

# The Status of Perspectives and Challenges of TVET for the National Human Resource Development (NHRD) in Myanmar

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## Abstract

Globally Technical and vocational education and training (TVET) has been identified as a major contributor to the National Human Resource Development (NHRD). Many countries have started to acknowledge TVET as a major driving force for sustainable development. However, capitalizing on the potential of TVET requires in-depth understanding of the status and challenges of the existing TVET system and programs as well as various perspectives and views from all stakeholders. The purpose of this study was to explore the status of perspectives and challenges of TVET for NHRD in Myanmar. The study grounded investigations to answer the question; what is the status of perspectives and challenges of TVET in Myanmar. The study applied qualitative research methodology since it provided the researcher with the latitude to answer questions and explore participants' knowledge and experiences in Myanmar. This exploratory qualitative research has been done through case study approach to gain the in-depth understanding of TVET status and challenges in Myanmar. The study utilized a targeted review of literature, analysis of government and INGO documents. Additionally, the study applied purposive sampling to identify participants and interviews with 35 key stakeholders from both demand and supply sides as illustrative sources of evidence for developing the case study. The study revealed that the current context requires Myanmar to pay more attention to vocational training as a tool to develop its human resources in light of the capacity needs for driving the economy. Moreover, it adds to the small but growing literature on NHRD in Myanmar context.

**Keywords:** Myanmar, National Human Resource Development (NHRD), Technical vocational education and training (TVET)

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## มุ่งมองและความท้าทายของการฝึกอบรมด้านเทคนิคและการอาชีวศึกษา เพื่อการพัฒนาทรัพยากรมนุษย์ระดับชาติของสาธารณรัฐแห่งสหภาพพม่า

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### บทคัดย่อ

การฝึกอบรมด้านเทคนิคและการอาชีวศึกษา (Technical and vocational education and training [TVET]) มีความสำคัญต่อการพัฒนาทรัพยากรมนุษย์ระดับประเทศ ในทั่วโลก หลายประเทศได้ตระหนักรู้ว่า การฝึกอบรมด้านเทคนิคและการอาชีวศึกษาเป็นตัวขับเคลื่อนให้เกิดการพัฒนาที่ยั่งยืน ซึ่งประโยชน์ดังกล่าวเนี้ยจะเกิดขึ้นได้นั้น จำเป็นต้องอาศัยความเข้าใจในเชิงลึกเกี่ยวกับมุ่งมองและความท้าทายที่มีอยู่ในระบบและกระบวนการของการฝึกอบรมด้านเทคนิคและการอาชีวศึกษา รวมถึงทัศนะที่หลากหลายจากผู้มีส่วนได้ส่วนเสียทั้งหมด วัตถุประสงค์ของการศึกษานี้เพื่อสำรวจ มุ่งมองและความท้าทายของการฝึกอบรมด้านเทคนิคและการอาชีวศึกษาเพื่อการพัฒนาทรัพยากรมนุษย์ระดับชาติของสาธารณรัฐแห่งสหภาพพม่า ซึ่งเป็นการศึกษาเชิงคุณภาพผ่านวิธีการวิจัยแบบกรณีศึกษา โดยสำรวจความรู้และประสบการณ์ของผู้มีส่วนได้ส่วนเสียซึ่งมีความเกี่ยวข้องกับ การฝึกอบรมด้านเทคนิคและการอาชีวศึกษาของประเทศไทย จำนวน 35 คน พร้อมกับทำการทบทวนและวิเคราะห์เอกสารที่เกี่ยวข้องจากเอกสารทางการของรัฐบาลและองค์กรภายนอกภาครัฐระหว่างประเทศ การศึกษานี้จะท่องให้เห็นว่า จากบริบทในปัจจุบัน สาธารณรัฐแห่งสหภาพพม่าควรให้ความสำคัญที่มากขึ้นกับการฝึกอบรมด้านเทคนิคและการอาชีวศึกษาในฐานะเครื่องมือในการพัฒนาทรัพยากรบุคคล เพื่อการขับเคลื่อนเศรษฐกิจ นอกจากนี้ ยังเป็นการเพิ่มพูนวรรณกรรมที่เกี่ยวข้องกับ การพัฒนาทรัพยากรมนุษย์ระดับชาติในบริบทของสาธารณรัฐแห่งสหภาพพม่า

**คำสำคัญ:** สาธารณรัฐแห่งสหภาพพม่า, การพัฒนาทรัพยากรมนุษย์ระดับชาติ, การฝึกอบรมด้านเทคนิคและการอาชีวศึกษา

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## Introduction

As of 2020, Myanmar is in its transition period changing from centrally controlled authoritarian country to a democratic one with an open market economy. For the last three decades, Myanmar was ruled under military governments, one after another. Since late 2011, the country has made many significant changes in political structures and economic policy. In view of that, Myanmar has been considered one of Asia's last largely untapped market. Several economic prospects are strengthening in different sectors for the rapid-changing Myanmar. To realize such prospects, one of the main challenges has been to develop the relevant skills and human resources capabilities at the national level. Accordingly, NHRD is a critical success factor in this transition period of Myanmar.

This type of national level human resource development issues could not be addressed adequately by traditional HR development theories. In accordance with Mclean (2004), this occurs since human resource development (HRD) has been conventionally described in the context of the individual, the work team, the organization or the work process. Such situations necessitate the definition and creation of human resources as a national agenda. In today's fast changing world, a country's success and sustainable development fundamentally and critically depends on the capacities of its people. For that reason, many governments have established NHRD (national human resource development) policies, roadmaps, and master plans, towards creating capacities of their citizens as an approach of enhancing the competitiveness of their countries across the globe.

Particularly, nations under rapid development, like Myanmar, ought to consider all possible learning systems which could dramatically increase the skills and performance of the people. Accordingly, NHRD must be more than academic education; it should be skill focus education and training programs which could develop and unleash the potential of the workforce in Myanmar.

The World Bank reports on skill development in low and middle income establish that a third of the working population lack the basic and requisite skills required to move the economy (UNESCO, 2016). Additionally, they do not have the technical know-how to do quality jobs, and many have limited cognitive skills. However,

economies are increasingly changing and require a dynamic workforce with problem-solving, leadership, and technical skills. Employers face the challenges of retraining workers on technical skills leading to delayed productivity and high costs. The approach demonstrates the relevance of technical vocational education and training (TVET) education systems as a requisite for economic development.

In view of that, to enhance the quality of the workforce, an optimum answer for Myanmar is to select a better focused approach to technical and vocational education and training. This view is quite consistent with Asian Development Bank (ADB) report which mentioned that the economic advancement of countries with similar conditions to Myanmar depends on the availability of individuals entering the work market who possess cognitive and soft skills on the one hand, as well as technical and vocational-specific skills on the other hand (ADB, 2016).

Given the evidence of a high priority national need in Myanmar for effective human resource development strategies aimed at building skills and knowledge of individuals, organizations and entire nation to ensure, enhance and promote sustainable development and national global competitiveness, the purpose of this study was to explore the status of perspectives and challenges of technical vocational education and training (TVET) for the national human resource development (NHRD) and its practical applications using Myanmar as a case study.

This study will provide a unique perspective of TVET status and practices in Myanmar and its implications for national human resource development (NHRD) policy. Moreover, it adds to the small but growing literature on NHRD in Myanmar context.

### **The objectives of this study are**

- 1) To explore current system and status of technical vocational education and training as NHRD approach using Myanmar as a case study
- 2) To discover the opinions and perspectives of students, teachers, employers, industry leaders and other stakeholders in Myanmar on how to improve TVET system in Myanmar
- 3) To assess the needs and challenges of TVET in emerging economies as a NHRD approach

Since the research is qualitative and exploratory in nature, these research questions are open-ended to review the literatures and as much available documents as possible regard with TVET practices in developed and developing countries, and Myanmar in specific, and besides enabling the participants to offer any opinions, insights and perceptions they have in mind.

## **Significance of the Study**

There are numerous and significant implications associated with the development of human capital via TVET for HRD practitioners and learners towards the development of Myanmar. Kuchinke (2010) argue that HRD and TVET share commonalities in that, both disciplines aim to develop the knowledge, skills of individuals in the labor market, regardless of industry and business sector.

The value of HRD at the national level involves developing the human capital in the short or long term that is needed to sustain a competitive advantage. Thus, HRD practices and activities can include helping governments to enact policies that focus on key areas such as technical vocational education and training in order to prepare the workforce to operate in a dynamic economy (Marquardt and Berger, 2003). TVET could play an important role in addressing human capital needs through systematic training and development for the purpose of generating productivity, economic growth and development.

The concern that Myanmar has not accorded priority attention to technical vocational education and training (TVET) makes this descriptive and exploratory study much more compelling. Such programs are perceived worldwide as an indispensable vehicle for effective socioeconomic transformation in both developed and developing nations (UNESCO-UNEVOC, 2010).

## **Literature Review**

In the Human Resource Development (HRD) scholarly community, it is generally agreed that HRD consists of three main domains: training and development (T&D), organization development (OD), and career development (CD). Traditionally, HRD has been defined in the contexts of individuals, work processes, work teams, organizations.

Due to the globalization and technology advancement, a considerable amount of literature has been published to extend the scope of Human Resource Development (HRD) to cover national level HRD issues. MacLean (2004) extended the scope of HRD beyond organizational contexts to include community, nation, region and global level with a consideration of cultural, political and economic variants of such contexts. Since this concept was first proposed by McLean in 2004, NHRD has received increasing attention from HRD scholars.

The increased interest in NHRD reflects the growing acceptance of developing the skill level, improving the performance of each working adults and furthering the levels of employability of human resources as a significant driving force for national development. In earlier years, what is now referred to as NHRD reflected a broad portfolio of policy and activity in areas including manpower planning, human capital investment, and five-year development planning (McLean, 2004). McLean described that these previously used terms are not broad enough to address problems or concerns that go “beyond employment and preparation for employment issues to include health, culture, safety, community, and a host of other considerations” (p. 269). Consequently, a growing body of evidence and case studies seems to suggest that NHRD is increasingly evident in a growing number of countries (Lynham et al., 2006).

Initiating a new research agenda, McLean (2004) pointed to the HRD development needs and development priorities in some countries, especially in developing countries and transitioning societies as major challenges for the National HRD policy planning and implementation. National human resource development (NHRD) research and practice focuses on human resource development (HRD) practices, systems and policies at the national level (Alagaraja & Wang, 2012; Lynham & Cunningham, 2006; McLean, 2004). Existing NHRD literature has primarily examined NHRD policies and practices of single case countries (e.g., Cho & McLean, 2004; Lynham & Cunningham, 2006). This focus on single case country contexts is useful, as it positions the importance of enhancing and sustaining human capacity building at the national level. NHRD has been used to reviewing current educational policy and how it can be enhanced (Cho & McLean, 2004). Despite the notable contributions in the development of NHRD theory and research, there has been limited focus on technical vocational education and training (TVET) in

the HRD literature. The global trends of changing economic structures fueled with information technology and communication revolution, the rapid pace of globalization and, finally, but no less important, the transitioning of many lesser developing countries into fast-growing, emerging nations. significantly contributed to the reemergence of TVET (King & Palmer, 2007; 2010).

Depend on the country, there are varying name and acronyms of technical and vocational education and training. Most widely used ones are vocational education (VE), technical and vocational education and training (TVET), occupational education (OE), professional education (PE), career and technical education (CTE), further education and training (FET), training and further education (TAFE). With these inconsistencies in referring to the sector, UNESCO (2004) recommends the comprehensive term —technical and vocational education and training (TVET) as more appropriate for the sector. With regards to definition, there is no universally accepted definition for technical and vocational education and training, but in UNESCO (2001) ‘Technical and Vocational Education and Training (TVET) is defined as “a comprehensive term referring to those aspects of the educational process involving, in addition to general education, the study of technologies and related sciences, and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life” (p. 8) As such, TVET includes all activities undertaken at various stages, from secondary to postsecondary and on-the-job training. In other perspective, Maclean and Wilson (2009) state that Vocational education and training involves mostly hands-on laboratory process and on-the-job training for proficiency in manual skills. The nature of the TVET training is that it requires lecturers for conceptual learning, it also requires industry-specific technical learning to enable an individual to develop industry-specific skills (European Commission, 2021).

The Organization for Economic Cooperation and Development (OECD, 2010) notes that TVET focuses on specific trades instead of general education and plays a significant role in “preparing young people for work, developing the skills of adults and responding to the labor market needs of an economy” (p. 9). As an alternative to traditional academic education and as a means of bridging the skills gap, TVET has gained national and global level prominence in the last decade (Symonds et al., 2011).

Maclean and Wilson's (2009) empirical studies noted the important role technical and vocational education and training (TVET) programs play in helping youths in the acquisition of job skills and knowledge, enabling them to secure paid employment or be self-employed for a sustainable livelihood. According to Maclean and Wilson (2009), vocational education is practical and non-academic instruction giving the learners specific occupational skills for entry-level jobs in a trade or vocation (Gordon, 2007; Rauner & Maclean, 2008; Scott & Sarkees-Wircenski, 2008).

Finally, OECD (2010) argued that a vibrant and effective technical vocational education and training (TVET) system has a central role for enhancing the progress of developed and developing countries. The renewed focus on technical vocational education and training (TVET) is important for human resource development (HRD), as it expands current understanding of its role in economic development through workforce training. National human resource development (NHRD) perspectives recognize the role of TVET in linking regional and national economic development strategies. Furthermore, TVET's focus on literacy education, poverty alleviation and inclusion of marginalized and vulnerable populations emphasizes social development outcomes that are critical for NHRD.

Before discussing the findings of the various perspectives and challenges faced by policy makers, TVET providers, students in Myanmar, it is very important to understand the big picture of how the TVET system operates in Myanmar as NHRD approach. The TVET system in Myanmar is highly fragmented with almost 13 line-ministries and other entities like private schools and NGO funded schools involved. Although the Ministry of Education is the focal point of the TVET system, 13 other ministries also run their own TVET programmes. For example, the Ministry of Hotel and Tourism is responsible for vocational training programmes for hotel and tourism fields, and the Ministry of Agriculture provides formal and non-formal programmes for the agricultural sector. The other Ministries include Ministry of Industry, Ministry of Labour, Immigration and Population, Ministry of Transport and Communication, Ministry of Commerce, and the Ministry of Natural Resources and Environmental Conservation, Ministry of Border Affairs, and Ministry of Health and Sports. The courses offered by their training institutes differ in duration (ranging from short-term with a duration of several

weeks to long-term), skills delivery level, mode of delivery, and expected outcome (Milio et al., 2014).

With regards to policy matters, responsibility is split between the Ministry of Education (MOE), which is responsible for formal TVET, and the Ministry of Labour, Immigration and Population (MOLIP), which is responsible for non-formal skills development (MOE, 2014). Within the MOE, the Department of Technical and Vocational Education and Training (DTVET) is the responsible department for TVET. DTVET oversees 35 Government Technical High Schools (GTHS) targeted to secondary school graduates to transform them to skilled workers and 22 Government Technical Institutes (GTI) which provide technical education and training to high school graduates so that they become technicians. Within MOLIP, the Department of Labour headed by the Director General, and more specifically, the Skills Development Division are responsible for overseeing all activities related to skills development. The division also leads to form National Skills Standards Authority (NSSA) which is responsible for the development of skills standards, assessment and certification. NSSA is now establishing skill recognition system of workers in Myanmar. Under ASEAN Economic Community (AEC) scheme, the occurrence of free flow of goods, free flow of services, free flow of capital and free flow of skilled labor is deniable. To facilitate that free flow of labor, the skill recognition system in ASEAN Project was launched in 2004 by the assistance of cooperation developed plan of ASEAN-Australia. One of the significant tasks of National Skills Standards Authority (NSSA) is fixing the competency and issuing the recognition certificate. In addition to NSSA, Ministry of Labour, Immigration and Population (MOLIP) also plays a significant role in the reform of the Employment and Skills Development (ESD) Law, which was passed in 2013 and lead to the creation of the National Skills Development Authority. According to UNESCO, which is providing support and policy assistance to the government on TVET development, the ESD Law is focused on “non-formal” TVET training in workplaces and for the unemployed, while the Ministry of Education is in charge of more formal training, including institutes and the government’s technical high schools and colleges.

One of the significant challenges of TVET is its tendency to grow beyond the scope of a single government ministry, such as education, labor, or industry. The nation

has already seen a total of 13 ministries including the Ministry of Education, Ministry of Labour, Ministry of Industry conducting TVET courses at their 247 training schools. Yet, this creates structural confusion among stakeholders. However, according to UNESCO (2016), Myanmar is making reasonable progress by moving TVET from the labor ministry and Manpower Development to the Ministry of Industry and Education. The approach enhances its growth through harmonization and funding, which is better mobilized through the two administrative departments

Ministry of Education is conducting various TVET courses at 247 training schools. In addition to that, more than 210 courses on 16 types of TVET are being opened by the private sector according to the official data (MOE, 2014). Nonetheless, Myanmar ranked 109th out of 130th countries in the World Economic Forum's "Human Capital Report 2016", performing poorly particularly in the vocational enrolment rate for those aged 14-24. Accordingly, TVET learning is increasingly relevant and should take the mainstream position in Myanmar

## **Research Methodology**

Qualitative research methodology was used in this study because the research questions in this study required exploring the knowledge and experiences of participants in Myanmar. Bailey (2014) specifically noted that qualitative research methodology provides this opportunity for interaction by way of face-to-face or telephone interviews. Several studies have also revealed that case study research can be considered a robust research method particularly when a holistic, in-depth investigation is required. Yin (2009) defines the case study as empirical inquiry that investigates a contemporary phenomenon within its real-life context. Merriam (1998) concurs that a case study design is employed —to gain an in-depth understanding of the situation and meaning of those involved (p.19). Accordingly, the case study method has been considered as the research method for the study.

The following research question guided the inquiry: what is the status of perspectives and challenges of TVET in Myanmar? Yin's (2009) case study design was adopted using evidence from interviews and review of selected government-related documents. The study utilizes a targeted review of literature, analysis of government

documents and interviews with key informants as illustrative sources of evidence for developing the case study.

To gain a holistic viewpoint on the status of the perspectives and challenges of TVET in Myanmar, purposive selection of participants was employed. Qualitative methodologists agree that there is no standard sample size but a school of thought advocates that the sample should yield sufficient data for data saturation. Charmaz (2006) suggested that “25 participants are adequate for smaller projects” (p. 114) and “15 is the smallest acceptable sample” (Bertaux, 1981, p. 35). Accordingly, to be able to obtain a rich and robust understanding of the case, purposive selection of participants was employed and 20 to 40 participants was targeted to interview. In the end, 35 participants from eight different groups was interviewed in 2020. In addition to that, to ensure the case is represented broadly and with sufficient varieties, the researcher put much efforts and spent considerable time and money to conduct comprehensive interviews not just in Yangon city, but also in Mandalay city as well as Naypyidaw city where government resides.

**Table 1** Summary of Participants Profile (pseudonyms were used)

No.	Pseudonyms	Position	Affiliation	Code
<b>Group 1: Senior Government Officers</b>				
1.	Dr NMT	Deputy Director General	Department of Technical, Vocational Education & Training, Ministry of Education	SGO-01
2.	Mr AT	Deputy General Manager	Ministry of Industry	SGO-02
3.	Ms KMA	Deputy Director	Skills Training Center, Ministry of Labor, Immigration and Population	SGO-03
4.	Dr. PKT	Director	Department of Technical, Vocational Education & Training, Ministry of Education	SGO-04
<b>Group 2: International Development Organizations</b>				
1.	Ms YYA	Consultant	Vocational Skills Development Program, Swiss Contact, Swiss Foundation for Technical Cooperation	IDO-01
2.	Ms MMS	Consultant	Asian Development Bank (ADB)	IDO-02
3.	Ms NYM	Deputy Head of Project/Senior Advisor	Promotion of Technical Vocational Education and Training	IDO-03
<b>Group 3: Industry/Business and Professionals Association</b>				
1.	Mr. YMA	Vice Chairman	Union of Myanmar Federation of Chambers of Commerce & Industry (UMFCCI)	BPA-01
2.	Mr. TL	Vice President	Federation of Myanmar Engineering Societies	BPA-02
3.	Mr. TK	President	Myanmar Computer Professionals Association (MCPA)	BPA-03

**Table 1** (Continued)

No.	Pseudonyms	Position	Affiliation	Code
<b>Group 4: Employers</b>				
1.	Ms MMMW	General Manager	Chatrium Hotel Royal Lake Yangon	EPR-01
2.	Mr KKW	Chairman	Sinma Furnishings Co., Ltd.	EPR-02
			Sinma Construction Group Co., Ltd.	
3.	Mr ZMH	Managing Director	EMJ Global Company Ltd (ICT Industry)	EPR-03
4.	Mr KMH	Managing Director	Myanmar Polestar Travel & Tour Co., Ltd	EPR-04
5.	Mr ZNK	Managing Director	KRK Engineering & Construction Co., Ltd	EPR-05
6.	Mr YNL	Executive Director	The RGN City Lodge	EPR-06
<b>Group 5: Students</b>				
1.	Mr. HWYL	Mechanical 2 <sup>nd</sup> Year Student	Government Technical Institute (GTI), Insein	STU-01
2.	Mr. AL	Industrial Engineering 1 <sup>st</sup> Year Student	Government Technical Institute (GTI), Insein	STU-02
3.	Ms CDA	Chef Cooking Class (3 months Short course)	Mandalay Hotel Vocational Training Institute (MHVTI)	STU-03
4.	Mr ATH	Hotel Operation (3 months Short course)	Mandalay Hotel Vocational Training Institute (MHVTI)	STU-04
5.	Ms KKS	Commercial Assistant 2 <sup>nd</sup> Year Student	Center for Vocational Training (CVT) Funded by Swiss	STU-05
6.	Mr NM	Electrical 1 <sup>st</sup> Year Student	Center for Vocational Training (CVT) Funded by Swiss	STU-06
<b>Group 6: Instructors and administrators from Government colleges/institute</b>				
1.	Dr NZA	Principal	School of Industrial Training and Education (SITE)	IAG-01
2.	Mr MK	Principal	Government Technical Institute (GTI), Insein	IAG-02
3.	Mr TMK	Associate Professor	Government Technical Institute (GTI), Insein	IAG-03
<b>Group 7: Instructors and administrators from Private colleges/institute</b>				
1.	Mr. NLA	Management Team Member	Center for Vocational Training (CVT)	IAP-01
2.	Ms SYD	Trainer (Commercial Assistant Subject)	Center for Vocational Training (CVT)	IAP-02
3.	Mr. Ana	Trainer (Electrical Subject)	Center for Vocational Training (CVT)	IAP-03
4.	Mr. KKS	Founder/CEO	Mandalay Hotel Vocational Training Institute (MHVTI)	IAP-04
5.	Mr. HHW	Trainer (Hospitality Subject)	Mandalay Hotel Vocational Training Institute (MHVTI)	IAP-05
6.	Mr. MT	Trainer (Chef Subject)	Mandalay Hotel Vocational Training Institute (MHVTI)	IAP-06
<b>Group 8: Other Stakeholders</b>				
1.	Mr. ZTH	Director	House of Nationalities, Parliament	OSH-01
2.	Mr. YYW	Vice Chairman	Myanmar Computer Federation (MCF)	OSH-02
3.	Mr. ZN	Scholar and Entrepreneur	Mandalay Technology Co., Ltd	OSH-03
4.	Mr. ZMT	Technical Director	Myanmar Information Technology Co., Ltd (as parent)	OSH-04

Under the Senior Government Officers group, the researcher successfully conducted interviews with relevant high-ranking officers like Deputy Director General and Directors from all three ministries which plans and implements TVET developments in Myanmar: Ministry of Education, Ministry of Industry, and Ministry of Labour, Immigration and Populations. Moreover, the researcher could manage to interview with a key person from Parliament who has a thorough knowledge of legal perspective of TVET as well as the challenges of the current TVET system in Myanmar. In addition to that, to obtain a rich and robust understanding of the case, the researcher was able to interview with consultants of Asian Development Bank (ADB), GIZ (German Development Agency - Promotion of TVET section) and Swiss Contact (Swiss Foundation for Vocational Skills Development Program). These three international development organizations are chosen due to their high involvement in technical and vocational skills development activities in Myanmar. And, with regards to the key players from business/industry association category, the researcher interviewed with Vice Chairman of Federation of Chamber of Commerce and Industry (UMFCCI), Vice President of Federation of Myanmar Engineering Society, and President of Myanmar Computer Professionals Associations (MCPA) since they could share their opinions and suggestions from the stand point of their respective industry. For the supply side (TVET Schools/institutes), the researcher traveled to Mandalay, the second largest business city, and interview some schools in addition to schools in Yangon. Finally, for the demand side, the researcher interviewed with several employers from different industries as well as some students from various TVET programs from many schools. The employers were chosen from three main industries which employ most of the TVET graduates namely hotel and tourism, construction, and manufacturing.

Yin (2014) and Moustakas (1994) submitted that an interview protocol would enhance the reliability of a case study. The procedure in the interview protocol provided definitive steps of carrying out the interaction with the participants (Moustakas, 1994; Yin, 2014). Accordingly, the researcher prepared and followed an interview protocol to facilitate consistency in the interview experiences of the participants, and to ensure the responses aligned with the research question. The interview protocol had the systematic procedure to interact with the participants with

steps including stating the background to the study, answering the participants' questions, asking the interview questions, and concluding the interview. Furthermore, the researcher has all participants signed interview consent form.

The researcher conducted the interviews in the private locations where the participants work to create the opportunity for participant and site observations (Yin, 2014) and to be able to record organization-based evidence the participant may wish to share. The interview session usually takes 30 min to 60 min. The researcher did not provide any form of incentive to any participants to participate.

To achieve trustworthiness, the researcher applied data triangulation method in the study. In this research, literature review approach was used for exploring relevant research on NHRD, TVET systems, workforce development and economic development. And then, document analysis was also conducted on selected government documents to understand the existing policy and system of the TVET in Myanmar. After that, semi-structured interviews were used to elicit informed opinion and expert knowledge on the status and current practices of TVET system and programs in Myanmar.

A thematic analysis of the interview data was supported by evidence from analysis of documents published by government and international development organizations. In addition, the researchers tried to link discussions of the data from existing research literature to develop main arguments. The researcher followed the steps of data analysis suggested by Creswell (2012), which are: data transcribing; data coding; themes identifying; and reporting the findings.

## **Research Findings**

Five main themes emerged from the findings of the analyzing collected data of the transcripts of the semi-structured personal interviews are as follows:

Theme One: Importance of TVET to Myanmar

Theme Two: Poor status and facilities of TVET schools and inferior quality of graduates

Theme Three: (Negative) Perception of TVET as second class

Theme Four: Industrial Partnership and Employers active participation

Theme Five: Irrelevant and outdated TVET Curricula/Programs

**Theme One:** Importance of TVET to Myanmar

Similarly, to what the researcher found it in the literature review section, and it is also most of the participants belief that TVET is essential and very important to a country like Myanmar. One of the participants from Employer groups who is doing manufacturing business as well as construction collaborating with Japanese companies, believed TVET programs provide the students the opportunity to learn necessary skills for a career and added:

There is a shortage of highly and/or semi-skilled technicians and labor in Myanmar especially in construction industry and that technical and vocational education and training (TVET) are expected to train a good stock of highly skilled technical manpower, which could play an essential role in the economic development of a nation. (EPR02)

Considering the myriad problems facing developing countries like Myanmar, TVET is not only important, it is a prerequisite. Some studies indicate that, in average two thirds of the population in most of the developing countries generally work in jobs that require a skill level which is usually associated with vocational education and training. Most participants viewed Technical and Vocational Education and Training (TVET) as a tool for productivity enhancement and employment.

Throughout the interview, Mr. YMA, Vice Chairman of The Union of Myanmar Federation of Chambers of Commerce and Industry (UMFCCI) stressed the importance of upgrading skills of workers to enhance their productivity and to progress their career. The findings from literature supports Mr. YMA's statement that emerging economies view TVET as a skills-development and training system for developing their workforce and addressing unique issues such as rural–urban migration, unemployment, declining job opportunities in the formal sector (King, 1993; Oketch, 2007; Stuart, 2012).

As stated above, the opinions and perceptions of the participants are almost unanimous regarding the importance of TVET to a developing country like Myanmar. But in Myanmar, there are still very few accessible educational opportunities available to young people who have left school in the early stages of their lives, shared her view by Ms. YYA, a consultant at Swiss Contact, Swiss foundation for technical cooperation. There are approximately one million primary graduates or lower- secondary dropouts

without access to TVET. Moreover, there is limited access to TVET especially for disadvantaged youths, i.e., young population from low-income families, ethnic minorities or from remote areas and border zones.

Mr. TL, vice president of the Federation of Myanmar Engineering Societies, stress the importance of access to education, stating that it's important to note that only 30% of the students who took matriculation exam passed and continue to the University education. TVET must be the solution for those 70% of the students who failed matriculation exam.

**Theme Two:** Poor status and facilities of TVET schools and inferior quality of graduates

It was evident that there are insufficient teaching materials, teaching aids, training laboratories, and computers to support students and teachers. The participants strongly agreed that without good leadership with right economic vision, the TVET schools will not produce good-quality graduates and, as a result, the economy will not thrive and create employment.

For example, Mr. ZMH, Managing Director of EMJ Global company limited expressed his opinion that “The Myanmar government is not investing enough in TVET schools and programs because of lack of economic vision and outdated business mindset. This is partly because they were born in socialist era.”

Richardson and Hynes (2008) argue that industry is increasingly looking to recruit graduates with practical work experience and commercial understanding. Consequently, students with strong technical abilities but little practical experience are losing out on potential jobs. Most of students interviewed agreed on the importance of workshop and practical training. But findings show that local TVET schools lack enough workshops and laboratories. The few that are available are not functional because they are not properly maintained. Most of the students mentioned that the materials are not related to what they studied. From the researcher's own investigation, it can be concluded that most of the TVET schools do not have adequate facilities/equipment for some majors/subjects. Many students indicated that their courses are more theory oriented than practical oriented. Some students indicated that the balance between the theoretical and practical sessions is inappropriate.

Even though Deputy Director General of department of TVET mentioned that TVET department is the second largest budget spender after basic education department, almost all of the participants perceived that the government does not ensure adequate funding or provide the necessary equipment and tools in the labs for practical application. Myanmar Government's limited level of support for TVET schools and programs lead to poor status of TVET schools and inferior quality of graduates.

**Theme Three:** (Negative) Perception of TVET as second class

As in many other countries, generally TVET is viewed negatively in Myanmar. This is evident in the very low proportion of students enrolled in vocational programmes at the upper secondary level. Almost all of the interviewees shared the widely held notion of university education as the only path to success and TVET as being second class.

A major problem for TVET in Myanmar is the perception of being an inferior form of education in comparison to universities of higher education. As noted by the ADB consultant: There is decline in enrollment. Although the government is making efforts to recruit students, they are not succeeding much. ADB consultant continue to state her view:

“There is an understanding that bright students often diverge away from TVET and TVET is societally perceived to be less of national importance and a priority for those whose academic capacity is perceived to be lower than the requirements of higher learning institutions” (ID002).

The difficulty of changing people mindset was captured by the following statements made by a consultant of GIZ, German development agency.

It has been always a challenge to change the mindset of parents, the community and stakeholders about vocational education being second choice to academic education. People tend to view TVET in a negative way, as education and training meant for those who have failed in the society. Most parents even the ones with TVET background want to see their children becoming engineers, doctors, lawyers, etc. just because they believe this will give them better job opportunities. This challenge is vital to development of

TVET and it is apparently one of the major obstacles to improve the social status of TVET. (IDO03)

**Theme Four:** Industrial Partnership and Employers active participation

Various literature stated that the needs for highly skilled manpower could be achieved through the active industry involvement in Technical and Vocational Education (TVET). TVET has shifted from focusing solely on students to including the needs of employers (OECD, 2010) that has necessitated collaboration with industry partners. Accordingly, to be able to capitalize on the potential of TVET, employer participation is increasingly required particularly in the area of improving TVET curriculum to enhance student's employability and reflect labor market needs. But in Myanmar, there is very little evidence of the involvement of businesses organizations and employers' representatives in the planning of TVET.

One of the senior government officers who is responsible for setting relevant vocational, education and training policy commented that the level of cooperation between industry and institutions in Myanmar is still low and there are many opportunities for improvement. He continues to state that "Businesses/employers are consulted occasionally, but not in a periodical way. Ministry of Education is planning to accept employers' ideas, opinion and needs within well- established mechanisms like forums, committees, or other groups" (SGO01).

Another important area of employers' participation is industrial placement. It was evident that the local TVET schools are facing serious challenges of limited resources, such as lack of proper funding and provision of learning and teaching tools and equipment. The main purpose of industrial attachment or training is to expose students to real working conditions and afford them the opportunity to learn from experienced and knowledgeable individuals actually doing the work. Practice of industry attachment is also an indicator of a demand- driven TVET system; it can bring businesses and industries to the TVET providers, and the TVET institutes can cater to the needs of businesses and industries in a better manner.

From the employers' perspective of accepting TVET students as on-job-training, most of the employers have indicated their interest in supporting the TVET sector. However, the strength of actual collaboration between the industry and TVET schools

is still weak and need to be improved. One of the employers who is doing construction and manufacturing business has highlighted some barriers to partner with TVET schools in Myanmar. “There is a lack of formal invitation from the institutes and that there is still bureaucracy in accessing institutes for various partnerships. Additionally, there are no clear incentives for participation, particularly if the involvement required from the industry is heavy” (EPR02).

Mr. MK, a principal of Insein GTI briefly describe the situation of the TVET schools under Ministry of Education,

For those students who studies at the higher-education TVET providers such as Government Technology Universities, they have a month-long practical experience during their vacations every year. This is called practical industrial training and is a mandatory part of the curricula. They also have to complete an internship in a company during the second half of their final year. Additionally, they have to submit a report and defend it. But, for students studying at lower institutes such as Government Technical College (GTC) and Government Technical Institute (GTI), it was quite difficult to find businesses for industry attachment probably due to the large number of students at those GTC and GTI.

#### **Theme Five: Irrelevant and outdated TVET Curricula/Programs**

In countries worldwide the curriculum is at the heart of the education and training system. But it was evident that TVET Colleges in Myanmar seem to lag behind in changing curricula to meet student interests.

Managing Director of the Engineering and Construction Company, Mr. ZNK mentioned that “TVET is limited in quality and relevance in the Myanmar setting. The curricula in large proportion do not incorporate technological innovations and as a result, graduates do not keep abreast with trends in the world of work where they are intended to work.”

Mr. YMA, vice chairman of Union of Myanmar Federation of Chamber of Commerce and Industry (UMFCCI) supports Mr. ZNK’s view:

It seems like that TVET programs in Myanmar were outdated and unresponsive to the emerging economy. In addition to that, TVET college teaching staffs do

not have contact with industry and had little knowledge of new trends in the workplace. Provision of TVET are very much theory-oriented. Lack of relevant practical training opportunities might be because of lack of qualification and experience of TVET teachers and trainers, and due to outdated and/or dysfunctional equipment.

Part of the reasons of irrelevant and outdated curricula might be the current practice of centralization of creating curricula. The following statement from senior government officer of Ministry of Education proved that.

Dr NMT, senior officer of the department of technical vocational education and training (DTVET) under the Ministry of Education explained about the current practice of curriculum:

The department of technical vocational education and training (DTVET) is responsible for all curricula in pre-university TVET, such GTC, GTI and GTHS. There is a curriculum development committee and there are groups of people in the DTVE who decide what should be taught.

Another government officer from Ministry of Labor revealed how outdated their current curricula and what are their plan to create demand-driven curricula to be relevant for industry.

Ms. KMA deputy director of Skills Training Center (STC) under Ministry of Labor, Immigration and Population briefly described how curriculum is being developed at STC. “All STCs are currently using curricula that was revised long ago in 1976 adapting the modules recommended by UNDP and ILO. However, in the future STCs will be using the competency-based curricula developed by the National Skills Standard Authority (NSSA).” She continues to state that

Currently, there are no relation between the needs of industry and what public TVET providers are offering in their curricula. In the future, private TVET providers and public providers, which are part of the NSSA training on the competency-based curricula, are expected to have a more demand- driven curriculum as the results of the Comprehensive Education Sector Review (CESR) process. However, public providers under the Ministry of Education, like

universities, colleges, and technical high schools, need to have a mechanism of involving industries and businesses in their curricula design process.

Another important thing the researcher found that almost all the Government Technical High Schools (GTHS) and Government Technical College (GTC) are teaching only specialized 4 majors: civil engineering, electrical power engineering, electronics engineering and mechanical engineering. These technical schools and colleges need to expand their course offerings to cater the wider market. Walker (2006) suggested broadening the TVET curriculum by increasing the number of courses to match participants' educational background and their job responsibilities. A broad curriculum not only covers a wide range of market needs, but also offers many career options for TVET graduates.

## Discussion and Recommendation

Majority of the previous studies on technical and vocational education and training (TVET) in Myanmar were largely based on literature review and secondary data. Missing from previous research was an original study integrating the opinions and perceptions of various stakeholders. Integration of literature review, document analysis and finding from data analysis of interview data makes this case study much more compelling.

The analysis of the research question produced different perspectives, views, opinions about current TVET system, schools and programs in Myanmar. The research has shown that TVET in Myanmar has the potential to contribute to economic and social development if the appropriate policies and interventions are introduced. However, in order to fulfil the potential of TVET, there are several challenges which are revealed by the analysis of the research findings.

Such challenges include poor status of facilities and equipment, lack of active industry participation and so on. Hence, it is advisable that TVET institutions should identify employers in relevant industries that would benefit from the skills of TVET students. And then, make partnership with industry to provide work-based learning programs utilizing the employers' facilities and equipment. Moreover, close linkage with industry can help institutions identify emerging labor market trends to shape curriculum

to meet the needs employers in the labor market while sharing the facilities and equipment of employers.

Yet more challenges include poor public patronage, low youth enrollment in the TVET schools and their programs, which suggests that students and their families do not see the value of TVET and continue to pursue general academic education as usual. It is therefore imperative for policy makers to make TVET attractive to students and do some public education programs on the importance of TVET. Improving the attractiveness of TVET education is an important issue that needs to be addressed. A substantial amount of research has been conducted to discuss how to enhance the image and attractiveness of TVET in many developed countries and very recently in developing countries (Coles & Leney, 2009; Nägele & Bestvater, 2016; Ratnata, 2013). TVET is still considered as a ‘second-class’ education in Myanmar. In many cases, it is regarded as a last resort for those who fail to enter higher education or to leave formal education due to certain unforeseen reasons. This attractiveness is now one of the major concerns regarding improving TVET sectors in Myanmar like other developing countries.

The findings presented in this study confirmed that, presently, Myanmar’s TVET system is dominated by supply-driven TVET for both public and private providers. It can be concluded that the consultation system with entrepreneurs, business associations, and chambers of commerce that would enable the system to be more demand-driven is not yet in place. At this stage, there is no evidence of public or private-enterprise involvement in the development of curricula. The consequence of this situation has been that TVET in Myanmar is highly supply- driven and the training subjects are defined with little or no consultation on the needs of the labor market. In order to assure quality in TVET and a demand-driven TVET system, it is necessary to involve the private sector in each of the components of TVET.

## Recommendations

Technical and Vocational education and training in Myanmar should be improved in terms of structure, programs, processes, and practices in order to be effective in improving the quality of learning outcomes, making it more accessible and

attractive to all, and ensuring it is relevant and connected to the world of work. Findings show that the Myanmar government's poor investment in human-capital development and, in particular, its limited level of support for technical and vocational education and skills training (TVET) have contributed to the shortage of highly skilled technical manpower in Myanmar.

The recommendations given here are based on the findings of a thorough analysis of the literature reviews and stakeholders' interviews. The recommendations of this study are expected to enable the leaders and policymakers to formulate and implement appropriate policy toward TVET schools and programs in Myanmar. Ms. MMS, ADB consultant summarized her recommendations as follows:

It needs TVET curriculum reform, trained TVET teachers with work experience, incentives for the TVET teachers, upgraded training facilities and equipment, a system to link with respective industries and improve collaboration and cooperation among TVET providers, QA in TVET. In addition to that, to improve TVET system, it is necessary to increase/create jobs and job opportunities for the TVET students/ trainees.

Dr NMT, deputy director general of department of technical, vocational, education and training, under Ministry of Education mentioned his recommendations as such that "to improve well-functioning TVET system, first relevant rules and regulations need to be strong. After that, relevant authority needs to enforce those rules and regulations. Without enforcement, rules and regulations will be useless."

Ms. MMS, ADB consultant, also suggested that "It would be better if there were a national action plan developed by the Government with the support of concerned Development Partners and Industries/ Private Sectors." Mr. ZTH, director of House of Nationalities, Parliament, agreed with the point mentioned by Ms. MMS, explaining that "the country used to be weak in master plan. Accordingly, there are weak linkage/coordination among ministries and stakeholders. To overcome this, it should be a kind of national level master plan to coordinate all the TVET efforts in Myanmar." Similarly, Mr. YMA, vice chairman of Union of Myanmar Federation of Chamber of Commerce and Industry (UMFCCI) suggested that

a kind of central TVET authority board should be formed at national level. That board should be empowered to run independently with sufficient financial supports. The board members should be qualified people who could commit their time as well; In Myanmar, whenever a committee or a board is formed, its members are usually selected from a group of existing people who are already engaging in some kinds of work and/or projects; accordingly the selected members cannot give much time and efforts to successfully perform the objective of the board. That's why I would like to suggest selecting board members who could provide enough time and efforts.

With regards to increasing access to TVET education, Ms. MMMW, General Manager of Chatrium Hotel Royal Lake, suggested that “TVET school should be opened in rural areas, not just in big cities; since young people from rural areas could not afford to come to Yangon to attend TVET training. Even TVET training is free; they cannot simply afford accommodation.”

Mr. YYW, Vice President of Myanmar Computer Federation (MCF), who is also a certified accountant and has been actively involved in various kinds of human resource development activities in Myanmar, made a brilliant suggestion to open many TVET schools with the least budget. The government is suggested to transform existing monastic education centers into TVET schools. There are many monastic education centers across the country. It would be the most cost effective and shortest time frame if Government could upgrade existing monastic education centers to TVET schools. In that way, government could spend money wisely on required training-equipment and trainers' salary instead of spending money on constructing new schools.

Dr ZN who had done his Ph.D. dissertation on Transitioning Myanmar: A case study in National Human Resource Development (NHRD), said that “Government of Myanmar should encourage private sectors to invest in TVET education and training by creating an enabling and supporting environments.” Mr. KKS, CEO of Mandalay Hotel Vocational Training Institute (MHVTI) suggested similar one with specific action: “Government should lend its land to private TVET providers with discounted rate, lower than market rate for a long term. If so, the private TVET providers could provide training with affordable price to the needed young people.”

Mr. KMH, Managing Director of Polestar Travel and Tour pointed out one critical success factor to increase student's enrollment at TVET schools. "Government should create pathway to higher education degrees (bachelor, master, and even Ph.D.) for those TVET graduates who qualified enough. If students and parents see the pathway, their perception on TVET might change."

Moreover, TVET curriculum should be designed as demand driven and flexible course tailored to the local needs. Mr. YYW, vice chairman of Myanmar Computer Federation (MCF) pointed out the problem of current TVET curriculum: "Myanmar policy makers and curriculum designers seem like they do not know what the country needs, what the job environment demands." Additionally, he continues to share his view on curriculum development

Curriculum development is indispensable for the programme to be recognized by the respective education authority as well as professional bodies and industry. Accordingly, apart from the academicians, the people from industrial sectors should also be involved in developing the curriculum so that the curriculum could provide adequate opportunities for personal and professional development and meet a set of educational and professional outcomes. In that way, TVET programs could achieve popularity and acceptance by local industries.

Mr. ZMT, technical director of Myanmar Information Technology Co., Ltd, the largest software development company in Myanmar, supports Mr. YYW's suggestions by commenting "TVET needs to find out what kinds of skills are and will be needed in each region of Myanmar since different regions might have different needs". Ms. NYM, senior advisor at GIZ, said that "TVET curriculum should reflect its own industry needs. But, in Myanmar, some TVET schools are simply using curriculum donated by foreign development partners, without taking into account of industry needs in Myanmar." Mr. TL, vice president at Federation of Myanmar Engineering Society, shared his view that though TVET strategy should be national-level strategy, the implementation plan should be localized based on each regional area. Since big project could not fit in the local needs; targeted customized small projects/programs should be implemented in rural areas.

The other recommendations are summarized as follows for the consideration of the leaders and TVET policymakers in Myanmar:

1) To encourage employer participation in accepting on job training and/or internship: Government could consider providing not just tax reduction, but also low-interest loan to business. In that ways, private sector might be interested and active in supporting TVET schools.

2) To raise public awareness of the TVET schools: Ms. YYA, a consultant at Swiss Contact, Swiss foundation for technical cooperation suggested to rollout several branding activities so that the public are aware of the available TVET schools and programs and the benefits of those programs. Mr. KMH, Managing Director of Polestar Travel and Tour provided some idea of increasing public awareness: “there are a lot of successful people whose education background is TVET in real world; it would be great if they can share their life stories on how they build their successful lives after pursuing TVET education.”

3) To provide low-cost loans to outstanding graduates who has entrepreneurship mind, not just providing stipends for needy TVET students: According to the participants, this will help to attract poor but qualified students to patronize TVET schools. The government should also make low-cost loans available to local TVET school graduates to enable those with entrepreneurial skills and talents to setup their own small-scale enterprises.

## **Limitation and Future Research**

It is understandable that in every scholarly work, such as writing a dissertation or thesis, researchers are restricted in various ways, including limited funding; timeframe; and, of course, the scope of their study. As Simon (2011) noted, the restrictions can affect the resources available to the researcher as well as the person’s thinking process, assumptions, and limitations.

One of the limitations of this study was the interview was conducted to persons living in Yangon, Mandalay and Naypyidaw, three major cities of Myanmar. However, the study used a sample of participants believed to possess the knowledge and skills to supply the needed data.

This research was an exploratory case study and although the findings may be relevant to other emerging economies, generalizations of the findings to other context have severe limitations. Data for this research were gathered from key informant interviews and archival records and a more rigorous study that employs additional data collection such as surveys would be needed to boost the findings of this research.

## Future Research

Due to the lack of previous research and empirical studies in this area of TVET in Myanmar, neither changes nor trends about it can be observed. Therefore, it is suggested that similar research be conducted in the future. This study generally covered hotel and tourism, manufacturing, construction industry sector. It is suggested that future research should involve other sectors or should specialize in one sector, such as the oil and gas industry and/or agriculture. This study covers only Yangon, Mandalay and Naypyidaw cities; future research should involve more universities and TVET institutions in different geographical areas, especially rural areas of Myanmar.

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