Turkish Online Journal of Qualitative Inquiry (TOJQI) Volume 12, Issue 9, August 2021: 5848-5858

Promoting Bootcamp Program as a New Approach for Youth and Sports Skills Training Institution (ILKBS) to Enhance Employability: Transforming Malaysian Technical and Vocational Education (TVET)

Yasmin Yaccob^a, Azmi Ahmad^b, Wasitah Mohd Yusof^c, Saifoul Bahari Saad^b, Zan Aizuddin Zainal Abidin^b

^aDepartment of Social Science and Management, Faculty of Humanities, Management and Science, Universiti Putra Malaysia Bintulu Campus, Sarawak, Malaysia ^bYouth Skills Development Division, Ministry of Youth and Sports Malaysia ^cNational Department of Youth and Sports, Ministry of Youth and Sports Malaysia

Abstract

Youth and Sports Skills Training Institution (ILKBS) is aligned with the government's agenda to prepare skills and professional workforce to achieve the status of a developed country. The aim of this paper is to discuss the new approach by Ministry of Youth and Sports Malaysia (MOYS) in introducing a new intensive training known as "bootcamp program" to enhance employability and promote ILKBS graduates as world class skill talents. Bootcamp program is an extensive and tailor-made program designed according to the requirement and needs of the industries for the local youth. The concept of bootcamp and the achievement throughout the ILKBS Transformation Program will be discussed at large. Engagement and collaboration from industry is one of the major factors why it should be expanded to the other Technical and Vocational Education (TVET) agencies. 1,141 of youth and 17 industries have participated in the bootcamp program from 2015 until 2018 with the employability rate of 93%. Towards Revolution Industry 4.0, this study explored and discussed the new approach to be branding by MOYS as one of the successful initiatives to provide training and job opportunities for the youth. Further studies are recommended to include more tangible and measurable indicator to provide skilled workforce with progressive life-long learning workforce.

Keywords: Youth, bootcamp, industry, employability, skilled workforce

1. Introduction

Youth Development as emphasized in the Malaysian Youth Policy (2015) covers the need for youth development to obtain skills training across various fields and not only focuses on aspects of technical skills alone but also covers elements of entrepreneurial and volunteer skills. In the transition towards a developed nation, Malaysia continues to work hard to strengthen various human capital development agendas and this effort has already been spearheaded through the Technical and Vocational Education (TVET) empowerment initiative.

Malaysia's population statistics show that about 14.7 million youths, which is 46 percent of its 31.7 million total population (Malaysia, 2016). Youth is an important national development asset to face

the challenges of Developed Countries. The active and continuous role of youth in the development of the country is very important to achieve the aspirations of the country, especially in the challenges of the Industrial Revolution 4.0. This will be achieved if the youth have the quality and play an effective role as partners in the progress of the country and nation-building. Youth development is an important issue in the development of the country, but it still lacks a comprehensive response (Samsuddin A. Rahim, 2007). The challenges faced by today's youth in shaping the identity hoped for by society are very difficult to achieve entirely in the era of globalization in readiness to face the Industrial Revolution which has now entered the Fourth Industrial Revolution (IR4.0). According to Au Yong (2019), unemployment among youth is a major policy concern. Youth unemployment has become potentially menacing for the stability of democratic societies, and high youth unemployment rate is causing serious social problems such as crime. The phenomenon of underemployment hints that needed of government to identify various skills training to prepare youth with industry needed. The Vision for Shared Prosperity (Ministry of Economic Affairs, 2019) has been used as a reference to address economic gaps between income groups, ethnicities, regional development, and the supply chain to protect and enhance the capabilities of all citizens so that no one is left behind. In line with the Shared Prosperity Vision (2030) agenda which targets 35% of the skilled workforce in the job market, the researchers believe this study will be able to contribute to government planning especially Ministry of Youth and Sports Malaysia (MOYS) in empowering Technical and Vocational Education (TVET).

Ministry of Youth and Sports of Malaysia is a one of among seven (7) Malaysian Ministries (TVET players) offering skill training especially for youth who just completed their secondary schools (Youth Skills Development Division, 2018). MOYS realized the need of preparing the skills for youth for employment. MOYS training institution began since 1964 with Kuala Kubu Baharu Youth Training Centre and was focusing on the so called not academically inclined students. Currently, there are 22 Youth Skills Training Institutions or now known as ILKBS which scattered all over the country offering 14,000 places for tertiary vocational education opportunities within 13 fields of study. Most of the trainees are staying in campus and full time. The training program starts at certificate level 1 up to Advanced Diploma. Most of the programs are certified by Malaysian Skill Development (DSD) and Malaysian Qualification Agency (MQA). The certificates and diploma are recognized by the government and private sectors, especially industries.

Ministry of Youth and Sports Malaysia through its Division of Youth Skills Development has implemented the IKBNs Transformation program from April 2014 until April 2016 It has embarked on a multi-year journey to transform the technical education in ILKBS by bringing more youth into employment of high-quality jobs at a faster rate of time (Youth Skills Development Division, 2017). The Transformation program was inspired by the former Minister of Youth and Sports, Khairy Jamaluddin who has successfully given high impact to all Youth and Sports Skills Training Institution (ILKBS) graduates. A few initiatives have been implemented by Youth Skills Development Division specifically, on establishing strong linkages with industry smart partnerships. The commitment of MOYS in producing highly skillful youth for the industries was proven through the employability rate increased from 82 percent in 2014 to 93 percent in 2017. Empirical data from 22 ILKBS gathered within six months of graduation shows in that the employability rate has increased from 80% in December 2013 to 93% in December 2017. Currently the employability rate

of ILKBS is 93% which is higher than national rate. Meanwhile, the starting salary has increased 26% from RM 1,197.00. It is also showed that increase 87% in the number of students who are satisfied with this initiative (Youth Skills Development Division, 2018).

Learner's Dictionary has defined a bootcamp as a short-term training program that helps an individual to become better at doing something in a short time such as technical skills training in hospitality or digital business. Whereas the American Heritage® Dictionary of the English Language, Fifth Edition (2016) has viewed bootcamp as an intensive training program to improve an individual's physical fitness or skills in a particular field. This is in line with the objectives of the bootcamp program which provides intensive training to youth in specific fields based on industry demand. Meanwhile, Paul Fain (2018) in Inside Highered stated that bootcamp programs will continue to grow and diversify, and educational training institutes are increasingly accepting short-term training models as lifelong learning programs. The success of the implementation of this bootcamp program is due to the comprehensive curriculum and focus on job placement in the demand areas required by the industry.

As one of the leading TVET institute in Malaysia that are actively involved in TVET program, Youth and Sports Skill Training Institution (ILKBS) are always committed in implementing the TVET Transformation to meet new challenges on the threshold of the Industrial Revolution 4.0 (IR 4.0) era. It is imperative, that TVET is the game changers for Malaysia to become a developed country aspire for. Thus, TVET Institution like ILKBS are in the process of retrofitting and upgrading its facilities to face new challenges of the "Fourth Industrial Revolution" or the emergence of the Digital Economy referred to as the "Industry of the Future". The government seeks collaboration with the corporate sector in addressing socio-economic challenges through TVET education. The rapid changes in technology, work and social environment have been addressed to increase human capital development. TVET is recognized as one of the most important keys to sustainable development. Based on the Eleventh Malaysian Plan (11MP), Youth and Sports Skill Training Institution (ILKBS) under Ministry of Youth and Sports Malaysia has been tasked as one of TVET provider to mainstream skills training. Mission of MOYS is to strengthening human capital and maximizing the potential of youth as the country's strategic development drive to achieving Vision 2020 and the subsequent post-2020. According to Wasitah (2018), there are four focus skills training empowerments based on IKBN Transformation which are:

1. Technical and Vocational Education (TVET) Transformation Agenda

- · Towards mainstreaming as well as expand access to TVET sector
- Improving the negative perception regarding TVET to increase public awareness of the benefits and potential TVET.

2. ILKBS TVET Showcase

- Strengthening education and training for comprehensive, effective, and contemporary
- Ensure training institute in line with the needs of the industry in the institute as a showcase highlighting TVET institutions.

3. Holistic ILKBS Trainee and World Class

- Focusing on the establishment of the institute graduates who are not only skilled, but also has good values comprehensive human capital.
- Provide a conducive learning and welfare of pupils in ensuring that the environment is equivalent to higher education institutions.
- Provides entrepreneurship programs to diversify career choices for graduate's future pathway.

4. ILKBS Transformation based on Strategic Industrial Relation and Innovation

- Focusing on efforts to improve the marketability and the average starting salary of graduates of the institute to work closely and positively with the industry.
- Introducing new initiatives such as the reinforcement learning modules based on English and institute City Campus to attract urban youth.

According to Ab. Rahim (2011) & Ministry of Higher Education (2017) TVET has enhances human capital development for industrialization through programs like TVET that a country is able to produce the highly skilled workers needed to propel economic growth. There is increasing demand for high skilled workers across many industries thus, creating new enthusiasm and environment for TVET. Under Budget 2019 announcement, Government encourages various training institute to bid for funds to run competitive program with the specific Key Performance Indicator's (KPI's) on job placement for the graduates includes initiative to raise youth competency via TVET bootcamp program.

The Bootcamp program was implemented by the Ministry of Youth and Sports (MOYS) in 2014 during the IKBN Transformation as an intensive training program between 4 to 12 weeks to train youths in specific skill areas required by the industry for job placement (Youth Skills Development Division, 2017). The bootcamp program is in principle a concept where youths will learn better in a high intensity learning environment, among grouped youths as well as a job simulation environment. The following pedagogy is the best practice in the implementation of the boot camp program, namely:

- i. Focus more on practical training or hands-on learning, supported by theory as needed.
- ii. The learning environment simulates a real workplace.
- iii. Instructors have experienced industry practitioners with a deep interest in teaching and training.
- iv. Diversity in teaching technology and learning modalities.

2. Problem Statement

According to the Department of Statistics Malaysia (2019), the labor force in Malaysia is 10.74 million, which is 68% of the total labor force. In efforts to empower youth in Malaysia, the Government has provided many employment opportunities as well as skills training through various agencies. Youth were the most affected group during the Covid -19 pandemic as they were the last group hired by employers and the first group to be laid off due to lack of work experience as well as social networks including skills mismatch. According to the job market situation in Malaysia, the

Labor Force Survey by the Department of Statistics Malaysia found that the labor force situation in March 2021 showed a recovery when the number of the labor force increased 0.2 percent compared to the previous month which recorded a labor force participation rate of 16.08 million people. The unemployment rate also declined to 4.7 percent from 5.3 percent in May 2020 (Arshad, 2021).

Institutions of Technical Education and Vocational Training (TVET) play a key role in increasing youth participation in skills training between strategies of producing highly skilled youths (Ndagiusman & Tyabo, 2013). Studies show higher access to vocational training is closely linked to lower unemployment rates. TVET providers in Malaysia, especially Youth and Sports Skills Training Institutions, have been the main drivers in producing more local talent.

As one of the leading TVET institutions in Malaysia that are actively involved in TVET programs, the Youth and Sports Skills Training Institute (ILKBS) is committed to implementing the TVET Transformation to face new challenges on the eve of the Industrial Revolution 4.0 (IR 4.0) era. This study needs to be emphasized because TVET is a key driver for Malaysia to become a developed country. Therefore, TVET Institutions such as ILKBS through the efforts of this study will strive to improve the facilities to face the new challenges of the "Fourth Industrial Revolution" or the emergence of the Digital Economy referred to as the "Industry of the Future". According to Syed Saddiq (2018) in Industry 4.0 Dialogue Session 2018, By IR4.0, ILKBS will explore and strengthen elements including strategic collaboration with industry to update curriculum and syllabus based on IR4.0 requirements. Researchers see this impact study will be an indicator of the existence of new areas of creation as well as growing economic gigs.

Industry Revolution 4.0 is expected to have a very significant impact on the labor and employment markets such as the creation and elimination of jobs (job displacement), increased labor productivity, and the widening skills gap (Thereza Balliester and Adam Elsheikhi, 2018). Therefore, the country's human capital needs to have relevant skills and always meet the needs of the country's dynamic market and economy. Along with the development towards the era of Industrial Revolution 4.0, the job landscape has changed rapidly where the government needs to open more opportunities and space for the establishment of training or education centers that can educate the younger generation to improve intelligence in manufacturing, machine learning, Internet currents, and more data technology. large (Borneo Post, 2018). Better job offers will enable youths to advance in a more competitive world. To adapt to changes in the environment, what the researcher saw was to identify the impact of the implementation of the bootcamp program organized by Ministry of Youth and Sports (MOYS).

3.Methodology

This study analyzed the role and impact of intensive skills training including, youth, organization, and industries. For a strategic research, researchers have analyses document based on total participation of youth, employment rate and various method of strategic partnership between industries and Youth Skills Training Institutes (ILKBS). By applying the document analysis technique, asserted documents had been used to acquire the perspective of this study. According to Sabitha Marican, 2009:97; Babbie, 2010:332 in Che Ya (2018), document analysis is just what its name implies-the analysis of the written or visual contents of the document. Merriam (2002) in Rasul et al. (2015) also states that one of the strategies to gather information and analyze the data can be

built by documents which the entire study can be perform. The similar method also was being used by Ashari et al. (2015) in addressing the TVET issues. Non-participant observation also has been conducted to give added value to the meaningful information of the study. Non-participant observation is often used in tangent with other data collection methods, and more "nuanced and dynamic" appreciation of situations which cannot be as easily captured through other methods Liu & Maitlis (2010) in (Better Evaluation, 2021). This is an important aspect for researcher to analyze the study. Obviously, in non-participant observation, researchers are not indirectly participating in the situation (Gay & Airasian, 2000). As a result, researcher will understand and get the experience from monitoring during training.

1. Discussion and Analysis

4.1 New Training Approach

Bootcamp program is a special program that has been customized by the Skills Youth Development Division since year 2014 (Youth Skills Development Division, 2017). It is a collaboration between Youth and Sports Skill Training Institution (ILKBS) and industries that require the workforce to be equipped with certain skills set. Under the IKBNs Transformation Program initiatives (2014-2016), the curriculum of bootcamp program had been designed specifically on the main core skills so that training is implemented based on actual or real workplace environment. It is targeted to prepare youth as skilled workers towards human capital development. Applied intensive bootcamp program implemented are designed for a short period of duration between 4 to 12 weeks courses which are tailor-made exactly to what the employers' needs.

The strategy of bootcamp implementation is to establish a program that can bridge the gap by enhancing graduate's employability rate and for them to gain high starting salary. Basically, there are five (5) principles of bootcamp program philosophy which are:

- 1. People learn best in high-intensity environments" 80% of the skill can be taught in 20% of the time. Heavy focus on hands-on learning and supplemented by theory only as needed.
- 2. People learn best together with other people Sharing skill and knowledge from highly skill personnel. Instructors are experienced practitioners with keen interest in teaching and learning.
- 3. People learn best in simulation environments" Learning environment simulates workplace (hospital room, hotel front desk, welding booth)
- 4. Range of learning technologies (e.g., computer assisted video) learning.
- 5. Modalities (e.g., group projects, pairings, 1-on-1 coaching)

Besides, bootcamp program are developed together with a strong employer partner involvement. There are role of employer and Ministry of Youth and Sports Malaysia (MOYS) that need to be identified, discussed, and agreed before implementing the program.

Role of employer / industries

- Help identifying most important job and social skills to be taught in the bootcamp.
- Specify quality level for students of these skills.
- Provide detailed feedback and input to curriculum.
- Hire bootcamp graduates upon completion of the program and provide guaranteed starting salary.
- Provide very specialized equipment for teaching purpose.
- Provide experienced practitioners to develop and coach bootcamp trainers.

Role of Ministry of Youth and Sports Malaysia (MOYS) / Training Provider

- Develop curriculum and lesson plans for bootcamp.
- Recruit students
- Provide most teaching and administrative staff.
- Provide adequate level of funding.
- Provide basic equipment.
- Draft agreement

Figures 1 shows the details of bootcamp concept and selection process of participants. The programs are design to enabled candidates to:

- attain high income rapidly.
- gain internationally recognized certificates.
- enter the global job market.

Figure 1: bootcamp concept selection

	Process	Source	Apply	Inter- view	Screen	Select	Offer
	Activities	 IKBN graduates as first choice Targeted appropriate media strategy (teasers to build up the brand before detailed information after launch) Road shows 	 Application via KBS Open by Jan 2015 Selection criteria Malaysian Fulfill specific requirements IKBN graduate 	 Identify candidates to be interviewed Face to face evaluation with interview panel Interview with family members 	 Assessment criteria : Medical report Resume Recommendat ions Interview performance 	Finalise selection Targeted intake – Mac 2015	Issuance of offer to successful candidates
(Who	•KBS	• Candidate	Interview committee Target host companies	·KBS	·KBS	•KBS

4.2 Achievement Record of Bootcamp Program

To date, a total of 40 bootcamp programs have been successfully conducted with 1,725 youths securing employment in various industry sectors. Many industries are the service, oil and gas, automotive, hospitality, and sports industries. Since the IKBN Transformation Program 2014, the bootcamp program has recorded an impressive success story. Performance record for a period of three years from 2015 to 2019, a total of 1,725 youths has successfully worked in 17 industries such as Pos Aviation - DRB Hicom Berhad, Prasarana Berhad, Bernas, Kuala Lumpur Airport Services, and Nouvelle Visages Sdn Bhd and others. Related job fields derived from the boot camp program include bus captain, injection molding, scaffolding, customer service officer, textile, and industrial mechanic.

A tracer study of the bootcamp program from 2018 to 2019 conducted by the Youth Skills Development Division shows that the bootcamp program is an excellent program to complement the aspirations of the Ministry of Youth and Sports Malaysia (MOYS) in terms of Job Creation, Youth Power, and Employability. This boot camp program has supported the Government's aspirations by providing a tailor-made workforce for the needs of the industry in the future. However, some aspects need to be looked at especially the psychological needs of the youth involved in the program as some of the participants completed the intensive training earlier than the actual training period.

An individual's willingness to work with industry can describe whether an individual is ready to venture into a chosen career field. Career Readiness can be used to explain the level of Career (Maturity Smitina, 2010) & Sugiyarlin & Supriatna, 2020). An individual who is ready to enter the world of work can be seen when they have completed the process of exploration and career planning and have made decisions about a career. According to Super (1984) in Mansor & Rashid (2016), Career Readiness refers to perfection in individual development and is explained through the dimensions of competence and attitude i.e., aspects of knowledge and skills. A study by Mansor & Rashid (2016), found that the level of career readiness of students at the National Youth Skills Institute is still at a low level. This can also be seen in the bootcamp program when the readiness of the youth to work with the industry has provided training and career opportunities are still at a low level. The lucrative income factor also causes why youths choose a career that suits them. The youth involved in the boot camp program need to have a curiosity about the career to be pursued. This indirectly gives the self-confidence to enable the youth to be ready to make decisions about the career to be pursued after the program ends. To ensure sustainability or youth remain employed in the industry, this study is expected to collect findings on the highest employment opportunities desired by the mass youth thereby improve economic status and self-potential and ensure program implementation outcomes achieve program objectives. The bootcamp program has provided a wellstructured, holistic approach, focusing on talent and potential development programs leading to internationally recognized certification by industries.

The impact of bootcamp program can be seen during the ILKBS Transformation Empowerment Program (2016-2020) where collaboration with the industries is focusing on bootcamp program. Industries in Malaysia are interested in bootcamp or shorter period of training in existing and new specializations to get students into jobs faster. Based on survey did during the discussion, 70% of industries agreed that in the era of globalization, bootcamp is one of the programs that industries needed for the national industry's workforce. According to Kumaran Nadaraja (2018), in a process of

moving forward IR4.0, one of the key areas is a bootcamp program. 92% of sustainability in a bootcamp program is related to how youth retain in the industries after graduates. To make sure youth sustain in the program, Youth and Sports Skill Training Institution (ILKBS) has identify the holistic approach of bootcamp is based on three pillars of character building, internationally recognized skills competency, and value-added certifications, while other available programs only concentrate on skill development. This can be summarized in the figure 2 below.

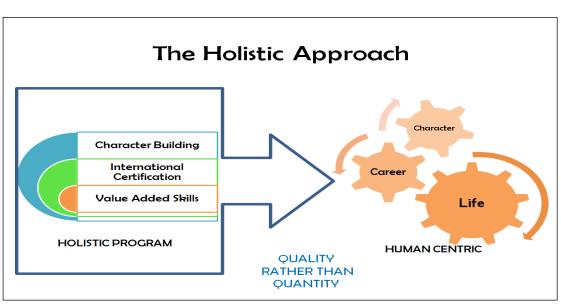


Figure 2: The holistic approach in bootcamp

2. Conclusion and Recommendations

This study also identifies the implications of the bootcamp in terms of practical and policy. It includes the Transformation of Technical and Vocational Education (TVET) and youth.

Implication to Transformation of TVET Malaysia

Through this intensive program, it will promote and support public-private partnership (PPP) in providing technical and vocational education training as an alternative to mainstream education especially for schools drop-outs. The government wants to encourage and intensify the involvement of the industries through PPP to establish accredited bootcamp program that extend beyond its employees. According to a report of the ET 2020, Working Group on Vocational Education and Training (VET), the quality and excellence of Centre of TVET not just matching provision closely to the needs of the labour market but going further so that TVET can become an essential and proactive element of skill ecosystems with strong links to wider local and regional agendas for sustainability and social and economic development. It needs actively looking for innovations in all areas and embracing digitalization at the core of teaching and learning activities. Initiative to design and implementing of new program such as bootcamp program is an innovative ways of building partnerships with industry and institutions in order to become part of knowledge triangles (Europian Commission, 2020).

Implication to the youth

The implementation of the bootcamp program shows that TVET is an essential option among youth. A total of 14,000 students at 22 Youth and Sports Skills Training Institution (ILKBS) are now ready to meet the challenges of environment in the industries. This also has helped ILKBS to produce skills and competencies that raise quality of ILKBS students. The challenges faced by today's youth in shaping the identity that society hopes for are difficult to achieve in the era of globalization in readiness to face the Fourth Industrial Revolution (IR4.0). This ongoing social transformation will have high implications for the thinking and lifestyle of the youth generation. The issues and challenges faced by the youth today are a manifestation of the social environment that is formed in line with the development of the country (Y. Yaccob et. al, 2019).

3. Summary

As a conclusion, this article is to explore and promote bootcamp program as a new approach in transforming TVET Malaysia. The scope of implementation program is a very structured and comprehensive program that will produce more highly skilled workers that tailored to industries requirements in Malaysia. Without exaggeration, it can be concluded that bootcamp program is well structured approach, holistic, focus on talent development program leading to an internationally recognized certification by the industries.

References

- [1]. Ab. Rahim, B. (2011). Preparing Malaysian Youths for The World of Work Roles of Technical and Vocational Education and Training (TVET) (Issue January).
- [2]. Arshad, M. M. (2021). Hari Belia Negara 2021 : Aspirasi belia dalam citra masa hadapan. 1-8.
- [3]. Ashari, Z. H. M., Rasul, M. S., & Azman, N. (2015). a Review on the Tvet Issues in Malaysia and the Participation of Industries in the Tvet System. 1–13.
- [4]. Au Yong, H. N. (2019). Preparing for youth employment in Malaysia: the influence of education and training policy. International Economic Policy, 5(30), 7–28. https://doi.org/10.33111/iep.2019.30.01
- [5]. Better Evaluation. (2021). Non-Participant Observation. Https://Www.Betterevaluation.Org/.
- [6]. Che Ya, C. A. (2018). Analisis Konflik Dalam Lara : Satu Pendekatan Psikologi. 2(1), 1–18.
- [7]. Commission, E. (2020). Innovation and digitalisation in Vocational Education and Training. https://doi.org/10.2767/25307
- [8]. Gay, L., & Airasian, P. (2000). Educational research: An introduction.
- [9]. Kumaran Nadaraja (2018). Industry 4.0 Dialogue Session 2018. Youth Skills Development Division, Ministry of Youth and Sports. Malaysia
- [10]. Malaysia, D. of S. (2016). Department of Statistics Malaysia Press Release Current Population Estimates, Malaysia , 2014-2016. July, 2014–2016.
- [11]. MALAYSIA. (2010). Tenth Malaysia Plan 2011-2015 (p.425). Putrajaya
- [12]. Malaysia Youth Policy (2015). Ministry of Youth and Sports. Putrajaya
- [13]. Mansor, M., & Rashid, A. M. (2016). SkillsMalaysia Journal. SkillsMalaysia Journal, 2(1), 11–26.
- [14]. Merriam, S.B. (2002). Introduction to Qualitative Research (First Edit., p.13. San Francisco: Jossey-Bass
- [15]. Ministry of Economic Affairs. (2019). Shared Prosperity Vision 2030.
- [16]. Ministry of Higher Education. (2017). Technical Vocational Education & Training (Tvet) in Malaysia: (Issue January).
- [17]. Ndagiusman, A., & Tyabo, A. (2013). REVITALIZING TECHNICAL AND VOCATIONAL EDUCATION (TVET) FOR YOUTH EMPOWERMENT AND SUSTAINABLE DEVELOPMENT Alhasan Ndagiusman Abdullahi Tyabo Revitalizing technical and vocational education and training (TVET) in Nigeria The Concept of Vocational Techni. 1(1), 92–97.

- [18]. Rasul, M. S., Mohamed Ashari, Zool Hilmi Azman, N., & Abdul Rauf, R. A. (2015). Transforming TVET in Malaysia : Harmonizing the Governance Structure in a Multiple Stakeholder Setting Abstract. November.
- [19]. Rozmi Ismail (2017). Metodologi Penyelidikan: Teori dan Praktis. Penerbit Universiti Kebangsaan Malaysia
- [20]. Samsudin A. Rahim (2007). Globalisasi dan Media Global. Kertas Kerja Institut Penyelidikan Pembangunan Belia Malaysia. Putrajaya: Kementerian Belia dan Sukan
- [21]. Syed Saddiq Syed Abdul Rahman (2018). Industry 4.0 Dialogue Session 2018. Youth Skills Development Division, Ministry of Youth and Sports. Malaysia
- [22]. Smitina, A. (2010). The link between vocational identity, study choice motivation and satisfaction with studies. Procedia - Social and Behavioral Sciences, 5, 1140–1145. https://doi.org/10.1016/j.sbspro.2010.07.250
- [23]. Sugiyarlin, & Supriatna, M. (2020). Adolescent's Career Maturity. 399(Icepp 2019), 232–235. https://doi.org/10.2991/assehr.k.200130.121
- [24]. Thereza Balliester and Adam Elsheikhi. (2018). The Future of Work: Literature Review (Issue 29). internal- pdf://254.0.220.38/future-of-work-literature-review (1).pdf
- [25]. Wasitah Haji Mohd Yusof (2018). Skills Development & Sports for Social Cohesion & Active Lifestyle -Malaysia's Experiences. ASEAN UNICEF Conference on 21st Century Skills and Young People's Participation. Singapore
- [26]. Yasmin Yaccob (2019). Hubungan antara Domain Tingkah Laku Pembangunan Potensi Diri dan Kesepaduan Sosial Belia dalam Program Anugerah Remaja Perdana Rakan Muda. Universiti Putra Malaysia
- [27]. Youth Skills Development Division (2017). Report of IKBNs Transformation Program. Ministry of Youth and Sports. Putrajaya. Malaysia
- [28]. Youth Skills Development Division (2018). Pelan Strategik KBS 2019-2020. Ministry and Youth and Sports. Malaysia