen as creating irrational incentives. There was a proliferation of irrelevant and low-level qualifications. Continuous engagement with stakeholders, the need to erase negative perceptions of VET and the need to learn from Australia and Singapore best practices was considered critical of Malaysian RTOs.

5.3 Data Analysis: Vocational Education and Training Instructors

‘Data are just summaries of thousands of stories—tell a few of those stories to help make the data meaningful’ Chip and Dan Heath.

5.3.1. Introduction

This section presents the findings from the interviews with VET instructors. The data are discussed and analysed. VET teachers have a distinct role to play; they are required to be experts in their subject areas and require a good understanding of pedagogy. The aim in this chapter was to identify:

- To what extent, if any, do teachers of technical and vocational subjects need a different pedagogical approach than teachers in general education?
- Is the understanding of VET instructors about their roles in achieving quality outcomes in accordance with policy propriety?
- How aware are they of the challenges in the development of the Malaysian VET system?

There were 10 interviews for this group of respondents. While all instructors were Malaysian, from the private and public sectors, there were no vocational school teachers. They were primarily from two workplace VET schools. To ensure the anonymity of all participants, pseudonyms have been used. While the number of respondents may seem small and can be acknowledged as a limitation of the research, the purpose was to ensure an informationally representative rather than just a statistically representative sample. The goal was to seek views from a sample of instructors who are at the learning site and critical in delivering the VET curriculum. Their views contribute significantly to the data.

Each interview took approximately 40–60 minutes. The open-ended questions in the interview guide focused on the following areas and allowed for the identification of themes:

- Their capabilities to deliver VET:
 - their qualifications
 - their industry experience
 - their development plans
- The engagement of the VET instructor:
 - how have they been engaged

- in what specific areas
- Lessons learnt in:
 - the last decade
 - lessons learnt from Australia and Singapore.

It is essential to revisit the research question to understand the intent of the questions.

What are the challenges facing the development of VET in Malaysia?

There are additional associated research questions:

- What are the VET policy trends in Malaysia?
- How have skills formation systems evolved in Malaysia?
- How have the existing players in Malaysian VET been engaged?
- How has skills training minimised inequality within Malaysia?
- What are the lessons from Australia and Singapore?

The aim of this research is to understand the evolution of the Malaysian VET system, the policy framework, the features of VET policy, the engagement of the existing VET players and lessons learnt. The rationale for seeking the views of VET instructors is due to the key role they play in delivering the VET curriculum. The purpose of this chapter is to gain a profile of VET trainers and to study their competency, trainers' competency requirements, practice and views in response to the changing face of VET.

5.3.2. Themes

Table 5.3: Vocational Education and Training Instructor Themes

Themes	Keywords
Sustained vocational pedagogy	Importance of pedagogy Domain expertise Learning processes Learning outcome Sustainability
Competencies of the VET instructor	Competency Change
Industry relationships	Collaboration Skills ecosystem Skilled talent pipeline
Lessons learnt	Branding of VET Meeting industry needs Investments

5.3.2.1. Sustained Vocational Pedagogy

While there is a wealth of literature on academic pedagogy, VET pedagogy is under-researched and under-theorised in the Malaysian context, unlike Australia or Europe (Farrar & Trorey, 2008). Current reforms assume there are major challenges in delivering VET more efficiently to achieve the desired quality outcomes espoused through Malaysian VET reform. This includes better in-service training, continual professional development, more relevant curricula, training materials and dynamic teaching methods for better learning outcomes.

Pedagogy is often referred to as the discipline that deals with the theory and practice of education. It is the study and practice of how one can best help students to learn (MacNeill, Cavanagh & Silcox, 2003). Pedagogy seems to have four interrelated clusters of meaning in the educational literature, pedagogy as a synonym more for teaching rather than instruction (Mortimore, 1999), pedagogy as a political tool for the shaping of students' beliefs (Freire, 1977; Smyth, 1988), pedagogy as student-centred learning and teaching that specifically excludes didactic teaching (Hamilton & McWilliam, 2001) and pedagogy as student–teacher relationships (van Manen, 1999).

The aims range from general education to a narrower definition of vocational education. That is, the imparting and acquisition of a specific skill rather than general skills. The teaching strategies are correlated with the instructor's own beliefs of instruction and the students' background and entry levels to achieve the learning goals (Grubb, 1999, p. 32).

For Lucas (2014), vocational pedagogy refers to 'the science, art and craft of teaching and learning vocational education' (p. 9). Put simply, vocational pedagogy is the sum of the many decisions that vocational teachers take as they teach, adjusting their approaches to meet the needs of learners and to match the context in which they find themselves. Illeris (2002) highlighted the need to understand the three dimensions of VET learning: the engagement and unison of the hand, mind and body.

Five questions arise when discussing vocational pedagogy:

1. Do certain vocational subjects have 'signature pedagogies'?
2. What are the desired learning outcomes for VET?
3. Which learning and teaching methods work best in VET?
4. How can VET teachers become more confident and competent in vocational pedagogy?
5. What are the leadership implications of a sustained focus on vocational pedagogy?

To understand a culture, a study of its nurseries is essential (Shulman, 2005). For Shulman, there is a similar principle to understand professions and discover why they develop as they do. He suggested the study of their nurseries or their forms of professional preparation. Shulman (2007) called the characteristic forms of teaching and learning signature pedagogies. Signature pedagogies make a difference. They develop habits unique to the workplace culture. In the context of nurseries, signature pedagogies prefigure the culture of professional work and provide early socialisation into the practices and values of a field. Whether in a lecture hall or laboratory, a design studio or clinical setting, the way professionals teach will shape how they behave.

Vocational pedagogy can directly affect the quality of teaching and learning. It can help achieve desired learning outcomes. Clarity about what vocational pedagogy is forces us to think about the wider goals of vocational education. This sharpens the focus on the goals of VET and improves its status. Vocational pedagogy enables us to develop models

and tools to allow VET teachers to match teaching and learning methods effectively to meet the needs of their students and contexts.

There is considerable debate in constructing vocational learning. A wide range of vocational learning methods are used in a range of contexts internationally. Perkins (2009) highlighted the need to choose and blend the method based on the nature of the subject and the desired vocational outcomes. VET instructors largely agreed that the decision to choose the most suitable method is not binary (either/or) but largely the decision of the VET instructor.

There has been much discussion about the role of the VET instructor and the need for them to have a strong pedagogical foundation to enable them to gain confidence. It is arguably an even more challenging role than being a general education teacher because its contexts are more varied. It requires expertise in both a vocational field and in vocational pedagogy. This requires VET teachers to have a confident and expansive view of the full range of outcomes (Lucas, 2014). The challenges highlighted include the preparation of the VET instructor (Majumdar, 2011), avoiding technological irrelevance and ensuring the relevance of curricula to workplace needs (Mohd, 2011).

The leadership role of the VET instructor at the learning site has been the topic of much commentary. Their decisiveness and competency to adapt the delivery to differing contexts has been highlighted through their responses (Lucas, 2014). Not unexpectedly, when interviewing the VET instructors, the importance of pedagogy arose regularly as a theme. Several instructors spoke about the importance of inducting the trainee into the workplace culture, the need to ensure the relevance of the curricula to the workplace, making it student centred and adjusting approaches to meet the learners' needs by developing models to match the content and learning tools. Another important factor brought out in the interview data was the importance of the VET instructor in terms of their confidence and leadership.

Rashid, for example, has worked in a state-funded private-sector led VET institution for the last five years. He is currently a senior VET instructor and spoke of the need to socialise the trainee into the workplace culture depending on the professional field. This starts, according to Rashid, with a workplace relevant curriculum and ensuring that curriculum changes have the approval of industry. He discussed the need for continuous consultations with industry and for VET instructors to be part of the engagement process:

I think it is very important for the trainee to be prepared for the workplace. The curriculum has to be relevant to the workplace. It is important to engage the industry advisory panels to review the curriculum and the lesson plans regularly. The teaching plans must be in sync with the recommendations of the industry advisory committee. Policymakers at JPK (Department of Skills Education) need to consult the industry advisory panels on changes to the curriculum. For instance, the decision to move from the 70% practical and 30% theory to a 50:50 model is not necessarily appropriate for the trainees. One of the complaints from the industry is about relevance. We can only address this with the involvement of the industry. The VET instructional teams should be part of this process. That is why at Penang Skills Development Corporation (PSDC), we insist on working with industry closely to build curricula that works best for them.

For Chan, a new VET instructor with less than one year experience, content expertise was critical. Chan described his lack of content expertise as a limiting factor in his ability to deliver the curriculum. Some learning methods required him to be more adept with the content for quality delivery. While his colleagues were very willing to help him, he observed that his teaching skills made him feel inadequate. He believed that gaining further content expertise would aid his efforts to link his teaching and learning methods:

I have the teaching skills but do not have the in-depth content expertise. Some of the trainees are aware of my inexperience as I am unable to deal with questions effectively. Operating some of the equipment is challenging for me given my lack of workplace experience. This prevents me from choosing the right instructional methods. I choose to lecture at the classroom more because of my lack of familiarity with the equipment. It will be good if I can spend some time within industry to gain content expertise. This will help build my confidence and credibility with the trainees.

The instructors agreed that VET trainees in Malaysia were from disadvantaged communities and public schools in rural areas. Each trainee had different entry levels. The starting point for each of them in terms of knowledge, skills and attitudes were different. Some had greater numeracy skills than others did, while some were far more manually dexterous and agile with materials than their peers were. An understanding of the entry levels of students was a factor that affected delivery and instructors' ability to deliver quality instruction. To Zul, this meant it was important to understand the learner before delivering the content:

Instruction has to take into consideration the background of the trainees. Some learners have challenges in reading and writing, while some have lower attention spans. Lesson plans cannot be strictly followed as trainees' levels are different, we have to consider their levels to absorb the materials presented and master the skill. Otherwise the trainees just give up and drop out of the program. A knowledge of the trainees helps us not only ensure they learn but also improve the completion rates.

Rajan emphasised the need for instructors to have practical and up-to-date vocational expertise relevant to the workplace. The confidence and vocational ability of VET instructors can be greatly improved with industry experience. VET instructors seconded to industry and paired with workers gain experience and new ideas on how to deliver the content. The first-hand exposure to a real-time work experience is invaluable:

One of the core strengths at PSDC is that the VET instructor has significant industry experience. The newer instructors are seconded to industry to gain hands-on experience. This gives them confidence and enables them to learn the finer aspects of using the equipment in use at the workplace. This is unlike the government training institutes in which the VET instructor has no clue on how to operate the equipment, we have had dropouts from the government institutes coming to PSDC and reporting greater satisfaction with their learning.

Again, for John, the evaluation from trainees about his instruction is valuable feedback. After his industry secondment, he has continued to receive better evaluations from the trainees. The evaluation is a useful indication of his instruction skills. This has been due to the development and learning experiences gained during his industry exposure:

Working in industry has given me greater confidence to impart the knowledge and skills to the VET trainees. Even though in terms of qualification, I am only one level up from the class I am training, it is the experience of working in industry that helps me. I have also invited workplace trainers to co-instruct with me. I am now far more comfortable to use new learning tools to gain the attention of the trainees. I know I am doing better because the trainees' attendance has improved and their evaluations been better.

Alice understood the need for learning by doing. She acknowledged the lively discussions and debates between the need to complete the curriculum and make the learning engaging for the trainees. To her, it was about figuring out how people learn and managing the challenges of instructing adults at the VET learning site.

To me the ESP strategy of explaining, showing and practice works out very well. Given that it is all about skills development and mastery, it is very important that the instructor explains and demonstrates how to do a piece of work while the trainee is able to master the skill by doing it several times, both at the workshop and at the workplace. While completing the curriculum is important, it is also equally important to cover the content effectively.

Janice commented on the importance of being mindful of the fact that VET has to operate across two contexts: work and learning. Janice's responses can be aligned to Rajan and John's views that it is important for the instructor to be prepared on both these levels. CIAST makes it mandatory for all Malaysian VET instructors to complete the vocational

training officer (VTO) program. While the learning aspects of VET are the primary focus of the program, the way different types of content can be handled is reinforced:

I completed both the VTO program and the vocational training manager (VTM) program at CIAST. While the program equipped me with the learning processes, I felt handicapped when dealing with the new and diverse content that I had to instruct when I got back to work.

To Hamidah, different professions and crafts have certain characteristics that can be actively nurtured or discouraged by the choices an instructor makes in selecting the learning methods. For example, if there is a need to develop precision engineering technicians who think and act like engineers, the instructional methods must involve problem-based learning pedagogies and iterative engineering design processes. The distinctive ways of doing need to be reflected in the pedagogical approaches of instructors. VET instructors must take the leadership for sustained vocational pedagogy:

Each program leads the trainees to take up a specific job. We have to consider the specific profession and make sure the trainee is learning the traits of that profession. When teaching precision engineering, the learning has to be attention to detail, problem based and repetitive. The VET instructor has to take responsibility for continued vocational pedagogy.

The data show that the VET instructors understand the importance of vocational pedagogy and the fact that they have to deal with domain expertise and learning processes. They acknowledged their role in helping trainees learn effectively and view their role as extending to the preparation of students for the world of work. For many instructors, the relevance of curricula, and the engagement of industry to ensure curricula relevance, is important. The instructors agreed that industry exposure is essential for the development of their own confidence and competency as instructors. They also acknowledged the importance of understanding learners' backgrounds as a pre-requisite for effective instruction. Experience in industry gives instructors greater confidence in choosing the appropriate instructional methods rather than relying on what they are more proficient in. The goal of each program is to prepare the trainee for a specific profession. Therefore, it is important to make trainees think and act in a professional way. The data indicate that instructors felt that this needs to be reflected in the pedagogical foundations. The data show the willingness of the VET instructors to take responsibility for a sustained vocational pedagogy.

5.3.2.2. Competencies of the Vocational Education and Training Instructor

There has been broad commentary regarding the competency of VET instructors (Majumdar, 2011; Ruth & Grollmann, 2009). The unprecedented changes in VET and the subsequent impact on the competence of VET instructors are an area that requires discussion (Tran & Dempsey, 2013). There have been concerns about limited instructor competence hindering the effectiveness of training to meet industry requirements (Eleventh Malaysia Plan 2016).

Moynagh and Worsley (2008) identified several drivers of change that are likely to affect VET and VET instructors. These drivers include technological change, greater expectations from trainees and employers, a shortage of qualified instructors and the need to engage learners who require different approaches to teaching, learning and assessment. Guthrie, Perkins, and Nguyen (2006) indicated that drivers of change in VET, specifically Australian VET, have been influenced by changes in the global context. Thus, VET trainers in the context of this study are likely to have a range of issues and learner expectations that involve global challenges or different generational learning styles and expectations. The roles are arguably moving away from instructing in a domain-specific area with expert knowledge, towards facilitating and coaching in skills development. These changes have led to newer roles and responsibilities (Chappell, 2000).

The competency of VET instructors was a commonly occurring theme across the VET instructors' interviews. The impact of change has led to increased pressure on VET instructors and the need for them to evaluate their competence to deliver quality VET outcomes. The instructors broadly agreed on the need to deal with newer expectations that included not just teaching, but also performing administrative tasks and managing stakeholder expectations.

To Rashid, the VET instructor now has an increasingly multifunctional role and their responsibilities have led to new ways of working:

I completed MSC Level 3 VTO program with CIAST and then did a diploma with the Kangan Institute in Victoria, Australia. These qualifications coupled with my five-year experience in industry, I believe, equipped me with the competencies required to be a VET instructor. Now, I think my role has changed, I have to deal with documentation, an administrative role to engage with the trainees' parents and finally make the decisions about instructional design. And I need to talk to employers. The role of a VET instructor today is just not instructional, I believe we are more ambassadors for VET. Sometimes, I wonder if we are doing the core of our work, instructing or if the core has changed.

Zul translated 'competency' for a VET instructor to mean managing the curriculum, the learner and the learning environment. According to Zul, failure to perform the job of a VET instructor occurs when the desired VET outcomes are not achieved and the instructor is not able to perform the assigned roles. To him, successful outcomes meant trainee employability and employer satisfaction:

I completed a Certificate in Precision Machining Technology with PSDC at SKM Level 3. Then, did a Diploma in Vocational Training with JPK (Department of Skills Education). I am confident of my ability to deliver the theoretical part of the curriculum. My limited industry exposure is a challenge for me. I find it very frustrating when I am unable to demonstrate the equipment effectively or respond to questions in a convincing manner. I find it difficult to manage the discipline of the trainees and the learning environment is also challenging. It is something new for me. I fear not being able to do these things worries me as it may affect the quality of the outcomes.

Rita believes the competencies required are not just technical, they also include soft skills and behavioural competencies, such as managing the expectations of trainees, their parents, the employers and her bosses:

I completed two diplomas, one in manufacturing and another in vocational training management. I also did a train-the-trainer with the Kangan Institute, Australia. For me, the initial view that delivering the curriculum is the major part of the job of the VET instructor is untrue. It was more than that. It was about giving feedback on progress to the trainees, their parents, the sponsors who are in most cases the ultimate employers and finally my own bosses. My bosses expect me to not just be the instructor but also support the marketing for the programs.

Many instructors agreed that competency requirements for Malaysian VET instructors had changed due to several new initiatives. While this enhanced their feelings of professionalism, they felt they were still not on par with other teaching professionals. For Ann and Hamidah, their status (compared to general education and higher education teachers) was of concern, as it was considered lower. However, they agreed that their expanded roles were on the right track to achieve parity. They thought similarly when commenting on the need for this change. The government's ETP and Vision 2020's aims to reach developed nation status was the stimulus to achieve a 50% skilled workforce rate. However, Ann was apprehensive about being asked to do some of the newer administrative and people engagement roles without being trained for it.

The basic technical competencies are in place for most VET instructors. It is just that I have not been trained to take on the new roles. I have never done any documentation before. I am just asked to complete the paperwork for

submission to the authorities and that is a challenge for me. The paperwork gets returned to me even for small mistakes and there is a lot of rework. Engaging people is a tedious and time-consuming process. This makes me overloaded and I am unable to concentrate on teaching and training.

For most instructors in the study, VET pedagogy was viewed as very skill specific. Rajan stated that VET instructors are expected to have a 'helicopter ability'. Metaphorically, a helicopter ability is a competency that helps people see the big picture. It provides an elevated position from which to view 'the forest from the trees'. Remaining preoccupied and too close to the core of work tends to make people miss the 'big picture'. While staying grounded is extremely important, it is also important to be aware of the ultimate objectives, such as employability and productivity: the twin magic words of employers:

The challenge is getting the instructors to look at the big picture not just the module they teach. They do need to understand and be aware of the expectations of the stakeholders. My own challenge has been to make sure the trainees are ready for the workplace and can thrive at demanding workplaces such as Intel, where an operator is expected to work as a super engineer. Productivity is the key in such demanding workplaces.

Janice agreed with the sentiments expressed by Rajan, that the changes affecting VET require the ongoing development of VET instructors. Lifelong learning, while a very popular word in education, has not been widely embraced by the instructors themselves. Competency acquisition should be an ongoing process for Janice:

I completed a Diploma in Mechatronics and worked in industry for eight years. The CIAST program takes one through all the competencies required of an instructor. I have a VTO and a VTM qualification from CIAST and have attended the JPK induction course for VET instructors. I aspire to be a lead instructor and later a manager. The roles will evolve and I need to prepare myself for the future and keep on learning. To me, unless I develop myself I will not be able to grow and ensure the achievement of quality standards which is important to improve the credibility of VET.

For Hamidah, the aspiration to ensure VET competence must be linked with the ability to deal with the changes affecting the provision of VET. The pace of change in technology has affected the way work is performed in industry:

I completed a VTO from CIAST and have a Diploma in Robotics. I worked in industry for two years. Robotics is a highly specialised field and within the companies, the technology used is very advanced. What I learnt and what happens today at the workplace is very different. Again, what we teach and what happens out there at the workplace is vastly different. We do not have the latest tools and equipment. Our ability to be relevant to workplace needs are hampered by changes that happen due to technology innovations. Apprenticeship

programs are helpful as the trainees are there at the workplace and they learn the state-of-the-art technology, unlike our programs.

For John, the competence of VET instructors includes managing the learning environment. The learning environment is constantly evolving and monitoring it is important for an effective learning environment:

I have a degree in management from Griffith and worked in the palm oil plantation industry for 2.5 years. I also have a VTO from CIAST. To me, the learning environment is key to effective learning experiences. Work in the plantation industry is all about fieldwork. The learning environment influences the trainee learning experiences and the way the curriculum is delivered. The trainees need to be engaged in a variety of ways to ensure their learning is simulated to suit the real-life experiences they will encounter when back on the job. I have also managed to get myself seconded to plantations from time to time to ensure I know what is happening at the estates and I have tried to experiment with making changes to the learning environment.

For Alice, any discussion on VET instructor competence should include career paths for the VET instructor. To retain the knowledge gained and ensure it is not just tacit but also explicit, the VET instructor must be retained within the VET field. That is only likely to happen when career and development paths are clearly outlined to VET instructors:

I teach Auto CAD, I have a VTO qualification from CIAST and a Diploma in Auto CAD. I worked in industry for four years as an instructor. While I think I am competent to teach my programs and most of the trainees are fully employed after they complete the program, I do not see a career path for the VET instructor. The development paths are unclear. Given the shortage of instructors, it is important to retain them. If I am not going to have any clarity where I will be in five years, I might as well join industry and give up this job. In the long run, that is a better option because companies provide regular training and development programs for employees to grow and career paths are much clearer.

The data show that VET instructors' roles are now increasingly multifunctional and their responsibilities have led to new ways of working. The roles and responsibilities include administration and documentation, engagement with stakeholders, instructional design and delivery, and advocating for VET. For most instructors, the competencies have expanded beyond technical to include behavioural requirements. While the instructors expressed concern at not being on parity with general education and higher education teachers, they agreed that they were on the right track towards parity. While most instructor participants understood the reasons for the change initiatives and their impact on VET instructor competence, they expressed concerns that they were not adequately prepared to deal with change. VET instructors need to be adept in dealing with the

learning environment and learners in addition to delivering the curriculum. Lifelong learning and keeping pace with changes are important. The data indicate that VET instructors require competencies that allow them to develop a helicopter view. Career paths and development paths were deemed important for retention of VET instructors.

5.3.2.3. Industry Relationships

The UN/UNESCO Decade of Education for Sustainable Development (2005–2014) launched several global policies to encourage local partnerships in VET. It was assumed that partnerships between training providers and industry would develop sustainable models of development (Plane, 2011). Mismatches between supply and demand are often considered to result in lost productivity, lower pay and reduced wellbeing (Green, 2013). While VET instructors require both pedagogical skills and workplace experience, employers need a well-trained workforce (i.e., a skilled workforce). There have been ongoing policy reform discussions in Malaysia, involving closer collaboration between government, employers, training providers and trainees to avoid skills shortages, skills gaps, skills underutilisation, unemployment and training barriers. Closer collaboration with industry is a critical pillar for VET instructor development.

There has been commentary about industry relationships supporting VET instructor development with workplace experience (Dittrich, 2009; Majumdar, 2011). Secondments to industry are expected to provide VET instructors with practical experience. Similarly, industry practitioners taking on teaching roles are expected to give student's a 'bird's eye view' of the future workforce. The Finnish Telkka program promoted the secondment of VET teachers to industry for short periods. The benefits were mutual; instructors became more familiar with the workplace requirements and host employers found the recruitment and training process for new trainees easier. During the internship of instructors, teacher-worker pairs were formed. Instructors upgraded their professional skills and workers serving as workplace trainers improved their pedagogical skills. The increased confidence and experience proved to be invaluable for the instructors (Cort, Härkönen & Volmari, 2004).

Similarly, the Teach Too program in England encouraged industry experts to teach in vocational programs. This program was a result of Commission on Adult Vocational Teaching and Learning recommendations on the need for vocational instructors to combine their occupational and pedagogical expertise and build strong partnerships with employers. The aim was to learn from existing good practices, build on and disseminate

them and finally challenge both instructors and industry to develop innovative solutions that work for the trainees and industry.

As anticipated, industry relationships frequently occurred as a theme in the interview data. Rashid, for example, saw the need for industry relationships to minimise the mismatch between supply and demand. This was not just in relation to the numbers or areas of requirement, but more importantly to increase the relevance of VET to industry:

PSDC is industry led, it was formed by a consortium of multinational companies in Penang to support their need for skilled workers. PSDC is a partnership between the government and private sector. There is involvement of the practitioners at every level. The executive committee comprises mostly private-sector employers and they drive the skills development agenda. The industry advisory panels shape curricula, assessments and sponsorships in form of providing the latest equipment.

Industry relationships are essential to provide leadership at the national level for the sector. They are also important to minimise skills gaps. Most of the time, there are gaps between what trainees can do and employer needs. Chan identified industry relationships as an important driver:

The co-opting of working practitioners to teach on the programs makes it relevant for the trainees and sells the program. The programs have a practical dimension. Additionally, the maintenance of expensive equipment becomes more controllable with formal industry relationships. The modules that we teach have to conform to industry needs and this can only be achieved with regular dialogue with industry players.

Interestingly, Ann reported a different experience. It is about real and quality industry leadership rather than just having their nominal presence on the executive committee that leads to successful outcomes:

While the executive committee of our centre consists of industry practitioners, the day-to-day engagement with industry is missing; it could be due to the fact that companies in Sarawak are more keen on 'pinching staff' than development.

Conversely, Rajan saw the need to be proactive with industry relationships. To him, even well-experienced industry practitioners are unable to specify the minimum requirements and outdated content. Industry relationships on a structured basis, such as the sector committees, can help overcome these issues:

Sector committees involves all stakeholders. Regular communications are proactive. The role of industry is a very important one here. They can be engaged to give feedback on curricula, trainer competency, assessments and the

typical skilled worker profile they are looking for. There is a lesser need to rework and redo what has already been done. It not only makes the process far more effective and efficient, but also valuable to all the stakeholders.

For John, regular feedback from employers is more formative, which helps improve the quality of outcomes:

The regular engagement with the sector committees serves as a form of evaluation, as practitioners give feedback on the quality of trainees. The surveys conducted with industry by PSDC give us a pulse check of what is happening on the ground.

Alice commented on the need for a skills ecosystem for VET to thrive and grow. Industry is a valuable member of the ecosystem. In Penang, the ecosystem is in place, a well-built industry network, but this is mostly restricted to larger companies. In Sarawak, it is not yet in place due to the geographic dispersion of the state. The government is keen to support small and medium size companies to be part of the system. Alice stated:

The industrial zones in Penang, largely led by bigger companies, have focused on a development agenda. The SMEs have not done so. To a large extent, they have ‘pinched’ staff from the larger companies. There is a need to cultivate the SMEs to become a part of this ecosystem.

For Hamidah, Sarawak is a state with very few large companies. SMEs dominate the landscape and they are unwilling to invest in skills development.

We need to involve the SMEs in the development agenda. It is frustrating to experience the reluctance of SMEs to be part of the skills development agenda.

Lang (2008) outlined the success of public–private partnerships with references to apprenticeships and dual training systems. They are two different worlds: the world of work and the world of training. Clarity of communications is a pre-requisite for success. According to Zul:

The close relationships have resulted in successful apprenticeship programs with the various companies under the dual training scheme. The companies have focused on quality, not just quantity. Regulating the intakes have helped make VET a choice program instead of taking everyone who applies for the program. Yet, we have not been able to replicate this success with the SMEs. The smaller subcontractors who are part of the vendor program with the larger companies do not seem to embark upon apprenticeship programs or engage with PSDC.

To most of the instructors, apprenticeships improved the image of VET and were hugely successful. Apprenticeships had to be sold to employers, particularly SMEs. This view was supported by Alice:

The apprenticeship program with multinational corporations, particularly the German companies, are always oversubscribed. Partnerships with larger corporations help brand VET. Industry-based apprenticeships increase the credibility of VET and make it attractive to the trainees and their parents.

The industry relationships data show that VET instructors view industry partnerships as critical for VET success. This supports the argument for a sustained and collaborative effort from all stakeholders to engage industry. The centre head, instructors, administrators, policymakers and industry representatives need to collaborate regularly to review a host of issues, such as curricula, quality of assessment and industry requirements to minimise mismatches between demand and supply. The data support a need for an ecosystem to support VET with industry providing the leadership. Yet, industry leadership alone does not lead to success; it should be the right kind of leadership, one that provides leadership and champions VET (Seng, 2011). The co-opting of industry practitioners and secondment of VET instructors to industry was viewed favourably by participants due to the value of practical experiences. Apprenticeships not only brand VET, they are viewed positively by parents and trainees. They meet industry needs. The view of industry as a beneficial partner was highlighted throughout the data.

5.3.2.4. Lessons Learnt

The discussions with VET instructor participants on the lessons learnt revolved around the debate between Malaysian policymakers and industry. While policymakers' objectives were associated with reducing skills gaps and unemployment, industry was more concerned with ensuring a skilled workforce pipeline.

The perception of VET as a last resort for trainees limited VET instructors' ability to improve the quality of VET trainees. For Rajan, this was a real stumbling block that could be resolved with proper VET branding to erase negative perceptions:

VET is increasingly seen as a last choice and for students with no other options or for those with lower ambitions or lower academic abilities. Self-esteem issues dominate the Malaysian scene. The view that VET is inferior to higher education has to be erased. If there was one thing I learnt, that is to improve the value of skills and pay for it appropriately so that the skill is not undervalued. Today, VET graduates who were on apprenticeship programs are in full employment unlike graduates from universities who are still unemployed. This

needs to be communicated to the parents. Branding of VET has to happen throughout the country. Skills Malaysia has to emulate Skills Australia.

Hamidah, who had also worked in Singapore, reported that it was about ‘walking the talk’. If VET was important, the government should invest more in VET to ensure it is equal to higher education. She cited the Singapore branding experience:

Singapore has invested into the Institute for Technical Education and ensured it is on par with any higher education public university. The government set up the National Skills Formation Infrastructure, the Trainer Standards and the CET qualifications framework. The move to permit the setting up of accredited training organisations within large companies was a good move.

For Alice, the need for VET curricula to be relevant and meet industry needs was a priority. Yet, she highlighted the need for a focus on other holistic skills:

I hope Malaysia can follow on the Singapore experience of building the T-shaped professional skills profile (technical skills with organisational, business and management skills).

There was repeated emphasis on the need to engage industry for curriculum design and revision to meet industry needs. For Rita, proactive engagement was important:

We respond to curriculum revisions when industry alerts us. JPK would recommend a two-yearly change to curriculum and assessment methods. It will be better if we can be more proactive and use our industry networks and lead the change process. It helps improve our credibility.

There were consistent comments on the need for VET instructor development and career paths. For Janice, the competency of VET instructors is critical, as they are key players in the development of a quality ecosystem:

Personal development for VET instructors is very important and needs to be funded more aggressively. Career paths need to be communicated to the instructors. The remuneration and benefits need to be improved to retain VTOs within VET. Personal development and industry experience is very important to deliver quality to the trainees. It must be made mandatory for every VTO to take time out to industry to remain relevant and practical. Each instructor needs to have an individual development plan.

The roles and responsibilities of VET instructors have evolved. Instructors now must go beyond the core competence of delivering content. Zul commented that he had learnt that this involves engaging trainees, managing their learning and discipline, and interacting with their parents:

I have learnt that student engagement and parent engagement is very critical for success. The competency to engage and manage students' motivation and discipline is time consuming and tedious but essential for VET instructors.

For John, it was about the right choice of learning methods to suit the content:

To me, gaining the attention and interest of the trainees is important. It is paramount to making them successful. I have learnt that for learning to be interesting, you must go beyond the lecture and demonstration and talk about practical case studies.

In conclusion, the data highlight VET instructors' lessons learnt. This includes branding VET in a similar manner to the branding of VET sectors in Australia and Singapore. The need for policymakers to 'walk the talk' by making substantial investments in VET to raise it to parity with higher education was emphasised by participants. Proactive engagement with industry is necessary to meet industry needs. Development plans and career paths, when articulated to VET instructors, improve retention rates within VET and contribute to building a VET ecosystem. The role of the instructor has evolved and it includes several responsibilities, including engaging key stakeholders and delivering content.

5.3.3. Conclusion

This chapter has analysed the data from VET instructor participants. The data indicate that VET instructors understand the importance of vocational pedagogy and the fact that they must deal with domain expertise and learning processes. Through the data, a case can be put forward that VET instructors are aware of the increasing multifunctional roles and responsibilities that have led to new ways of working. Competencies have expanded beyond technical to include behavioural. While most instructors understood the reasons for the change initiatives and their impact on VET instructor competence, they were concerned that they had not been adequately prepared for the changes.

VET instructors view industry partnerships as essential for a skills ecosystem and acknowledge the importance of it to minimise mismatches between demand and supply. They highlight the need for the right industry leadership to champion VET to achieve successful outcomes. They view VET branding as essential to erasing negative perceptions.

VET instructor participants also highlighted the need for policymakers to 'walk the talk' by making substantial investments in VET to ensure parity with higher education.

Proactive engagement with industry and the continuous development of VET instructors were highlighted as necessary for successful VET outcomes.

5.3.4. Summary

VET instructors acknowledge the importance of vocational pedagogy and the need for domain and instructional expertise. While VET instructors are aware of the increasing multifunctional roles and responsibilities that have led to new ways of working, they were concerned they were not prepared for the new world of work. VET instructors viewed industry partnerships as a foundation for a skills ecosystem.

5.4 Data Analysis: Vocational Education and Training Trainees

‘Instruction ends in the schoolroom, but education ends only with life. A child is given to the universe to be educated.’ Frederick William Robertson

5.4.1. Introduction

This section presents findings from the interviews with trainees. The trainee is a significant player in VET. One of the key goals of VET is to equip trainees with the skills they will need to make them employable and support their participation in the labour market. VET policy reform has two objectives: reducing unemployment and improving participation in the labour market to advance the socio-economic position of society. These objectives focus on the trainee and involve the acquisition of skills that hinge on the trainee’s successful completion of the program. Many studies have examined VET policy, particularly in terms of the instructors and training providers. However, trainees have often been left out of the research loop, appearing only as figures, enrolments, dropouts and graduates. The experience of trainees, past, present and potential, should be considered in VET policy, planning and implementation (Abdelkarim, 1997). This is important given the research aims to understand the development of Malaysian VET.

The aim in this section is to address this lack of research on VET trainees within Malaysia by identifying the purpose and motivations of trainees to choose VET as a method of study, their perceptions and experiences with the training process and their satisfaction levels. Malaysian VET reform indicates that government has emphasised the importance of VET due to a chronic skills shortage, a significant rise in foreign skilled workers, youth unemployment and the need to achieve a 50% skilled workforce in line with Vision 2020 goals. To policymakers, trainees’ satisfaction forms a significant part of VET success, as student satisfaction equates to successful program completion (Parkes, 2012).

In this section, the data from the trainees are discussed and analysed. There were 10 interviews for this group of respondents. While all trainees were Malaysian, they were drawn from both urban and rural centres to allow for reflections from both perspectives.

They were from two workplace VET schools. While the number of respondents may seem small, and is acknowledged as a limitation of this research, the purpose was to seek the views of trainees at the micro level, gauging the reaction of respondents undergoing VET. Their views contribute importantly to the research.

To ensure the anonymity of all participants, pseudonyms have been used. The open-ended questions in the interview guide focused on eight areas and allowed for the identification of themes. Each interview took approximately 40–60 minutes:

1. Purpose of choosing VET
2. Motivation to choose VET
3. Choice of training provider
4. Perceptions of employment prospects
5. Ease of access to information
6. Ease of pathways to higher education
7. Method of funding
8. Satisfaction with curriculum and instruction.

It is essential to revisit the research question to understand the intent of the questions. That is, to identify the challenges facing the development of VET in Malaysia and the lessons to be learnt by looking at the challenges and exemplars from Australia and Singapore.

What are the challenges facing the development of VET in Malaysia?

It is also important to consider the associated research questions:

- What are the VET policy trends in Malaysia?
- How have the skills formation systems evolved in Malaysia?
- How have the existing players in Malaysian VET been engaged?
- How has skills training minimised inequality within Malaysia?
- What are the lessons from Australia and Singapore?

The purpose of this section is to analyse the views of trainees and ascertain if they believe their goals are being realised.

5.4.2. Themes

Several themes were identified. Table 5.4 presents these themes and their keywords.

Table 5.4: Vocational Education and Training Trainee Themes

Themes	Keywords
VET as a choice	Motivation Learning preferences Training provider reputation
Curriculum and instruction	Industry relevance Instructional methods
Funding	Access Process
Employment	Security Job preferences

5.4.2.1. Vocational Education and Training as a Choice

There has been much discussion about VET not being a first choice for trainees. Often it is perceived as a route for underachievers, those from poor backgrounds and those with no other options (UNESCO-UNEVOC International Centre, 2003). In this context, it is important to test the assumption and explore the view that the purpose and motivation behind the trainee's choice of VET is important for their success. The Malaysian government has highlighted the need for all citizens who have been unable to enter higher education (and those categorised as B40⁶) to opt for VET to enable gainful employment and a sustainable income. Malaysian policymakers indicate that under the Tenth Malaysia Plan, the nation has shifted its focus from absolute to relative poverty by focusing on the bottom 40%. The bottom 40% are households earning below RM 3,050, which is equivalent to US\$750 and special target groups. This paints an image of VET and those who opt for VET as falling into either of these two categories.

Understanding why trainees chose VET helps gain an understanding of their motivations and whether these are intrinsic or extrinsic. There has been significant debate on intrinsic and extrinsic motivation. While intrinsic motivation arises from a desire to learn a topic due to inherent interests for self-fulfilment, enjoyment and to achieve mastery of the subject, extrinsic motivation is about motivation to perform and succeed for the sake of accomplishing a specific result or outcome (Davis, 2001).

⁶ World Bank Malaysia Economic Indicators of Bottom 40%

Yanie's results did not meet the entry requirements for university so VET was her only option. For her, choosing VET was about finding a job and being gainfully employed:

The reason I chose a VET program was because I could not meet the entry requirements for university. But, again, since I live in Penang⁷ and we have many manufacturing companies here, it will be easier to get a job. And so I enrolled on the Diploma in Engineering CAD/CAM.

Ram did not like the idea of attending university. He disliked the classroom structure and always preferred doing something practical. VET suited Ram's learning preferences:

After completing my schooling, I began to dislike the classroom. I wanted to do something practical and something that I liked., So I chose to do something that I liked, I had a friend who did a Certificate in Precision Machining Technology. He got a good job. He said nice things about the program. I liked what he did. So I enrolled in this program.

Zaid identified lifelong learning as a motivation. There were not many external compulsions for him to choose VET. He was stuck in the same job for some time and on the advice of his employer, he decided to take some time out and develop himself through learning new skills.

I joined a large multinational company as an operator right after school. To me, then it was good money and I needed to support my family. I worked there for six years but I could not move up. I remained in the same job. My employer recommend I do a VET program and hence I enrolled in the program. They have given me a leave of absence for this study and I am here. On completion of this program, I go back to my employer but I hope with some added skills that will help my career.

For Paul and Connie, it was about following what their friends had done and the desire to find well-paying jobs. For Connie:

I joined VET because all my friends joined VET. Some of us joined the hotel industry as unskilled workers because it was easy to get a job. Later I realised that to earn more money, I needed to be skilled and have a qualification.

The opportunity to work with a large multinational company was motivating and exciting for Paul. It was also fully funded:

⁷ Penang is Malaysia's second-largest city and has a huge manufacturing base, comprising mostly multinational companies.

I joined VET because it was an opportunity to learn in a German company. I joined Siemens. With full funding, I did not have to think twice about joining Siemens.

It was obvious for Hallman that employment prospects for his skills were difficult to find in Kuching, Sarawak⁸. For him, joining VET guaranteed him work:

I chose VET because my brother chose VET and he got employed immediately. In fact, I was employed even before I graduated. The guarantee of work was a prime motivation for me.

Choice was the motivating factor for Jeffery. He could have migrated to Kuala Lumpur to try other things but job opportunities and full funding prompted him to choose VET. The school counsellor also outlined to him the opportunities available in Sarawak:

I could not join any university because of not meeting the entry qualifications. Sarawak is very much agricultural and there were opportunities in the plantation sector. I joined VET because of the job opportunity and the program being fully funded by the state.

Siti joined the University of Technology, Malaysia for two semesters. As she was unhappy with the university, she opted out and chose a VET program.

I only figured out that university did not work out for me after two semesters. Rather than persist with it and do something that I do not enjoy, I enrolled into a Level 3 SKM.⁹ It has been interesting because I am enjoying it very much.

The reputation of the training provider was a key factor for trainees to choose the centre. Most trainees indicated they were confident of quality when the centre had a good record. To them, word-of-mouth was far more important than grandiose advertisements. The data revealed a clear bias towards choosing a training provider based on reputation, the quality of training provision, and current performance and past track records. Most participants based their choice of training provider on the background of the provider. When the provider was industry led or government supported, there was greater confidence in the centre. Other factors attributed to the choice of training provider included past experiences, such as a family member having studied there, referrals, funding possibilities, campus hires leading to employment and campus facilities.

⁸ Capital of East Malaysian state, largely rural population.

⁹ SKM—Malaysian Skills Qualification Level 3.

The data show that for most trainees, peer influence, family and the school counsellor were significant contributing factors to trainees' decisions to enrol in VET. In one instance, the employer influenced the trainee to enrol in a VET program for career development. While all respondents were from poor backgrounds, it was interesting to note that some understood the need for lifelong learning. Some trainees were intrinsically motivated, and it was apparent from the data that many were extrinsically motivated. This was not unsurprising given their backgrounds and desire to find jobs. Employment remained a critical reason for the choice of VET. The trainees agreed that working with a large corporation as an apprentice and getting practical exposure was a motivator. Most trainees based their choice of training provider on past performances.

5.4.2.2. Curriculum and Instruction

There have been intense debates on the relevance of curricula and standard of instruction in VET (Seng, 2011). A key goal of VET is to enable trainees to participate in the labour market productively (Yamada, 2007). Trainee satisfaction with curricula is as important as meeting industry needs. The quality of instruction must meet trainee and industry expectations. This view was prevalent throughout the data.

For Yanie, it was about learning from instructors with experience:

I am not sure if the curriculum is relevant or not but what I really look forward to is instructors with industry experience. Some of the instructors, it is obvious do not have the experience.

Ram agreed with Yanie. He stated that industrial attachments could help overcome the issue of instructor inexperience:

The curriculum is practical and the hands-on experience is helpful. The curriculum is very industry oriented and it is all practical. I only wish that we had more industrial attachments. It is true that some of the instructors are too young and they do not have industry experience. That is why I think industrial attachments will help solve this issue. The learning becomes practical and we work alongside the operators.

Zaid was pleased with both the curriculum and the quality of instruction. To him, on-the-job training was essential:

The instructional materials and the instruction is very much based on on-the-job training methods. It is easy to master and learn the skills this way. The instructors are very helpful.

Paul was impressed with the German curriculum. Being chosen for this apprenticeship program has been made him happy:

I am happy with the practical work element. So are all my friends on this program. The full-time instructors are also formerly from industry, they are very experienced and qualified as VTOs. I do not have any problems. I am happy with both the curriculum and the instruction. The student activities are also very good. The German method of training is very practical. The learning environment is very productive and motivating.

Siti considered herself a self-motivated individual. She was not focused on the curriculum or the instructor, and placed the onus for learning on herself. She hoped the instructors would build her self-efficacy:

Learning depends on me. I take responsibility. My challenge is sometimes about self-doubt; the question is if I can do it. I did not do very well in my studies. The worry I may not succeed is bothering me. I hope the instructors can build my confidence and support me when I succeed and when I have challenges.

Mohamad stated that technology plays a vital role in helping him learn. He preferred technology-based learning:

Learning by doing is the best way to progress. I have two key challenges. One, the computer software at the training centre is not the recent version, so I find it difficult sometimes to connect with the work I need to do when I am on an industrial attachment. The company has the most recent software version. The second is that the turnover of instructors is high. Every now and then, I see a new instructor. They are not sure what has been covered, it does not help continuity and they are so boring; I wish they can make the classes more interesting. One way to do this is to make the classes practical.

The data highlight that trainees' views on learning involved a preference towards experiential learning. In other words, there was a preference for more practical work through learning by doing, using current technology and industrial attachments. Participants identified a need to overcome instructor inexperience and turnover to ensure learning continuity. For learners, instruction needs to be more exciting, which this goes back to adopting learning methods that make learning more practical and interesting. Intrinsic motivation was also evident in the data, with one trainee saying the onus for learning is on the student and the instructor should do more to build trainees' self-efficacy.

5.4.2.3. Funding

VET funding remains a key issue for policymakers. There is a direct correlation between funding and achieving VET policy objectives (Wilhelm, 2011). Public training institutes

have always been funded by the Malaysian government and are not subject to open-market competition (Pang, 2008). As evident from the data in Section 5.4.2.1, most trainees in VET are from the B40 target group, earning less than RM 3050 per month (AU\$1,000) and it is unlikely that trainees could bear the costs. The burden of VET funding has been left largely to the state in the form of budget allocations and cost recovery programs, such as trainee fees and employer levies (Neuman & Ziderman, 2001). In Malaysia, the Skills Training Fund, the State Skills Development Fund, the Islamic Development Fund and the HRDF have been the sources of public funding. Funding has remained a contentious issue.

Not surprisingly, trainees were far more vocal when asked about their experiences in securing funding for VET study. Ram thought applying for funding support was tedious, although he was finally successful. The process was very bureaucratic:

I applied through the training provider to the Skills Development Fund. I was successful in my application for Level 1 and Level 2 funding from the Skills Training Fund loan scheme. To me, it was tedious and it took a long time though the training provider was very supporting and kept assuring me all was well.

Connie's family decided not to take up a loan or wait for funding approval. Her family decided to fund her VET study:

My family decided to fund my studies. They did not want me to wait for the funding approval, as I had already got the admission. They also did not want me to delay my study because of funding challenges.

Zaid decided to opt for Zakat.¹⁰ Zakat is a religious obligation for all Muslims who meet the necessary criteria of wealth and is considered a tax. Zakat is collected by an agency and distributed to the Muslim needy. While it is voluntary in most countries, it is mandatory in Malaysia. Usually, it is about 2.5% of the earnings of a person. Zakat contributors do not pay income tax:

As a Muslim, I had the opportunity of seeking a Zakat sponsorship. As my family was not a high earning family, it was easy to secure the funding for my study. The process was fast, friendly and easy. I applied to Zakat and was successful to fund my studies. I did not try any other sources of funding even though the training provider informed me about the various other forms of financing through the Skills Development Fund. The only reason why I chose Zakat was because of the stories that I heard from my friends about the agonising wait for all other funding applications to succeed.

¹⁰ Zakat is a tax system within Islam.

Paul's selection for the apprenticeship program that was fully recognised by the Malaysian and German systems was an effort well rewarded. For Paul, receiving two certificates, Malaysian and German, was well worth it. The fees are fully sponsored by the host company:

My father was a technician in B Braun; therefore, I was looking out for apprenticeship programs both in Malaysia and Singapore. I applied for many apprenticeship programs with organisations such as the German Malaysian Institute and Malaysian French Institute as well as with other organisations in Singapore. Being chosen for an apprenticeship meant the company was the sponsor and all my tuition fees will be fully funded by the host company.

Jeffrey was pleased with the training provider's support. It provided complete support during the funding approval process:

I thought it was a lengthy process but the training provider did all the paperwork and applied to the State Skills Development Fund. All I had to do was to run around to a few places to get all the documents but once I submitted, within a few weeks, I received the letter saying I was successful.

The data highlight that while there are many sources of VET funding, and training providers were fully supportive in overcoming bureaucratic hurdles, the process was still bureaucratic and tedious from trainees' perspective. Trainees were apprehensive of the delays and challenges in securing funding and commencing the program on time.

5.4.2.4. Employment

The notion that VET is a guarantee for secure and well-paid employment was prevalent within the data. The trainees were from the B40 group and employment was a high priority for them.

Saras valued employment that paid well, was secure and close to home:

All my friends have been offered good jobs with factories in Penang. The salary is good; the job is secure. My home is in Penang. I would recommend VET to my friends.

For Ram, employment was high on the agenda. He wanted a good job that gave him personal satisfaction:

To me, I think it is easy to get a job. That was the main reason I choose to study here. My goal is not to find any job but one that gives me personal satisfaction. I must like the job. There is no point in finding a job and giving it up very fast.

Mia believed there was not much of difficulty finding employment, given the campus hires track record at the centre. She was seeking a job with an MNC in the area, as there were numerous development opportunities with such large companies.

I think I can get a job but what I want is one with a multinational company that will help me develop my skills.

Unlike his colleagues, Mohamad was looking forward to being self-employed. For him, he was studying something that he liked and he wanted to pursue business opportunities:

True, I chose VET because I had no other choice. Coincidentally, I am studying information technology (IT). With a qualification and the numerous business opportunities in IT, I believe that I can be self-employed.

Zaid pursuit of VET was not to find employment but to grow his career. His employer encouraged to him to pursue VET to develop his career:

For me, it is not about another job. I have been stuck with the same job for years. As part of employee development, my employer proposed I pursue this VET program.

For Jeffery and Siti, generating income was critical for their large families. A public-sector job was the most important thing to them. With public sector jobs becoming scarce, it was important to find a job that would support a large family.

Jeffrey stated:

I need a job as soon as I graduate. It is important for our survival. I do not think I can get a government job anymore with the current economic climate. A job with a large company would help us.

Siti stated:

The only reason for me to choose VET was the huge advertising done by the state government that all VET graduates will be immediately employed.

The data indicate that employment is high on the agendas of many trainees. For a few respondents, self-employment and career development are key objectives. Employment continues to be a high priority for trainees from the B40 group.

5.4.3. Conclusion

This section has analysed the data from trainees. The data show that trainees have expressed clear views on the relevance and quality of VET programs. The data highlight trainees' views on learning experientially. Participants contend that practical learning is more exciting and interesting. The frustration with bureaucratic processes to seek funding for VET was expressed openly by several participants. The data suggest that employment and funding remain a high priority of trainees.

5.4.4. Summary

For trainees, employment and funding continue to be key areas. Trainees' preferences for experiential learning and practical training remained a high priority. The dissatisfaction with bureaucratic processes to seek funding for VET continued to be high among trainees. While trainees were aware of VET being a last option, they were motivated by the prospects of employment.

5.5 Data Analysis: Chief Executive Officers (Industry)

‘The secret of getting ahead is getting started.’ Mark Twain

5.5.1. Introduction

This section presents the findings from the interviews with CEOs from industry. The data from the CEOs are discussed and analysed. Five CEOs from the Malaysian health sector and five from the manufacturing sector (within the medical industry) were chosen. Given the breadth of the sector, the focus was restricted to the private sector, as they were key players in Malaysian VET.

The reason for this choice was largely to recognise the skills shortage attributed to this sector by commentators (Salleh, Roseline & Budin, 2015) The CEOs’ views represent the industry perspectives. The goal was to capture the industry voice with reference to VET system development (see Table 4.1).

To ensure the anonymity of all participants, pseudonyms have been used. While the number of respondents was small and can be acknowledged as a limitation of the research, the purpose was to obtain a dipstick view of industry. The goal was to seek the views from a sample of CEOs who were the beneficiaries and principal stakeholders in VET. The purpose was to seek the industry response to Malaysian VET policy development, as they (and their economic wellbeing) are one of the key stakeholders affected by VET policy. Their views make a significant contribution to the data. The aim in this section was to identify their responses to the research questions.

Each interview took approximately 60 minutes. The questions were designed to obtain a sense of what CEOs (from two key sectors) consider key factors that affect the development of VET in Malaysia. The data analysis also uncovered several recurring themes that emerged from the data. These themes are discussed against the backdrop of the literature review and the development of the VET system in Malaysia, Australia and Singapore. An interview guide used to conduct the interview (see Appendix 3).

The open-ended questions in the interview guide focused on the stipulated areas in the interview guide and allowed for the identification of themes. It is essential to revisit the research question to understand the intent of the questions.

What are the challenges facing the development of VET in Malaysia?

It is also important to consider the associated research questions:

- What are the VET policy trends in Malaysia?
- How have the skills formation systems evolved in Malaysia?
- How have the existing players in Malaysian VET been engaged?
- How has skills training minimised inequality within Malaysia?
- What are the lessons from Australia and Singapore?

The aim of this research is to further understand the evolution and goals of investment in the Malaysian VET system, the policy framework, the features of VET policy, the engagement of existing VET players and the parallels and exemplars that Malaysia can draw from the Singaporean and Australian systems.

5.5.2. The Health and Manufacturing Sectors

The healthcare sector has grown greatly in the last decade and is considered one of the growth drivers for the Malaysian economy. Like the German, Australian and the Singaporean system, it is divided into two: the public and private sectors. While the public sector, subsidised heavily by the government, caters to 70% of the nation's needs, there is a focus to drive the growth of the private sector. The private sector offers both curative and rehabilitative services and is strictly a for-fee service. The government's ETP has focused on growing this sector by encouraging more private-sector investments in private hospitals, pharmaceutical products, medical devices, aged-care services and medical tourism. Malaysia has a comprehensive network of hospitals and private clinics regulated by the Ministry of Health. Specialty hospitals, medical tourism, private medical insurance, healthcare IT and healthcare centres were considered as the growth drivers. For the 2012 budget, the Ministry of Health allocated RM15 billion for operating and RM1.8 billion for developing expenditure.

In 2012–2018, the cumulative annual growth rate (CAGR) for this sector in Malaysia is expected to grow by 8.4%. Health care, as part of the National Key Economic Areas is projected to create 181,000 healthcare jobs by 2020. It is expected to generate an income of close to RM 12 billion by 2020 (ETP, 2012). Malaysia's growth rate was on par with the Asia-Pacific healthcare market, estimated to be about US\$369.9 billion and expected to grow up to US\$752 billion by 2018, growing at a CAGR of 12.8% (Frost & Sullivan, 2016). With an ageing population, changing lifestyles and greater affluence, the health

sector has grown substantially. Consequently, demand for skilled labour has also increased.

The manufacturing sector is a key driver of the Malaysian economy; the country's sustained growth depends on this sector. According to the Malaysian Industrial Development Authority, there was an increase of 38% for the manufacturing sector, which constitutes about 25% of the nation's GDP. Nevertheless, shortage of skilled workers remains a serious issue. Within this sector, the medical devices industry is highly diversified and produces a wide range of products from rubber and latex, to textiles, plastics, machinery and engineering support and electronics. These include medical gloves, implantable devices, orthopaedic devices, dialysers, diagnostic imaging equipment, minimal invasive surgery equipment and other devices used for medical, surgical, dental, optical and general health purposes. Organisations within this industry include MNCs and SMEs. The skills shortage in the healthcare sector has resulted in growth in the provision of healthcare-based vocational education providers.

The themes that recurred throughout the data helped explore the various perspectives of the industry with reference to VET system development. Table 5.5 presents the themes that emerged throughout the data.

5.5.3. Themes

Table 5.5: Chief Executive Officers (Registered Training Organisation) Themes

Themes	Keywords
Legislation	Reform implementation
Institutional development	Leadership Ecosystem Sustainability
Funding	Sources of funding Efficient use Access
Engagement	Consultation
Unique Malaysian challenges	Diversity Hierarchical society Urbanisation Bureaucracy

5.5.3.1. Legislation

The legislative agenda was the first theme identified from the data. This theme included the various pieces of legislation enacted by the Malaysian government to implement VET. The legislative agenda refers to the laws enacted by the Malaysian parliament, including orders, regulations and other statutory instruments adopted as a result of power delegated by parliament to a variety of government departments and agencies. The goal of any legislative agenda is to address key problems that hinder economic growth and the business climate.

A strong resolve is needed to address the common problems raised by all stakeholders. Reform requires a strong legislative agenda, yet it can only be successful with effective implementation. While the government may drive a legislative agenda, the data reveal that there needs to be a more efficient implementation process and greater engagement with industry.

Yanie identified NOSS as a game changer:

The development of NOSS resulting in a new certification known as the Malaysian Skills certificate has greatly helped industry to make VET more structured and relevant to industry. And, the legislative push with the Department of Skills Education, Ministry of Human Resources, anchoring the implementation has promoted the cooperation between training providers and private enterprises. The *Skills Development Act* has been a good legislative initiative to support VET reform.

George viewed the *Skim Dual Latihan* (dual training system) as highly relevant:

The introduction of *Skim Dual Latihan*, based on the German model, has made VET more relevant to industry needs. With industry spearheading 70% of the training, the training mirrors real working conditions and makes industry shoulder the responsibility for preparing a skilled workforce. Initiatives such as these are very good but they are restricted to organisations such as the German Malaysian Training Institute. These initiatives have to be scaled up far more.

According to Roslan, the reform drive has helped industry:

The reform agenda has been particularly helpful in getting the large numbers of school leavers without qualification and underachievers a chance to re-enter society with a vocation, a qualification that makes them productive and gives the VET graduate a sense of achievement.

For Isman, apprenticeships have helped industry train in line with industry requirements. They have also improved the image of VET and made the training relevant to industry's needs:

Employers of choice, organisations such as Mazda and Proton, provide apprenticeships and dual training accreditation. It makes social acceptability even greater when these apprenticeships are linked with international bodies. The automobile companies have linked up with the Institute of Motor Training, Manufacturing. Companies in the health sector should do the same given that some of us export and require approvals from international bodies such as Federal Drugs Administration. Apprenticeships need to be funded better and right now it is only successful in some sectors such as the automobile sector.

Zaid appreciated the reform and legislative push. However, like Isman, he emphasised the need for the training to be relevant:

The passing of the *Human Resources Development Act* with the collection of levies from employers has really pushed the training agenda. The only thing is there must be a greater focus on skills-based training rather than just soft skills training. While there is a need for soft skills training, the emphasis must be on the relevance of the training for the workplace. The training levy due to the HRDF is a good move but the fund requires direction and needs to reimburse relevant VET instead of any type of training.

Julianna commented about the value of the Malaysian Skills Certificate (MSC) and the creation of the Skills Training Fund, both of which happened because of legislation. It has helped thousands of people acquire a skills qualification:

The PTPK, or the Skills Training Fund, has been useful to support VET students to obtain loans to acquire the MSC. *The National Skills Development Act* led to the MSC being issued by the Department of Skills Education, Ministry of Human Resources. This is beginning to gain traction with employers. This is a good move with attempts to brand it as Skills Malaysia but we need to improve the integrity of the qualifications. With the MSC being recognised and seen as a passport to employment, this alone has given a boost to VET in Malaysia.

For Zaid, legislation must be accompanied with stakeholder engagement:

While reform requires a strong legislative agenda, that is only one part of the solution. Stakeholders need to be engaged, there has been very little consultation with industry. Legislation in Malaysia has been largely a bureaucracy initiative. While legislation has helped VET grow, it has been largely government led with inconsistent partnership with industry.

Wati was in favour of intensifying the focus on VET:

Given the huge pressure on government to create jobs for an abundant youth workforce, the government must focus on relevant VET and on producing a skilled workforce instead of relying on foreign labour. The irony is while Malaysians prefer higher education, you find a vast majority of graduates unemployed but most of the VET graduates are employed, even if they are not employed, they grow into self-employed entrepreneurs supporting the ecosystem of the industry.

Rizal was concerned about the confusion caused by multiple qualifications and agencies involved in VET coordination:

Skills Training is provided and managed by the DSD, Ministry of Human Resources while the MoE provides accreditation for the education sector. The existence of the two bodies with separate standards and process for accreditation has resulted in multiple qualification systems.

While the qualification system is valuable because it makes it easy for skills to be recognised under NOSS, Jimmy is concerned about the inconsistent provision from the providers:

Segregation between skills and technical and vocational sectors between DSD, Ministry of Human Resources and MQA creates confusion with employers. Added to this is the confusion in the quality of training provision. Each training provider follows their own system, leading to inconsistencies.

Winnie attributed the success of VET provision to the ecosystem. The PSDC is industry led, which ensures constant engagement with industry:

The training provision by organisations such as PSDC results in 100% employability, as it is demand driven not supply driven. This is due PSDC being industry led, resulting in better communications with industry. Other training provision by the state-led training institutes are not employment relevant and is purely supply driven.

The data highlight the importance of reform and a legislative agenda for the sustainability of VET. Initiatives such as the NDTs and apprenticeships have helped achieve outcomes and improve the image of VET. Funding and inconsistent provision have continued to be major challenges. With industry engagement, training provision has become relevant to employers. The Malaysian skills recognition system has supported increased participation in the labour market. The next theme highlights the importance of building institutions.

5.5.3.2. Institutional Development

Institutional development, the second theme, is defined as the creation or reinforcement of a network of organisations to effectively generate, allocate and use human, material

and financial resources to attain specific objectives on a sustainable basis (Uphoff, 1986). In this study, institutional development refers to the organisations developed to support VET system development. The goal of these state-created institutions is to ensure the effective implementation of policies. Institutional development created an enabling environment. VET system development hinges on a network of organisations for effective implementation and the achievement of the objectives, given that firms by themselves may be unwilling to invest in employee development. A strong legislative agenda and an ecosystem of institutions are essential for effective VET implementation.

Human capital theory argues that firms are unwilling to invest in employee training without the guarantee of employee retention (Becker, 1993). While some answers can be found in the explanation that firms are irrational and willing to invest in VET because of labour market imperfections, it does not mitigate the business concerns that employee training is a cost. In countries that have greater employee retention, industry believes that apprentices will stay and provide the internal market with high-potential talent (Acemoglu & Pischke, 1998). This view has been criticised as a partial view, as it does not explain the variations of labour market imperfections across countries and deviates from understanding the diversity of skill regimes (Busemeyer, 2009).

It remains unclear if firms are able or willing to create these labour market imperfections as part of their skills formation strategies or whether they are caused by factors external to the process of human capital formation, such as politics and society. Given the global nature how businesses, industries and organisations are evolving, the role of the various actors in VET is also changing.

The role of the public and private sectors have changed over the years with three broad stages:

1. unstructured and unregulated VET
2. supply-driven, state-dominated VET
3. market-driven VET.

Conversations of the role of VET in business, the costs of training and the evolution of the VET system in Malaysia were clearly circulating in the data.

Yanie identified the development of institutions to champion VET as important:

The Department of Skills Education, and in particular the HRDF, have been supportive of funding VET in Malaysia but the interests of industry must be given a stronger voice even though there are claims that HRDF is employer led.

Julianna cited the Singaporean model as a strong example:

Institutional building is important for championing the cause of vocational education. We need to strengthen the institutions here. We need something similar to Singapore's WDA, which spearheads VET. It is a one-point centre for formulating and implementing the CET strategy.

Zaid was aware of the several institutions that support Malaysian VET, but was concerned about the overlapping roles and the fragmentation caused:

CIASST, the statutory body under the Human Resources Ministry, is an example of building an organisation that caters directly to needs of industry. The VTOs are trained and accredited here. The vocational training certification program is developed and delivered here. Subject matter experts are trained to train others. It prepares the VTO, a mandatory requirement to train VET trainees but being a single institution, leads to long waiting times and state led is sometimes not relevant to industry. While there has been an expansion with eight satellite campuses, there is a need to open up this provision.

Isman stated that the VET training provision market should be competitive and all bodies should earn funding through performance. It cannot be a given simply because they are part of the public sector:

The public-sector training organisations' provision is outdated to industry needs and is heavily subsidising the organisation instead of diverting the funds to train a skilled workforce. Public- and government-owned training organisations have too much rigidity and the regulatory framework they follow is not suitable for meeting the needs of industry.

Roslan identified a need to build a robust network of private-sector training organisations:

Private-sector organisations are able adapt to changing needs because they have to be accountable for results and are more entrepreneurial in nature. They engage with industry and deliver relevant programs.

For George, the PTPK, created under the Ministry of Human Resources, is a positive move:

As a statutory body under the Human Resources Ministry, it has enabled the development of VET. The institution is entrusted with a loan fund to support VET study. It was hoped that PTPK will attract school leavers who are unable to go into higher education due to a lack of entry qualifications or financial

needs and may opt for VET. The bureaucracy and the shortage of funding has hindered the growth of VET.

Wati cited the success of Penang Skills and Selangor Skills, two state-owned but industry-led VET organisations, as good examples of engagement and collaboration:

Each state has a skills development centre. This in partnership with each state's industrial parks aim to provide VET. Only in Selangor and Penang, the institutions have been successful, elsewhere they have been dormant. Industry-led leadership has been a differentiating factor.

While institutional development was considered critical and part of the macro-economic strategy, coordination and leadership is important for effective implementation. Rizal commented on the need for coordinated leadership:

Organisations such as Multimedia Development Corporation have been built into mature organisations to support VET but the proliferation of many such organisations without central coordination hampers does not make the process transparent and access easy and fair to all.

Jimmy commented on the need for the organisations to be sustainable:

MARA, an organisation dedicated to support the nation's ethnic majority is another organisation developed to support VET, exclusively for the ethnic majority. This is being done by the government to address the socio-economic inequalities between races. Funding in recent times has been slow, making it difficult for the organisation to be sustainable without government funding.

For Winnie, it was about learning from best practices and avoiding the mistakes of other countries:

Let us learn from the best practices adopted by other countries and minimise the trial and error experience.

The data show the need for creating a network of organisations to effectively implement VET. Organisations need to be sustainable and must be industry led to ensure relevance. Leadership is essential to minimise coordination challenges. Funding remained a challenge. The next theme is challenges with VET funding.

5.5.3.3. Funding

The skills intensiveness of VET requires immense investment. Both the provision of VET and the acquisition of skills need to be funded. The funding system in VET is believed to achieve quality, efficiency and impact (Demessew - Alemu, 2006). Two issues dominate

the issue of funding: financing (how the money is raised) and funding (how the money is distributed) (Katrina Ball, NCVER). There is a strong correlation between funding and the quality of training. Obviously, it can increase the efficiency of the training program. The overall effect of this activity can lead to improved employability of VET graduates (Wilhelm, 2011). Debates on whether it is to be solely financed by the public sector or in partnership with the private sector continue (Neuman & Ziderman, 2001). In public provision, the sources of funding are direct budget allocations, cost recovery (trainee fees), and in some countries, revenues from a training levy paid by businesses. The public financing system may continue to be engaged in this activity since it needs to address issues of equity, market failure, strategic development and other relevant issues (GTZ, 2006).

Cost sharing has been proposed and implemented as one means of financial sourcing in some countries. Different financing mechanisms were also proposed by UNESCO-UNEVOC (Simiyu, 2009). A new funding mechanism, such as performance-based allocations for training institutions, training funds directed to end-users of training services, and increased cost recovery with targeted assistance to the poor should be applied. This would require empowering training centres, active participation of the private sector in the management of training funds, establishing new management models for training centres, developing a voucher system, implementing new indicators and benchmarks for measuring performance and creating a field for public-private competition for funds (EC, 2006).

Yanie viewed VET funding as complex and a major challenge:

Funding remains a major challenge for VET development. Sourcing funds has been an issue for VET. The Skills Development Fund had a budget of about RM 100 million in the Tenth Malaysia Plan. The Skills Development Fund also looked after the industrial enhancement program and the workforce technical transformation program. This paled in comparison to the Higher Education Loans Corporation, with a budget of over RM 4 billion.

Julianna discussed the inadequacy of VET funding and conflicts over funding:

Funding of VET is complex but largely I would attribute it two things: a lack of it and second, the unwillingness to share costs unless the initiative is industry led.

Zaid advocated the innovative use of levy contributions to the HRDF.

Some organisations collaborate and they use the HRDF to reimburse their training using their training levy contributions.

Isman expressed the view that it was impossible for trainees to fund themselves:

It is very unlikely for us to get any form of self-sponsorship in which the trainees fund themselves. There is a need to get some form of financing either industry or the government. Most of the trainees are from disadvantaged backgrounds.

Roslan wished the Skills Training Fund could get a greater allocation:

As a small and medium organisation in a highly competitive industry, funding is critical. It is impossible for us to fund the employee skills training. The Skills Training Fund should have a greater allocation, from a macro perspective, the country stands to gain. Efficient use of the fund will boost VET.

For George, efficient use of the funds was important:

While the Skills Training Fund has promoted the private-sector training provision and enabled accessibility to funds, issues of efficiency of the Skills Fund continue to be an issue to us. We had a critical view on the allocations for government institutions as the programs were not evaluated for industry relevance. The return on investment of these budget allocations were never done. The challenge is government-owned training institutes offer training free but the programs are lousy and it is highly unlikely they result in any employment. Yet, they get a government grant year after year.

Rizal commented on access to funding:

In the 2015 budget, MARA was allocated RM 50 million just for VET but MARA-registered organisations run these programs, leading to differing employment opportunities. Access was restricted only to a few government organisations.

Jimmy advocated for greater industry-led initiatives in VET to overcome funding challenges:

Penang is a good example to follow. The PSDC is entirely funded by industry and is in partnership with the state government too. This is a good example of private- and public-sector collaboration. Funding is managed proactively here.

While Winnie concurred with Jimmy, she pointed out the need to differentiate the various states in the country. Not all states are industrialised with MNCs:

I agree with this view. Since it is industry led, it becomes relevant and highly sought after. Employers have even experimented with cost sharing with

employees and it has been successful. But, then these employers are employers of choice, highly-sought MNCs.

Jimmy highlighted that industry must be a partner to ensure sustainable funding:

Capital expenditures for some of the equipment is massive. Unless there is collaboration with industry, it is not sustainable. Some form of bonding for employees undergoing training is needed to make it sustainable to invest in expensive training.

The data highlight the need to tap into all forms of funding and ensure efficient use of funds. Access to funding issues must be addressed and the Skills Training Fund should have a greater allocation. Industry-led approaches are sustainable in the long term. The next theme will highlight the need for greater engagement.

5.5.3.4. Engagement

Collective skills formation plays a crucial role in defining access to secure and high-skilled employment (Hall & Soskice, 2001). Skill formation systems require steadfast political and stakeholder support (Busemeyer & Trampusch, 2011). The CEOs were concerned they were not sufficiently engaged by policymakers.

Jimmy expressed a preference for more consultation:

While there is no doubt there has been consultation, the outcome of these consultations does not reflect the wish list of industry.

According to Rizal, there should be a long-term approach for VET:

Policymakers have erroneous thinking that increasing the supply of skills will automatically solve the problem of skilled workforce shortages, poor performance and lower productivity. It must be a long-term approach to solve the country's skills shortage issues. There needs to be greater tripartite consultation between policymakers, unions and businesses when formulating policy.

Jimmy stressed the need for dialogue in the coordinated implementation of VET run by multiple agencies:

One of the key issues in the dialogue session has been the issue of VET governance and articulation. We have to minimise bureaucracy yet improve regulation. Bringing both the Department of Skills Education, Ministry of Human Resources and the Malaysian Qualification Agency under the MoE has to be carefully considered and the industry must be consulted.

Roslan highlighted the need to benchmark training providers with the best in their field. It will not only help the viability of the training providers but also improve the quality of provision:

There has been a huge number of small training providers who are not engaged. They are not continuously trained or assessed. Their own business is not sustainable and hence the objectives are not achieved. The quality of provision is very unacceptable. So, it becomes a challenge to hire VET graduates from these training providers. The German Malaysian Training Institute and PSDC must be the benchmark for these players.

For George, it was about leadership driving engagement:

Some industrial-led bodies such as Construction Industry Development Board and the Malaysian Plastics Manufacturing Association are involved more because of their strident evangelism. The manufacturing sector is engaged through the Federation of Malaysian Manufacturers but not the subsectors like us.

Julianna warned that dialogues do not result in action:

Several budget dialogues have taken place pre-budget but it has always not lived up to the expectations of industry. Funding is biased towards higher education.

For Winnie, initiatives like dualisation should be discussed more between stakeholders:

Dualisation is a very good move but it seems they are streamed at a very young age not based on choice but based on academic performance. So, there is a fallout from careers after completion of a VET program. It has to gain recognition and respect like in Germany. Dualisation helps the trainees adapt to the industrial environment.

The data highlight the need for continuous engagement with stakeholders. The next theme will show the importance of understanding the unique Malaysian challenges.

5.5.3.5. Unique Malaysian Challenges

The VET system of every country has a national character. It is defined by the unique identity of the country. The VET system may be influenced by culture and the meaning of VET itself may vary from country to country (Kell, 2006). It may relate to a specific instructional objective to be achieved amid tensions between education and work. It may be a term to describe individual learning arrangements and processes linked to pedagogical objectives. It may also be an overarching term for the organisation of vocational and technical learning in the context of modern educational systems.

To Yanie, the multiracial population of Malaysia is both an advantage and a challenge:

While I understand the positive affirmation policy in favour of the majority, achieving heterogeneity in a certain sector has been extremely challenging. Some sectors have been dominated by one race, resulting in a lack of diversity in the workplace, which has important consequences for the labour market.

For Wati, while diversity has been a positive thing, it has been a huge challenge to ensure it at the workplace:

Given the multiracial nature of the country, Malaysia experiences some unique challenges. The country is politicised on racial lines. Religion, race and ethnicity play a significant role in policy formulation and implementation. We have been challenged because the government would prefer we follow the positive affirmation policy in favour of the majority. Because of this, we have been unable to secure suitable apprenticeships from certain ethnic groups for our apprenticeships programs. There have been insufficient applicants.

Rizal concurred with this view:

We want a diversity of apprentices to reflect the demographics but getting a heterogeneous group is difficult. Additionally, race-based organisations offering VET leads to inequitable training provision, and therefore, race-based employment. Language issues have also hindered quality provision.

For Roslan, the hierarchical Malaysian society has created unfavourable impressions of VET:

Viewing VET as a last option for underachievers and the social stigma associated due to a hierarchical society has cast a negative picture on VET. The demand and supply mismatch has been acute. Foreign labour has been the only option to solve the business need for skilled labour.

Jeremy stated the acute urbanisation of the Malaysian population has created access challenges:

Our challenges are in the rural areas and most of the private training provision is in the expensive urban areas. The development of industrial estates and zones worked particularly well for Malaysia but the ecosystem is missing, the urban nature of training provision is not necessarily in sync with demographics of the country. Providers in rural areas have not been able to secure the services of quality instructors leading to inconsistent provision not meeting standards. Funding has also been an issue.

Winnie highlighted the gap between policy and execution. It was a well-thought plan to take VET provision to each state instead of concentrating resources in the cities but that has not worked:

Even though every state has a skills training organisation, they are state bureaucracy dominated and not industry led. The only exceptions are the two organisations: PSDC and Sarawak Skills Development Corporation, which are industry led.

Isman cited accountability as a key issue:

Malaysia has been subsidy driven. Numerous incentives have been provided such as double tax deduction but having the bureaucrats running the state training providers has been an issue; having them being accountable for employee training is a challenge. Malaysia is unique in the sense we have uncoordinated VET leading to low-quality delivery. Nearly seven ministries and many other agencies are involved in VET provision.

For Zaid, competent vocational training instructors are in short supply as only CIAST is authorised to train them:

While CIAST claims the number of vocational training instructors has grown from 1,500 to 3,000 over the last five years, there is no database. There is also a serious gap in the competency gaps because of a lack of industry exposure.

Yanie highlighted the issues of the informal VET sector:

In the past, unstructured and unregulated VET has led to many without a recognised qualification, there is a need to address this issue.

The data highlight the need to understand the Malaysian context. Diversity, urbanisation, hierarchical society and bureaucracy are some of the unique Malaysian challenges that need to be dealt with for effective VET implementation. The next section will highlight the lessons learnt by the CEOs.

5.5.3.6. Lessons Learnt from Australia and Singapore

The development of VET in Malaysia has been modelled on the systems in Australia and Singapore. This thinking can be attributed to similar national priorities on economic growth, development agendas and the need for global competitiveness. The AQF was certainly a precursor to the Singapore VET system (Willmott, 2006). The Singaporean system is being increasingly viewed as a best-practice system by other countries in the

region (Brown, 2010). Businesses have always looked to TAFE institutions in Australia and the WDA in Singapore as models to be followed in Malaysia.

Jimmy highlighted that Singapore did not achieve overnight success:

Singapore being a smaller country probably was in a better position to plan and make VET more demand driven but even there, they have struggled to organise the services sector, particularly the retail industry even though manufacturing seems to be better organised. Yet, the engagement in Singapore between industry and government seems to be proactive and the focus is on niche areas. Some form of prioritisation is evident.

Roslan commented the huge government involvement in Singapore was probably possible because it is an island state:

The Singapore experience of making [VET] government led works for Singapore, with large polytechnics taking the lead but fully funded by government. I doubt this will this work in a country like Malaysia which is geographically spread out. We probably need much more private-sector participation.

Wati agreed VET was not only branded much better in Singapore but also highlighted the apprenticeship culture as having had greater roots there.

WSQ in Singapore are government driven but they have branded VET more effectively than Malaysia has. Additionally, the apprenticeship culture, based on the German model, is better rooted in Singapore.

George stressed that Australia, despite the criticism of its VET, has approached VET reform better than most other countries have:

Everyone talks about the Australian model. All I know is the way VET has been in Australia. The TAFE model looks impressive. They have built an ecosystem to develop VET. Even the partnerships that TAFE has had in Malaysia has produced VET graduates who have had full employment.

Winnie identified positioning and branding as VET areas in which Malaysia could learn from others:

We need to learn about how Australia has sold VET. We can't afford to make it the last choice for our population. From what I understand, Australia secured their vocational teachers from industry to make it more relevant, we can do it but the salaries have to be far better than what it is now. What they learn must be relevant to industry, what they learn must be used at the workplace, we do not have time to retrain them again. If that does not take place, then the investment in the VET would be a complete waste.

5.5.4. Conclusion

This section has explored the data from Malaysian CEOs from the health sector. The data show that in relation to VET, the CEOs appreciate the importance of reform for effective and efficient management of VET policy implementation.

The data indicate that while CEOs are aware of the role of policy for skills development strategies, they wish for greater dialogue between stakeholders for VET to be relevant. While they appreciate the legislative agenda to champion VET, they highlighted the need to build an ecosystem of institutions to support VET development, similar to the systems in Australia and Singapore. Funding remained, in their view a challenge. Therefore, they proposed a greater allocation for the Skills Training Fund. They advocated the need for increased industry engagement and PPPs to manage funding and employability issues. The CEOs highlighted the advantages and challenges of Malaysian diversity and the hierarchical society. The need to brand VET and position it on its own footing rather than as the last choice was emphasised by the CEOs.

5.5.5. Summary

Malaysian CEOs, while acknowledging the importance of reform for effective and efficient management of VET policy implementation, wish for greater dialogue between stakeholders for VET to be relevant. They highlighted the need to build an ecosystem of institutions to support VET development, similar to the systems in Australia and Singapore besides the legislative agenda. While the diversity and the hierarchy focussed Malaysian society has its own challenges, they advocated dialogue between all stakeholders to brand VET.

Chapter 6: Quantitative Data Analysis

‘The price of light is less than the cost of darkness.’ Arthur C. Nielsen

6.1 Introduction

This chapter presents the findings from the survey. The quantitative phase of the study focused on gauging stakeholder satisfaction using a web-based survey questionnaire accessible to a targeted 200 participants. The targeted respondents included all key stakeholders who have been affected or have affected the development of the VET system in Malaysia. While over 2,000 survey requests were sent, 209 participants responded. Open-ended questions were also included in the questionnaire. An advantage of web-based surveys is that the responses can be easily stored in a database. Consent was obtained over the web. Response rates were improved with the use of autoresponders. To solicit a relatively high response rate of the survey, a three-phase follow-up sequence was adopted (Dillman, 2000). Participants who did not respond by the set date were sent an email reminder five days after distributing the survey URL. Ten days later, a second email reminder was sent; two weeks later, a third email reminder was sent. The response rate of approximately 10% could be considered acceptable.

Data were collected in a fixed period. The survey questionnaire was prepared at the stage of data collection. Descriptive statistics have been used to screen all variables. All survey items have been summarised in text and reported in charts. All charts have been described in the Appendix. Reliability and validity was strengthened by pilot testing the survey instrument with a small group of people who were involved with the study and a group of experts to seek their feedback on the data collection tools. It is essential to revisit the research question to understand the intent of the survey.

What are the challenges facing the development of VET in Malaysia?

Further, it is important to consider the associated research questions:

- What are the VET policy trends in Malaysia?
- How have the skills formation systems evolved in Malaysia?
- How have the existing players in Malaysian VET been engaged?
- How has skills training minimised inequality within Malaysia?
- What are the lessons from Australia and Singapore?

In line with the main research question and associated questions, the quantitative phase of the research was designed to collect and analyse the perspectives of stakeholders to complement the qualitative data. Stakeholders are defined as groups that directly affect, or are affected by VET through their engagement with it. From the literature related to collective skills formation, categories of stakeholders were identified:

- policymakers from the government and/or government agencies
- CEOs of vocational training providers
- trainers/instructors from vocational training providers
- trainees from vocational training providers
- CEOs from manufacturing and health sectors.

Conventionally, policymakers and industry interest groups have been highly significant in shaping the development of VET systems (Salaman et al., 2005, p. 5). In each of these categories, the stakeholders identified for this research were discussed in Chapter 4. This mixed methods approach allowed the presentation of multiple perspectives of individuals to ‘represent the complexity of our world’ (Creswell, 2002, p. 194).

6.2 Respondents

As Figure 6.1 shows, 46% of respondents had more than six years’ experience, while about 33% had more than 11 years’ experience. About 30% of respondents were new to VET, with fewer than two years’ experience, while about 23% had between three to five years’ experience. Overall, there was a balance among the respondents between experience and newcomers to VET.

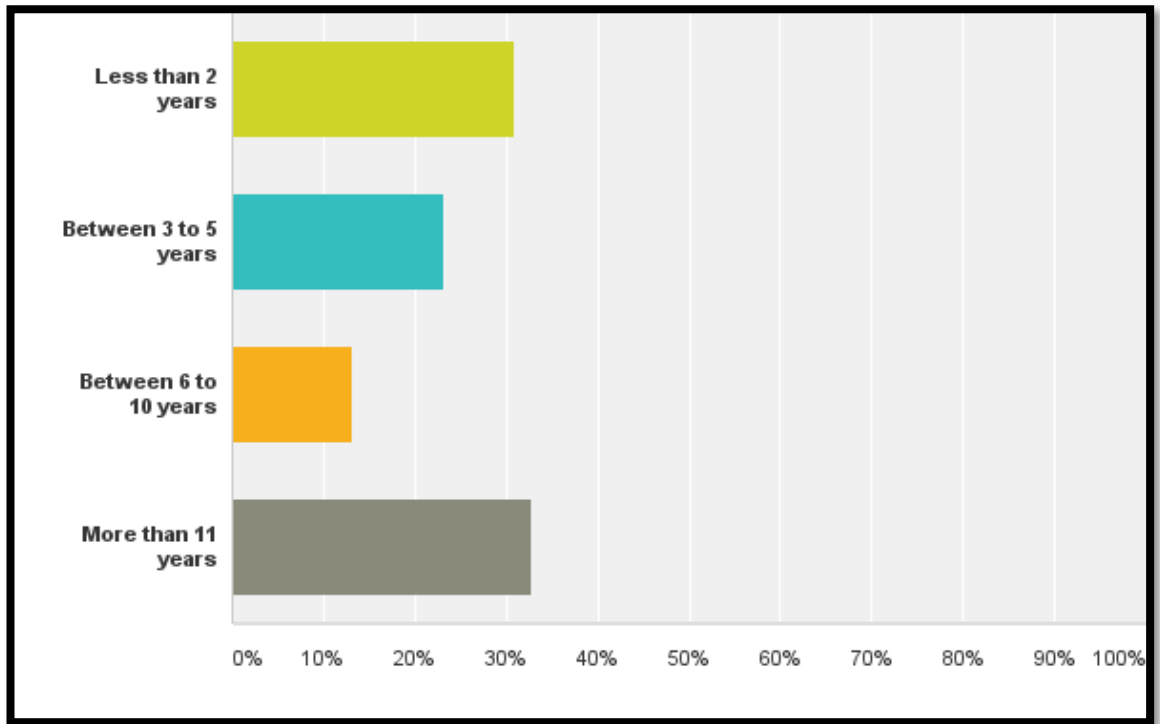


Figure 6.1: Years of Involvement in Vocational Education and Training

Figure 6.2 indicates that the respondents were representative of the qualitative phase of the study.

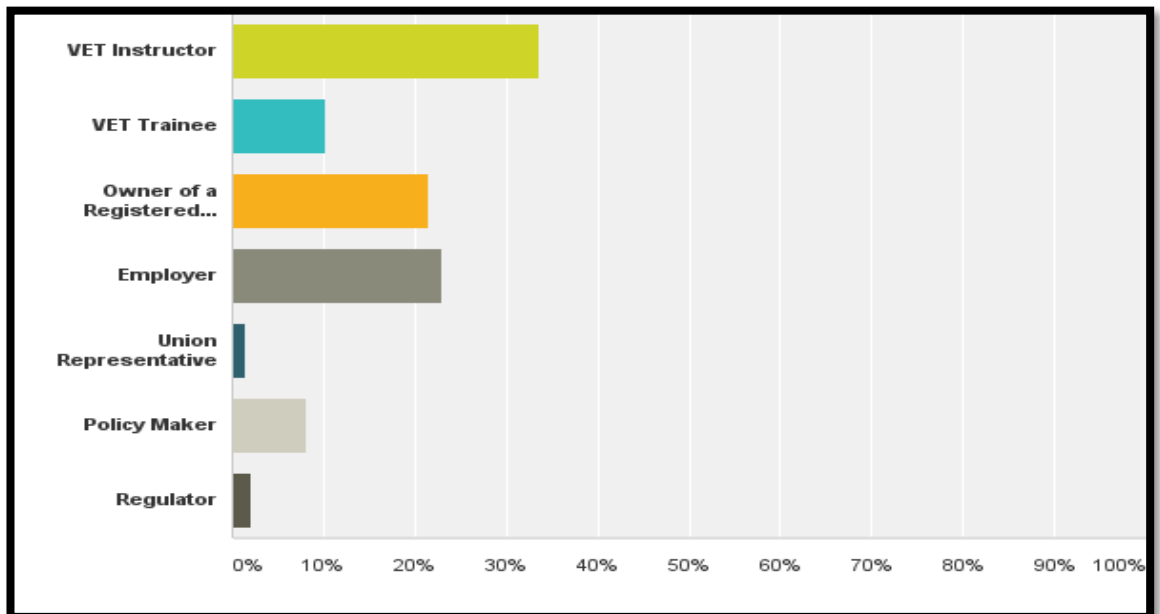


Figure 6.2: Role in Vocational Education and Training

- 11% of respondents were policymakers
- 21% were owners of RTOs
- 33% were VET instructors

- 10% were VET trainees
- 25% were CEOs.

The response from policymakers and VET trainees was a little lower than the response from VET instructors, CEOs of vocational training providers and industry.

In the qualitative phase of the study, there were many interviews conducted:

- six (14%) policymakers from government and/or government agencies
- six (14%) CEOs of vocational training providers
- 10 (24%) trainers/ instructors from vocational training providers
- 10 (24%) trainees from vocational training providers
- 10 (24%) CEOs from manufacturing and health sectors.

The questionnaire consisted of four key variables:

1. Malaysian VET policy
2. Malaysian VET system
3. stakeholder engagement
4. awareness of Australian and Singaporean systems.

6.2.1. Themes

Table 6.1 presents the themes identified in the qualitative research.

Table 6.1: Quantitative Data Analysis Themes

Themes	Keywords
Malaysian VET policy	Clarity Planning Pathways Agencies
Malaysian VET system	Skills formation Skills recognition
Stakeholder engagement	Collaboration Responsiveness Participation
Australian and Singaporean models	Best practices

6.2.1.1. Malaysian Vocational Education and Training Policy

The aim was to identify respondents' views on the clarity and their understanding of the VET structure. Was Malaysian VET policy long-term focused or incremental? The literature review pointed to Malaysian VET being incremental. The questions aimed to seek their understanding of Malaysian policy objectives and new initiatives to introduce dualisation in schools, introduce higher education pathways, recognise VET qualifications, streamline the implementation of agencies delivering VET and bring about greater diversity in VET.

Figure 6.3 indicates that only 17% of respondents said VET policy was both clear and structured. A further 24% said it was clear but also indicated that it was unstructured, as opposed to 40% who indicated it was both unclear and unstructured. As described in Figure 6.4, only 21% thought VET was long-term focused, while 18% thought it was incremental and 26.5% thought it was ad hoc.

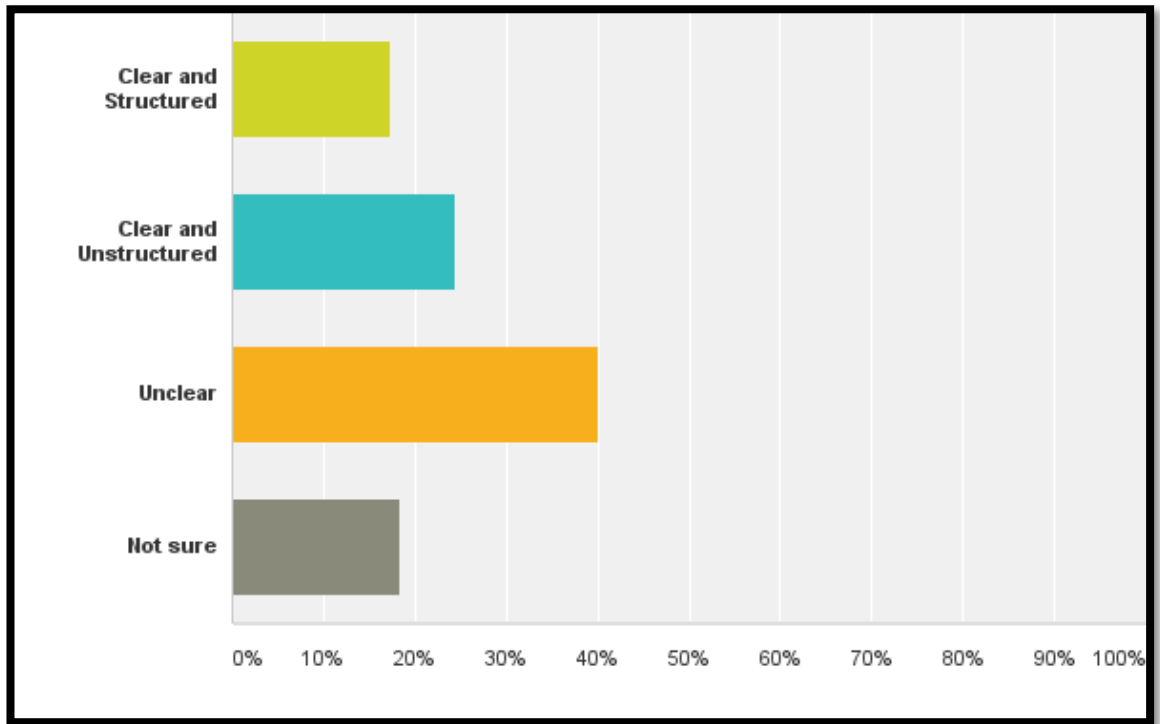


Figure 6.3: Clarity of Vocational Education and Training Policy

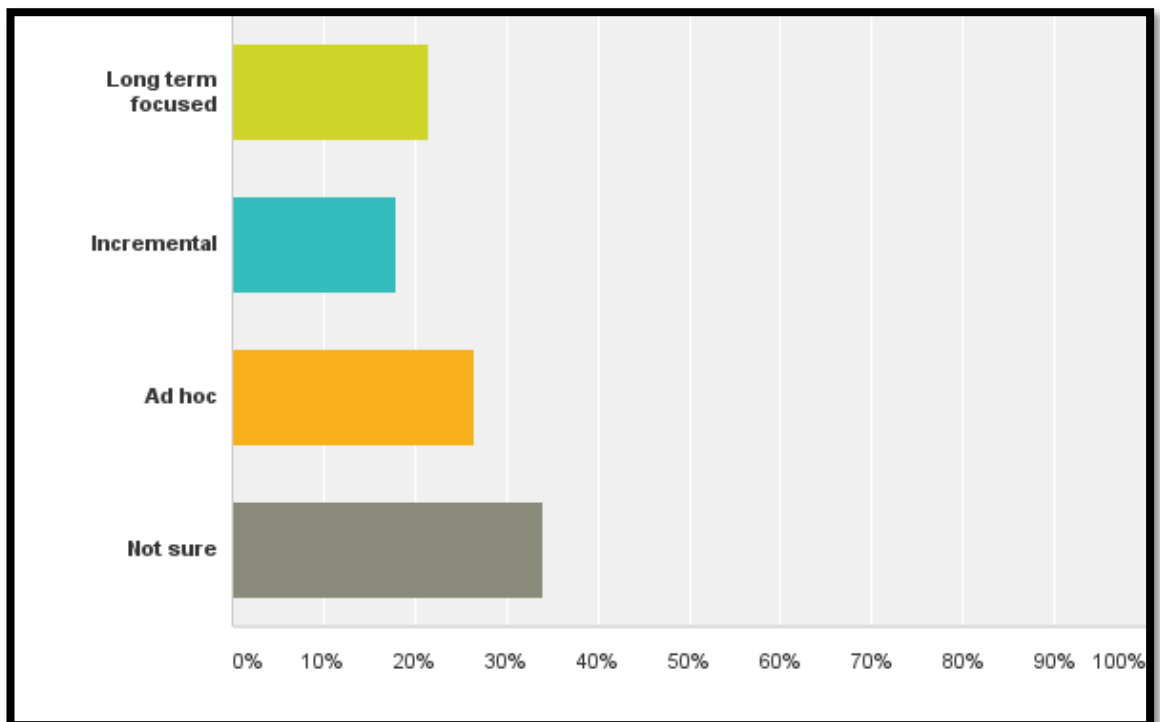


Figure 6.4: Vocational Education and Training Planning

While the responses to the open-ended questions recognised the importance of the VET sector in meeting the skills demands of the nation, there were comments associated with a perceived lack of clarity and a lack of evaluation of VET policy. The open-ended questions resulted in responses that linked policy with VET participation, funding and the

labour market. The lack of a long-term focus leading to an incremental and ad hoc approach was evident in the data generated by responses to the open-ended questions. The data also revealed that the evolution of Malaysian VET over the last 10 years was characterised by significant issues, such as the dualisation policy, *National Skills Development Act* and the national dual training program.

In Figure 6.5, nearly 58% of respondents linked VET policy with the labour market. They viewed VET policy as directed towards alleviating skills shortages and ensuring youth employment. Only about 40% could recognise the long-term links with Vision 2020 or the ETP. Figure 6.6 indicates that only about 32% agreed completely with the dualisation program, suggesting a lack of societal consensus in diverse Malaysia.

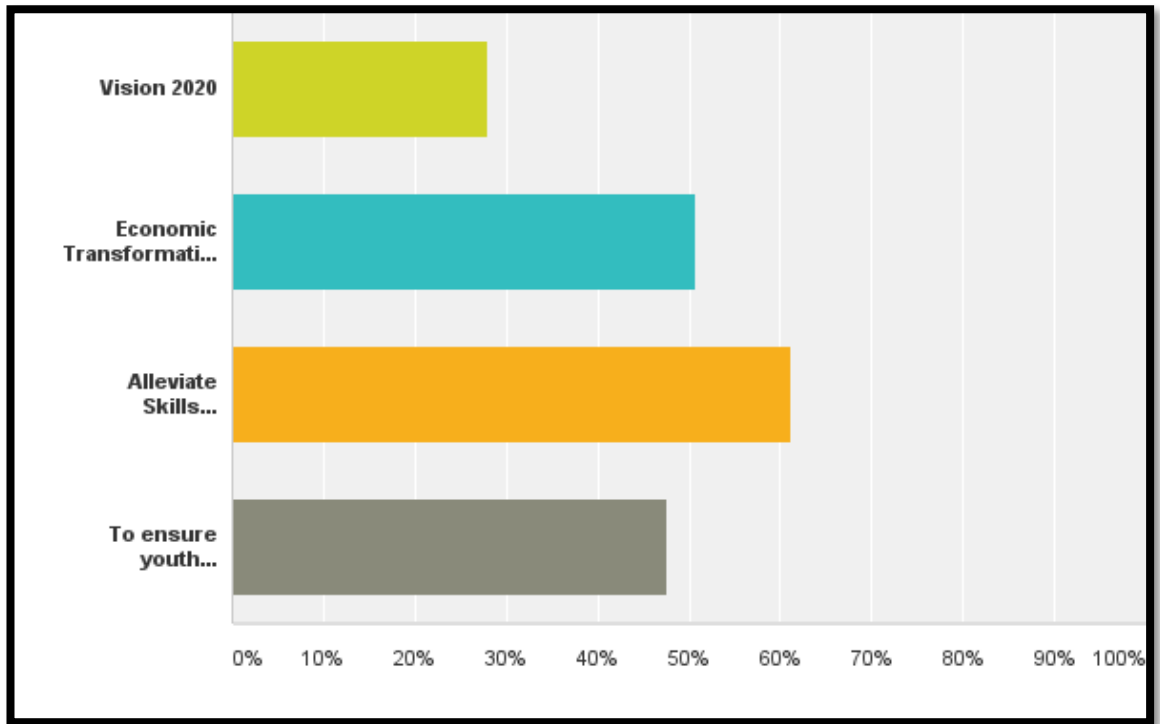


Figure 6.5: Linkage of Vocational Education and Training Policy to Government Planning

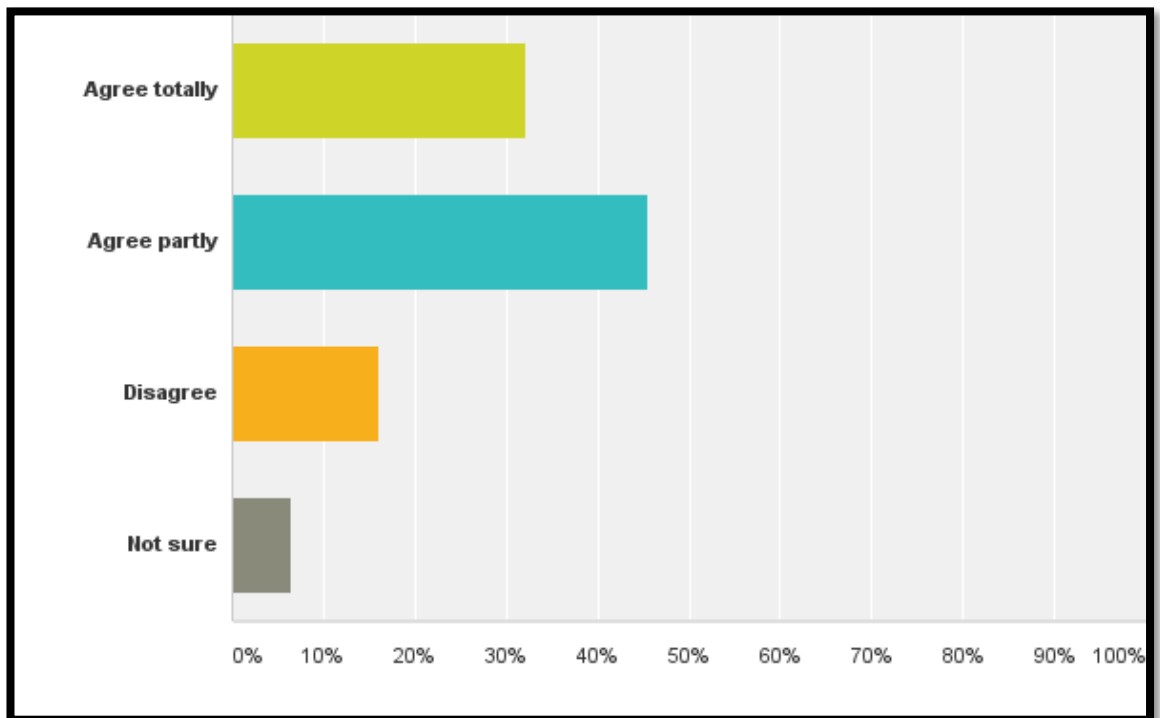


Figure 6.6: Dualisation Policy of Malaysian Government

Figure 6.7 shows that 72% of the respondents indicated that the pathways to higher education were only somewhat clear. The open-ended responses indicated and re-emphasised the prevailing difficulties with VET certificates being deemed unacceptable

to enter university, or as equal to the academic route. Figure 6.8 indicates that 51% of respondents indicated that Malaysian VET policy does not consider diversity, despite the presence of a positive affirmation policy. A further 26% said it did not consider diversity at all. This echoes the qualitative data and the prevailing literature.

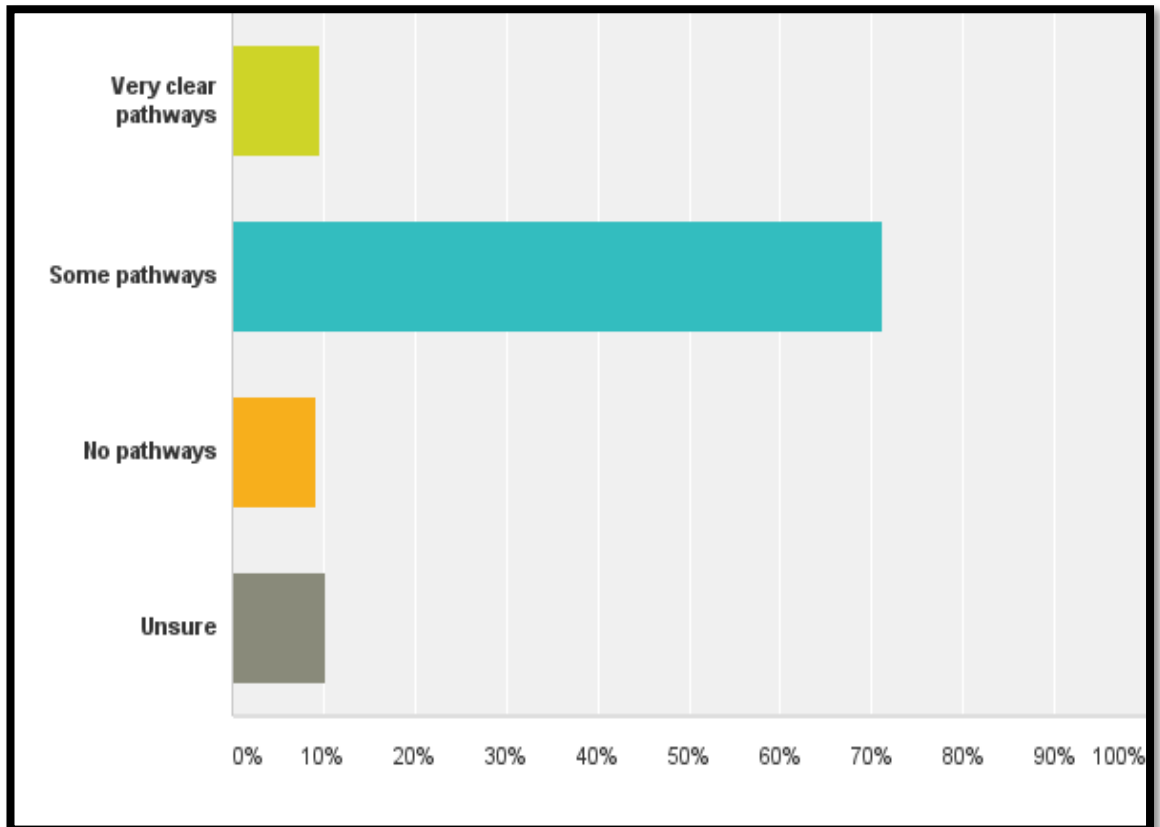


Figure 6.7: VET and Pathways to Higher Education

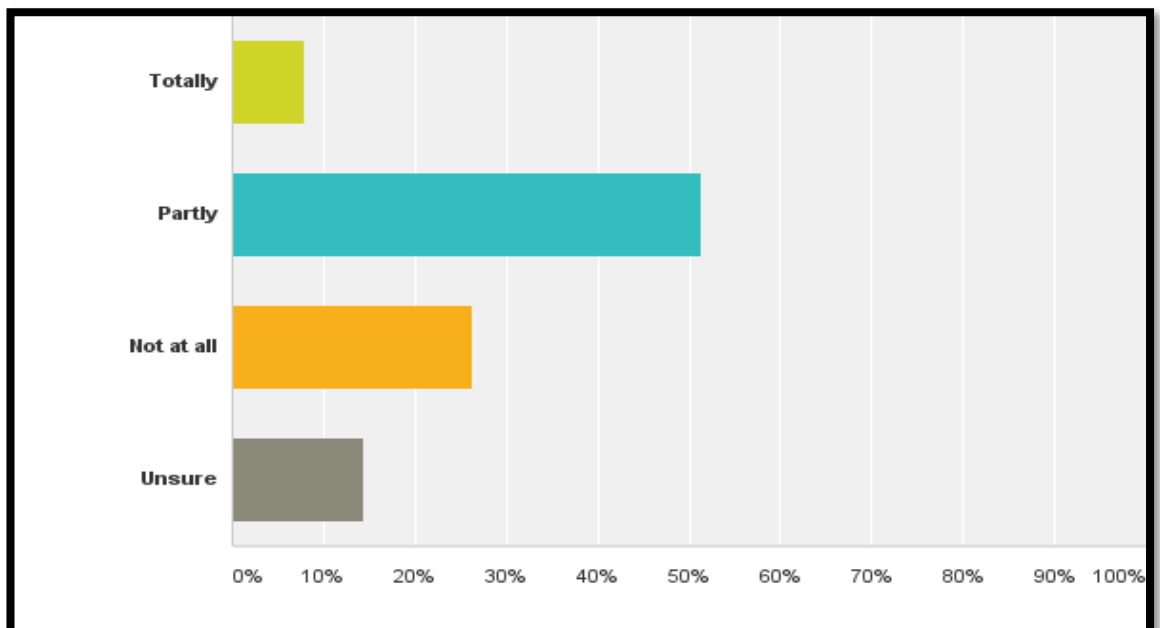


Figure 6.8: Vocational Education and Training Policy and Diversity

While VET policy seeks to improve VET’s responsiveness to the labour market, alleviate areas of skills shortages and align the expectations of trainees and employers, Figure 6.9 indicates that nearly 53% were unclear about the roles of the various agencies involved in VET. Only about 10% were clear on the roles of the various agencies involved in VET.

The open-ended responses in Figure 6.10 indicated a lack of clarity on roles and a duplication of roles among VET agencies.

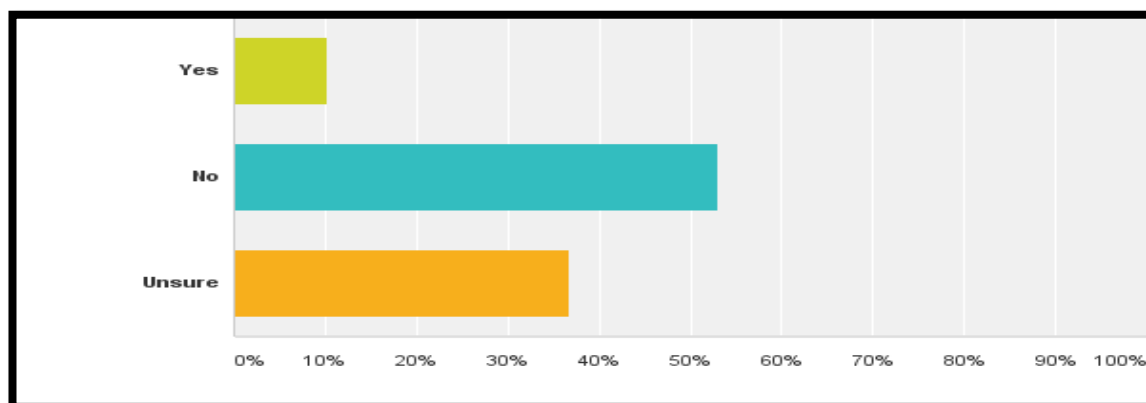


Figure 6.9: Clarity of Role of Agencies

Table 6.2: Agencies involved in Vocational Education and Training

1	MARA (agency)
2	Dept of Skills Development, Manpower Dept and Vocational and Technical Education (under the Ministry of Human Resources and Education)
3	<i>Kementerian Belia dan Sukan</i> Malaysia (Department with Ministry of Sports)
4	HRDF
5	Skills Development Fund
6	Polytechnics
7	Technical university colleges
8	Public universities and private training Centres

The data reveal that much more can be done to communicate VET policy to ensure greater clarity. VET policy was identified with VET participation, funding and the labour market and it was more short-term based than long-term based. Malaysian VET policy has evolved over the last 10 years with several initiatives such as the dualisation policy, *National Skills Development Act* and the national dual training program.

6.2.1.2. The Malaysian Vocational Education and Training System

The questions were designed to gather the views of respondents on their perceptions of the Malaysian VET system, including skills recognition, achievement of intended objectives, the level of bureaucracy and industry support. The industry support included industry agreements on training.

The consensus to the open-ended questions identified that Malaysian VET had adopted a well-defined form governed by three pathways to develop Malaysia’s workforce: higher education, technical and vocational education and skills training. Table 6.3 presents the various responses.

Comments such as ‘the Malaysian VET system is now becoming an important element for the nation’s growth’ were few, while most comments expressed disappointment. Some respondents expressed their frustrations with the VET system.

Table 6.3: Features of the Malaysian Vocational Education and Training System

1	‘Negative, full of holes, <i>tak telus</i> (not transparent), many opportunities for cheating on actual training, not optimised because hampered by limitations of trainers’ own skills position—need to have numerous hands-on training, train students to be self-disciplined if they actually do want to learn and succeed, good training systems in ILPs (government training institutes)’.
2	‘Not centralised and no clear policy as changes as often as the change with each leader’.
3	‘It is not meeting the current market requirements and is not competency based’.
4	‘Predominantly academic rather than vocational and skills based with little connectivity to employers. Apprenticeships are underdeveloped.’
5	‘Unnecessarily complex with no single policy or general oversight of the various schemes on offer, leading to overlapping and wastage. A shortage of VET educators compounds the problem, nothing will fly without industry involvement.’
6	‘Conceptually good but in its implementation very fragmented’.
7	‘Substandard students’, superficial transformation initiatives—on the surface, not content and policy transformation, not aligned to the country’s workforce requirement. Lethargic—communities in the VET system not rallied, confusing standards—even industries are unaware which standards to subscribe to.’

Comments such as these were indicative of the frustration with the VET system. 52% of the respondents thought that the Malaysian VET system did not have a clear system of skills recognition. Only 10% agreed that the Malaysian VET system had a clear system of skills recognition. The remaining 38% were unsure. The data further reveal that multiple agencies coordinating VET does not help efficient implementation (see Figure 6.10). Table 6.4 highlights the open-ended responses of the respondents.

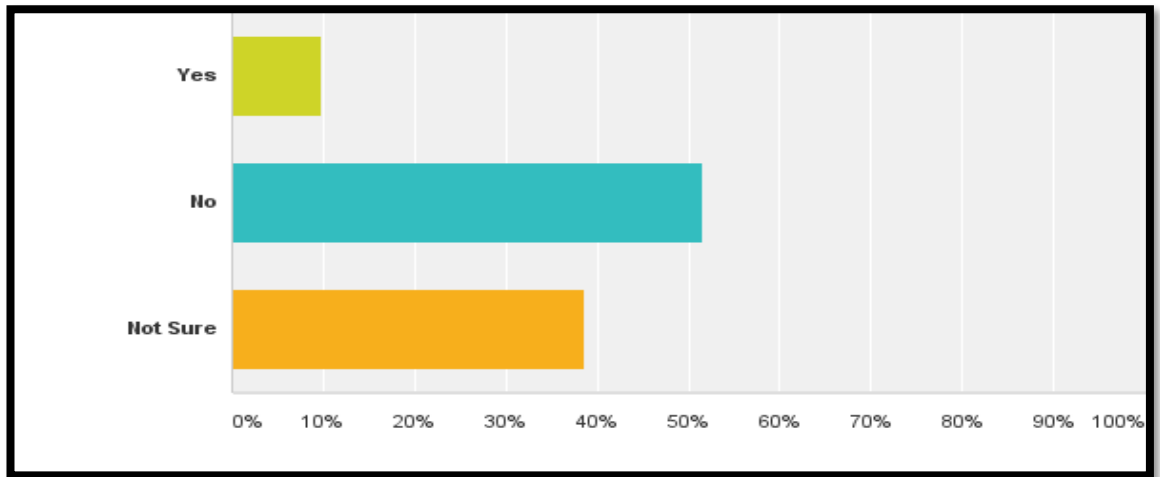


Figure 6.10: Clarity of Skills Recognition System

Table 6.4: Descriptions of the Skills Recognition System

-
- 1 Industrially relevant but lacks employer recognition.
 - 2 There is still a strong academic bias in the education system.
 - 3 VET must not be positioned as an alternative for academically weaker students.
 - 4 Vocational skills should be treated on par with other academic programs.
-

Close to 54% of respondents thought that the Malaysian VET system had not achieved the policy objectives of alleviating skills shortages and generating youth employment, given the acute dependence on foreign workers (see Figure 6.11). Open-ended responses (see Table 6.5) were typified with comments that only a small percentage of trainees succeed after completing their training. They have qualifications and certifications without having acquired the skills. While this is widely prevalent, it is hidden away to hide the inefficiency of the VET training system.

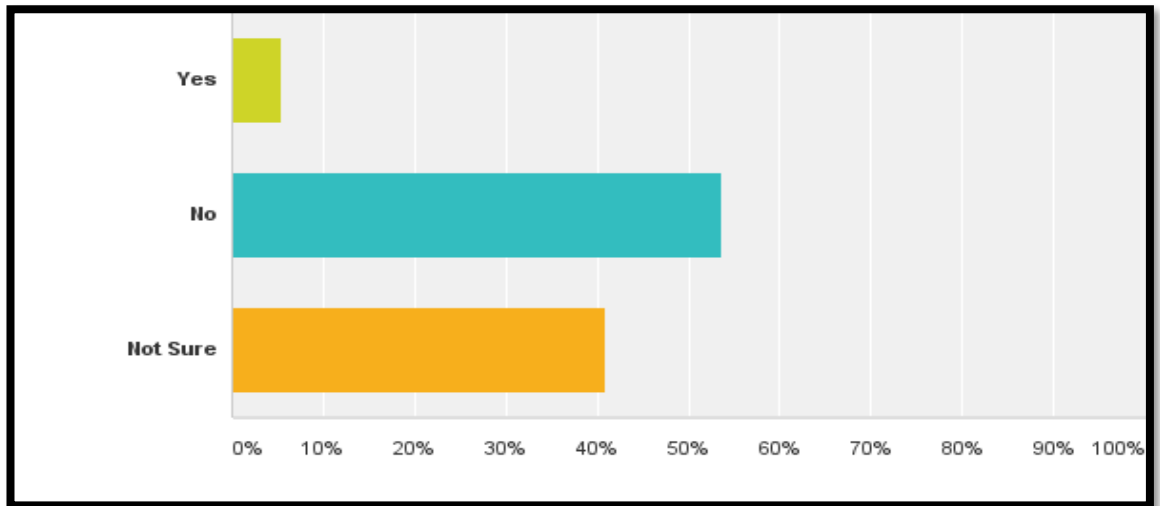


Figure 6.11: Objectives of Vocational Education and Training System

Table 6.5: Comments on Objectives of Vocational Education and Training System

-
- 1 Need to get trainees to use their skills.
 - 2 Erase public perception on skills education as lowly paid and for dropouts.
 - 3 Overcome reluctance of employers to invest in skills development due to cheap foreign workers.
 - 4 Targets sectors to invest that are hindered due to lack of skilled talent.
-

While 33% of respondents considered the Malaysian VET system to be bureaucratic, another 39% considered it partly bureaucratic. Only 2% of respondents considered it not bureaucratic. The data also revealed the presence of multiple agencies dealing with the provision of VET adds to the cumbersome bureaucratic implementation (see Figure 6.12).

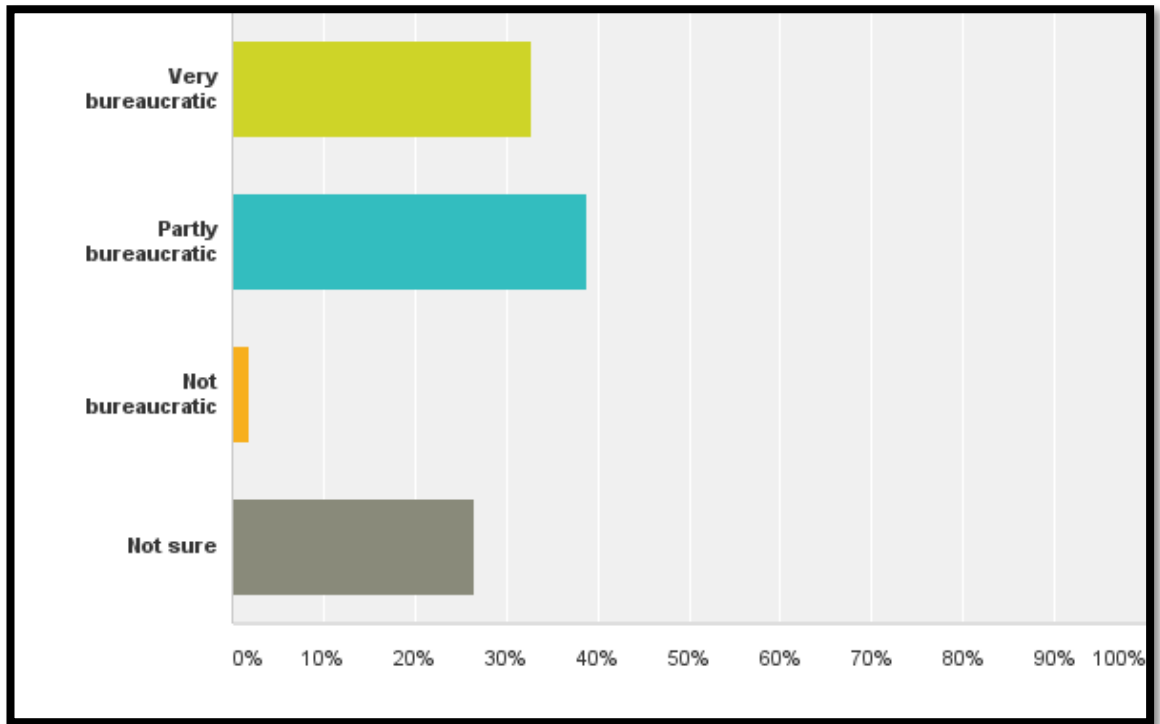


Figure 6.12: Bureaucracy and the Malaysian Vocational Education and Training System

As observed in the literature review, three insights characterise skills formation systems. First, collective skills systems are vulnerable and have fragile institutional arrangements. Second, the variety of skills formation systems are largely conditioned by the decisions made on the division of labour between firms, employer-led associations and the government on the provision and funding of skills development. Third, there are four points of conflict: who pays for the training, who provides the training, who controls the oversight of the provision and the linkage between VET and general education. Critical to the development of skills formation systems is who pays for the training.

While the banking industry had formal agreements by requiring those who poach trained workers to compensate the employers who had paid for the training, this did not cover all VET sectors. The data reveal that there are attempts to poach trained workers rather than train employees because it is cheaper and less time consuming. Close to 40% of respondents said there were no industry-wide agreements to avoid poaching of skilled workers. A further 32% commented that it was available in some sectors (see Figure 6.13).

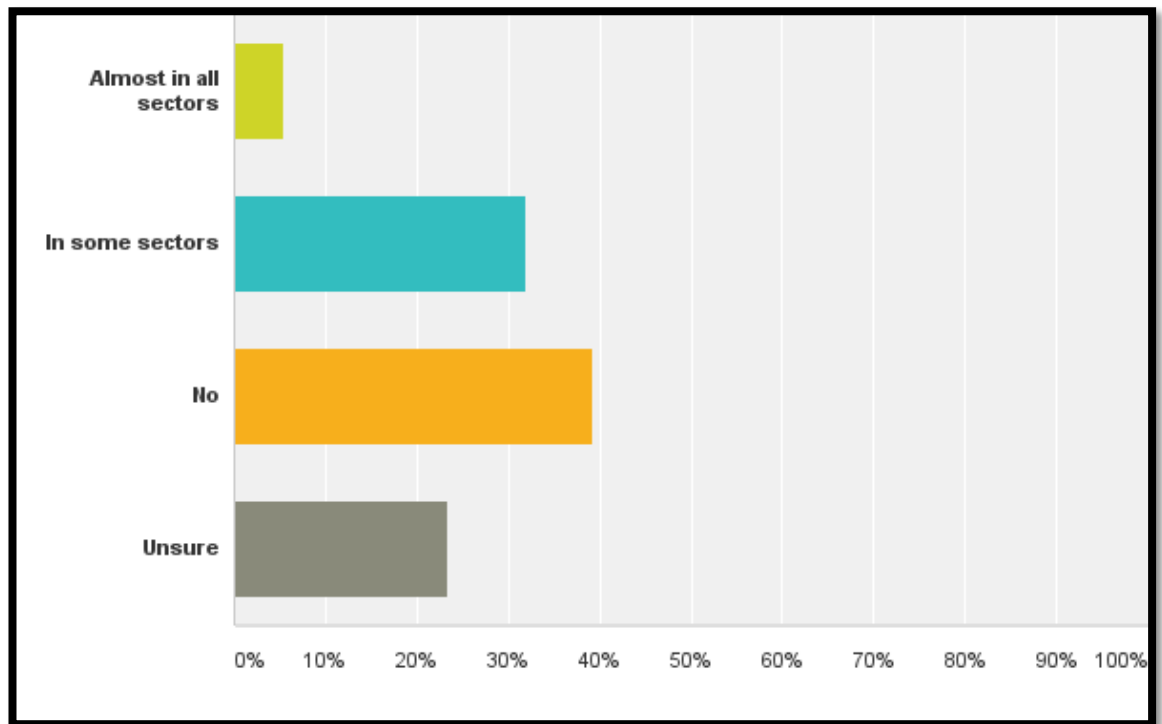


Figure 6.13: Industry-Wide Non-Poaching Agreements

The data reveal that while Malaysian VET has a well-defined form governed by three pathways, most respondents remarked that there was an insufficient skills recognition system. The system had not achieved the intended objectives and was overly bureaucratic with no industry-wide agreements to prevent the poaching of staff.

6.2.1.3. Engagement of Vocational Education and Training Players

The aim of the questions was to seek an understanding of the level of engagement of the stakeholders with the Malaysian VET system. While all stakeholders were in consensus that the VET system should enable Malaysia’s skilled workforce to be competitive and contribute to increased productivity and economic growth, the questions aimed to seek the views of the respondents on the following components:

- level of engagement
- relevance of VET standards
- collaboration between stakeholders
- responsiveness to workplace needs
- relevance of VET curriculum
- the level of participation
- success of apprenticeship systems

- employability of VET graduates
- VET funding
- indicators for VET success
- VET marketplace
- Australian and Singapore VET systems.

Malaysia has adopted a ‘high firm and high government involvement approach’ (Pang, 2011, p. 6). Most of the current policy analysis is based on the premise that to build a participative VET system, it is important to seek the opinions of various stakeholders. Ignoring or making assumptions about stakeholders’ expectations affects the development and implementation of VET. In a New Zealand study, Parkes (2012) argued that VET was experiencing increased participation; however, failure to consider stakeholder views resulted in dissatisfaction and outcomes not being achieved. The study found that policymakers and stakeholders’ logic to VET evaluation was contradictory and diagrammatically opposed. While one stakeholder saw VET as socially beneficial for all stakeholders, others saw it as not necessarily so.

Figure 6.14 indicates that close to 70% of respondents felt partly engaged. While about 12% expressed satisfaction with the level of engagement, nearly 18.5% did not feel engaged at all. Table 6.6 presents comments regarding engagement.

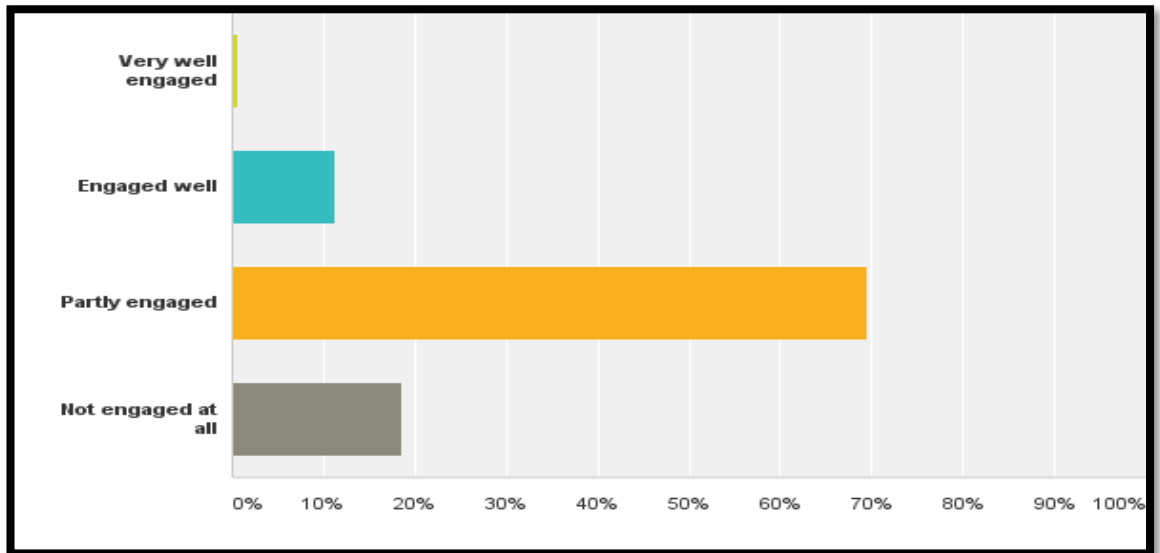


Figure 6.14: Engagement of Vocational Education and Training Players

Table 6.6: Comments on Engagement

1	Regular consultations among all players is important.
2	Engaging the industry players to design the curriculum can be improved.
3	Providers need to engage industry more.
4	Two standards from two ministries confuse the players.
5	The Association of Training Providers engages their members but more all-round consultation is needed.
6	Programs available from government training centres are less related to industry requirements. There is weak connection between industry and VET providers.
7	Linkage between VET and national policy will support VET, a policy for 5–10 years is critical and skills development plans need to be developed.

As presented in Figure 6.15, with relevance to VET standards, close to 67% of respondents considered VET unable to keep pace with workplace changes, while 8% went as far as to say that it was irrelevant to workplace requirements. Only about 8%, mainly policymakers, considered VET relevant to the workplace, indicating stakeholders' views were contradictory and diametrically opposed.

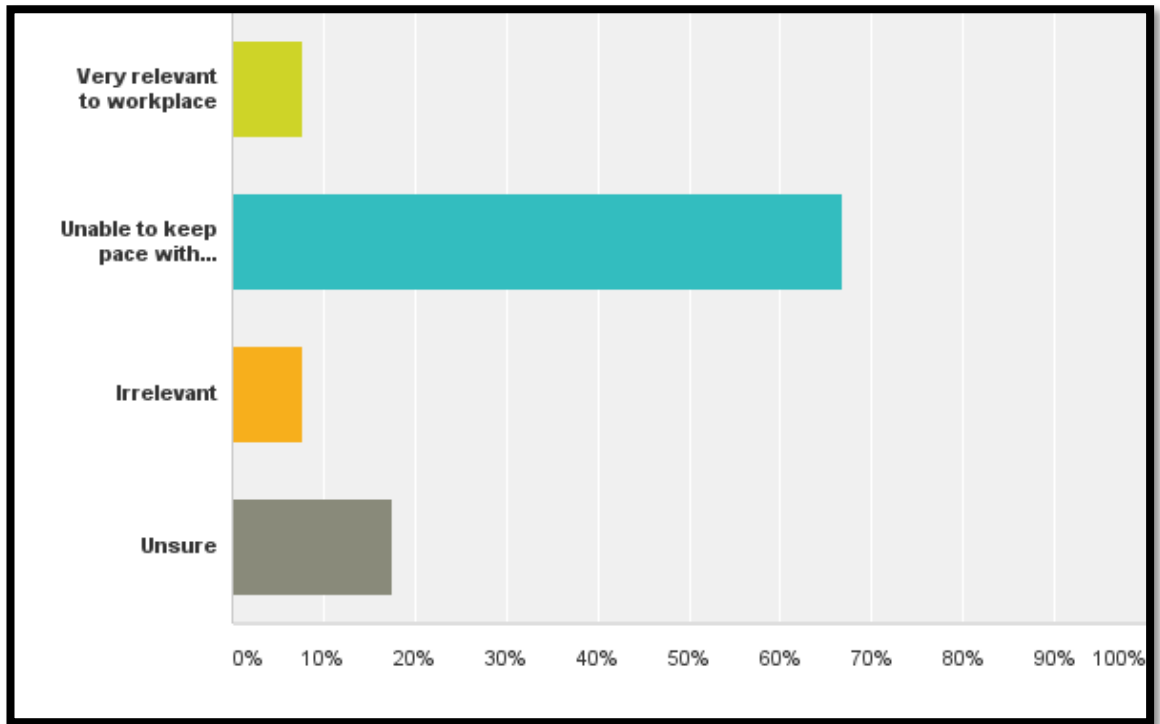


Figure 6.15: Malaysian Vocational Education and Training Standards

More significantly, 72% of respondents rated the collaboration with industry players as inadequate (see Figure 6.16). Only about 14% of respondents felt collaboration was adequate. There was certainly a disconnect between the actions proposed and the actions executed. This aligned with respondents rating responsiveness to workplace needs, with 62% of respondents saying that the responsiveness to workplace needs was inadequate. Only 20% deemed it adequate (see Figure 6.17). To stay relevant and responsive to workplace needs, VET systems must be dynamic and evolve to meet challenges posed by economic, education and social conditions in a rapidly changing global environment (Seng, 2011). A respondent indicated, ‘there’s no real sustainable collaboration between VET players and stakeholders’.

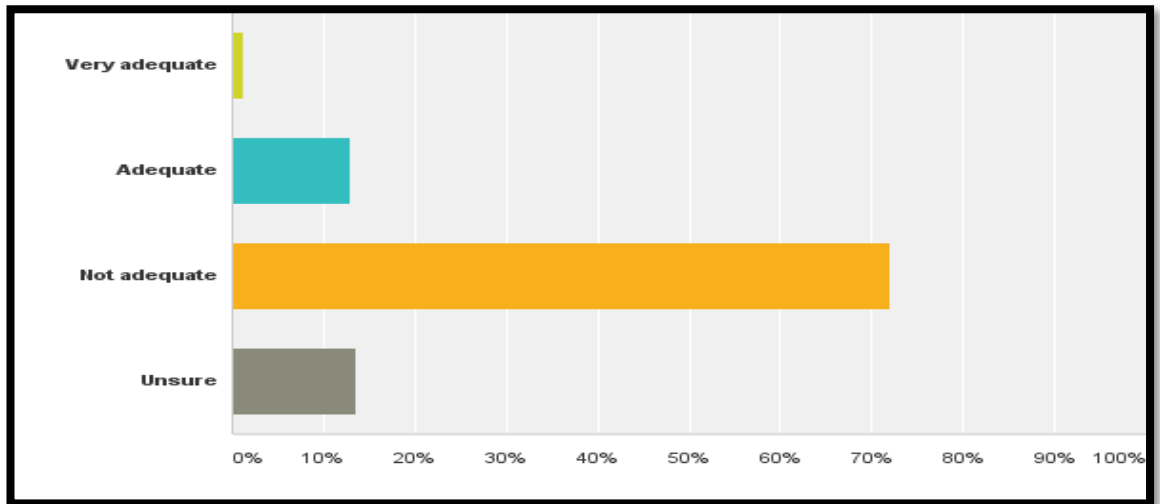


Figure 6.16: Collaboration Among Vocational Education and Training Players

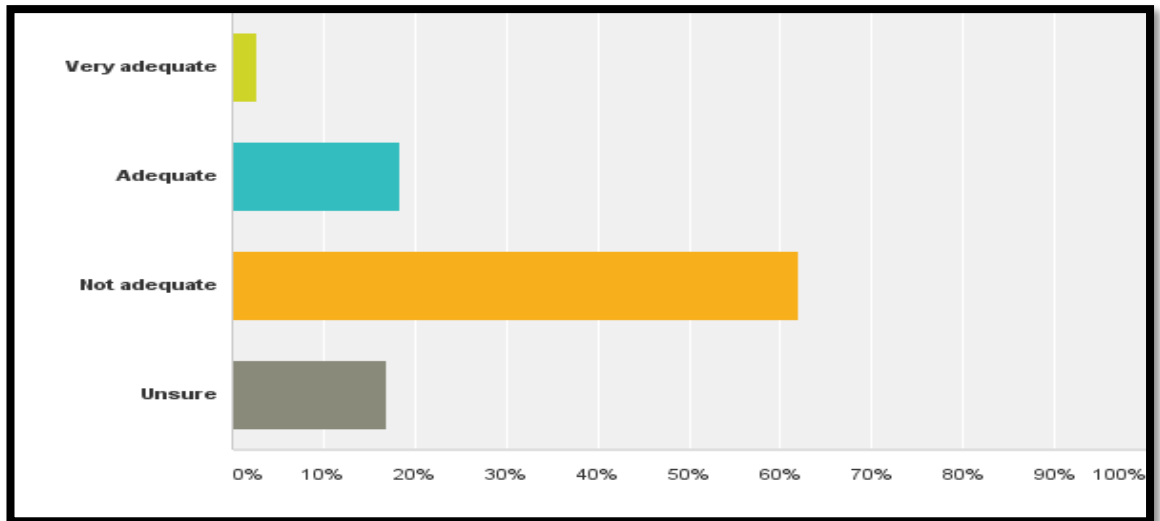


Figure 6.17: Responsiveness of Vocational Education and Training Players to Workplace Needs

Some 59% of respondents rated the relevance of VET curricula to industry as irrelevant, with 20% stating it was adequate and only 4% identifying it as very adequate (see Figure 6.18). Respondents commented: ‘It is not meeting the current market requirements and is not competency based’ and ‘A shortage of industry-based VET educators compounds the problem, nothing will fly without industry involvement.’

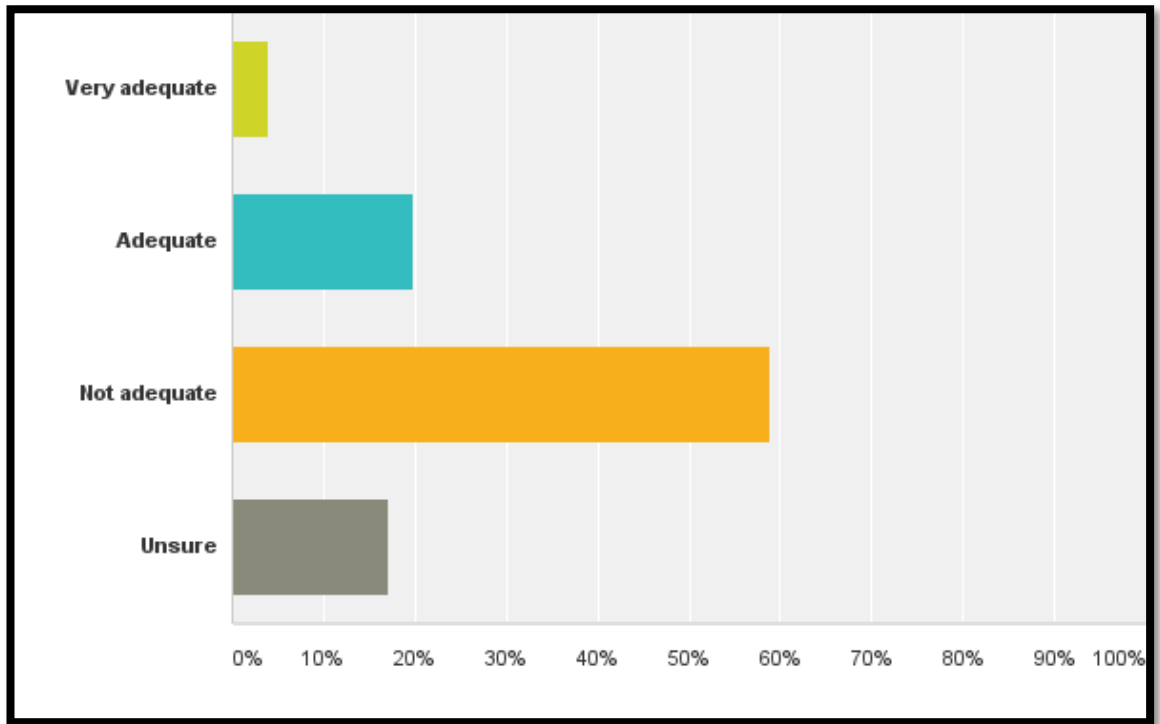


Figure 6.18: Relevance of Vocational Education and Training Curricula

As noted in the literature review, working with industry was deemed important. One program theory underpinning these reforms is that the market and market-type mechanisms led to a more efficient and effective way of delivering public services, including the VET sector. The responsibility for VET design, and to some extent VET funding, was subject to market forces. Firms volunteer their participation in VET based on their needs, leading to industry-led models (Chappell, 2002; Flude & Siemenski, 1999; Hayward & James, 2004). Government and industry had to respond to both skills shortages and oversupply of skills. The need to raise VET participation to 69% and ensure social inclusion led Australian policymakers to embark on a reform agenda. Yet, only 2.5% of respondents described participation in Malaysian VET as successful. A further 34% said it was only partly successful, while 38% said it was not very successful at all (see Figure 6.19).

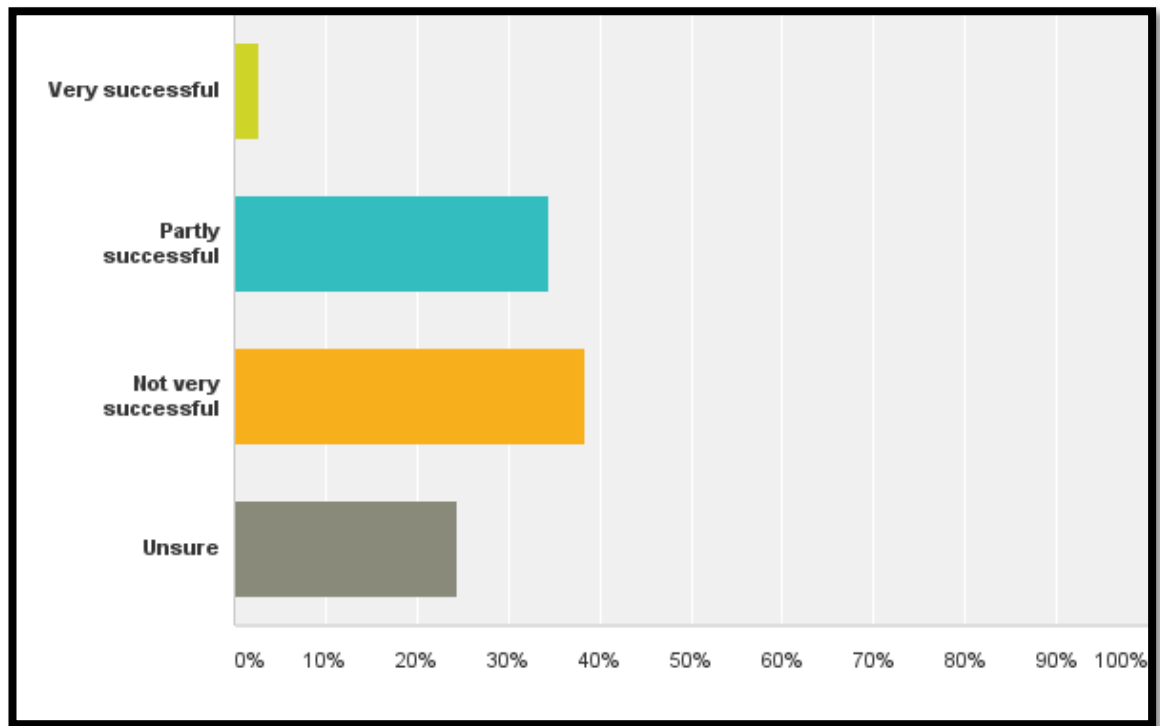


Figure 6.19: Participation in Malaysian Vocational Education and Training

Open-ended comments by respondents (see Table 6.7) indicated some reasons for the lower levels of participation in Malaysian VET.

Table 6.7: Comments on Vocational Education and Training Participation

1	Many VET organisations that I have seen are underdeveloped in terms of three things: low level of industrial equipment (especially engineering), poorly qualified practical tutors with little industrial experience, and disconnect with VET institutions and industry.
2	Despite big presence of government institutions/facilities (IKM, ILP, <i>Kolej Komuniti</i> , IKTBN, KV) participation rates were still in the low range. Malaysian companies still pretty much depend on foreign workers. If the VET program is successful we will able to supply local talents to industry.
3	The ministry has not been successful in transforming VET into something attractive, and the perception of VET as the last choice for education in Malaysia remains intact. Also, the perception that VET is participated in by people from one ethnic/background is prevalent. SMEs need to play a role to ensure alignment to competencies requirements and help seed the right workforce for their needs instead of competing with the giants to hire graduates.
4	The potential of technically inclined students and academically challenged students can be further enhanced by better awareness programs. Relevant agencies (e.g., Entrepreneur Development Institute) could contribute towards developing entrepreneurs among graduates of VET programs.

Apprenticeship systems were considered successful by only 8.5% of respondents. While 41% considered them partly successful, 20.5% did not think apprenticeship systems were successful (see Figure 6.20).

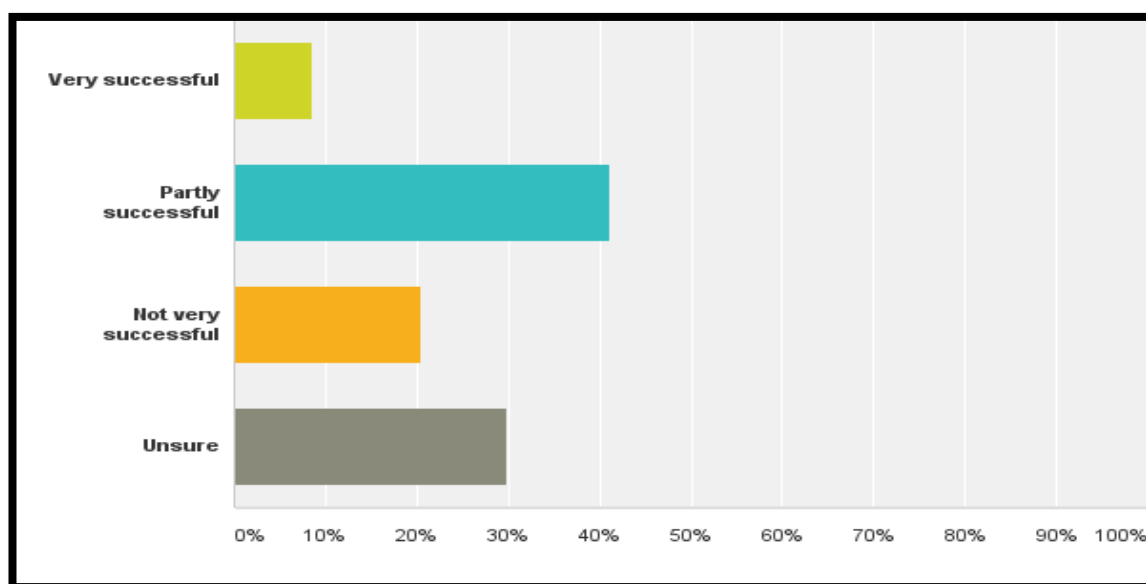


Figure 6.20: Success of Apprenticeship Systems

Comments from respondents were varied and they articulate the reasons (see Table 6.8).

Table 6.8: Comments on Apprenticeship Systems

1	Awareness and participation from industry is crucial to ensure success in VET/apprenticeship. ‘The apprenticeship system is a great model for developing the technical skills of the apprentice.’
2	Some sectors, especially those dealing with automated equipment, benefit from the apprenticeship system, as the system allowed immediate application of knowledge.
3	They must be aligned to the national requirements and international standards. The focus is too much on degree and qualification rather than ensuring ‘hands-on’ skill development. The apprenticeship should be generalised in the specific area, such as manufacturing, so initial training should be hand-skill training and include a number of disciplines (machining, fitting, electrical etc.) rather than specialise in one trade (i.e., machining).
4	Training budget constraints are an obstacle.

Employability has always been a much-discussed subject in VET. The competency-based model for VET has its origins in the broader quality movement in education, with the

wider concept of the new economy. This model assumes that skills can be defined as discrete competencies or tasks that can be classified into documented unit standards. This model is supported by the development of a national qualifications framework. VET qualifications are attached to the framework and defined by unit standards at different levels. The framework is expected to provide both employers and employees a skills standard that can be used to define employability and productive potential. The role of the state is to develop this framework and stimulate VET engagement with funding to intermediate institutions such as training providers (Bailey & Merritt, 1995).

Only 18% of respondents indicated that VET trainees were very much employable; 11% indicated they were not employable and nearly 49% indicated that trainees had to be retrained to be employed (see Figure 6.21).

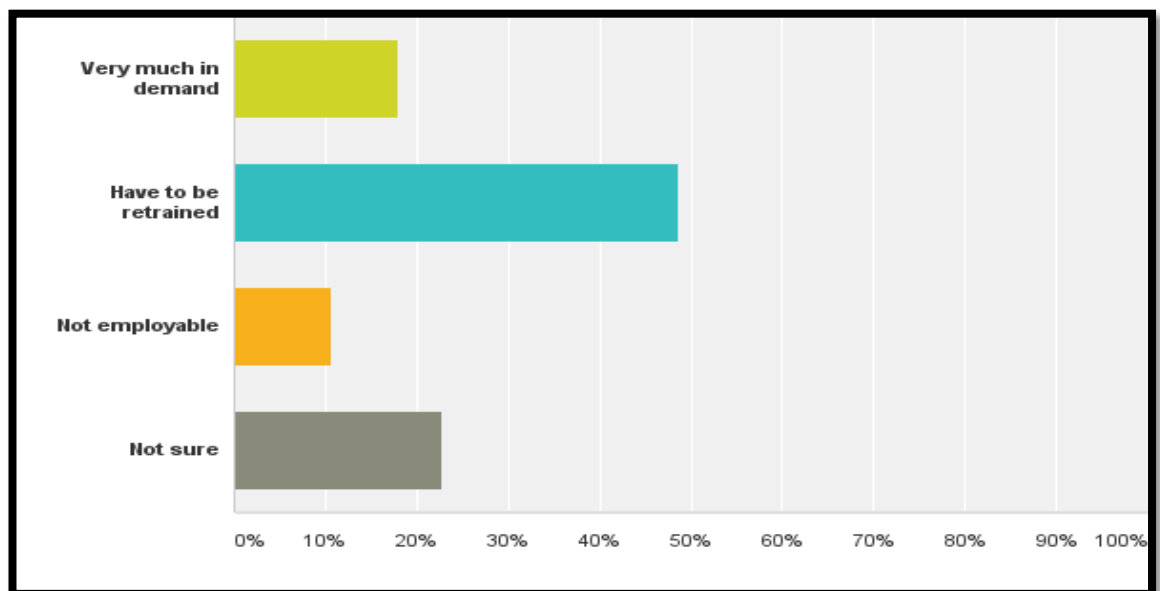


Figure 6.21: Employability of Vocational Education and Training Graduates

VET funding, always a contentious issue, was considered inadequate by nearly 48% of respondents. Only 3% considered it very adequate and about 19% considered it adequate (see Figure 6.22).

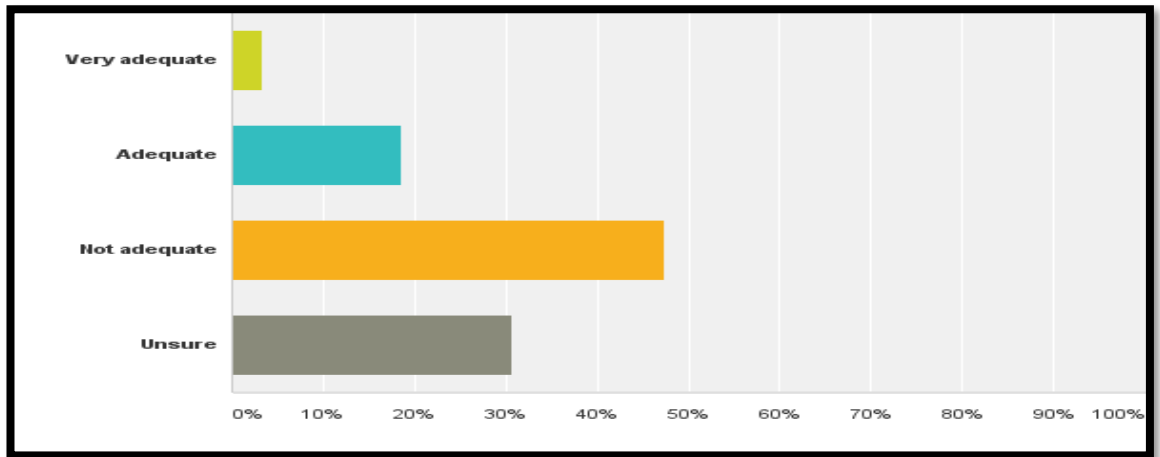


Figure 6.22: Adequacy of Vocational Education and Training Funding

Open-ended comments from respondents highlighted several issues (see Table 6.9).

Table 6.9: Comments on Vocational Education and Training Funding

1	‘Greater investment in staff competency is required urgently, greater investment in industrial standard equipment is needed. Fundamental quantum changes needed with how VET relates to industry. VET needs to concentrate and be evaluated on outcomes (entry to employment) as well as outputs (exams) and resources should follow these outputs. Funding has to be outcomes based.’
2	‘Participation from young Malaysians is low with insufficient funding available.’
3	‘The government seems to be focused more on the IPTAs (government centres) and not polytechnics. There is a need to establish private polytechnics.’
4	‘If there was greater funding to present a simplified system with greater value placed on vocational skills qualifications, there would be more young people entering these programs.’
5	‘Industry support is required in addition to core funding.’
6	‘Funding is never adequate to achieve the desired objective.’
7	‘The SMEs are not willing to retrain graduates who need more training to be productive. With the current cost escalation and challenging economic outlook, SMEs would rather put in more effort to hire experienced people to do the job, and ensure the shortest learning curve to be productive. More needs to be done for VET to effective—not just funding, but looking at the issue of manpower as a whole, and align workforce planning to fulfilment. VET is a “fulfilment” entity to talent pipeline and its current state of affairs is not effective in solving the dry talent market syndrome.’
8	‘Availability of funds are not encouraging. Funds must be managed well to reach the students. The government must provide full funds for programs that have high niche and demand as requested by industry. General fund disbursement only encourages students to undertake courses that they can afford to repay the loan.’
9	‘There must be more funds allocated to employ industry players to revamp the curricula as per the industry needs. More training institutions with proper facilities needs to be developed. Today’s environment is technology based and most training facilities have outdated equipment that does not produce the quality of graduates that the industry needs.’
10	‘The government is beginning to give its emphasis but still lacks focus and coordination among the various agencies. Slow in disbursement of funds. It is adequate in total but is poorly allocated and uneven/unfairly distributed.’

VET success has been attributed to several factors. There is international acknowledgement that individuals, industry and nations must be able to meet the challenges of a competitive global economy. VET is viewed as an integral component to develop a highly skilled workforce (Cheong, 2016; Alagaraja, Kotamraju & Sehoon, 2014;

Powell & Solga, 2010). Standards cannot be raised in national isolation. VET participants need to have opportunities to transfer seamlessly between learning environments to improve their employability and quality of life (Spöttl & Windelband, L, 2013).

Figure 6.23 shows that respondents chose, in order of priority, the following criteria:

- **employer satisfaction** with 86% choosing it as priority
- **quality of outcomes** with 83% choosing it as priority
- **mobility** with 46% as priority
- **completion rates** with 43% as priority.

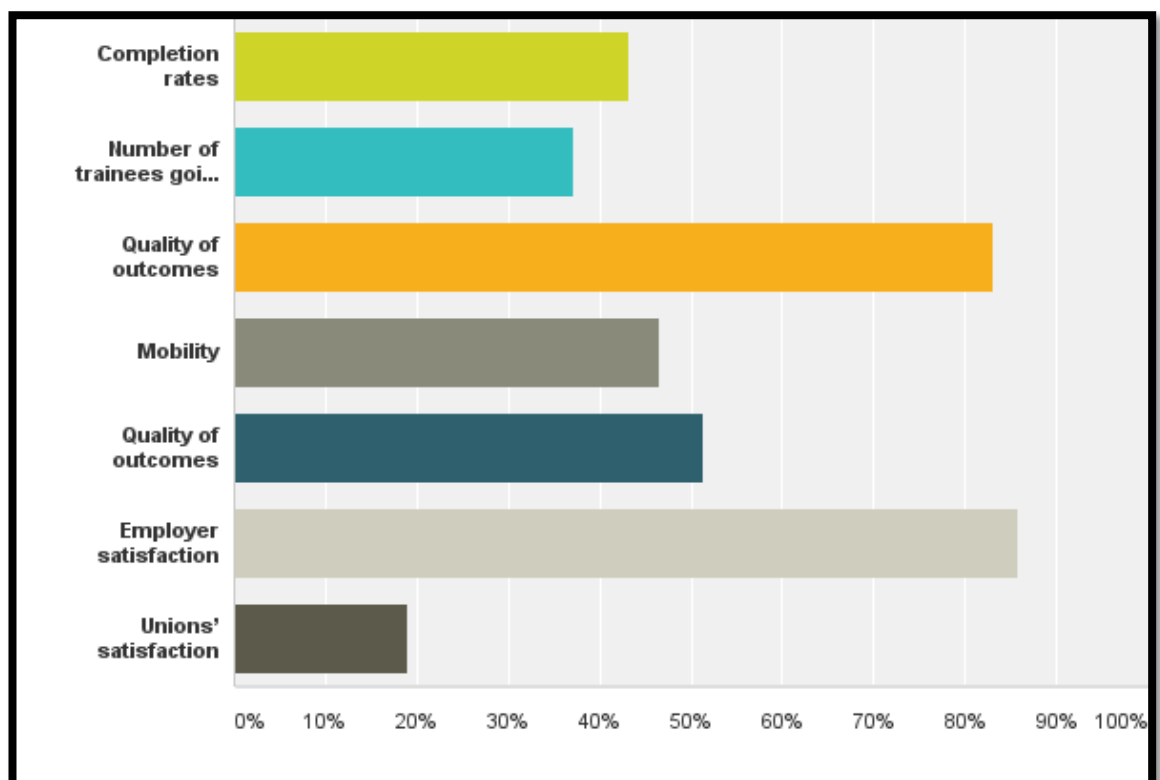


Figure 6.23: Evaluation Criteria

While completion rates were a priority for training providers and policymakers, employer satisfaction and quality of outcomes figured prominently for industry respondents. Training providers were paid only on completion rates and the government reported VET success based on completion rates. Nevertheless, Figure 6.24 indicated respondent choices that related to barriers for VET trainees:

- barrier 1: 69% attributed challenges to poor-quality registered training providers
- barrier 2: 67% considered access to a preferred program a barrier
- barrier 3: 66% considered funding a barrier

- barrier 4: 63% considered irrelevant curricula a hindrance
- barrier 5: 63% considered lack of instructor competence a barrier
- other barriers identified were lack of information, inconsistent training provision and lack of assessor competence.

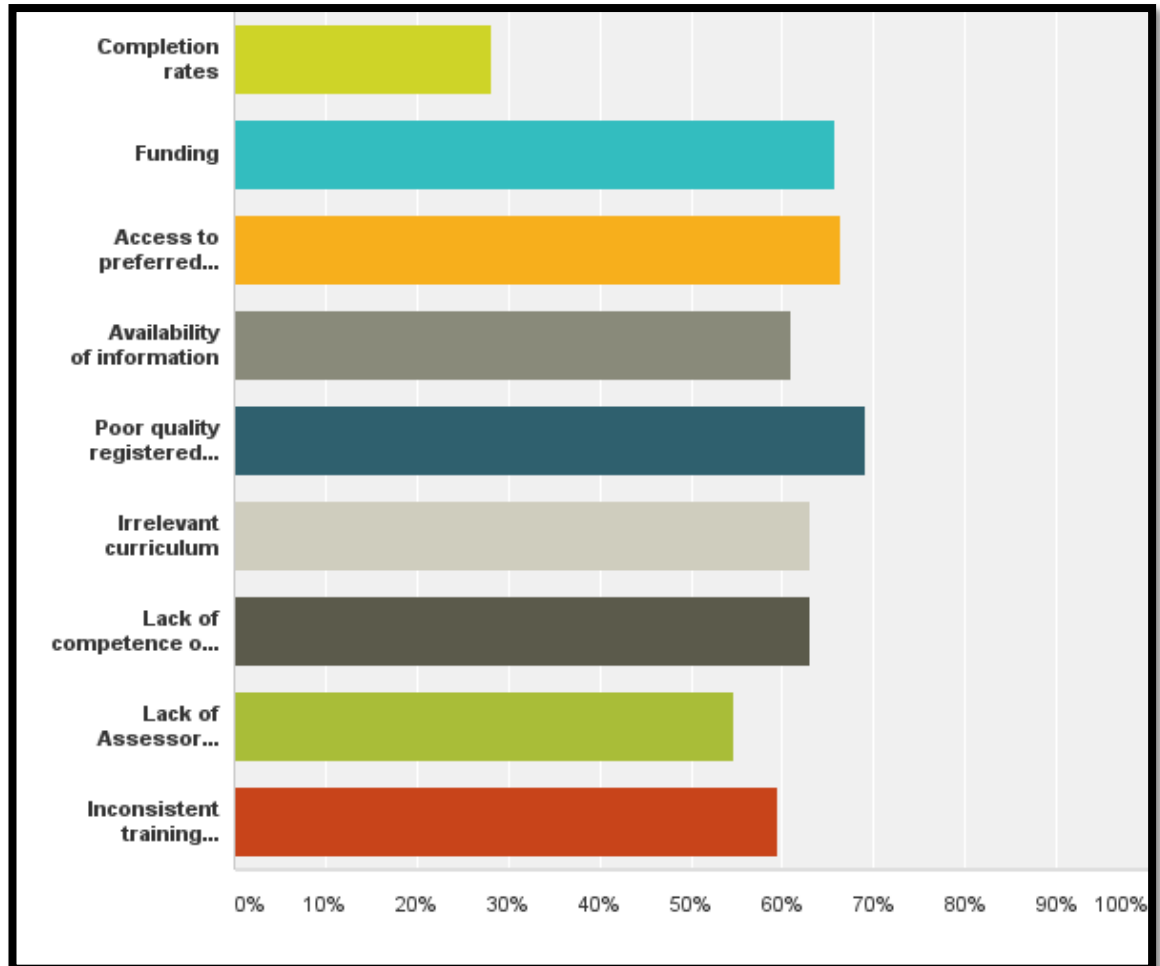


Figure 6.24: Barriers for Vocational Education and Training Trainees

The VET marketplace was considered very competitive by 19% of respondents, while 28% considered it competitive. A further 31% considered it uncompetitive (see Figure 6.25). The Malaysian VET marketplace is driven by government funding and based on number of places allocated to each training provider. The complaints from training providers have always been in relation to the regulatory mechanism and fees imposed on them without consultation. Figure 6.26 indicates that nearly 61% of respondents felt that training providers were either not consulted or only partly consulted. Only 5% felt training providers were consulted.

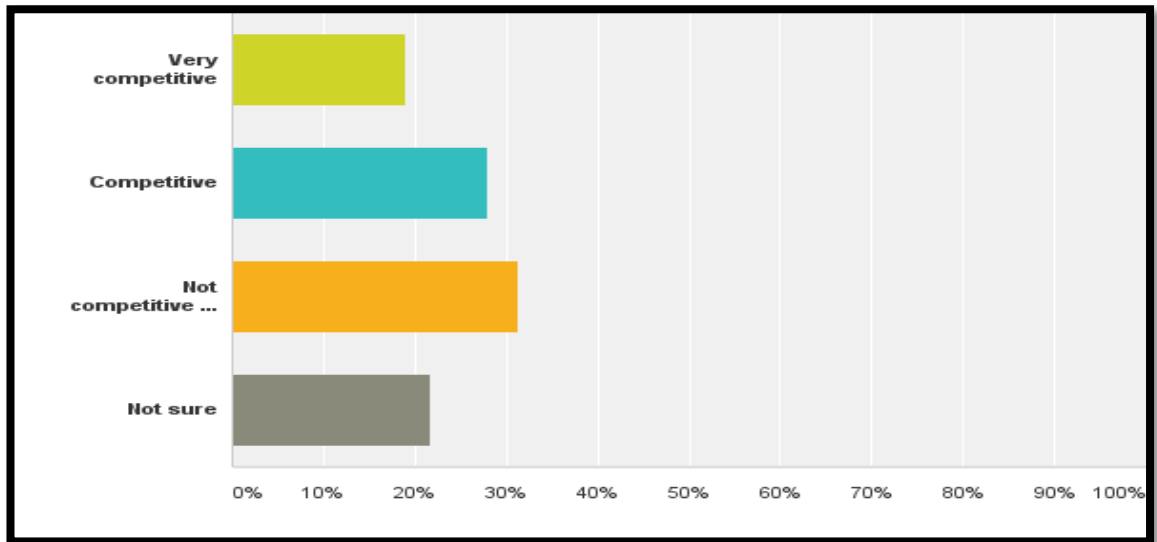


Figure 6.25: Competitiveness of the Vocational Education and Training Marketplace

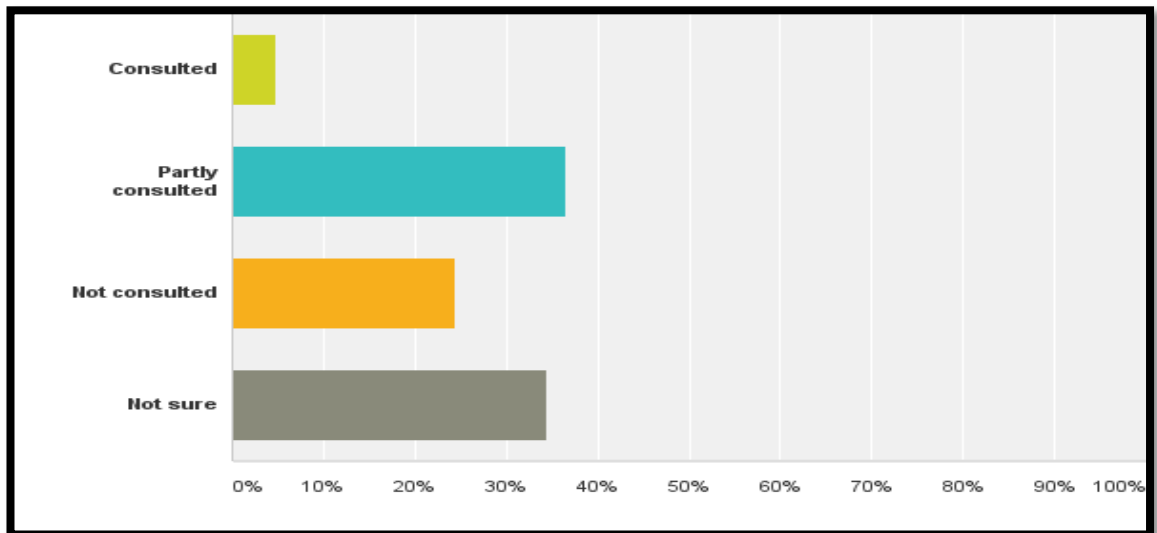


Figure 6.26: Consultation with Registered Training Providers

The data reveal a need for greater stakeholder engagement to achieve quality outcomes and improved satisfaction. Greater collaboration, relevance to industry needs and achieving the desired outcomes must be based on a cohesive, well-executed plan.

6.2.1.4. Australian and Singapore Vocational Education and Training Systems

Interestingly, 25% of respondents were aware of the salient features of the Australian and Singaporean VET systems, even though the Malaysian VET system has been modelled heavily on them. Almost half (42%) were partly aware of the Australian and Singaporean systems and only about 11% were aware (see Figure 6.27). Table 6.10 presents some key open-ended responses.

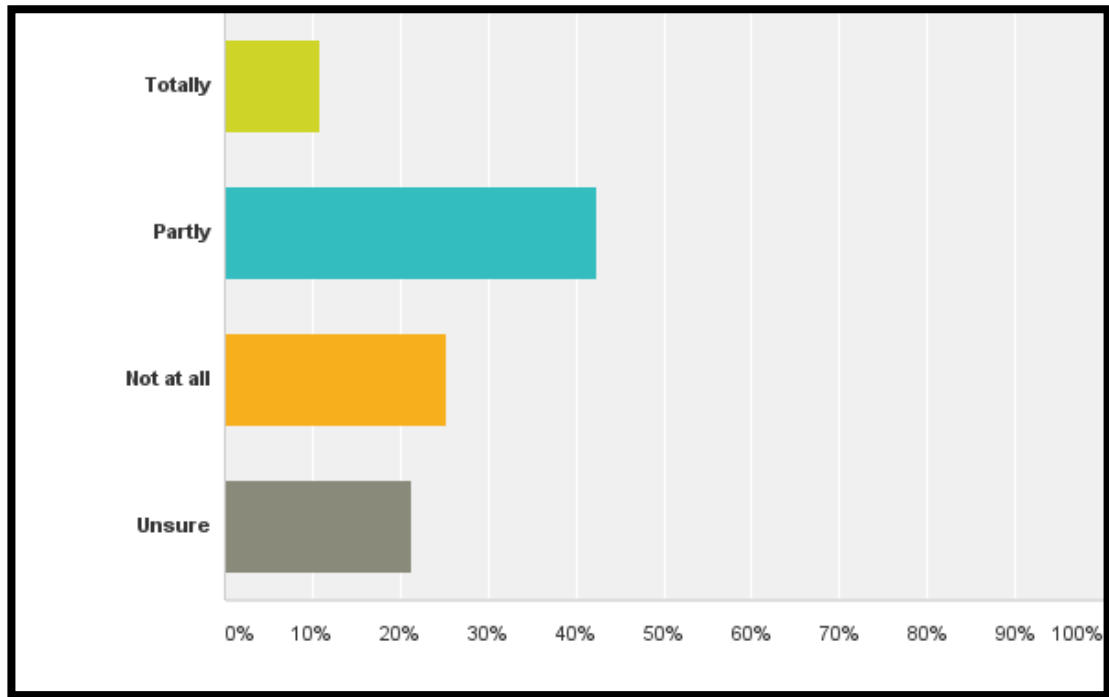


Figure 6.27: Awareness of Australian and Singaporean Vocational Education and Training Systems

Table 6.10: Comments on Australian and Singaporean Vocational Education and Training Systems

1	‘Australia is quite successful but the best is German and Korean. They continuously engage with industry players and all the modules will be crafted based on industries’ feedback. They aspire towards best practices.’
2	‘Partnership, quality, diversity.’
3	‘High levels of investment. Competent staff recruited from industry. Good relationship with the industries they serve. Relevant industry/employer informed curricula. Focuses on work experience for students. Sound apprenticeship systems.’
4	‘Both countries manage a comprehensive framework of qualifications. Australia’s AQF overall has been successful. The array of stakeholders, many with competing interests, has meant that the management side may be slower to respond to changing economic conditions. Singapore’s system appears to have avoided a lot of the errors of countries such as the UK, and Australia by learning from them. Their VET system is fully integrated within the school system where pupils are provided with vocational or academic options, and neither is perceived as being of less value than the other.’
5	‘There is close collaboration with the private sector in the Singapore VET system. Clearly aligned with national goals and manpower needs, less bureaucratic and free of corruption. Best practices are emphasised.’
6	‘Success is due to alignment between programs offered to industry’s needs. The Australian TAFE system is highly successful and should be a model to follow. It is well integrated into the Australian education system. Close-knit collaboration between industry and TAFE.’
7	‘The formation of a single coordinating authority that increases efficiency and provides a clear overview of the VET landscape is one of the reason for the success of the Australian and Singaporean VET systems.’
8	‘Market and industry driven. Entrepreneurial pathways. Economically relevant. No inferiority.’

The data show the need for greater collaboration and continuous engagement with all VET players. Clear qualification frameworks and a single coordinating body was considered important for VET success. Staying relevant to industry needs was deemed important.

6.3 Conclusions

The quantitative phase of the study aimed to gauge stakeholder satisfaction using a survey questionnaire accessible to a targeted 209 participants over the web. The development of

the VET system can be better understood by understanding multiple stakeholder perspectives and the contexts. Qualitative methods were combined with a quantitative method to understand multiple views; hence, the use of mixed methods.

There was the possibility of multiple stakeholder views, as each of their experiences were likely to be different. Their views on the value of VET were also likely to be different. This was reflected in the data. While policymakers aimed to increase trainee participation and completion rates, industry viewed VET from the perspective of employability.

6.4 Summary

The data generated from the quantitative phase of the study revealed the need to communicate VET policy with greater clarity. While Malaysian VET policy has evolved over the last 10 years with several initiatives, such as such as the dualisation policy, *National Skills Development Act* and the national dual training program, there was a clear need for greater collaboration between all stakeholders. Though the Malaysian VET system has a well-defined form governed by three pathways, most respondents remarked that there was an insufficient skills recognition system. The system was viewed as not having achieved the intended objectives and overly bureaucratic. Continuous engagement was cited as critical to achieve quality outcomes and industry relevance. Clear qualification frameworks and a single coordinating body was deemed important for VET success.

Chapter 7: Discussion

‘Discussion is an exchange of knowledge.’ Robert Quillen

7.1 Introduction

The previous chapters explored the data to examine the challenges faced in the development of VET in Malaysia. This chapter presents data from the qualitative interviews with 42 respondents (including policymakers, industry CEOs, RTO CEOs, VET instructors and trainees) and the quantitative data, gathered through a survey questionnaire with 209 respondents. While a major part of the study involved qualitative interviews, the quantitative survey highlighted trends in data and focused on a limited number of key variables.

This mixed methods approach was undertaken to uncover stakeholders' perspectives on the challenges facing the development of Malaysian VET. This approach comprised semistructured interviews guided by a core set of questions. A survey questionnaire allowed the exploration of multiple shareholder perspectives. As the question guides were used consistently for all interviews, these provided natural categories to segment the themes and code the data. From the analysis, under the different codes, themes emerged and developed through the lens of stakeholder responses. While the elements in each of the themes were isolated to that theme, some elements were repeated in other themes. While many themes were identified, several primary themes emerged:

- Stakeholder engagement
- Skills formation strategies
- VET policy
- Inclusivity.

The data indicate that in Malaysia, while skills training was viewed as an important component of the education system, the Malaysian VET system has progressively assumed a distinct structure. The findings aligned with Othman (2003, p. 6), who contended that the system is dominated by three pathways to develop Malaysia's workforce: higher education, technical and vocational education and vocational skills training

Stakeholders, while acknowledging the three pathways and the importance of skills training, pointed out to the fragmented governance of Malaysian VET led by a legislative agenda. This aligned with the views of Rashid and Nasir (2003, p. 5–6), who agreed that

skills training was a major component of the Malaysian education system, but also pointed out the lack of coordination among the agencies managing the different pathways. They described the mainstream secondary school system as one with three pathways: the academic pathway leading to higher education, technical and vocational educational stream and the skills training stream. Each pathway was managed by a different ministry. Stakeholders acknowledged that skills training based on NOSS had become a significant component of the national VET system since the early 1990s. The views of policymakers aligned with the views of a recent World Bank study. Pillai (2005) identified the five pillars of the Malaysian education system as the public higher education system, the Malaysian SQF, a five-tier skills recognition system, the company-based training under the HRDF, the private higher education and CET.

Stakeholders also highlighted that Malaysian VET has been legislation led. This was in sync with Tan (2002, p. 3), who concluded that Malaysia had engaged in massive legislative reforms. It was observed from the data that six pieces of legislation enacted as part of the reforms were viewed as drivers of skills training:

1. *The Skills Development Fund Act 2004 (Act 640)*—established to manage the Skills Development Fund to give out skills training loans to trainees of approved skills training programs based on NOSS.
2. *The National Skills Development Act 2006 (Act 652)*—enacted to provide NOSS with statutory standing and for implementation of an MSC system to offer a legislatively backed skills pathway within the national qualification framework.
3. *The Human Resources Development, 1992 (Act 612)*—enacted for the collection of human resources development levies to promote employee training.
4. *The Education Act 1996 (Act 550)*—enacted to regulate the provision of education and training.
5. *The Private Higher Educational Institution Act 1996 (Act 555)*—enacted to regulate private higher educational institutions in Malaysia.
6. *National Accreditation Board Act 1966 (Act 556)*—enacted to accredit training programs including higher education.

The data also showed that the legislative push was an important driver for the development of VET in Malaysia, giving skills training a preeminent position within the

education masterplan. Malaysia, as the data revealed, was not very different from other developing countries in that it did not aim to develop VET models and best practices from scratch. This aligned with the commentary on policy transfer discussed in the literature review.

Policy transfer in VET is being driven by international organisations such as the OECD and ILO (Lang, 2014). While Malaysia borrowed heavily from models and best practices from Australia, Singapore and Germany, policy transfers can only be analysed by focusing on specific models and best practices that have worked successfully elsewhere. Policy transfer is a process in which knowledge about policies, administrative arrangements and institutions in one time and/or place are used in the development of policies, administrative arrangements and institutions in another time and/or place (Dolowitz & Marsh, 1996, p. 344). Yet, there was criticism within the data about policy transfers being implemented without adequate analysis of the local context.

The data align with the literature that wholesale policy transfers are generally not possible given that implementation contexts are different (Schriewer, 1987). This is a critical argument for policy transfers, as vocational skills and competencies are acquired in a specific context that is strongly correlated with the structure of labour markets and the cultural contexts of the markets. King (2013) highlighted the need to adapt models to local contexts for successful implementation.

Two models of VET, NOSS and dual models, were considered by respondents to be relevant within Malaysian VET when discussing policy transfers. NOSS was perceived to have undergone a tremendous worldwide diffusion and dual models of VET were perceived as an important way to more actively involve the world of work. Observations from the data indicate that the aim of NOSS (introduced in December 1992) was to improve the national vocational training and certification system. This led the nation to adopt the accreditation system in the implementation of the national skills certification system and the enhancement of the competency-based training approach. This prompted many public- and private-sector organisations to offer skills training, including dual training programs with training carried out at two learning environments: the workplace and classroom.

Given the pathways of the Malaysian VET system, the strong legislative agenda and the policy transfers approach discussed earlier, this chapter will aim to answer the research

questions by proposing that the development of the Malaysian VET system is faced with several challenges:

- There is inadequate stakeholder engagement.
- Skills formation strategies are not responsive to labour market needs.
- Poor-quality provision is not achieving the intended outcomes.
- Inadequate funding is hampering the development of VET.
- Poor perception of VET is not attracting enough young people to VET.
- Skills strategies are not promoting inclusivity.

7.1.1. Inadequate Stakeholder Engagement

Policymakers and CEOs had divergent views on the development of Malaysian VET. While policymakers were consistent in their views that the VET system had all the fundamentals in place, the CEOs and instructors differed in their views.

Policymakers perceived a robust VET system to be a vital part of a knowledge economy. To them, a robust VET system outlines the national context, including the socio-economic and regulatory context of VET with emphasis on the factors shaping VET policies and priorities. They highlighted the attempts made over the last decade to position the VET system in Malaysia within the education system through a legal framework. The legislative push was done to improve the clarity of VET provision and ensure that financial policies allowed equitable access and improved participation in VET. According to policymakers, the aim of investing in VET was to help the nation overcome economic and job creation challenges as per the ETP, a program that has been extensively communicated to the nation. Policymakers highlighted that Malaysia has set a target to achieve a 50% skilled workforce, become a knowledge economy and achieve a high-income nation status by 2020. Given that the country wanted to minimise the number of unskilled workers and foreign workers, policymakers emphasised the role of VET to maintain a skilled workforce for the continued economic growth of Malaysia.

As reviewed in the literature, this constant focus on the economic agenda pushes economic rationalism to the fore (Pusey, 1991). This focus has led to discomfort among critics, who felt that education was shifting from life preparation to preparing people for work (Harris et al., 2001). Nevertheless, it is clear from the data that policymakers, industry and RTO CEOs, instructors and trainees view economic rationalism as a key objective within VET policy.

While policymakers emphasised the economic objectives of VET, CEOs highlighted the need for a VET system to be based on sound evidence. The CEOs advocated for VET policy and practice to be evidence based. CEOs viewed policy innovation and metrics to measure impact as critical to evaluate the returns on VET investments. They highlighted that policy must go beyond accountable governance and clearly identify measures to evaluate the impact of VET. The data also showed that the CEOs supported the systematic evaluation of VET policy. Only periodic reviews can result in successful reform. This, according to them, was a missing piece in Malaysian VET.

The data indicate that Malaysian policymakers believe that periodic reviews for VET policy evaluation should focus on outcomes such as completion rates. CEOs from industry viewed skills relevance as a critical indicator for any purposeful review. CEOs determined skills relevance through the collection of qualitative performance information. The CEOs of RTOs highlighted the need to review the adequacy of funding, while VET instructors saw the need for continuous learning and curriculum relevance and VET trainees prioritised employability. Different participant groups approached periodic reviews from different perspectives based on their own interests. However, there was a consensus on skills utilisation. Skills utilisation was defined in the data as having a share or collective understanding of one of the key purposes of VET. Interestingly, the measurement of skills utilisation was based either on personal experiences or participant observations. Policymakers and CEOs evaluated skills utilisation based on success stories. For them, success stories equated to the number of trainees and employers engaged.

To CEOs, incentives to involve industry, quality arrangements, curricula relevance, skills relevance and job outcomes were crucial indicators to evaluate the impact of VET. If the objective of policy was job creation, initiatives should be led and engaged in by industry. While the policy rhetoric involved the notion of long term, CEOs pointed out the recurring short term and incremental nature of Malaysian VET policy was ‘hardly inspiring industry confidence’. The findings indicate a compelling case for involving all stakeholders to achieve a consensus on the parameters for periodic reviews for VET reform.

Another finding taken from the data was that only 17% of respondents indicated VET policy was clearly defined and long-term focused. While policymakers discussed Vision 2020, 60% of respondents were not clear about the links and initiatives to achieve the goals outlined in Vision 2020. Consultative meetings with policymakers, according to the

CEOs, resulted in policymakers attempting to answer rather than listen to industry. As indicated by the government, half of the jobs today require a medium-level qualification, primarily acquired through VET and only 22% of the new jobs are created through higher education (Pang, 2011). To the stakeholders, engagement is critical for a relevant and robust VET system. Job creation must be supported by industry.

In general, respondents accepted the policy rhetoric without any explicit objections or hesitation. While they could not connect with the goals, this was not surprising in a Malaysian context. Critical or differing points of view that contest or challenge policy reform are never expressed explicitly or openly in high-context cultures such as Malaysia (Hofstede, 1980). They are always latent. In high-context cultures, the rules of communication are mainly communicated through contextual elements such as body language, a person's status and hierarchy; communication is usually not explicit. In low-context cultures, information is explicitly communicated through language (Hall, 1976). Hofstede's cultural dimensions, including the power distance concept, puts forward an explanation for this phenomenon. The power distance index was defined as 'the extent to which the less powerful members of organizations and institutions accept and expect that power is distributed unequally' (Hofstede, 1984, pp. 417–433). In this dimension, inequality and power are perceived by the followers, or the lower level. A higher degree on the index indicates that hierarchy is clearly established and executed in society, without doubt or reason. A lower degree signifies that people question authority and attempt to distribute power (Hofstede, 1984). Countries like Malaysia had a power distance of 100, while Singapore scored 74 and Australia and the UK ranked 34 and 35 respectively. It is not surprising that in the UK and Australia, differences surface openly and are expressed directly.

When looking at the data, one can argue that stakeholders are not involved to the extent that the Australian and Singaporean lessons suggest. The data observed in Chapter 5 show the incongruence between policy and implementation, which may be due to insufficient periodic review. The data pinpoint two issues that could pose challenges to the development of VET in Malaysia: the inadequate engagement of stakeholders and the lack of systematic periodic reviews of what could hamper implementation and growth of Malaysian VET. The dissimilarity in the views of policymakers and CEOs highlights the need for greater stakeholder engagement and public- and private-sector collaboration.

This finding is consistent with the literature review. There are serious implications for policy analysis when stakeholders' perspectives are ignored or assumed. Most current policy analysis is based on the premise that to build theory on VET and lead successful VET reform, it is important to seek opinions from various stakeholders (Parkes, 2012). Willmott (2012) argued that in Singapore, continuous evidence-based research and policies developed the credibility of VET. Ryan (2007) commented that not all policy is successful, nor are the intended outcomes realised. VET policy is often left to 'drain quietly into the sands' rather than be subjected to systematic evaluation or review. This aligned with the argument that while VET policy saw increasing participation, there was limited evaluation and stakeholders' views had been ignored (Parkes, 2012). While it may not be a surprise, policymakers and stakeholders' logic to VET policy evaluation was contradictory and diagrammatically opposed. Policymakers saw VET policy as beneficial to stakeholders, while stakeholders did not completely agree with that view. VET practice faces a challenge in that desired behaviours would be difficult to enforce if stakeholders' values that are crucial for success are ignored (Coffield, 2004).

In the light of human capital theory, it could be argued that stakeholders driven by the need to focus on bottom-line issues would not be engaged if the skills were not specific to them, or if they were not deriving instrumental benefits (Acemoglu, 2003; Becker, 1962). While this may be a powerful argument, the data indicate that this reflects only a partial reality. As in Singapore, continuous evidence-based research and practice will drive stakeholder engagement in Malaysia given the 'power distance' concept of Hofstede.

This section discussed three key findings and their implications for VET in Malaysia:

1. Lack of periodic evaluation
2. Incongruence between policy and implementation
3. Stakeholder and policymakers' disparity over policy evaluation.

The argument is that Malaysian policymakers have not considered the views of stakeholders sufficiently for the development and implementation of a robust VET system. While national socio-economic goals such as Vision 2020 and the ETP have been articulated to stakeholders, there has been an absence of similar engagement approaches with VET policy. In Australia and Singapore, there has been a surge in VET reform stakeholder engagement workshops. Conversely, the development of Malaysian VET has been led by legislation rather than industry, unlike the German model. In the German dual

system model, the development of a robust VET system included a wide range of stakeholders and strong engagement and collaboration (Sellin, 2002). Malaysian policy arguably needs to intensify its engagement process with key stakeholders to develop a robust VET system with a long-term horizon.

7.1.2. Skills Formation Strategies

The data show that for policymakers, education and training continue to be a key area of importance. Throughout the data, policymakers identify VET as a vital way to obtain human capital through skills development for sustained economic growth, competitiveness and inclusivity. This links with the views of Eddington and Toner (2012), who argue that skills formation strategies (SFS) are designed and developed to ensure the availability of the right kind of human capital to address skills and unemployment issues.

The SFS concept is characterised by several distinctive features. It is viewed as self-sustaining networks of relevant stakeholders who are responsible for successfully building the skills and knowledge of that industry (Eddington & Toner, 2012). The goal, as evident from the review of literature, is to build stakeholders' ability to analyse and understand the relationship between skills, broader economic conditions, the nature of industry and other relevant business settings. It is also to adopt a systems approach. That is, skills issues need to be integrated with other issues, such as systems, processes and workforce management processes. It also recognises some external environments are complex, ambiguous and uncertain. A SFS looks at both the existing workforce and new entrants, as in most occupations the flow of new entrants is only a small fraction of the existing workforce. Consequently, shortages can usually be more efficiently addressed by upskilling and multiskilling existing workers and preventing high labour turnover than by training new workers. The need for interdependent relationships for skills formation and continuous stakeholder engagement is obvious.

Policymakers now acknowledge that the Tenth Malaysia Plan target to create a 50% skilled workforce and the ETP target of 1.3 million jobs is unlikely to be met. This aligns with government reports that the issuance of skills certificates has experienced little growth despite various policy recommendations (Pang, 2011). Policymakers perceived the goal of a skills formation strategy as to ensure that training funded by governments resolves the skills, economic and social needs of the nation through VET. They prioritise minimising unemployment, resolving skills shortages, reducing the flow of foreign workers and managing the social fabric of Malaysian society. Policymaker respondents

stated that for an SFS to work, industry must work with other stakeholders to address skills issues by going beyond traditional assumptions and identifying contributory factors. Policymakers believe industry can provide an incisive and deeper analysis of the contributory factors leading to skills shortages, skills wastage and skills irrelevance. Policymakers propose that SFS leads to engagement and interdependence between stakeholders when it is designed, developed and implemented effectively. However, it can be argued that this is not the case on the ground as SFSs are in a state of disarray according to other stakeholders.

The CEOs from industry emphasised that while an SFS can be designed and developed by industry, it must have significant government involvement for effective implementation and for outcomes to be achieved. A cohesive approach involving all stakeholders is needed. Further, the government's involvement must be demonstrated in form of adequate funding. They also stressed the need for links between SFSs with VET participation and the labour market. They highlighted the need for skills training to result in individuals gaining industry-accepted and recognised qualifications that withstand the pressure of labour market changes. Additionally, skills training should involve specific and broad skills. This aligned with the literature review, which advocated for the development of a T-shaped worker, which has been the focus of the Singaporean experience (Willmott, 2011). A T-shaped worker aligns the vertical bar on the 'T' (representing the depth of the skill in a particular discipline) with the horizontal bar (representing the general skills and knowledge that relates to the ability to collaborate across disciplines) (Willmott, 2011).

The CEOs from RTOs highlighted the need for greater clarity on the implementation of SFSs and for implementation plans to be free of bureaucratic hurdles. Respondents wanted a level playing field for public- and private-led training organisations. They concurred with the CEOs from business on the need for links between SFSs with VET participation and the labour market. They highlighted that most government training institutions under the ministries churned out VET graduates with Level 1 and 2 qualifications, which have no skills relevance to the labour market. The data reveal the unemployability of these graduates because of the skills mismatch with industry needs. With no necessity to compete, government training institutions kept alive through government allocations produce skilled graduates who are irrelevant in the labour market. Government training institutions need to be privatised and held accountable for labour market outcomes. It is pertinent to highlight that in Australia, particularly in states like

Victoria, the majority of VET is now delivered by the private sector. This reflects the neoliberal conviction that decentralised investment decision-making in skills, at the level of the individual and firm, is the optimal approach to meeting skill shortages (Eddington & Toner, 2012).

VET instructors wanted to ensure that graduates meet industry needs (i.e., skills relevance). Additionally, they pointed out the need for competencies to align with industry needs. For trainees, particularly those interviewed for this study (the youth), the aim was to gain a job that paid for their skills, which is only possible if the skills are relevant. Government data highlight that 40% (or 200,000 out of 500,000) of unemployed Malaysian workers were youths (My Lawbox, 2017). Youth unemployment is a significant issue for policymakers, as highlighted by the Central Bank of Malaysia (Bhattacharjee, 2017). Malaysian youth unemployment is about 10.5%, three times higher than the national unemployment rate of 3.1%. It reached an historic high of 13.1% in 2009 (Annual Report, Central Bank, 2016). The systemic and structural issues are highlighted by the bank for the 'not in employment, education, training' (NEETS) problem. The quality and relevance of education and training to meet industry needs, skills relevance and information asymmetry on industry needs are highlighted as crucial issues for the situation.

While SFSs mean different things to different stakeholders, one could argue that the philosophy that underpins SFS involves the creation of a productive workforce that has relevant skills, adequate employment and entrepreneurship. The quest for solutions points to three areas of intervention: developing employment skills, connecting talents to labour markets and fostering entrepreneurship to ensure productive use of human capital (Martin & Osberg, 2007). SFSs should include connecting VET to entrepreneurship as well. The Australian Clearinghouse for Youth Studies argued for social entrepreneurship with its 2015 report: *Growing employment through entrepreneurship*. This is an element that is missing in Malaysian VET, unlike Hub Australia, a co-working community established to help the youth. A first step on this journey would be to encourage the youth to think business, not just jobs.

In this background, discussions about employment and access to education cannot ignore the race issue that dominates every sphere of Malaysian life. In a situation in which everything is based on race-based quotas, from education to employment, the data emphasised apprehensions of Malaysian policymakers, who regularly referred to the

unique Malaysian challenges of race, religion, language and caste. The country, as discussed in Chapter 3, is diverse, with politics conducted on race-based lines. Polarisation among races is acute, which the country is trying to resolve through its national development strategy (Noon, 2005). Therefore, for Malaysian policymakers, social harmony is critical and the focus on job creation is paramount to ensure there is no repeat of the 1969 race riots that were largely due to economic decline. As Razak, Ramiah and Hewstone (2017) contend, ‘Race seems to be the default narrative to explain everything one is unhappy about’ (p. 3).

This is one reason for the continuous call for greater investment in education and skills development, as this was perceived as insurance for social cohesion. As revealed in the data analysis, investments in education are high. However, the budget for Malaysian higher education far outstrips investments in VET, even though policymakers are aware that greater job creation is possible through VET, with only 22% of jobs created by higher education.

SFSs need to be secured with adequate funding to expand the model for skills development to meet economic targets and industry needs. There are lessons to be learnt from Australia. For example, the Queensland government in Australia introduced the national skills ecosystem pilot projects in 2003 and reported reasonable success (Eddington & Toner 2012). The aim was to adopt a ‘skills ecosystem’ concept, looking at skills use in industry, what strategies worked, stakeholder roles and sustainability post funding. The projects covered areas such as VET links with research agencies to promote innovation, new technology, workplace drivers of skill formation, skills formation to support the development of an industry cluster, and job design and career paths. As Keep and Payne (2004, p. 246) argue, skills are not the answer to bad jobs. The ambitious projects aimed to achieve long-term structural change. There has been reasonable success on some specific industry sectors. A skills ecosystem has a strong influence on skills formation. The projects funded for a three- to five-year period resulted in valuable findings. While the report took pains to articulate that this SFS project was a relatively modest and local initiative restricted to one of the six Australian states, there were lessons to be learnt for mainstreaming and national implementation.

This study was keen to explore if similar or other forms of SFSs have been put in place and reviewed longitudinally in Malaysia, and found that PSDC was a good example. It was a model for industry engagement and leadership. It was a tripartite partnership

between the Penang state government, industry and community. PSDC created VET links with several MNCs' centres of excellence, such as the Motorola Centre for Design Excellence to promote new technology and workplace drivers for skills formation. With accountability for indicators such as access, participation and employability, PSDC has been able to build a brand for VET in the state of Penang and address the issue of skills shortages through the development of a skills ecosystem. Skills were integrated with broader economic indicators and other factors, such as the redesign of jobs and processes. The data show that with several MNCs operating in Penang, there was an increasing demand for high-end skills training. The shift from a contract manufacturing base to a high-end value-based industry meant new innovations at the workplace such as new technologies and job redesign. These were the key drivers of a well-structured, industry-driven skills ecosystem for accelerating high-end skills development. PSDC was keen to ensure there were no skills wastages.

The data also showed that standard VET policy and programs were not always relevant to industry sectors. Skills shortages and mismatches continued, even in the context of training institutions sited within the states and tasked to meet the skills needs of the area. Policymakers attributed this to a lack of industry accountability to effectively develop its own workforce skills. They commented that the failure of industry to fully utilise these skills has further exacerbated the problem. Conversely, the CEOs perceived skills development as primarily a government responsibility. They argued that government must play a proactive role in education and training and in ensuring the availability of the human capital required to sustain industry growth.

Yet, the review of literature revealed that if there was no obligation for industry to link skills to their needs, skills will be wasted (Keep, 2006). Supply-side VET systems have the potential to create, according to one participant, 'dead weight' training, leading to skills wastage. Skills wastage occurs when skills are not effectively utilised in the workplace. As a result, skills essentially have no value. Keep (2006) stated that government was running a 'business welfare' system that was unsustainable. However, demand-side VET has not been without criticisms.

While policymakers have created the training institutions under several ministries (human resources, youth, rural development, education, higher education, development, public works, states and private sector), with 70% of VET trainees in government training institutes, there has been little formal coordination with industry. The data show that

Malaysian VET has largely adopted a supply-side approach that has led to severe skills mismatches with hiring managers wary of skills mismatches (Yilmaz, 2010).

CEOs expressed that it was time for skills to be relevant to the labour market. CEOs highlighted they cannot continue to be a consumer of 'ready-made human capital' when it does not fit their needs. When addressing skills shortages, the focus needs to be on the existing workforce, not just training sufficient new entrants. In most occupations, the flow of new entrants is only a small fraction of the existing workforce. Therefore, shortages can usually be more efficiently addressed by upskilling and multiskilling existing workers to withstand the pressures of change.

It was obvious from the data that PSDC was an isolated example and that this model was not evident in most other states. Each of Malaysia's 13 states have a skills development centre, yet very few could demonstrate their impact on local industry. PSDC's strong industry engagement could be explained by the composition of PSDC leadership, which comprises industry leaders and other stakeholders, including policymakers. Additionally, the state has a strong manufacturing base and is dominated by global MNCs willing to invest in skills development. While industry in Penang is aware that skills supply alone will not solve the issues of employability for both new and existing workers, it has also embarked on a focused SFS to expand its skills development success across the state. This has included job redesign, targeted curriculum for industry relevance and identifying drivers to achieve success. Critical success factors have been established for industry buy-in, testing pilot projects and more importantly, collaborating with stakeholders. This has resulted in attracting, utilising and retaining skilled workers within the industry and Penang. A crucial lesson from PSDC is the realisation that skills are not the answer to bad jobs. Ultimately, success happens when there is an integration of processes, systems and skills relevance.

In this section, there were two critical issues that emerged during the data analysis:

1. Can the PSDC's SFS experiment can be mainstreamed or is it likely to remain a relatively modest and local initiative restricted to one of the Malaysian states?
2. Given the challenges of the supply-side approach and the criticisms of the demand-side approach, what is the way forward?

It is obvious that PSDC is an industry-led training provider with strong collaborative networks. These collaborative networks are possible because of the presence of several MNCs. The sustainability of similar models in other states depends on the willingness of stakeholders to participate in the SFSs. One could argue that given it is not private-sector led, private training providers need to be brought in to deliver skills training. As discussed earlier, decentralised investment decision-making in skills, at the level of the individual and firm, is the optimal approach to meeting skill shortages. While there are lessons to be learnt from PSDC's success, replicating the model across Malaysia should be done by adaptation rather than adoption to account for contextual differences in each state.

Supply-side VET has been criticised for creating skills wastages and producing skills that cannot be used. The supply-side approach is based on the premise that skills are equivalent with education and training qualifications and/or years of work experience. Further, it is based on the premise that market forces create strong incentives to ensure workers' skills are fully and efficiently used within the firm. It was anticipated that economies of scale can be taken advantage of and duplication avoided with supply-side approaches. Consistency was achieved in countries like Australia and Singapore with the introduction of training packages and qualifications. Nevertheless, the approach ignores the actual process of skill utilisation by firms. Another criticism is that this approach is based on a simple linear model in which the national skills agenda, devised by labour market intermediaries, were converted into VET funding priorities by government and delivery (Eddington & Toner, 2012). In this context, the role of industry is reduced and it becomes a passive player, with government having to shoulder the bulk of funding. This leads to skills shortages and skills wastage. However, demand-side approaches have also been criticised heavily for overemphasis on the short-term needs of industry. Ideally, as was evident in most participant groups, it is essential to support balanced demand- and supply-side strategies. SFSs have supported and improved the diverse ways that people acquire new skills. They are the most effective and economical way for governments to facilitate the right skills, in the right place, at the right time, and remove imbalances.

7.1.3. Challenges with Vocational Education and Training Policy

Commenting on the evolution of Malaysian VET policy, the CEOs and instructors highlighted several challenges and the gaps between intention and rhetoric. While policymakers highlighted the evolution of VET policy positively, as one that attempted to focus and encourage skills development, this view was not shared by other stakeholders.

The data indicate that to these stakeholders, progress has to be evaluated, not just within Malaysia but also in comparison with best practices from Australia and Singapore. Several challenges were evident within the data, such as the poor perception of VET within the community, inadequate funding, poor-quality provision and the lack of a sustained approach towards apprenticeships.

7.1.3.1. Image of Vocational Education and Training

The view of VET as a last resort or last choice is prevalent in Malaysia, just as in most other countries (Zain, 2015). This perception and the vocational and higher education divide has persisted globally for a long time (Pring, Hayward, Hodgson, 2009). The vocational route has been considered inferior to higher education. This has resulted in high numbers of low-income and academically uninclined students, who may be excluded from general or academic education, entering VET. This was also evident elsewhere in developed nations (Ashari, Rasul & Azman, 2003). The data confirmed that the bulk of VET trainees in the Malaysian VET system were school leavers or dropouts unable to enter higher education.

The literature acknowledges that the poor image of VET and its relative unattractiveness may arise from the historically lower levels of esteem for skilled workers in trades compared to those from higher education (Hyland & Winch, 2007). Although VET is stigmatised in many societies (Virolainen & Stenström, 2013), it has been argued that it is less well-considered in LMEs (the UK and US) than in CMEs (e.g., Denmark or Germany). LMEs view VET as a track for those with lower academic performance, while CMEs view VET as a contributor to an innovation-based economy (Bosch & Charest, 2008).

While the intellectual and professional nature of much of VET is today more recognised for medium- and high-skilled jobs, the general view is that VET is predominantly identified with low-skilled manual work with fewer career progression opportunities (Rutter, 2013). The UK, in aiming to become ‘one of the top eight countries in the world for skills, jobs and productivity’ (UKCES, 2009, p. 3), delivered a VET policy that was primarily focused on qualifications, institutional reform and cuts in public expenditure. The problem with this approach is that it was not about increasing the number of qualifications into the labour market, but making VET attractive to young people and relevant to industry like the CMEs, primarily with the socio-economic development goal in mind (Chankseliani, Mayhew & James, 2015). This distinctive view arguably reflects

on the image of VET (Collins, 1979; Feinberg & Horowitz, 1990). Malaysian policymakers and CEOs acknowledge the struggles associated with trying to position VET as a contributor to an innovation-based economy (Zain, 2015).

Jameson (2007, p. xi) highlighted that policymakers recognise their failure to value VET and have made several ‘cyclical frustrated attempts’ to redress the vocational/academic divide in which VET in further education seems to be trapped. As Chankseliani et al. (2015) highlight, there is a need to move away from this stereotype. Rhetoric about improving the image of VET without addressing the underlying issues hinders VET growth.

Malaysia, with its Vision 2020 and Transformation 2050 plans, aims to become a high-skills, high-income nation and has put considerable emphasis on skills, jobs and productivity. The focus has been on building the Malaysian skills recognition system, increasing the number of qualifications and building VET provision. Nevertheless, CEOs and policymakers acknowledge that it is not just the number of qualifications in the labour market but making VET attractive to young people and relevant to industry. The fragmented VET landscape and gaps in VET messaging to stakeholders have not helped the image of VET in Malaysia. Watters (2009, p. 12) acknowledged that the attractiveness of VET is a ‘subjective and value-laden concept’, which is generally linked with its perceived quality, labour market relevance, educational and occupational mobility and wage premium associated with VET qualifications, as well as effectively communicating these to the wider society.

Improving the poor image of VET requires the consistent efforts of all stakeholders with both pros and cons of the VET sector being considered. Good practices, just as in higher education, include flexibility of the sector, quality and diversity of VET provision. However, some weaknesses do not allow these strengths to be translated into across-the-board excellence. Uncertainty about funding, poor-quality provision, lack of relevance to the labour market, a lack of in-depth engagement of employers, the low status of VET, inequitable payment for skills, and the instability of the VET sector are among the challenges facing Malaysian VET (Zain, 2015). Although some literature highlights good practice (Guile, 2010), most remains policy focused rather than practice oriented in the Malaysian context.

While Maurice-Takerei (2015) highlighted the best practices in preparing VET instructors in New Zealand, there has also been commentary on improving the quality of teaching

and related best practices that connect students to learning, particularly applied learning models within Australia (Wheelahan & Moodie, Gavin, 2011). Others have identified four types of VET identity characteristics: epistemological, teleological, hierarchical and pragmatic (Moodie, 2008).

VET must move away from the deficit model and stereotyping examples of vocational excellence by examining practice rather than just policy (Chankseliani et al., 2015). Unwin (1999) argued for a broad-based VET approach that considers skills capable of improving society rather than just employers' status. VET should reflect the important role it plays in everyday life. Only then can it be rescued from its current manifestation as a deficit activity, reluctantly funded by government.

Two constructs are used when referring to the status of VET in the literature: attractiveness and parity of esteem. Attractiveness refers to the social status of VET in its own right whereas parity of esteem focuses on the relative value of VET compared with higher education. Parity of esteem is related to various socio-economic rewards that the vocational pathway may bring as opposed to higher education. Such rewards may include social status, wage premium, prestige, educational mobility and career progression (Lasonen & Gordon, 2009).

It can be argued that making VET attractive to young people starts from positioning VET on the same level as higher education and collapsing the divide between the two. While social prejudices discourage youth from taking up VET, highlighting the strengths and opportunities for VET can be the first step in the strategy to erase these prejudices. Vocational theory (see Chapter 3) stressed the importance of an educational concept that was oriented to universality and individuality against an education for industriousness; one that was likely to lead to class applications as they may be perceived to be an education for the poor (Blankertz, 1985, p. 108). The argument that vocational education should be freed from the grip of a historically shaped culture of vocation is relevant in the current Malaysian skills context.

Policymakers within the Malaysian government have aspired to make VET more relevant and attractive, and encourage quality and efficiency. The goal to focus VET extensively on boosting growth and competitiveness was expected to boost employment and restore the image of VET. VET objectives ranged from providing access to tertiary-level qualifications to offering routes to skills and employment for those who risk leaving education and training with low or no qualifications. The data show Malaysian

policymakers' goals were to skill people and minimise the number of unskilled people. Yet, the fragmented VET landscape offered little opportunity to translate this intent into reality.

The data showed Malaysian policymakers were frantic in their efforts to brand VET at the policy level. Skills Malaysia was a key program to improve perceptions of VET. VET was rationalised to meet economic and employment needs; private-sector VET was being rolled out to scale up provision. The Malaysian prime minister commented (2011):

Skills Malaysia aspires to raise public awareness and perception on the significance of skills training as a means to enhance the quality of the Malaysian workforce. Efforts to standardise the quality of training curricula through rigorous participation of industries; overcome the duplication of training and certification activities; and intensify promotion of skills training will be undertaken to uplift the current competency level of the workforce to a higher level of performance and productivity (Skills Malaysia (2011)).

The study found that in some industries, such as the automotive and hairdressing sectors, the image had considerably improved due to the practices in these sectors. VET was attractive to the youth in these sectors. Hairdressing was perceived as more attractive because it is part of the beauty industry, which is associated with glamour and prestige. Vertically integrated RTOs had their own training centres and a chain of hairdressing salons around the country, which are oversubscribed. VET in the automotive sector is also oversubscribed. While the data show that the image improvement was due to the dual system and the learning site, the learning sites were branded and workplaces were welcoming to young people. The dual system produced labour market ready human capital instead of industry having to use irrelevant ready-made human capital. More importantly, the study found that in these two sectors, skills were priced well enough to attract students. A MSC Level 3 VET graduate was earning three times more than a university graduate. These sectors were both attractive and parity of esteem was restored to VET graduates. Further study is required to see if this aligns with Australian and Singaporean experiences.

The unique Malaysian challenges and the composition of society cannot be ignored. For example, hairdressers are mostly Chinese, while the automotive sector is dominated by Malays. Very few Indians are involved in the hairdressing sector given that this profession is deemed to be dominated by low caste. Respondents also attributed their choice to the training providers belonging to the same race. Obviously, labour market relevance and employability play an important role in improving the image of VET in particular sectors.

This was no different from the Singaporean experience, in which VET was hampered by social prejudices (Loi, 2008) and the Singaporean government carried out a large-scale survey to measure perceptions of VET. Efforts to reposition VET with three blueprints addressing the weaknesses and promoting brand excellence included changes both at the policy and practice level. National and international skills competitions were introduced at regular intervals and publicised extensively. Stakeholders were engaged to remove misconceptions and address gaps in VET information. The Institute of Technical Education (ITE) focused on three Ps—product, place of learning and promotions—to position VET as part of the mainstream education system. The Australian experience of tailoring VET to the emerging labour market highlighted VET’s role in responding to the changes in industry skill requirements (Richardson & Teese, 2008). Such responsive measures offer lessons for Malaysian VET.

7.1.3.2. Funding

Four approaches have been identified in the financing of VET: laissez-faire systems prevalent in LMEs, high-employer commitment systems found in CMEs, sectoral training funds and levy schemes (Smith & Billett, 2004). Four common policy mechanisms—levies, partnerships, leverage and regulation—have been applied depending on the goals to be achieved. Malaysia has largely used sectoral training funds and the levy approach to finance VET.

While government rhetoric has an increased emphasis on VET, to the CEOs, this has not been matched with funding allocations. The data showed that funding was a contentious issue for CEOs. The higher education sector received a far greater allocation than the VET sector, despite the government’s repeated pronouncements of the importance of VET. The Skills Development Fund (SDF) governed by the *Skill Development Act 2004 (Act 640)* distributed skills enhancement loans to both students and employees. The SDF also managed the Industrial Enhancement Programme and the Workforce Technical Transformation Programme, which aimed to retrain, multiskill and upskill the nation’s citizens. The HRDF, created through the *Human Resources Development Act 1993*, is a levy-based organisation with all employers paying 1% of the payroll to HRDF. Employers receive reimbursements for approved skills training that either leads to upskilling or the replacement of foreign skilled workers.

The CEOs lamented the inefficiency of the returns on the investment in skills training due to poor training provision. Costs of training have increased as they have had to retrain

VET graduates. They complained about the bureaucracy in seeking reimbursements, particularly when they had contributed to the HRDF. Generally, the CEOs were reluctant to invest in skills training given the lack of industry-wide training on poaching of staff.

Conversely, the CEOs of private-sector RTOs complained about the inadequacy of funding and the lack of transparency in the disbursement of funds. The drastic reduction in funding allocations over the last two years due to the government's tight budgets had led to financial disarray for most private-sector RTOs. While government-owned RTOs had a budget based on manpower headcount costs, private-sector led RTOs complained about competing for limited funds with SDF. Private-sector RTOs reported that inadequate funding undermines the VET system and their ability to engage the community, which already has a prejudiced view towards VET. To them, the SDF proclamation that VET is directed at school leavers unable to enter the higher education system is untenable. RTO CEOs pointed out that the government, in a series of pronouncements, have highlighted the need to engage this section of the population and bring them into mainstream life instead of leaving them to engage with anti-social elements. They highlighted that this goal will not succeed without funding. VET funding was considered critical and access to information about available funding was considered even more important. Policymakers repeatedly highlighted the need to build an inclusive society through VET. This aligned with the main theories driving the approach towards inclusiveness: vocational theory and the CA.

Both instructors and trainees expressed difficulties with the process of applying and gaining approval for their choice of study in their choice of institution due to the controls and limits placed by funding authorities. Additionally, trainees were apprehensive about securing the right course, not because of costs, but out of concern about the appropriateness of the course. They were anxious about choosing the right course to secure the right job. Further, trainees complained that the wages of the jobs their VET qualification enabled were inadequate to repay their education loans.

Alternatively, policymakers tended to dismiss the views of industry CEOs as the unwillingness of industry to collaborate and share the costs of training. They highlighted the need to share costs to make skills development sustainable. According to policymakers, the processes to ensure the VET system delivers quality programs and outcomes are in place. The 'Train and Place' program, outlined by HRDF, aimed to ensure industry would not have to retrain workers, as RTOs were paid 50% for the

training and the remaining 50% for confirmed employment. This approach was to ensure better alignment between VET and employment. Yet, as the data show, this did not generate the desired results.

Policymakers admitted that government RTOs were given a fixed budget, unlike private RTOs, despite not meeting standards. Government RTOs produce Level 1 and 2 qualifications that are not accepted in industry. However, they also asserted that Level 1 and 2 qualifications are needed to engage trainees with a low propensity for learning before they proceed with higher-level qualifications. Some government RTOs are situated in rural areas, as there is a need to serve 'thin markets' in which very few private-sector RTOs operate. A 'thin market' could be defined as markets with very few purchasers (Cane, 2004, p. 4). This is likely similar to the Australian experience. The Australian experience of sustaining community TAFEs with drastically reduced budgets when 'contestable funding' was introduced was identified as a roadmap for the future (Skills Australia, 2011). Nevertheless, one could argue that government-led RTOs are not at the same standard as TAFEs in the eyes of industry. Policymakers also pointed out that some private RTOs ran low-cost programs that did not lead to intended outcomes. Government RTOs and state-led skills development training organisations provided 'high-cost' training, like precision engineering and mechatronics. Very few private RTOs could afford high-cost programs involved in specialised areas and trades. This aligns with the views of Walker and Betty (2011, p. 2) that state-controlled RTOs provide specialised courses in rural and underserved areas. The Malaysian government has highlighted the need to serve the economic bottom 40% of the population.

Singapore and Australia had some lessons to offer. Singapore, in addition to loans support for individuals, also supported industry with subsidies to encourage it to invest in skills development. The objective was to increase VET participation. SMEs were encouraged to participate with the introduction of a hybrid option, progressive disbursement of grants, funding support for training and provision of more places for off-the-job training. The training provision was stringently monitored with centralised assessments. The shared-costs model has been transparent, with industry being actively involved in the process.

In Australia, in the state of Victoria, the government carried out a comprehensive and independent review of VET funding. The goal was to provide a more sustainable model for both TAFE and private-sector RTOs. With the Victorian training guarantee, funding was to be more demand driven and responsive to labour market needs. While there has

been dissatisfaction among the TAFEs on the funding mechanism, the 61 TAFEs enrolled 1.2 million trainees in 2011, constituting 63.3% of total enrolments in the country (NCVER, 2012, p. 15).

Within Australia, the issue of contestable funding with competitive tendering and user choice has been criticised heavily because it draws away resources from public-sector RTOs such as TAFE (Anderson, 2017). He argued that the development of a national training market as a key VET reform has not been evaluated systematically and independently. The use of competitive tendering and user choice to regulate VET supply and demand, and redefine relationships between providers and clients' needs to be studied further to determine its efficacy. While some outcomes have been achieved, others have not.

In an analysis of the policy issues involved in the implementation of 'User Choice', Noble et al. (1999) argued that this fund-allocation model may lead to a discontinuity of supply in 'thin markets', mostly in regional and rural areas. For example, if a large employer decides to remove its apprentices from the major provider, the TAFE course becomes unviable. This will result in no more apprenticeships available in those markets, especially if the TAFE is the only provider. Moreover, providing training in a 'thin market' and/or in a remote area is costly, as it is difficult to achieve economies of scale. Thus, there is higher average cost of delivery due to the lower level of enrolments (Clayton, Harding, Toze & Harris, 2011). While this may be true in an Australian context with public-sector organisations such as TAFE, there is a need for government-led RTOs in Malaysia to increase their quality and justify the returns on investment.

7.1.3.3. Quality Provision

While quality may mean different things to different people (Gibb, 1993) as was evident in the study, quality has to be understood at system, provider, instructor and learner levels. Stakeholders defined quality as delivering on the specifications promised to the customer and meeting the needs of the customer. Despite the definition, it can be argued that quality is about the satisfaction level, effectiveness of delivery and product consistency. While policymakers commented that quality assurance is vital for ensuring intended outcomes are achieved, CEOs emphasised that quality improvement in VET can only happen when objectives are established and translated into expected outcomes. CEOs reinforced the view that quality must be linked to specific policies, institutions and individuals. Instructors viewed quality assurance as a function that sets standards, and monitors and

evaluates practices and outcomes. Quality could be said to be a measurement of performance, and the range of definitions observed in the VET sector merely represents the various expectations against which people evaluate it (Sheng Lee & Polidano, 2010).

Within the data, there were differences in how stakeholders perceived quality. The data show a great deal of blame being shifted among various stakeholders. The competitive training market had reduced training costs but at the expense of quality (Anderson, 1996). This outcome is consistent with economic theory, which dictates that when there is poor information on product or service quality, producers will typically respond to greater competition by reducing costs rather than improving services (Kranton, 2003). In broad terms, employers, providers, instructors, trainees and policymakers all have varying interests in the quality of VET. First, there are prospective students, who, according to investment and consumption theories of education (Lazear, 1977), are interested in the labour market returns and satisfaction derived from various courses. Second, there are employer interests, which include having adequate graduates available with the right mix of skills at the right price. Third, because they provide public funds to meet much of the cost of VET, governments are interested in ensuring that public funds are used efficiently to meet public interest objectives, including meeting student and employer needs.

CEOs from industry perceived quality from an employment outcome point of view; that is, that the qualification gained by the trainee has integrity. Industry CEOs' doubts on the integrity of qualifications from RTOs has eroded trust in training and assessments. Trust in quality provision is essential for skills recognition because skills recognition is closely linked with employability. While in general, policymakers believed that the achievement of qualifications equates with the acquisition of skills, most industry CEOs were convinced in the Malaysian experience that qualifications did not always indicate skills. This reflected the HRD paradigm reviewed in Chapter 3, in which qualifications should render skills both visible and capable of being evaluated in quantifiable terms (Hillage & Pollard, 1998). This contradictory view was attributed to the confused signals communicated to employers, which was caused by the proliferation of qualifications, and the poor quality of assessments and training.

To the CEOs, the integrity of qualifications is vital for the mobility and recognition of skills and competences within labour markets. It could be argued that trainees should have achieved the competencies linked to the program and must be able to demonstrate them at the workplace. CEOs identified assessments as a weak point, due to the multiple

agencies managing VET and the inconsistency of assessments. To CEOs, the drivers of a well-designed quality assurance function are ultimately the competencies of the trainees.

Instructors were more concerned about relevance to the labour market and the learning experience of trainees. While most instructors with state-led RTOs such as PSDC, agreed the curricula were well delivered and in line with industry needs, they also reported having to enrol trainees from some private-sector RTOs. In such instances, it was apparent that the curriculum was either not delivered or was irrelevant to industry needs.

For the trainees, it was about the learning experience, satisfaction and eventually, employment. The data consistently show trainees were influenced by training provider reputations. There were differences among trainees' satisfaction levels. Those who made the right choices were enthusiastic about their program, while those who were dissatisfied thought they had mistakenly chosen a program due to a lack of information. While the study only focused on two state-led RTOs from the qualitative part of the study, the trainees acknowledged information was more forthcoming and available. The quantitative part of the study that was open to private-sector RTOs indicated that a significant portion of their trainees felt their seniors were made to choose courses that resulted in underemployment, without any prospect of being able repay student loans. However, in practice, realising such efficiency gains depends on prospective students being able to determine how well each course meets their needs so that responsive providers are rewarded with higher demand for their courses.

To ensure trainees make the right decisions and to develop a competitive yet qualitative provision to achieve efficient outcomes, there is a need for RTOs to be more responsive to industry and trainee needs. Quality provision can lead to training efficiency, resulting in RTOs being rewarded with higher enrolments. However, this can only be achieved if prospective trainees have access to past student outcome reports to determine how well the course meets their needs. At present, there is little information available for students to make such decisions (Sheng Lee & Polidano, 2010). The marker of quality is not just gaining the right employment, but also the trainee achieving their goals.

Policymakers highlighted the importance of open-market provision to include private-sector RTOs to build a sustainable model of VET provision. For them, a quality vocational training system takes care of the substantial investments and their interests. They contended that regulatory measures are in place to monitor the quality of training provision. Policymakers acknowledged inadequate and infrequent monitoring of the

quality of RTOs due to the substantial number of training organisations. Therefore, there is a tendency to miss key quality variables—qualifications delivered, student and labour market outcomes. The focus is on funding process rather than quality assurance. The data show that quality assurance in VET is driven through trainer and assessor competency, the pedagogy used and learning processes carried out by the RTO. There was consistent agreement that assessor competencies are far from desired standards and trainer competencies had to be scaled up as CIAST, the agency tasked to do so, has been unable to respond to the urgency of the situation due to limited capacity and capability.

While it may appear that RTOs are to blame for the quality of training provision, there were also examples within the data of efficient and effective quality training provision that meets the satisfaction of stakeholders: employers, trainees and instructors. Generally, the examples of successful RTOs observed in the data are well capitalised with an industry record. The data point to one person or smaller RTOs as the hinderers of quality provision, due to inadequate enrolments. RTOs pointed out the lack of qualified VET instructors and unsustainable business models that result in poor-quality training provision. It can be argued that the route to becoming an RTO is not stringent enough. Too many for-profit training providers have crowded the market with irrelevant courses that compromise VET quality.

The Singaporean system is very stringent on RTO accreditation while the Australian experience has been different, with regular market reforms being carried out. The Singaporean model has been criticised as too government centric, while the Australian model has focused on continuous improvements in ensuring quality and quality assurance despite challenges.

From a multiple stakeholder perspective, there were differing views on the definition of quality VET provision, and how quality of VET provision can be assured. This can significantly affect the extent to which the value of nationally recognised qualifications is perceived by stakeholders in the labour market (Kis, 2005).

7.1.3.4. Sustained Approach on Apprenticeships

CEOs and policymakers acknowledged the role of apprenticeships in driving SFSs, as it is based on the dual training system in which apprentices spend 70% of their time learning at work and the remaining 30% at vocational school. Apprenticeships have been viewed as a proven model for moving young people into full-time employment (Smith, 2004).

Malaysian policymakers acknowledged the importance of apprenticeships for youth employment and improving the image of VET. In high-context cultures such as Malaysia, working in an organisation in which employment gives youth an identity, the success of apprenticeships is important. Hall (1976) defined high-context cultures as those in which messages conveyed carry implicit information and are not direct, unlike low-context cultures in which the meaning is direct.

The study reviewed collective SFSs, as they were found in countries designated as CMEs, namely Germany, Austria, Switzerland, the Netherlands and Denmark. These countries have been admired by observers for their ability to combine low levels of youth unemployment with high-quality occupational skills that serve as a foundation to the nation's competitiveness (Finegold & Soskice, 1988).

Vocational training systems known as collective skill formation systems include apprenticeships that are collectively organised by businesses, employer associations and unions, with government support and cooperation in implementation, funding and monitoring (Busemeyer & Trampusch, 2011, pp. 4–34). The systems provide portable, certified occupational skills. The training takes place in schools and companies, usually in the form of dual apprenticeship training.

Three insights have characterised collective skills formation systems (Busemeyer, 2009). Collective skills systems need the continuous support of relevant stakeholders for survival. The variety of skills formation systems are largely conditioned by the decisions made on the provision and funding of skills development by stakeholders. There are four points of conflict: who pays for the training, who provides the training, who controls the oversight of the provision and the linkage between VET and general education.

Malaysian policymakers highlighted the role of the government in pushing for the dual training system and the continuous drive in engaging with organisations from Germany, France and Australia to increase the number of apprenticeships in the country. CEOs supported apprenticeships because they provide a pipeline of skilled workers, even though the numbers are small. Instructors and trainees applauded apprenticeships, as the youth received compensation while learning. Gaining exposure to the workplace benefited instructors and trainees.

It was evident within the data that CEOs contested the issue of funding. While policymakers emphasised government support in terms of apprenticeship funding, they

also noted the role of the chambers of commerce, such as the German Chamber of Commerce, in implementing the dual training system within German companies. Yet, the apprenticeships are narrow and there are few places available. Only three programs—mechatronics, industrial management and logistics—are available in Malaysia as part of the German Chamber’s initiative. According to policymakers, the model of shared costs and the responsibility for building skills and knowledge must rest with industry. Engagement with Malaysian stakeholders needs to be improved to seek a sustained agreement for the development of apprenticeships. To emulate the German success, a collaborative approach based on a cohesive national plan is needed rather than an ad hoc approach.

CEOs expressed concern about investments in training and employee retention. However, data show that only sectors to report an increase in apprenticeships are very firm specific, such as the automotive and electronics sectors. The only other aberration to this trend is the hairdressing industry. The study also showed that in Penang, due to the industry leadership of the Skills Development Corporation, apprenticeships have increased by collectively addressing the four points of conflict. Closer analysis revealed that apprenticeships have been more successful in German companies operating in Malaysia or in companies that train for specific skills. This could be attributed to the cultural context and safety net of working for a large MNC. Trainees considered it a form of job security.

The data indicate that skills are firm specific. Further, courses that restrict mobility are likely to be supported over those that are portable. Policymakers wanted skills to be portable and mobile, as that is the way to grow the macro economy and improve the stock of human capital. The issue of funding has generally been a point of tension between stakeholders. This aligns with the views of Becker (1993), who explained firms’ irrational willingness to invest in vocational training because of labour market imperfections. In the Malaysian context, the government has led skills development initiatives with partial funding for apprenticeships, as in the Singaporean model of shared costs.

One of the crucial differentiating dimensions is the specificity of skills (Hall & Soskice, 2001, p. 17). Do they provide general or specific skills? LMEs such as the US focus on general skills, leaving on-the-job training to firms. CMEs such as Germany focus on technical education in vocational schools and workplace in training to firms, leading to dual apprenticeship programs. Estevez-Abe et al. (2001) identified three types of SFSs:

firm specific, industry/occupation specific and general skills. These typologies help understand the variety of training regimes across countries. Institutional political economy pays close attention to the embeddedness of training institutions in a dense network of political and socio-economic institutions, such as collective wage bargaining, corporate governance, financing, labour markets and industrial relations (Thelen, 2004).

The high-skills system of Germany can be contrasted with the low-skills system of the UK to show how the embeddedness of training institutions shaped incentives to invest in skills formation (Finegold & Soskice, 1988). One incentive is the dominant venue of training (i.e., the workplace in Germany and Denmark, schools in France and Sweden). The *Varieties of Capitalism* assisted in the understanding of modern capitalist economies and systems of skill formation (Hall & Soskice, 2001). For Hall and Soskice (2001), the irony with skills development is that while it is very much desired, it is difficult to develop. Countries have adopted differing approaches. Human capital comes in different forms and each country has a different stock of human capital, which affects economic growth and social inclusion. The development and availability of skills is not a rational choice but it is rooted in the institutional context of political economies.

The literature identified two issues for successful apprenticeships: participation and completion (Atkinson & Stanwisk, 2016). There are lessons to be learnt from Australia and Singapore. In Australia, while the VET sector is the largest education sector, VET provision includes 4.5 million students (NCVER 2016). A major feature of the system is apprenticeships and traineeships, with 278,600 students in training as of December 2015 (NCVER 2016). The Australian VET system is characterised by two complementary approaches to skills training: institution-based education and training for young people, a significant part of which is the employment-linked apprenticeship and traineeship system and the provision of skills for existing workers, offered on a full- and part-time basis. Over the last few years, changes to apprenticeship system have been introduced with the intention to broaden the appeal to apprentices and employers and improve the system's responsiveness to the labour market. The introduction and removal of incentive payments for employers and the move towards accelerated apprenticeship have had a significant influence on participation trends for apprenticeships and traineeships (Atkinson & Stanwisk, 2016). The broader VET system has been transformed by the move towards contestable training markets via entitlement models and income-contingent loan schemes, and increasing student and employer choice between private and public providers. This

has also not been without criticism because it has led to abuses by private-sector RTOs (Mitchell, 2012).

In Singapore, the data highlighted the sustained focus on apprenticeships. The ITE in Singapore has set the standard and endeavoured to improve the perception of VET with world-class infrastructure. Companies operating in Singapore run apprenticeship programs through providers. ITE provides skills training to school leavers through institutional training and apprenticeship modes. The strengths of apprenticeship training include the provision of more occupational choices; greater effectiveness in meeting specific needs of industries; and opportunities for young people to earn as they learn. The ITE has the required infrastructure to guide and monitor apprentices' progress for the full duration of training. The aim is to increase the participation of young people, improve the image of VET and promote completions of apprenticeships with regular pastoral care and high engagement. This aligned with the views of Smith, Walker and Kemmis (2011), who identified the need for psychological contracts. Such contracts helped young people learn to learn at work and avoid unsuccessful interactions that inhibit the successful completion of the apprenticeship. SMEs were encouraged to participate with the introduction of a hybrid option, progressive disbursement of grants, support from ITE on the cost of training and provision of more places for off-the-job training. Quality of training has been strengthened through support from industry trainers.

While this aligns with the findings of Hall and Soskice (2001), that collective skills formation plays a crucial role in defining access to secure and high-skilled employment, the data show that sustained approaches for the growth of apprenticeships have not yet become the mainstay of Malaysian VET. Ultimately, irrespective of who benefits, the purpose of VET is to develop a national economy that is competitive with a stock of skilled human capital.

This section has discussed four key areas and their implications for VET in Malaysia:

1. Poor image of VET
2. Funding issues
3. Quality provision
4. Sustained approach towards apprenticeships.

Drawing from the data this study puts forward that case that improving the image of VET must be both policy and practice focused, with rhetoric matching implementation. The

view that VET is a contributor to an innovation-based economy rather than a vehicle to train the academically uninclined must take root within all sections of Malaysian society. While there are several policy mechanisms available to fund VET, there needs to be a consensus-building dialogue on a shared-costs model. Quality and quality assurance mean different things to different stakeholders. Trust in VET can only grow with confidence in the integrity of the qualifications. What is promised must be delivered. Apprenticeships have been the backbone of VET. Collective skills formation systems need the support of all stakeholders. Policy innovations to sustain a long-term apprenticeship development program need to be developed.

7.1.4. Skills Strategies for Inclusivity

7.1.4.1. The Malaysian Landscape

Malaysian policymakers claimed that skills strategies for a more equitable and inclusive society remain a priority for them. In the background of a Malaysian society fragmented by divisive views due to race, religion, class and caste, inclusivity remains a priority for the government, policymakers and key stakeholders.

Yet, the data indicates that the notion of an equitable and inclusive society varies from one stakeholder to another. Further, the data show that to Malaysian policymakers, inclusivity means supporting those in the bottom 40% of the population to participate in the economy productively. However, according to Sung and Ramos (2014) inclusivity is much more than this, it is a multidimensional concept that goes beyond poverty reduction and income distribution. The CA purports that freedom to achieve wellbeing is a matter of what people can do and be, and thus, the kind of life they are effectively able to lead. Social outcomes to be achieved from the skills strategy, as expressed in the data, include social cohesion, wellbeing, equal opportunities, equitable sharing of economic growth and the creation of better job opportunities. Most of these outcomes were acknowledged by the stakeholders. Reviewing this in the context of the CA, a major model for policy discussions in human development, confirms that inclusivity is much more than simply being employed (Robeyns, 2005, pp. 30–49; Walsh, 2000). The UN HDI is acknowledged as a measure of human development that aims to describe capabilities in health, education and income (Nussbaum & Sen, 1993). CA goes beyond welfare economics and highlights the capabilities individuals require to thrive (Sen, 1992). As a theory, CA postulates a new theoretical framework about wellbeing, development and justice.

The composition of Malaysian society is diverse and politics is race based. The data clearly show challenges when low-level employment or unemployment is correlated to race. Given the fragile nature of race relations (Razak, Ramiah & Hewstone, 2017) and the historical 1969 Malaysian race riots, it could be argued that inclusivity and equitable strategies are vital for Malaysia. Policymakers prioritise understanding of the race landscape in Malaysia to ensure social harmony. Perceptions of unfair access to employment, education or opportunities and inequitable treatment has led to a race-based view of the problem. They consistently stressed the focus on encouraging the economic bottom 40% of the population to participate in the economy productively (OECD, 2016). Instructors highlighted the need for Malaysia to learn from Australia and Singapore to help workers move from low-skilled work to skilled work to achieve inclusive growth. VET trainees, in general, looked for work in industry. The idea of self-employment has not yet taken root in Malaysia, unlike in Australia where there has been much greater focus on self-employment. The Australian Clearinghouse for Youth Studies argued for social entrepreneurship in its 2015 report: *Growing employment through entrepreneurship*. Hub Australia, a co-working community, was established to help the youth. The first step on this journey was to inspire youth to think business, not just jobs.

RTO CEOs articulated the need for more funding to provide access to learning opportunities. Conversely, industry CEOs cited the availability of productive and skilled labour as of critical importance. They highlighted the need for a skills recognition system that can be trusted and for salaries to remain in line with affordability. Industry CEOs argued against implementing a minimum wage policy in Malaysia, which is about US\$225 per month. Competitiveness, to them, is a key for business. Critics highlighted that real labour productivity of Malaysia grew faster at 6.7% between 2000 and 2008, compared to a mere 2.6% increase in average wages. However, many employers still objected to its implementation without recognising that a minimum wage policy is a minimum for living above poverty levels (Ibrahim & Said, 2013). In this context, an argument can be made that Malaysia is not necessarily in consensus on its approach towards inclusiveness.

7.2 Going Beyond Skills Policy

With the growing trend of inequality among OECD countries where the average income of the top 10% is nine times more than the poorest 10%, and the top 1% hold a much larger percentage of wealth than the bottom 50%, there is a growing fear of a threat to

social cohesion and political stability (OECD, 2011). It is evident within the data that policymakers believe the principal aim of VET is to develop skilled labour needed by the economy and to ensure gainful employment of youth. Yet, the literature highlights the need for going beyond skills policy to revisit inclusive and equitable strategies (Bhaskaran et al., 2012). Sung and Ramos (2014) underlined the view that inequality is perceived as creating winners and losers, which in turn reduces trust in government and affects political stability.

Some of the characteristics that emerged from the data involve the disconnect in the thinking and the notion of inclusivity and equity. This can be connected to the literature on low-skills equilibrium. The growing phenomenon of a ‘global auction of skills’ in which businesses are able to produce goods and services through their distributed skills network, complemented by the constant sourcing of high-skilled low-cost production (Brown, Lauder & Ashton, 2011), suggested disparity among stakeholders in views on inclusiveness and equity.

Finegold and Soskice (1988) highlighted the low-skilled equilibrium environment as an economic and industry structural environment in which there is little incentive to invest in high skills. From this, an argument could be made for a sectoral approach to skills development with the support of all stakeholders, in which the roles for each of them are defined. While the idea of a sectoral plan is not new, the idea of building high skills and higher rewards for high skills could give VET a greater influence on the inclusiveness agenda (Sung & Ramos, 2014). Ye (2016) commented on inequality and a lack of inclusiveness:

In today’s largely democratic world, when you have a problem like that, inequality will always prompt governments to do one thing, the obvious thing, which is to tax and redistribute. However, beyond the redistribution of wealth, I think an equally important policy objective to pursue is inclusive growth so that opportunities arise equally among the population and money does not drop in bundles for the select few. What does this entail? First, I think we need growth that is driven by industry restructuring, there is a need to create good paying jobs. Second, at the workforce level we need education and training to make the workforce competent.

The notion that skills policy alone will not promote inclusivity and an inclusive growth strategy has to be holistic and sustainable requires consensus among all stakeholders and a multipronged approach (Estevez-Abe, 2011). Moving away from a low-skills

equilibrium requires greater investment in creating a high-skills ecosystem and a high growth but inclusive strategy.

7.3 Drivers of Change in Inequality

Policymakers acknowledged the challenges in building an inclusive future for the nation. As the nation moves towards becoming a developed country, inequality widens, as discovered in the Singaporean experience of widening Gini coefficient. An OECD study (2013) identified the key drivers for change in wage inequality as trends in technology, policies that include regulatory reform and education. There is a need to identify and pinpoint the sources of inequality to the impact of technology, policies and education (Gog, 2014). According to Brynjolfsson & Mitchell (2017), while technology has increased wealth, it has also been the main driver for inequality. ‘As the march of technology continues, these strains will eventually spread to the entire world, exacerbating global inequality, already intolerably high, as workers’ earnings diminish.’ (pp. 290–291)

As this happens, the challenge will be to ensure that all income growth does not end up with those who own the machines and the shares (Basu & Majumdar, 2009. Piketty (2014) highlighted that inflation adjusted for low- and middle-income workers has remained flat even as the economy has grown. He added that the argument that inequality diminishes as technology develops and people take advantage of it, or that human capital triumphs over financial capital, is largely illusory.

At the policy level, policymakers remarked that it was not just a skills problem. Skills development lagged economic development, which posed challenges for inclusive growth. The observation that there is an unfair distribution of economic prosperity between capital and labour with large part of the profits going to capital, which resulted in stagnant wages for some groups in society, is widely prevalent (Bhaskaran et al., 2012). Changes in prices without changes in real wages cause stagnation and deprivation, making some groups vulnerable (Gautie & Schmitt, 2010). There is a need for regulatory and policy reform in addition to skills and education if the widening of inequality is to be managed (Eztevez-Abe, 2014).

The UN Conference on Trade and Development report (2012, p. 166) highlighted that for the proper functioning of the labour market, there is a need to link the growth rate of average wages, to the minimum wage and the overall performance of the economy; adjust

this growth for inflation and ensure the wage level of the qualification is consistent and similar throughout the economy and not left to individual firm discretion. Arguably, an improvement in equality needs to come from a fundamental structural change and not just education. The argument that education alone is not enough to minimise inequality, and the need to adopt a multipronged approach, is highly consistent with the sectoral approach of building consensus among stakeholders and a skilled ecosystem to further VET (Sung & Ramos, 2014).

Finegold and Soskice (1988) indicated the need for a high-skilled environment in which there is a constant focus on improving low-wage jobs with job quality and skills utilisation. Singapore adopted a high-skilled equilibrium, as evident in the data, with efforts to encourage low-skilled workers into skilled work, protect vulnerable workers and make skills strategies work with CET. The inclusive growth strategy was built around higher value and productive work, not social transfers (Sung & Ramos, 2014).

7.4 Learning from Experiences

The concerns of stakeholders regarding growing inequality was evident within the data. While policymakers referred to the incentives available for workers to gain recognition for their skills, and CEOs highlighted the opportunities available within Malaysian VET, instructors emphasised the lack of periodic reviews of challenges.

Keep and Payne (2004) highlighted that in some cases, the problem of inequality was attributed to individual workers' defeatism and personal attitudes rather than the economy or policy. When incentives and policies do not work, the problem is deemed to lie with poor attitudes or market failure rather than the policy itself. Thus, it can be argued that an objective and critical review is required of the policies affecting VET and groups in the community that are targets of inclusivity policies.

As visible in the data, industry was preoccupied with improving its competitiveness to stay relevant in a challenging macro-economic global climate. Industry CEOs, while accepting the inequality problem, stated the futile approach of driving skills and education without considering the needs of industry. Gog (2014) stressed the need to move away from a supply skills model to the twin concept of skills utilisation and skills activation; the collective outcome of inclusive growth in which all stakeholders gain is the fundamental objective.

Skills utilisation is ensuring that skills are used effectively in the workplace as part of continuing improvements in performance. Skills activation is about enabling individuals to make learning decisions to mitigate income risks and stay relevant in a changing workplace (Sung & Ramos, 2014). Arguably, this can only be achieved through a skills ecosystem approach in which all stakeholders work through a shared vision of a competitive sector with high-quality jobs and high rewards underpinned by skills.

Singaporean policymakers referred to their attempts to minimise the inequality gap, highlighting schemes such as the workforce training support scheme in which older and vulnerable workers are provided with a course fee subsidy of 95%. Further, cash awards of S\$400 per year are offered, with the employer being assured of an absentee payroll. Policymakers believe this mitigated the risks of falling into a low-skills equilibrium. Industry CEOs called for the re-establishment of Chinese associations, known as guilds, to play a dominant role in developing personal mastery and competency to price skills equitably. While this can be followed in Malaysia, the absence of similar associations among the Malays, Indians and East Malaysian races accentuate the problem if emulated.

Lessons from Germany consistently emerged among the stakeholders, with Germany viewed as a model for a high-wage economy. The dual system, with its stringent trade certification, was also touted as a model for promoting inclusivity. Yet, it could be argued that Germany has a social fabric that is not present here. Malaysia is culturally different and the social composition of society is vastly different. Additionally, the level of industrialisation and literacy levels are far different. While Germany is a model to be emulated, there is a need to adapt their system to suit Malaysian conditions.

Australian policymakers highlighted the government's productivity agenda and the need to achieve completion rates (Clayton et al., 2004, p. 16) outlined the experiences from Sweden and Finland, indicating that the Swedish educational system is characterised by lack of dead-end routes. This enables individuals to complete their education with generous funding through programs such as the right to training leave, full employment guarantee, labour market adjustments and wage setting. The goal of the Swedish system is to enable social and occupational mobility. Abe (2014) cited lessons from the Nordic countries, where besides education opportunities, wage levels are set with a consensus-based socio-economic system.

It is evident within the literature that in many OECD countries, gaining qualifications links to economic success. There is significant commentary on creating qualifications that

empower individuals economically and the need to connect skills with pay in a competitive way for greater inclusivity. However, skills do not convert automatically into high-paying jobs (Sung & Ramos, 2014).

This section discussed four key areas and their implications for VET in Malaysia:

1. The Malaysian landscape
2. Going beyond skills policies
3. Drivers for change in inequality
4. Lessons learnt.

The argument is that the notion of inclusivity differs between stakeholders in Malaysia. Even in the literature, there is a slant towards economic inclusivity rather than learning inclusivity or inclusivity of gender and disability. The CA highlights the five components for human development. There is a need to go beyond skills policies to understand inequality and to adopt a high-skills environment and a sectoral approach to promote inclusiveness. The drivers of change for wages inequality are technology, policy and education. The need to trace sources of inequality to the drivers of change has been deemed important in the inclusiveness agenda. The lessons from the different regions provide strategies for addressing the inequality issue in Malaysia.

7.5 Summary of Discussions

This research answered the following questions and in conducting the research, other important considerations have also been uncovered.

What are the challenges facing the development of VET in Malaysia?

There were also several associated research questions:

- What are the VET policy trends in Malaysia?
- How have the skills formation systems evolved in Malaysia?
- How have the existing players in Malaysian VET been engaged?
- How has skills training minimised inequality within Malaysia?
- What are the lessons from Australia and Singapore?

Malaysia has twin dynamics of growth—a spectacular success and enduring challenge. Indeed, sustained high growth, successful achievement of the MDGs and widespread

poverty reduction has been accompanied with declining educational performance and subnational variations in economic growth (Woolcock, 2016). VET has been a governmental pivotal strategy to address youth unemployment and socio-economic issues in Malaysia (Zain, 2015).

Following is a summary of the findings and arguments made in the thesis:

This thesis was successful in addressing the research questions and what it set out to identify, namely, the challenges facing the development of VET in Malaysia through the lens of VET policy trends, skills formation systems, engagement of VET players, the impact of VET on minimising inequality and the lessons from Australia and Singapore.

The research findings point towards gaps in VET policy and practice in Malaysia. Malaysian policymakers have placed considerable emphasis on developing a VET system that is needed to ensure a matured provision of VET. While the policy has focused on quality provision and developing a sustained approach towards apprenticeships, efforts to enhance funding and address the poor image of VET have been haphazard. Additionally, it was evident within the data that with multiple agencies coordinating the provision of VET, there was evidence of tension between those who promote and organise VET and those who enact the policies. Further, the prescriptive nature of VET has resulted in poor alignment with local needs. While the literature puts forward a case for the development of a market-driven VET system that is likely to have a significant impact on the nature and organisation of VET provision (as in Australia and Singapore), CEOs are concerned that the Malaysian scenario is far from reaching an efficient market-driven VET due to quality provision. This has had major implications for key stakeholders.

These findings raise an important question for policymakers: How can they encourage the management of skills formation through VET? With policymakers assigning an increasing economic importance to education and training policies, the focus has been on promoting skilled work with positive benefits to both employers and workers. With the debate on the shift from supply- to demand-side approaches, there have been commentaries on whether only industry should be the customer for VET or if there is a need to enlarge the impact of VET beyond industry. SFSS have been piloted in organisations such as PSDC, but questions remain if such successes can be mainstreamed.

The development of Malaysian VET has been legislation rather than industry-led, unlike the German model, which is based on strong partnerships between stakeholders.

Additionally, the incongruence between policy and implementation, compounded by a lack of periodic evaluation and disparity in thinking between stakeholders and policymakers over policy evaluation, appeared consistently within the data. When the outcomes of VET are not relevant and are of limited benefit to the stakeholders, the evaluation of VET and the functioning of both public and private RTOs becomes critical. The need for the management of meaning of performance data must be understood in the development of VET systems (Thiel & Leeuw, 2002 p.267-281).

In high-context cultures such as Malaysia (Hofstede, 1984), the continued implicit assumption of consensus among stakeholders is erroneous. These assumptions arguably must be eliminated from VET policy dialogue. The analysis of the data reveals that among stakeholders, there can be areas of consensus, but also areas of disagreement in how some critical factors in VET policy implementation are defined and evaluated (e.g., VET quality). The qualitative approach of this research has shown the disparities in thinking between stakeholders. Conversely, in Australia and Singapore, there has been a surge in VET reform stakeholder engagement and critical dialogue.

An important finding from the data is that inclusivity means different things to different people in the Malaysian landscape. There is a need to strengthen the connection between skills and remuneration to promote inclusivity. The drivers of change for wages inequality are technology, policy and education (Salverda, 2008). The need to trace the sources of inequality to the drivers of change has been deemed important to the inclusiveness agenda (Sung & Ramos, 2014).

The CA highlights the five components for human development (Sen, 1992, p. 44). Sen's CA is a moral framework. Criticisms persist about CA on whether it can be operationalised (Sugden, 1993) and for its failure to supplement with a coherent list of capabilities (Qizilbash, 1998). Addressing this, Nussbaum (2000, pp. 11–15) developed a central human capabilities list. It proposes that social arrangements should be primarily evaluated according to the extent of freedom people have to promote or achieve freedom or achieve functionings they value (Haq, 1995). CA prioritises functionings, beings and doings of people, and their capabilities to achieve the functionings such as access to opportunities to be educated, and their ability to be socially accepted. This stands out from other views that focus on subjective areas, such as happiness and material wellbeing (i.e., income). Nussbaum (2007) focused on two key areas: quality of life and social justice. The two clusters share a focus on what people are able to do and be, and share a

commitment to five principles, treating each person as an end, a focus on choice and freedom rather than achievements, pluralism about values, being deeply concerned with entrenched social injustices and ascribing an urgent task to government.

There is a need to go beyond skills policies to understand inequality and adopt a high-skills environment and a sectoral approach to promote inclusiveness, as highlighted by CA. Two key findings emerged from the data: the need for skills policy to pay greater attention to incentivising individual learning and influence greater skills utilisation.

It is important to note that the research is limited in scope in terms of the number of stakeholder groups included and the number of interviewees. Future research would benefit greatly from a similar multiple stakeholder approach, but with greater emphasis on analyses based on sectoral, ethnic and racial, gender, occupational, and organisational differences. Such analyses could reveal important differences in definitions and importance of a variety of VET outputs and outcomes, and may lend themselves to more tailored policy action that is reflective of the nation and stakeholders' needs and values.

Chapter 8: Conclusions and Recommendations

‘Facts are always required to draw conclusions and make serious decisions.’ Sunday

Adelaja

8.1 Reflections

Just prior to starting my closing chapter, I consider it important to take a step back and reflect on some of my beliefs as a researcher caught up in the discussions and practices of research. Reflecting on my journey during this course of research is important. This research involved a mixed methods approach that included both qualitative and quantitative methods. The qualitative method was used as a dominant method, as it involved gaining information from different stakeholders from different contexts. Quantitative research was also used to a lesser extent through a survey to uncover trends from a larger population.

Qualitative data analysis is one in which the role of the researcher is given critical attention. A situation may arise for the researcher to take either a neutral or a subjective view. While qualitative data analysis can take many forms, it has to carefully focus on language and meaning as well as approaches to analysis that need to be holistic and contextual, rather than reductionist and isolationist. It involves answering two questions:

1. What do I do with the data collected?
2. How do I report them?

This involved a continuous process of reflection and gaining critical self-awareness on my part, examining the research relationship with the respondents and analysing how these affected responses to the questions. As Foley (2007 p 83) stated, ‘reflexivity or self-awareness in research acknowledges that the notion of *findings*, or *answers* is far too *clean cut*’ (p. 213). Reflexivity is deemed a systematic process of attending to the context of knowledge construction, in particular, to the effect of the researcher, at every step of the research process.

The principle of reflexivity was first articulated by sociologist William Thomas (1923, 1928) as the Thomas theorem: ‘the situations that men define as true, become true for them’. As Malterud (2001) stated, ‘A researcher’s background and position will affect what they choose to investigate, the angle of investigation, the methods judged most

adequate for this purpose, the findings considered most appropriate, and the framing and communication of conclusions' (pp. 483–484).

It is critical to understand that research information cannot simply be collected and labelled into categories. For researchers like Marcus (1994, p. 567) and Foley (2007, p. 202), critical postmodern research results in 'messy texts', which are characterised by openness and 'many-sided-ness' concerning research boundaries, and, importantly, evince a concern with the position from which interpretations are being made. This thought of positioning has acknowledged that these interpretations may be only partial and need a response from those left out (Foley, 2007, p. 202; Payne, 1996, p. 27, citing Marcus, 1994, p. 572). Law (2004, pp. 143–144) also queried the method and challenged its place in gathering and making sense of information:

Method is not ... a more or less successful set of procedures for reporting on a given reality. Rather it is performative. It helps to produce realities ... The consequence is that method is not, and could never be, innocent or purely technical. If it is a set of moralisms, then these are not warranted by a reality that is fixed and given, for method does not 'report' on something that is already there. Instead, in one way or another, it makes things more or less different. The issue becomes how to make things different, and what to make. Within the (always to be tested) limits of the resonating hinterlands of the currently performed patterns of realities there are different possibilities. Method, then, unavoidably produces not only truths and non-truths, realities and non-realities, presences and absences, but also arrangements with political implications. It crafts arrangements and gatherings of things—and accounts of the arrangements of those things—that could have been otherwise. But how to think this? How to move away from the idea that method is a technical (or moralising) set of procedures that need to be got right in a particular way? How to move from the legislations that we usually find in the textbooks on method? Away from the completed and closed accounts of method? Away from smooth Euro-American metaphysical certainties? ... Method assemblage is a continuing process of *crafting and enacting necessary boundaries between presence, manifest absence and Otherness*.

Basically, this indicates that a method does not quieten the researcher's voice, but requires the researcher to take a reflexive stand towards knowledge claims on the challenges facing the development of Malaysian VET. 'Preconceptions are not the same as bias, unless the researcher fails to mention them.' (Malterud, 2001, p. 483 - 484)

Researchers who are different may study a situation from different positions. This might result in the development of different, although equally valid, understandings of a particular situation under study. While these different ways of knowing may be viewed

as a reliability problem, others feel that these different ways of seeing provide a richer, more developed understanding of complex phenomena.

In summary, gaining an understanding of the position, perspective, beliefs and values of the researcher is an issue in all research. It is more profound in qualitative research, the dominant method in my research (even though I had used a mixed methods approach), in which the researcher is often constructed as the 'human research instrument'.

8.2 Managing Assumptions

I managed my own assumptions through the process of reflexivity. Reflexive practices enable the researcher to reflect on the study and deepen the understanding of the research process itself (Watt, 2007). Reflexivity requires the researcher to be aware of the effect the researcher has on the process and outcomes of research. As stated by Ball (1993), 'reflexivity connects dialectically the social and the technical trajectories of fieldwork' (p. 33). As the research also involved qualitative interviews, it had to be recognised that respondents' answers were not necessarily straightforward. The meanings are interactively and culturally constructed. The interview itself was one interactive meaning making and therefore, the interpretation of the qualitative data required reflection on the entire research context. Reflexivity involved making the research process itself a focus of inquiry, laying open preconceptions and becoming aware of situational dynamics in which the interviewer and respondent are jointly involved in knowledge production (Fontana & Frey, 1998).

Considering reflexivity in this background and in the context of this study, researchers such as myself have had to acknowledge personal beliefs, personal bias and recognise that 'knowledge cannot be separated from the knower' (Steedman, 1991 pp.53). By being reflexive and accepting its value in this study, I have endeavoured to state the problems and assumptions that underpin me as a researcher and position the research in the social and cultural context to remove personal bias.

In summary, my reflexive practice was managed via the maintaining of a research journal, challenging myself with questions on the problems facing Malaysian VET and acknowledging that there could be many meanings in the responses. I had to move in-between the data, asking questions about beliefs, assumptions, interpretations and representations of the stakeholders in this research.

8.3 The Research

In this thesis, I aimed to answer the overarching research questions and have presented a summary of the data from all stakeholders. This section presents a synopsis of how the Malaysian VET system has developed and what the mixed methods approach adopted in this research reveals about the challenges facing the development of VET in Malaysia with the central questions being:

What are the challenges facing the development of VET in Malaysia?

There were several associated research questions:

- What are the VET policy trends in Malaysia?
- How have the skills formation systems evolved in Malaysia?
- How have the existing players in Malaysian VET been engaged?
- How has skills training minimised inequality within Malaysia?
- What are the lessons from Australia and Singapore?

8.4 Justification for the Mixed Methods Approach

As a reminder, the purpose for doing this research and for the use of a mixed methods approach is highlighted:

- The challenges facing the development of VET in Malaysia have been researched both qualitatively and quantitatively. Forty-two interviews with stakeholders and an online survey answered by 209 respondents was conducted to understand the evolution of Malaysian VET policy over the last 10 years, the key features of VET policy, the level of engagement with VET players and the lessons that can be learnt from the Australian and Singapore experiences.
- The use of mixed methods facilitated the understanding of the VET challenges through the interviews with a broad cross-section of respondents: policymakers, CEOs of RTOs and business, VET instructors and trainees.

8.5 Summary of the Conclusions

8.5.1. Review of Literature

The literature revealed competing paradigms involving how VET policies create value and how VET systems have developed. Further research from a Malaysian perspective is needed, as much of the literature is based on several assumptions from other countries and is not without criticism. The experiences of VET stakeholders in VET policy and VET system development in Malaysia is an area that needs further research. Additionally, these areas have also remained under-researched in Malaysia.

Significantly, the review of literature with origins from Malaysia, Australia, Singapore, the UK, US and Europe have focused on the development of VET policy. The ideas have been associated with vocational education theory, human capital theory, systems theory and threshold theory, program theory, employability theory, collective skills formation, stakeholder engagement and the CA.

There is significant commentary about the process of globalisation that began many years ago but has hastened rapidly in recent times due to advances in information and communication technologies. Other nations, particularly from Asia, began to provide competition in the industrial economy to developed Western nations; they could provide similar and sometimes better products more cheaply (Buchanan et al., 2000). The recommended policy response of developed countries to address these challenges was to pursue initiatives that encouraged constant innovation to improve their ability to produce high-quality products and services. (Aldcroft, 1992; Boshier, 1980; Flude & Siemenski, 1999; Harbison, 1973; Porter et al., 1991; Tight, 2002). The underlying policy assumption or program theory is that these initiatives would result in the continued economic survival and competitiveness of developed countries. This would also result in a fundamental shift in the labour market to the creation of a greater number of jobs, which would require higher levels of skills and command higher wages—the creation of the ‘high-skill, high-wage vision’ or the ‘knowledge society’ (Porter, 2006).

Any discussion about the dominance of skills in the policy sphere would be incomplete without discussion of the changes that have taken place in labour relations in many developed countries. The dominant theory characterising the new psychological contract is employability theory. The central tenet of employability theory is that workers’ survival in the new economy depends on them increasing and adapting their skill levels, so that

they will always be able to find employment and avoid social exclusion (Rainbird et al., 2002; Tight, 2002). This became part of the motivating force behind public policy in many developed countries for expanding government skill development initiatives and education in general. Hence, skills and education are the new guarantee of employment security and the path to increasing competitiveness, not only in the labour market, but also among organisations and nations, as higher-skilled workers would be able to produce high-end goods and services that are in greater demand globally. Several assumptions underpin the arguments outlined above that need to be analysed in turn. The first concerns the precise nature of the skills and education investment required to create this outcome of socio-economic growth for societies and workers. The second relates to how these outcomes are created, and the assumptions about the roles of different stakeholders engaged in the process. The third relates to how these outcomes are evaluated.

Blankertz (1985, p. 108) stressed the importance of an educational concept that was oriented to universality and individuality against an education for industriousness; one that was likely to lead to class applications as they may be perceived to be an education for the poor. His argument that vocational education should be freed from the grip of a historically shaped culture of vocation and life has resonated loudly in debates on vocational education (Lang, 2009). It is clear from the data that Malaysia is gripped by social prejudices towards VET. Can skills lead to greater inclusivity? The CA highlighted the five components for human development (Sen, 1992 p. 44). The drivers of change for wages inequality are technology, policy and education (Salverda, 2008). The need to trace the sources of inequality to the drivers of change has been deemed important to the inclusiveness agenda (Sung & Ramos, 2014). Criticisms persist about CA on whether it can be operationalised (Sugden, 1993) and for its failure to supplement with a coherent list of capabilities (Qizilbash, 1998). Nevertheless, Nussbaum (2000, p. 11–15) developed a central human capabilities list. It proposed that social arrangements should be primarily evaluated according to the extent of freedom people have to promote or achieve freedom or achieve functionings they value (Haq, 1995). There is a need to go beyond skills policies to understand inequality and to adopt a high-skills environment and a sectoral approach to promote inclusiveness as highlighted by CA. There is a need for skills policy to pay greater attention to incentivising individual learning and influence greater skills utilisation. There is also a need to strengthen the connection between skills and pay to promote inclusivity.

In conclusion, the literature review provided an overview of the motivations behind government initiatives to expand skills development initiatives and the shifting of responsibility for employability to the employee. While the objectives of VET are overt, the need for the results to be socially inclusive are not. There is a need to consider the economic, social and education contexts when developing VET systems, given the exceptionally diverse composition of Malaysian society.

8.5.2. Key Issues

This research sought to address the research questions from a multiple stakeholder perspective. Overall, the variations in the perceptions among stakeholders were based on their experiences of challenges in VET system development over the last decade. What emerges from the data is a very complex picture. There is clearly evidence of some degree of shared, collective understanding of the development of the VET system in Malaysia. This is evidenced by the fact that most stakeholders identified common themes in VET system development. However, there were also differences among stakeholders in how the Malaysian VET system had evolved over the last 10 years.

This thesis suggests that challenges with the development of a VET system arise from the gaps between VET policy and practice, rhetoric and implementation. While policymakers disagree with this view, employers and RTOs complain about this gap. There is a need, as most stakeholders indicated within the data, for Malaysia to become a learning nation, one where workers are agile and adept. The workforce must be thinking and continually learning to meet global challenges. In fact, the whole country must become a learning nation, as it was envisioned in Singapore. We must make learning a national culture (Bound et al., 2014, pp 173–187).

It is evident from the review of literature and the data that Malaysian VET policy framework evolved over the last decade with a strong legislative agenda and government involvement at every stage. The study found that the Malaysian VET system was defined by several important pieces of legislation, such as the *Skills Development Act 2004*, establishing the Skills Development Corporation to manage the SDF, and the *National Skills Development Act 2006* to provide for the establishment of NOSS, which led to the implementation of a five-tier MSC system. The dual training system was introduced in 2005, based on the German model. Malaysian VET policy has been marked by a strong regulatory framework.

The data indicate that policy mechanisms to ensure system efficiency in areas such as qualifications framework, recognition of informal and non-formal learning for certifying such skills, were in place. Yet, there were comments that Malaysian VET policy has been incremental and short-term based despite its linkage to socio-economic goals, with the inadequacy of policy innovation to fund VET leading to lower participation rates.

The data indicate the Malaysian approach to skills formation is characterised by a severe lack of coordination between different agencies. The skills sector, governed by the Ministry of Human Resources, evolved with private training providers and the ministry's training institutes. The vocational and technical education sector, governed by the MoE has evolved over the last decade, with pre-vocational training starting at primary school and technical and vocational education commencing in the last two years of school. The higher education sector, managed by the Ministry of Higher Education and regulated by the *Private Education Act 555*, has evolved over the last decade with private-sector provision as well. VET has been a poor cousin to the Malaysian higher education system. While the intent to develop the VET sector was evident through policy statements, there have been lapses along the way due to the fragmented nature of Malaysian VET, as evident in the discourse. There is no single authority over VET landscape in Malaysia. While there is a quest to seek more funds for skills development, stakeholders reported a wastage of funds due to lack of policy clarity and a single authority to oversee skills policy development (as in Australia and Singapore).

While there is evidence of initiatives to engage VET players, the data show engagement levels to be low. The lack of employer confidence in the qualifications was evident in the data. The findings show that the fragmented nature of the VET landscape and distrust of the assessment process has eroded confidence and led to skills mismatches and skills wastages. Despite the branding of Skills Malaysia and declarations of the importance of VET, VET is still not a mainstream education option, as found in the data. Employers contended that skills utilisation levels have been unacceptably low, as supply-weighted low-level courses have produced students with qualifications that make them unemployable.

The lack of a correlation between skills and pay has not led to greater inclusivity. This has been further complicated due to the racial and religious diversity within Malaysia. The findings indicate that policy measures to improve the parity of esteem between VET and higher education have been inadequate. The MSC is still not accepted in public

service employment. VET is perceived as an education for the poor and an option of last resort. While the private education system is governed by Act 555, described earlier as the driving force of all private sector tertiary sector education, AUKU (*Akta Universiti dan Kolej Universiti 1971*) known as the Universities and University Colleges Act 1971, governs the public education system. AUKU was enacted to provide for the establishment, maintenance and administration of Public Sector Universities and University.

This thesis suggests there is much to learn from both the Australian and Singaporean VET reform and CET experiences. Engaging industry to improve the relevance of qualifications, promoting the image of VET as a competency-based mainstream education option with apprenticeships, traineeships and using innovative policy options such as entitlement funding, the use of training packages to improve the integrity of qualifications and lifelong learning are lessons that Malaysia can learn from.

8.6 Significant contributions to knowledge

The research has made a significant contribution to the body of knowledge within the field by presenting a system-based historical and policy analysis of the Malaysian VET system, the tension between the needs of industry and the challenges of social inclusion, the challenges of developing policy and the modes of education practice within a context of racial tension. It has contributed to the political economy approach in describing and analysing VET systems by identifying a strong link between economy and the construction, mediation and distribution of power among social elites (government, employers and unions). The comparisons between Malaysian VET system with Australian and Singapore VET systems offers recommendations to inform policy initiatives.

It has also contributed to the field of vocational education research by expanding its application to the public policy area. Specifically, it explored the inclusion of multiple stakeholders' perspectives and theories, and the exploration of the interplay among stakeholders in collective skills formation. The thesis included the students' voice in the survey which is new in the field of VET research. The gap in evaluative research on skills, which largely ignores stakeholders' perspectives, especially within the Malaysian context has been addressed by the critical analysis of the connections between public policy and outcomes within and among stakeholder groups. The thesis has contributed to knowledge of VET development in developing countries given that most of the literature is from developed countries.

8.7 Recommendations

This thesis proposes the following recommendations to address the challenges facing the development of VET in Malaysia:

- Harmonise skills accreditation through regulatory reform, providing one authority with oversight for the entire VET landscape.
- Promote the image of VET and restore parity of esteem with higher education. with tangible initiatives such as the accelerated apprenticeship programs of Australia and the WSQ of Singapore
- Engage industry with sector councils and industry-led bodies for each skills sector.
- Move to demand-side funding and provide incentives for Level 3 qualifications and above to meet labour market needs.
- Establish pathways to higher education and acceptance by public service for MSC holders.
- Incentivise employers to take on more apprentices.
- Increase the quality of training instructors by opening the training of VET instructors and managers to the private sector.
- Regulate and differentiate the quality of RTOs with rating systems.
- Increase participation in VET with income-contingent funding.
- Identify short-term deliverables for quick wins.

It seems fitting, as the thesis comes to a close, to turn (back) to the words of a CEO who participated in this study:

Malaysian VET should move on from being a provider of unusable readymade human capital to a provider of labour market ready human capital but I would like to add that there is a need to make VET more holistic and look at the central tenets of CA to promote inclusivity and take advantage of the diversity of Malaysia.

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Appendices

Appendix 1

SCHOOL OF EDUCATION, FEDERATION UNIVERSITY

PROJECT TITLE:	The development of Malaysian VET (Vocational Education and Training) system
PRINCIPAL RESEARCHER:	Dr Annette Foley
OTHER/STUDENT RESEARCHERS:	Dr Liz Atkins Dr Palaniappan Ramanathan Chettiar

You are invited to participate in a research project examining the key factors that have affected the development of Malaysian VET policy that has been modelled on the Australian and Singaporean VET systems. Malaysian policymakers have looked towards developments in Singapore and Australia because of similar national priorities associated with economic productivity and global competitiveness, in particular the national agendas around skills formation and greater links with higher education. VET policy in Malaysia has similar priorities and in response to these needs, policies specifically focusing on VET have been developed. The aim of the analytical and descriptive study will be to explore the key factors that affect Malaysian VET policy.

Interviews

The research will involve an interview that will be about 40 minutes in length. It can be organised face-to-face at a venue convenient to you or otherwise can be telephone based. Participation is voluntary and refusal to participate requires no explanation. You may withdraw your consent to participate at any time before the data are processed. Information will be kept in a locked filing cabinet and after five years from the date of research publication, will be shredded and destroyed. The voice recording will also be destroyed at that time.

The information collected may be used in future publications; however, there will be no direct or indirect references to you. You will also have the opportunity to preview the results and transcripts and seek to withdraw or amend any data during the end of the interview. You may contact me at any time either by email or telephone provided herein to seek any explanation that you may need. If you have any complaints regarding the conduct of this research, you are free to direct them to the Ethics Officer for attention.

If you have any questions, or you would like further information regarding the project titled **The development of Malaysian VET (Vocational Education and Training) system**, please contact the Principal Researcher, **Dr Annette Foley** of the School of Education.

PH: a.foley@federation.edu.au
EMAIL: 03 53479764

Should you (i.e., the participant) have any concerns about the ethical conduct of this research project, please contact the Federation University Ethics Officer, Research Services, Federation University Australia, PO Box 663, Mt Helen VIC 3353. Telephone: (03) 5327 9765, Email: research.ethics@federation.edu.au

CRICOS Provider Number 00103D

Appendix 2

SCHOOL OF EDUCATION, FEDERATION UNIVERSITY

PROJECT TITLE:	The development of Malaysian VET (Vocational Education and Training) system
RESEARCHERS:	Dr Annette Foley Dr Liz Atkins Dr Palaniappan Ramanathan Chettiar

Consent—Please complete the following information:

I, of
.....
hereby consent to participate as a subject in the above research study.

The research program in which I am being asked to participate has been explained fully to me, verbally and in writing, and any matters on which I have sought information have been answered to my satisfaction.

I understand that: all information I provide (including questionnaires) will be treated with the strictest confidence and data will be stored separately from any listing that includes my name and address.

- aggregated results will be used for research purposes and may be reported in scientific and academic journals
- *I am free to withdraw my consent at any time during the study in which event my participation in the research study will immediately cease and any information obtained from it will not be used*
- *Once information has been aggregated it is unable to be identified, and from this point it is not possible to withdraw consent to participate*

SIGNATURE.....

DATE.....

Appendix 3

SCHOOL OF EDUCATION, FEDERATION UNIVERSITY

INTERVIEW QUESTIONS (Policymakers, CEOs & RTOs)

PROJECT TITLE:	The development of Malaysian VET (Vocational Education and Training) system
PRINCIPAL RESEARCHER:	Dr Annette Foley
OTHER / STUDENT RESEARCHERS:	Dr Liz Atkins Dr Palaniappan Ramanathan Chettiar

Evolution of the VET system over the last 10 years in your country

1. What do you think are the significant developments (achievements and drawbacks) over the last 10 years from a policy perspective that led to VET system development in your country?
2. What were the key goals of this approach?
3. What were the significant policy challenges you think your country has faced?

Features of VET system in the country

1. In your opinion, what would you state are the key features of VET in your country?

Engagement of VET players

1. Who would you say are the VET players in the country?
2. How have the VET players been engaged in the country and what has been their response?
3. In what areas have the engagement been? For example, in curriculum development, assessment, setting standards.
4. How would you rate your confidence in the Malaysian VET system and the integrity of the training qualifications?
5. How satisfied are you with the Malaysian VET policy and system?
6. How satisfied are you with the provision of VET in Malaysia?
7. How satisfied are with the apprenticeship programs—particularly the curriculum, relevance of the training, funding and the level of government support?
8. What do you think the policy of dualisation: streaming students into academic and vocational routes in schools is a positive step?
9. How much of skills shortages (given the reports of skills shortages in your sectors) will be alleviated by VET rather than import of foreign skilled workers?
10. Moving forward, are there any other strategies that you would consider to engage VET players?

Lessons Learnt

1. What are the lessons learnt in this 10-year period?
2. What have you learnt (successes and failures) from the VET systems of Australia and Singapore?

Appendix 4

SCHOOL OF EDUCATION, FEDERATION UNIVERSITY

INTERVIEW QUESTIONS FOR VET INSTRUCTORS

PROJECT TITLE:	The development of Malaysian VET (Vocational Education and Training) system
PRINCIPAL RESEARCHER:	Dr Annette Foley
OTHER / STUDENT RESEARCHERS:	Dr Liz Atkins Dr Palaniappan Ramanathan Chettiar

Evolution of the VET system over the last 10 years in your country

4. In your opinion, what do you think are the significant developments (achievements and drawbacks) over the last 10 years in Malaysian VET?

Engagement of VET players

In your opinion:

1. How have the VET players been engaged in the country, particularly the instructors?
2. In what areas have you been engaged and by whom? For example, in curriculum development, assessment, setting standards.
3. How well qualified are VET instructors to deliver VET courses?
4. How well qualified are you as an instructor to deliver VET courses?
5. What is your highest qualification?
6. How many years have you worked in industry?
7. What future development would you like to develop your competence as an instructor?

Lessons learnt

3. What are the lessons you have learnt in this 10-year period?
4. What do you know about the Australia and Singaporean VET systems?

Appendix 5

SCHOOL OF EDUCATION, FEDERATION UNIVERSITY

INTERVIEW QUESTIONS FOR TRAINEES

PROJECT TITLE:	The development of Malaysian VET (Vocational Education and Training) system
PRINCIPAL RESEARCHER:	Dr Annette Foley
OTHER / STUDENT RESEARCHERS:	Dr Liz Atkins Dr Palaniappan Ramanathan Chettiar

In your opinion:

1. Why did you choose to pursue a VET qualification instead of higher education?
2. What are the factors that made you choose a VET qualification?
3. How would you rate your employment prospects after your VRT study?
4. How are you funding your study?
5. How did you choose your current registered training provider?
6. How easy has it been for you to access information about VET?
7. How satisfied are you with the curriculum and the quality of instruction?
8. How easy is it for you to study further for a higher education degree?

Appendix 6

SCHOOL OF EDUCATION, FEDERATION UNIVERSITY

PROJECT TITLE:	The development of Malaysian VET (Vocational Education and Training) system
PRINCIPAL RESEARCHER:	Dr Annette Foley
OTHER/STUDENT RESEARCHERS:	Dr Liz Atkins Dr Palaniappan Ramanathan Chettiar

You are invited to participate in a research project examining the key factors that have affected the development of Malaysian VET policy that has been modelled on the Australian and Singaporean VET systems.

Malaysian policymakers have looked towards developments in Singapore and Australia because of similar national priorities associated with economic productivity and global competitiveness, in particular the national agendas around skills formation and greater links with higher education. VET policy in Malaysia has similar priorities and in response to these needs, policies specifically focusing on VET have been developed. The aim of the analytical and descriptive study will be to explore the key factors that affect Malaysian VET policy.

Questionnaires

A web-based questionnaire distributed through www.surveymoneky.com will take about 20 minutes to complete. While the questionnaire does not involve any personal or private information, you are free to choose not to answer any questions if you feel so. I am a trained researcher and the data collected will be kept confidentially and securely and only I, as the principal researcher, will have access to it. All data will be destroyed within five years. You may contact me at any time either by email or telephone provided herein to seek any explanation that you may need. If you have any complaints regarding the conduct of this research, you are free to direct them to the Ethics Officer for attention.

If you have any questions, or you would like further information regarding the project titled **The development of Malaysian VET (Vocational Education and Training) system**, please contact the Principal Researcher, **Dr Annette Foley** of the School of Education.

PH: a.foley@federation.edu.au
EMAIL: 03 53479764

Should you (i.e., the participant) have any concerns about the ethical conduct of this research project, please contact the Federation University Ethics Officer, Research Services, Federation University Australia, PO Box 663, Mt Helen VIC 3353. Telephone: (03) 5327 9765, Email: research.ethics@federation.edu.au

CRICOS Provider Number 00103D

Appendix 7

SCHOOL OF EDUCATION, FEDERATION UNIVERSITY

SURVEY QUESTIONNAIRE

PROJECT TITLE:	The development of Malaysian VET (Vocational Education and Training) system
PRINCIPAL RESEARCHER:	Dr Annette Foley
OTHER / STUDENT RESEARCHERS:	Dr Liz Atkins Dr Palaniappan Ramanathan Chettiar

Survey Questionnaire

Please read this questionnaire and ask any questions you may have before agreeing to participate in this study.

Procedures

If you agree to be in this study, you are asked to complete this questionnaire survey. All questions are either multiple choice or open ended with room for additions or comments. It will take about 20 minutes to complete depending on any additional comments that you may have. The questionnaire is divided into **FIVE** sections.

Confidentiality

The records of this study will be kept private. In any sort of report we might publish, we will not include any information that will make it possible to identify you as a respondent. Research records will be kept in a secured file; only the primary researcher will have access to the records.

If you wish to participate, please start the survey by clicking on the CONTINUE button below.

Section 1: Introduction

1. How many years have you been involved in VET in Malaysia?
 - a. Less than two years
 - b. Between three and five years
 - c. Between six and 10 years
 - d. More than 11 years
2. What is your role in VET?
 - a. VET instructor
 - b. VET trainee
 - c. Owner of a registered training organisation
 - d. Employer
 - e. Union representative
 - f. Policymaker
 - g. Regulator

Section 2: Malaysian VET Policy

3. In your opinion, how would you describe the Malaysian VET policy:
 - a. Clear and structured
 - b. Clear and unstructured
 - c. Unclear
 - d. Not sure
4. If clear, would you describe it to be:
 - a. long-term focused
 - b. incremental
 - c. ad hoc
 - d. not sure
5. Would you describe Malaysian VET policy to be linked to (**tick as many as you think fit**):
 - a. Vision 2020
 - b. Economic Transformation Programme
 - c. Alleviate skills shortages
 - d. Ensure youth employment
6. Do you agree with the ‘dualisation policy’ of the Malaysian government to introduce streaming in schools into academic and vocational streams?

- a. Agree totally
 - b. Agree partly
 - c. Disagree
 - d. Not sure
7. Does VET offer pathways to higher education in Malaysia?
- a. Very clear pathways
 - b. Some pathways
 - c. No pathways
 - d. Unsure
8. Does the Malaysian VET policy consider the unique Malaysian diversity?
- a. Totally
 - b. Partly
 - c. Not at all
 - d. Unsure
9. Are the roles of the various agencies involved in VET clear?
- a. Yes
 - b. No
 - c. Unsure
10. Name the VET agencies involved in VET that you are aware:
- a.
 - b.
 - c.
 - d.

Section 3: Malaysian VET System

11. What would you describe as the features of the Malaysian VET system?

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12. Would you describe the Malaysian VET system as one that has a clear system of skills recognition?

- a. Yes
- b. No
- c. Not sure

13. If yes, please explain why:

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14. Would you describe the Malaysian VET system as having achieved the objectives?

- a. Yes
- b. No
- c. Not sure

15. If yes, please explain why:

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16. Is the Malaysian VET system too bureaucratic?

- a. Very bureaucratic
- b. Partly bureaucratic
- c. Not bureaucratic
- d. Not sure

17. Is there industry-wide agreement to avoid poaching of skilled workers?

- a. Almost in all sectors
- b. In some sectors
- c. No
- d. Unsure

Section 4: Stakeholder engagement

18. How would you rate the engagement of VET players in Malaysia?

- a. Very well engaged
- b. Engaged well
- c. Partly engaged
- d. Not engaged at all

19. Could you elaborate on why you chose to rate so?

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20. How would you consider the Malaysian VET standards?

- a. Very relevant to workplace
- b. Unable to keep pace with workplace changes
- c. Irrelevant
- d. Unsure

21. How would you rate the collaboration with Industry/employers' associations/unions?

- a. Very adequate
- b. Adequate
- c. Not adequate
- d. Unsure

22. How would you rate the responsiveness of Malaysian VET players to workplace needs?

- a. Very adequate
- b. Adequate
- c. Not adequate
- d. Unsure

23. How would you rate the relevance of VET curriculum to industry?

- a. Very adequate
- b. Adequate
- c. Not adequate
- d. Unsure

24. How would you rate the participation in Malaysian VET?

- a. Very successful
- b. Partly successful
- c. Not very successful
- d. Unsure

25. Could you please elaborate if you had chosen response a, b or c?

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26. How would you rate the success of the apprenticeship systems?

- a. Very successful
- b. Partly successful
- c. Not very successful
- d. Unsure

27. Could you please elaborate if you had chosen response a, b or c?

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28. How would you describe the employability of VET trainees?

- a. Very much in demand
- b. Have to be retrained
- c. Not employable
- d. Not sure

29. Would you consider VET funding to be:

- a. Very adequate
- b. Adequate
- c. Not adequate

d. Unsure

30. Could you please elaborate if you had chosen response a, b or c?

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31. In your opinion, what should be the indicators of success/evaluation criteria

(tick as many as you think relevant)

- a. Completion rates
- b. Number of trainees going through the VET system
- c. Quality of outcomes
- d. Mobility
- e. Quality of outcomes
- f. Employer satisfaction
- g. Unions' satisfaction

32. In your opinion, what do you think are the barriers for VET trainees? **(tick as**

many as you think relevant)

- a. Completion rates
- b. Funding
- c. Access to preferred programs
- d. Availability of information
- e. Poor-quality registered training providers
- f. Irrelevant curriculum
- g. Lack of competence of VET instructors
- h. Lack of assessor competence
- i. Inconsistent training provision

33. In your opinion, how competitive is the VET marketplace?

- a.** Very competitive
- b.** Competitive
- c.** Not competitive at all
- d.** Not sure

34. Is the regulatory mechanism and fees being imposed on registered training providers done with consultation?

- a.** Consulted
- b.** Partly consulted

- c. Not consulted
- d. Not sure

Section 5: Australian and Singapore VET systems

35. Are you aware of the Australian and Singaporean VET systems?

- a. Totally
- b. Partly
- c. Not at all
- d. Unsure

36. If you are aware what would you describe as the success and failures of the Australian and Singapore VET systems?

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37. Any other comments

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