

## TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING (TVET) : TO GENERATE THE DEVELOPMENT OF HUMAN CAPITAL

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### ABSTRACT

One of the key drivers in planning of Malaysia to become a high-income nation is through education. The Malaysian government has spent a fortune especially in upgrading the technical and vocational education. The development of human capital is a critical factor to generate and maintain the growth of Malaysian economy. Highly-skilled human resources is important in the shifting of all economic sectors to a level of activities based intensively knowledge, to generate the labour workforce and to pull in foreign investment into Malaysia. Therefore, the cultivation of human capital into the Technical and Vocational Education and Training (TVET) should be given focus as a medium that can be combined with the element in education to give better impact to individuals, skill-based education institutional and also in the aspect of the country development. The cultivation of human capital should start from early level of education if we want to build a highly-skilled generation with first class characteristics of human capital. This article is about issues related to the function of TVET in building a whole individual's potential that portrays the first class human capital characteristics that is debated lately.

**Key Words:** Technical and Vocational Education and Training, Human Capital

### INTRODUCTION

Malaysia has taken the proactive steps in building a developed and progressive country. So, many issues and challenges regarding the human capital have emerged and discussed at national level and even at forums organized by the government or non-government bodies. Moreover, the government realized that the country's future cannot depend solely on highly-educated government servants, but we need more skilled workers in line with the changes that are happening in the country. (Andrew M. 2012).

By 2020, Malaysia wants to attract as many investors as possible. This is because foreign investors in Malaysia can bring changes into moulding more highly-skilled workers with deep technical knowledge. Therefore, the development of human capital is a critical factor in generating and maintaining Malaysia economy. It is important to have ready available highly-skilled workers at hand to help shift the economy into highly-knowledged area, creating job opportunities and attract more investors into Malaysia.

The 10th Malaysia Plan (RMK 10) from 2011 to 2015 has outlined a major change in Technical and

Vocational Education Training (TVET / TEVT) in Malaysia. The ideas and strategies based on the achievement and increasement of other countries like Korea and Germany in becoming highly-income countries is a good example to Malaysia to continue moving forward competitively. A more holistic approach in moulding first class human capital is a priority to make Malaysia a respected and high-income country

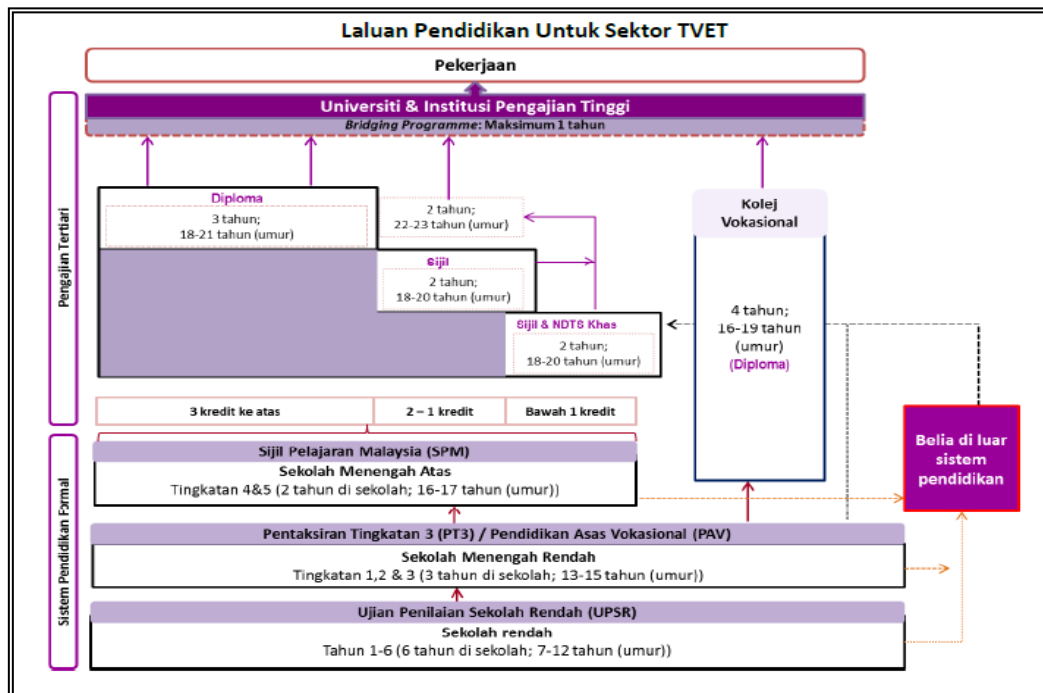
### **1.0 Technical and Vocational Education Training (TVET) in Malaysia**

Changes and development that happen from time to time can be seen in the context of TVET in Malaysia. This paradigm shift happens with the aim to achieve missions and objectives in education itself. At present, education is seen as a lifelong need that can be expanded and learnt anywhere. This is also the same with Technical and Vocational Education (Pendidikan Teknik Dan Vokasional /PTV) that needs teachers to produce balanced students that can compete in the real world and also work according to the universal guidelines given. Human capital must start from the early stages of education if we want to build a highly-skilled generation with first class characteristics.

Therefore, in 10<sup>th</sup> Malaysia Plan (RMKe-10), which spans from 2011-2015, there was an increment in the enrolment of students at all levels, from preschool to the tertiary level (Unit Perancang Ekonomi, 2015). The intake for Technical and Vocational Education Training (TVET) has increased from 113,000 in 2010 to 164,000 in 2013. The TVET task force with Malaysia Quality Agency (Agensi Kelayakan Malaysia / MQA), Ministry of Education and Department of Skills Development (Jabatan Pembangunan Kemahiran /JPK), KSM have been established in 2012 to coordinate and upgrade the effectiveness of TVET presentation by multi institution. One of the initiatives taken is to rationalize the supply of TVET programmes to avoid the overlapping and consolidate the courses between institutions. Moreover TVET education is able to open its door to students who lagged behind in academic to become someone who excels in skills.

One of the major changes in TVET is the step to upgrade 72 vocational schools and 8 technical schools to become Vocational College (Kolej Vokasional/KV) with another 8 in the process of building. These new institutions will prepare TVET opportunities from the age of 16 up to the completion of diploma level. From 2011-2014, 19,747 students have registered in KV. As many as 2,700 students of the first batch are expected to complete their course in 2016. The curriculum offered is joint ventured with other institutions like Institut Latihan Perindustrian (ILP). The capacity of Centre for Instructor and Advanced Skill Training (Pusat Latihan Pengajardan Kemahiran Lanjutan/ CIAST) has been widen through the set up of 8 new satellite campuses. This step has increased the number of instructors accredited with Vocational Instructor Certificate (Sijil Tenaga Pengajar Vokasional / VIC) from 1,460 in 2010 to 3,060 in 2014.

According to Bonn Germany (2006), the TVET system has been given a reform to fulfill the needs in the effort to achieve nation's aspiration. To increase Malaysians skills so that they are marketable is a major focus. Secondary and tertiary education will be a catalyst to a change where the needs for skilled and semi-skilled workers are seen as a way to increase the economy. In summary, the flow chart of education in the TVET reform can be seen in the figure below:



**Figure 1: Flow chart for technical and vocational education**

Source: Unit Perancang Ekonomi, Meningkatkan pembangunan modal insan untuk negar maju (2015)

## 2.0 Human capital through Technical and Vocational Education Training

One important factor in facing the challenges in Technical and Vocational education (Pendidikan Teknik dan Vokasional / PTV) at present is the moulding of human capital that excels in various domains. The former Prime Minister, Dato' Seri Abdullah Haji Ahmad Badawi has sparked an idea in giving emphasis towards the effort to build human capital as a platform of excellence for the future generation (Irwan, 2011). The future generation is an important asset to the government's effort to realize the existence of a developed, progressive and excellence of Malaysia by VISION 2020.

Through human resource development, the productivity of every worker can be enhanced. This can prepare enough workforce according to skills needed and then to achieve the maximum usage of human resource in an economy. Therefore, the development of human resource is important as human is referred as a capital that can change the growth of economy. The development of human resource is also defined as overall individual development, career development and organization development to achieve productivity, chances and maximum input.

According to Irwan (2011), the focus of PTV towards the building of highly-skilled human capital must be transformed into first class mindset human capital. The development of first class human capital through PTV today is a necessity. What is meant by "first class mindset"? Briefly said, the characteristics of first class mindset can fulfill the needs of individual development, family, community, country and world. These characteristics cover the aspect of highly knowledgeable, proactive thinking, morality richness and culture that contribute to equality importance and holistic development.

What is the importance of PTV in moulding first class human capital? According to a research by Tajudin (2005), who said that technical "hand-skill" preparation without "skill value" will not

promise work effectiveness and long term work quality (Irwan, 2011). Skills should be integrated to curriculum effectiveness and great output as a whole. So, besides skills and knowledge, the value in work is important to be integrated together and to achieve the final mission. Basically, the development of first class human capital is focused on the preparation of proper channel in education.

The next is the steps to form PTV curriculum through first class human capital. The formed curriculum that upholds the spiritual values will open opportunities to students to become a highly-knowledgeable worker, skilled and with recognized work value. The teachings of human capital elements are not only for students but also for the whole administration organization of various levels especially in schools that have big impact in the formation of Technical and Vocational Education (Pendidikan Teknikdan Vokasional / PTV) curriculum (Irwan, 2011).

In the nutshell, the whole effort of moulding first class human capital is not only in the aspect of knowledge development, but also in all aspects of life so that they become productive citizens, think strategically and relevant with the time evolution and environment change especially in the 21<sup>st</sup> century. The success in forming a developed society by 2020 is much dependent on the effectiveness of the efforts in developing the nation's human capital.

### **3.0 To mainstream and expand the access to TVET**

According to Aminuddin, (2011) there are three points in mainstreaming and the expansion of access to Technical and Vocational Education with quality:

#### **I. To enhance the perception towards TVET and to attract more students.**

Vocational schools usually is said to be a place to cater school dropouts and this must change. The government will propose a campaign through main media to upgrade and to give awareness among Malaysians of the importance of vocational education which is the main choice to developed countries. The changing of names from Technical Schools (SekolahTeknik) to Vocational Schools (SekolahVokasional) is a step in upgrading TVET education. Teachers are facilitators, giving guidance and exposure to students in choosing the technical and vocational courses that can give back profit to spark the economy.

#### **II. To develop effective skills in TVET instructors**

TVET instructors should be given a motivation like self-improvement skills and knowledge. Grade and expertise arrangement and opportunities for promotion are relevant to skills and expertise owned. Besides that, recognition of certificates by certain bodies can be used as a ticket to get a place in higher education institution. To revamp the system, to give recognition and to widen the fields of TVET is a proactive step. Besides appropriate incentive should be given to research successfully done or new invention created.

#### **III. Streamlining the delivery of TVET**

The government is preparing special allocation based on the institution's performance to stimulate the competitiveness between institutions in producing researches and preparing skilled human resources. Financial assistance will also be given to students at SKM Level 3 and above in public institutions. Dropouts are also a source for a bigger and more potential labour force after some

training industrial cooperation in preparing skills training at workplace will also help to improve skilled labour. Approved funds and allocations are under SLDN to benefit the dropouts.

#### 4.0 The Transformation of TVET in Generating Human Capital

About 60% of work existed in 11<sup>th</sup> Malaysia Plan (RMK ke-11) is expected to need the qualification of TVET, making TVET as an important platform to raise the level of skilled Malaysian workers. The government will expedite the collaboration with industries to increase the intake of TVET, upgrade the quality of programs and institutions, and also to consolidate the rebranding and profile of TVET. This approach will produce skilled graduates that is much needed by the industries and making TVET as their main choice.

The transformation of TVET by using the approach to prepare skilled human capital needed by the industry, especially to support the transition economic sector towards activities based on knowledge, in line with the nation's aspiration to become a developed country by 2020. During 11<sup>th</sup> Malaysia Plan (RMK ke-11), focus will be given to 11 initiatives as in Figure 2 (Unit Perancang Ekonomi, Meningkatkan kan pembangunan modal insan untuk negar maju, 2015). These initiatives cover three main strategies as stated below:

- Strategy 1: To enhance the administration of TVTE by establishing the framework of national qualification and harmonizing various leveling systems for public and private TVTE institutions.
- Strategy 2: Improve the quality and delivery of TVET programs to increase quality of marketable graduates through approaches like enabling the industry in curriculum development, to abolish the overlapping of programs and resources, to increase cost effectiveness and widen the cost of TVET with the intention of increasing the enrolment of students.
- Strategy 3: To increase the branding to attract interest in TVET. This strategy can be achieved through promotional activities that will reveal TVET as main career choice.

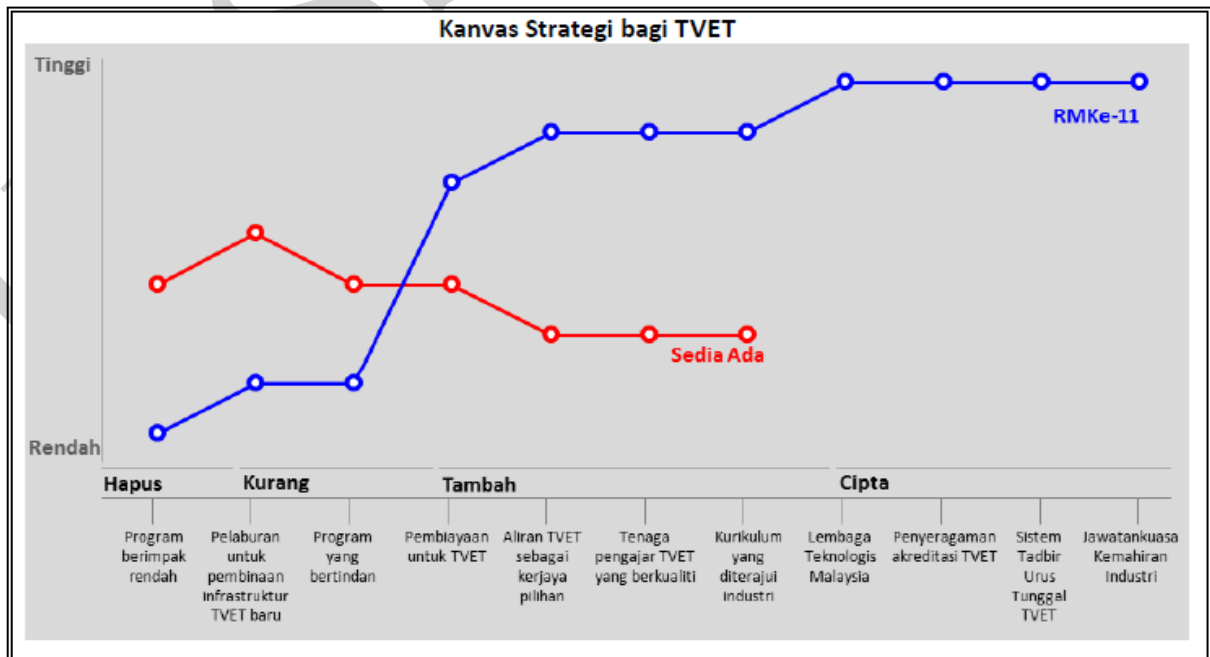


Figure 2: Strategic canvas for TVET

## 5.0 Suggestion / Discussion

Basically, the whole effort to produce first class mindset human capital not only in the aspect of knowledge development but also in all aspects of life so that it will become a productive citizen, strategic thinkers, and always relevant to changes especially in 21<sup>st</sup> century. The success in forming a developed and progressive nation by 2020 is much dependent on the effectiveness in the effort of managing and developing nation's human capital. The development of human resources especially in education and training are important to the nation's economy through increased labour productivity, adapting to skilled labour and finally to restructure the community in workforce.

Having said so, the first thing to do in the hope of strengthening the technical and vocational education is to upgrade the level of required standard in this field. The education system also has its task in explaining the non-difference in vocational system and academic system. That is why the government gives opportunities to students who fail the Form 3 exam (Penilaian Tingkatan Tiga / PT3) to go for vocational training. But this will not lower the level of vocational schools. Looking down on vocational students as a failure to continue in academic school still lingers among some of us. Some parents are even ashamed when their children are in the vocational schools.

Secondly, is to open the space and opportunities to the school dropouts. Opportunities for these students to train in technical and vocational line must be upgraded from time to time so that they are attracted to excel in this field. Based on the book *Pembangunan Pendidikan (2001–2010)* by the Ministry of Education has showed that the percentage of students in Year One and successfully completed Form Five in government aided schools has increased 65% for the 1988-1998 cohorts to 79.8% for the 1990-2000 cohorts.

Thirdly, according to Aminuddin (2011) is through the means of increasing the competitiveness of graduates to prepare them for the work market. One of the best ways in carrying it out is to enhance the collaboration between the industries and researches. Through practical industrial training programs, students are given exposure and opportunities to prepare themselves before entering the real working life. The involvement of private sector through partnership with the public sectors is also enhanced in practical training. Courses based in market orientation are added to enable the smooth transition of graduates into the job market. Industrial training is given to graduates to improve their knowledge, experiences and entrepreneur skills so that it is much easier for them to carry out their projects and researches.

There are many challenges to enforce the technical and vocational education if the country aims to be a developed nation by 2020. The basis structure of technical and vocational education is already laid down for the stakeholders to further plan towards the ambition. However, competitions are expected in the future especially during economic turndown that is sweeping through the country at present, human workforce will be churned out from the technical and vocational education with competitive force and alert to the changes that happen around us.

## 6.0 CONCLUSION

The building of highly-skilled human capital is a must to help Malaysia move forward to highly-

valued activities and intensified knowledge as the main pillars to a developed nation. Investment in human capital is important to upgrade oneself because it carries many benefits in upgrading the socio-economy status and self-prosperity. To achieve The 11<sup>th</sup> Malaysia Plan, the government will improve the market of skilled labour to help increase the economy growth, to make sure that TVET can fulfill the market demand, to widen lifelong learning for skill upgrading and to improve the quality of education system so that we can reach better outcome in students. The overall changes in the future of Malaysia will start from the education excellence. TVET education system reform that correlates with the present and future needs will produce first class human capital, with skills and highly marketable with ability to lead with vision and also be a humble servant to God. The TVET curriculum that has been revamped to fulfill the present market needs, is still holding its core in National Education Philosophy (Falsafah Pendidikan Kebangsaan) and it is expected that this move will help Malaysia to realize its dream and bring one challenge for the country and the future generation.

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