SUSTAINABILITY FOR MALAYSIAN TVET

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Abstract

Developing human capital through education is very important for Malaysia. Technical and Vocational Education and Training (TVET) is one of education lines that is aimed to produce skilled workers for our country. This education platform is hoped not only to develop students' academic and technical knowledge, but also to help students acquire high employability skills. Thus, the purpose of this article is to discuss the sustainability for Malaysian TVET as one of its aspirations is to produce more skilled workers for our country, in near future.

Keyword:
TVET in Malaysia; skilled workers; sustainability in TVET

I. Introduction

Education is an important platform for human capital development. As a developing country, the government of Malaysia constantly works to improve its education policy and delivery, management, access, and quality. In the recent Malaysia Education Blueprint 2015-2025 (Higher Education), Malaysian education system is aimed to enhance its access, quality, equity, unity and efficiency (Ministry of Education Malaysia (MOEM), 2015). According MOEM (2015), access to education should be increased in order to achieve 100% enrolment rate across all level of educations. This in turn will help achieve the equity in education, where it hoped that the initiatives made by the ministry will help reduce the achievement gap of students' performance between rural and urban areas. In addition, the ministry is aimed at enhancing quality of graduates which have high employability skills, and improvising current teaching practices and education institutions management, in order to improve its global ranking (MOEM, 2015). Education in Malaysia is also aimed to instill value of unity among students by providing "… an education system that provides students with shared values, shared experiences, and common aspirations by embracing diversity" (MOEM, p.1-8, 2015). In realizing this, Technical and Vocational Education and Training (TVET) is one of the education lines that is important as it provides wider opportunities for students who are more inclined to technical fields and at the same time will learn and acquire the school-workplace competencies (MOEM, 2015). Therefore, TVET in Malaysia has undergone changes in order to meet the needs of the evolving local industry. In ensuring this, sustainable development plan for Malaysian TVET is very important. Thus, this paper is interested to explore the issue with reference to the concept of industry-based curriculum, and initiatives outlined in the current blueprint.

II. TVET and industry-based curriculum

Generally, industry-based curriculum is viewed as an effort to prepare students with relevant knowledge and working skills for the future. Jessup (1968) noted that in achieving this, the industry-based curriculum works on developing the 'mental' and 'manual' elements of job-specific skills. Briefly, the 'mental' element may be associated with the process of developing foundation knowledge of the specific job, whereas the 'manual' element may refer to skills and practicality of the knowledge to the preparation for the work. This definition is well accepted by many, but has stirred arguments, especially in the current context of teaching and learning in TVET settings. Very prominently, the changes in the demands of the human resources are inevitable. The competencies demanded by the industries constantly changing over the time. As noted by Tabbron and Yang (1997), the development pace of a country and advancement in technology has constantly renewed the demands of human resources. As the result, the competencies demanded by the industries constantly changing over the time. Male, Bush and Chapman (2011) further elaborated that the competencies in technical settings are observable and interrelated.

The belief that an industry-based curriculum should train students with a specific cluster of skills is therefore arguable.

Realizing this fact, Jessup (1968) has similarly highlighted an alternative definition of industry-based curriculum by reinforcing "…the inculcation of resourcefulness, the ability to adapt as industrial processes change and new methods of production and working are introduced." (p.2). Contrary to the general definition, the industry-based curriculum should help to prepare students for the future industry, by enriching the 'resourcefulness' and flexibility to adapt to the changing needs of the industry. However, what remains doubtful is how we define 'resourcefulness' and 'flexibility' and designing TVET in adapting to the ever-changing needs of the industry. In a very broad perspective of developing workplace-school competencies, Wellington (1993) has reviewed the findings of the Secretary's Commission on Achieving Necessary Skills (SCANS) (1991) study, where they highlighted the foundation and competencies relevant to the industry. In developing workplace-school competencies, Wellington (1993) outlined 'resources', 'interpersonal skills', 'information', 'systems' and 'technology' as the foundation elements to develop relevant skills and knowledge in TVET. Resources refer to how the institution or the relevant government bodies organize the time, money, materials and staffs for TVET. Interpersonal skills are required skills in enabling students to work collaboratively in teams, delivering jobs or tasks effectively, and possessing strong communication skills to function efficiently in an organization. The 'systems competencies' refers to the understanding and knowledge on social, organizational and technological systems in an organization and relevant skills to operate, monitor and improvise these systems. Wellington (1993) further described 'technology competencies' as the specific knowledge in selecting appropriate tools, conducting tasks using technological tools, and maintaining them. Other than that, Wellington (1993) further highlighted on the foundation in developing the aforementioned competencies, which covers the basic skills of literacy (reading, writing, arithmetic, and communication skills), thinking skills (creativity, decision making, problem solving, learning skills and reasoning skills), and personal qualities (individual responsibility, self-esteem, sociability, self-management, and integrity). He strongly believes that these areas are the foundation to help students to be 'well-equipped' with generalized skills across different industry settings.

Technical and Vocational Education and Training (TVET) which is based on industry-based curriculum concept, is aimed to produce skilled workers, which eventually will help close the poverty gap among countries (United Nations Educational, Scientific and Cultural Organization (UNESCO), 2015). This can be achieved through: a) improving students' basic, technical and scientific knowledge, b) equipping students with working competencies, and c) inculcating positive personal qualities and professionalism among students (UNESCO, 2011). In fact, in the recent Education 2030 Incheon Declaration, similar concerns have been addressed, where students should not only be equipped with knowledge and technical skills, but also to develop their personal qualities and professionalism.

In the localized context of Malaysia, TVET is an important education platform to produce skilled workers for the country. In the recent 11th Malaysia Plan 2016-2020 (Economic Planning Unit (EPU), 2015), it is predicted that there will be more than 1.5 million job opportunities from various sectors and from that number, 60% require TVET expertise. In preparing for the future job opportunities, TVET in Malaysia has been improvised. According to Malaysia Education Blueprint 2015-2025 (Higher Education), Ministry of Education Malaysia (MOEM, 2015) has improvised the current practices in TVET institutions, which include its curriculum, training programmes and industrial involvement. This "rebranding" of Malaysian TVET is hoped to help reduce the mismatch between the needs of industry and education outcomes.

Parallel to UNESCO's aims in producing graduates that are equipped with strong foundation of technical and employability skills, which in turn will help close poverty gaps among countries, the recent Education 2030 Incheon Declaration has emphasized on the importance of realizing its Sustainability Development Goals (SDGs). UNESCO (2015) stated that one of the goals (SDG4); "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all", is aimed to improvise the weaknesses of current education practices. In sustaining a quality education for all, TVET is not excluded. UNESCO (2015) mentioned that initiatives such as broadening TVET starting from secondary to tertiary level, increasing networking

with industry, developing transferrable skills and employability skills, and conducting continuous evaluations of TVET outcomes, are important in sustaining education quality and relevancy of graduates' skills before entering working field.

III. Sustainability of TVET in Malaysia

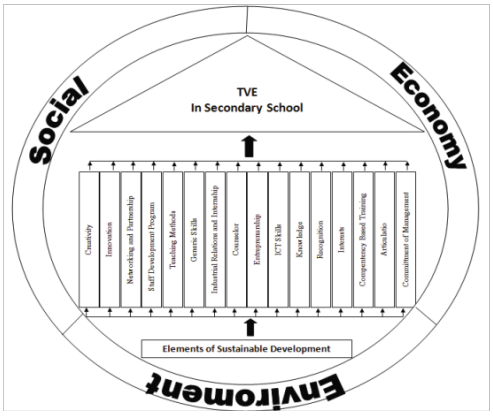
As a developing country, the government of Malaysia is working hard to ensure that the future workforce is equipped not only with academic knowledge, but also technical skills, working competencies and employability skills. MOEM (2015) mentioned that, at the moment there is still shortage of skilled workers in ten out of 12 sectors that are categorized under National Key Economic Areas, and most of the vacancies require TVET based expertise. Therefore, the ten educational shifts outlined in the Malaysia Education Blueprint 2015-2025 (Higher Education) as illustrated in the Figure 1 below, which serves as a framework in "rebranding" Malaysian education.

Source: Malaysia Education Blueprint 2015-2025 (Higher Education) (MOEM, p.1-14, 2015).

Figure 1: Ten shifts to education excellence in Malaysia.

Based on the above figure, MOEM (2015) stated that the first four shifts are very pivotal in enhancing and sustaining Malaysian TVET delivery quality. The Shift 1: Holistic, Entrepreneurial and Balanced Graduates is aimed to enhance current TVET practices by maximizing industry involvement for teaching and training purposes, improvise current evaluation process, and developing entrepreneurship skills. Besides, the Shift 2: Talent Excellence, refers to initiatives to enhance education outcomes by focusing on institutions' area of expertise, developing multi-track career paths for instructors, and providing relevant guidelines for effective delivery. Shift 3: Nation of Lifelong Learners is hoped to be realized by creating framework for prior learning recognition, producing more engagement programmes (MyCC loyalty programme, 1Family Multiple Skills Programme), and providing financial support and schemes for all groups. Finally, the Shift 4: Quality TVET Graduates is achievable through enhancing industry involvement in curriculum design and delivery, and coordinating TVET programmes to avoid redundancy and to further enhance its quality.

Minghat and Yasin's (2010) study offers an extensive explanation on how these shifts can contribute to efficiency and sustainability of Malaysian TVET. In their research, 12 TVET experts in Malaysia have been selected. By employing the fuzzy delphi method, experts' opinions were gathered and consensus on important sustainability elements for TVET in secondary school was established and presented as a framework (Figure 2). According to them, sixteen elements which are: a) creativity, b) innovation, c) networking and partnership, d) staff development programme, e) teaching methods, f) generic skills, g) industrial relations and internship, h) counselor, i) entrepreneurship, j) ICT skills, k) knowledge, l) recognition, m) interests, n) competency based training, o) articulation, and p) commitment of management, play as important roles in advancing TVET quality in Malaysian context (refer Figure 2).



Source: Minghat and Yasin (p.1235, 2010)

Figure 2: Sustainable development framework for Malaysian TVET.

The proposed elements in Minghat and Yasin's (2010) framework can be categorized into: teaching and learning content and focus,

and coordination and administration practices. For important elements of teaching and learning, TVET institutions should focus on developing students' creativity, innovation, generic skills, knowledge, interests, and ICT skills. These elements are not only important in preparing them for their future work but also very pivotal for their character development. In the recent Malaysian Qualifications Framework (MQF) (Malaysian Qualifications Agency (MQA), 2017), personal and ethical competencies, as well as other employability skills are being majorly emphasized in producing competent and professional workers for our country. Institutions, including TVET, should produce graduates that have these qualities in realizing our education aspiration – to produce students who are not only knowledgeable but also ethical and morally upright (MOEM, 2015).

On the other hand, the second group of sustainability elements focus on coordination and practices. Minghat and Yasin (2010) explain that TVET delivery should constantly reviewed and improvised, especially on teacher's training programmes and curriculum. Other than that, the teaching and learning experiences of students in TVET institution should majorly focus on industry-based training. In achieving this, networking with local industry should be maximized. Parallel to initiatives in "rebranding" Malaysian TVET, MOEM (2015) also emphasized on maximizing efforts to involve industry experts in curriculum development, training and evaluation. As the result, the National Occupational Skills Standard (NOSS) has been developed as a guideline for skills development standards in TVET institutions. According to Department of Skills Development Malaysia (DSDM) (2016), NOSS is an official document that is developed based on working competencies that are required by local industry. There are 29 sectors covered in NOSS that reflect the potential job scopes for students in future. In this document, DSDM (2016) noted that the competency profile, relevant skills, activity examples and achievement indicators are included to help institutions to design their teaching and learning for students. In addition, the institutions are made compulsory to ensure students undergo industrial training in helping them to apply their knowledge and skills in real working settings.

IV. Conclusion

In brief, the proposed sustainability elements in Minghat and Yasin's (2010) framework are in line with the shifts of education excellence in Malaysia (MOEM, 2015). Both groups of sustainability elements, as discussed earlier are being currently practiced in realizing our education aspiration. Numerous efforts, such as NOSS development and increasing industrial involvements in teaching and learning of TVET are hoped to provide students with authentic working experiences, which in turn will help to prepare them for the current industry. However, constant review and improvisation are still required. As mentioned in Malaysia Education Blueprint 2015-2025, constant review and articulation process are important to ensure that the skills development programmes are not overlapping and redundant.

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