



# **Role of TVET in Human Resource Development and Sustainable National Development of Bangladesh: A Review of Literature**

**Md. Shamimul Islam**

Assistant Professor, Department of Business Administration, Leading University, Sylhet, Bangladesh

**Email address:**

\*Corresponding author: [mshamim09@lus.ac.bd](mailto:mshamim09@lus.ac.bd) (Md. Shamimul Islam)

**To cite this article:**

Md. Shamimul Islam. Role of TVET in Human Resource Development and Sustainable National Development of Bangladesh: A Review of Literature. *International Journal of Multidisciplinary Informative Research and Review*. Vol. 1, No. 6, 2021, pp. 263- 269.

---

**Abstract:** The sustainable development of a country largely depends on the effective utilization of its productive human resources. Technical and vocational education and training (TVET) plays a pivotal role in human resource development and thereby moves up the economic acceleration, poverty alleviation, youth and women's empowerment, and social inclusion by creating skilled manpower, enhancing industrial productivity, and improving the quality of life. Bangladesh is currently enjoying a demographic dividend that has produced a huge working-age population which implies that if this manpower could be equipped with employable skills sustainable development of Bangladesh could be ensured very easily and earlier than expected through rapid industrialization, skilled manpower exports, attracting FDI inflows, spurring entrepreneurial initiatives and lessening the dependency of foreign workers in our industrial units that drain down a huge amount of foreign currency. Thus, human resource development has become an emergency issue for Bangladesh to achieve sustainable development goals (SDGs) and other targets like vision 2021 and 2041, thereby ensuring a solid and sustainable national development of Bangladesh. Given this background and in consideration of the increasingly competitive nature of global markets, this paper aims to focus on the role of TVET as an effective tool for human resource development and contribute to driving the sustainable national development of Bangladesh. In preparing the paper, secondary data has been used by reviewing relevant literature. It has been found that TVET plays a significant role in producing skilled human resources that can ultimately drive a nation to sustainable development. The findings of the study will have an immense impact on policymakers and government authorities and agencies as they ponder how to effectively use TVET interventions to equip manpower with the requisite employable skills. In the end, the paper, therefore, proposes some suggestions based on the findings of the study.

**Keywords:** TVET, Human Resource Development, Sustainable Development, Bangladesh.

---

## **1. Introduction**

A nation's economy is driven by its active labor force. The utilization of a productive workforce helps in the development of a nation as a whole. Education is recognized as a significant factor in the economic growth of a nation but technical and vocational education and training are found to be equally important in the developing nations due to the high rate of dropouts and the inability of general education to produce good results (Adams, 2007). As a developing country, Bangladesh has tremendous opportunities for economic development by creating skilled human resources for the internal and international labor market.

Since the demand for skilled human resources especially in mid-level management is increasing day by day in the local and international markets, TVET can play a pivotal role in the development of our economy by responding to that demand through contributing to effective human resource development. Bangladesh has been blessed with a demographic dividend since the 1970s, which means we have a large working-age population resulting from the rapid fall in the birth rate. So, if we can provide our people with employment opportunities, the country can be more productive as more people contribute to overall economic activities.

In 1989, people aged 15–64 made up only 54% of Bangladesh's population. By 2016, this share was estimated to be 66% and was forecast to continue to rise to 69% in 2022 through 2044 (United Nations, 2015). Therefore, to achieve competitive advantage and to ensure solid economic development effective use of human resources is a must (Lisbon Council, 2007).

The ability to perform tasks and solve problems is defined as a skill (Organization for Economic Co-operation and Development, 2009). A set of cognitive, non-cognitive, and technical skills are often used to refer to as '21st-century skills' (Global e-Schools and Communities Initiative, 2013). Cognitive skills are basic abilities that people use to think, study, and learn, for example, literacy, numeracy, and the use of theory, concepts, or tacit knowledge, non-cognitive skills also termed as soft skills refer to socio-emotional personality, traits, behaviors, and attitudes while technical skills include business, ICT, and specialized skills. Technical skills are also termed as industry-specific skills vital for the production of goods and services (Edwards, 2008); (Prospects, 2010). However, through technical and vocational education and training (TVET) we can equip people with these skills to help them create their own jobs or become self-employed. Hence, this study has been undertaken to focus on how TVET can play a vital role in developing human resources and facilitating the transition of a nation like Bangladesh to a more sustainable economy.

## 2. Objectives of the Study

The broad objective of the study is to focus on the role of TVET as an effective tool for human resources development and subsequently contribute to drive the sustainable national development of Bangladesh. However, the specific objectives of the study are as follows:

- ❖ To understand the ways TVET aids in developing skilled human resources.
- ❖ To know the role of TVET in sustainable national development.
- ❖ To address the urgency of TVET interventions for developing skilled human resources and sustainable national development in Bangladesh.

## 3. Methodology of the Study

In this paper secondary data has been used by reviewing relevant literature. In doing so, the desktop survey that includes, browsing internet sources related to TVET and TVET affiliated institutions, and content analysis from the texts of TVET journal articles and policy papers was used.

## 4. Literature Review

### 4.1 Technical and Vocational Education and Training (TVET)

TVET is defined as the acquisition of knowledge and skills for the world of work (UNESCO, 2010a). As a special type of program, it stressed the application of knowledge, skills, and attitudes essential for employment in a particular occupation or cluster of related occupations (Gu et.al, 2011). Likewise, (MacLean & David, 2009) stated that TVET is concerned with enabling individuals with the knowledge and skills to increase the opportunities for productive empowerment and economic development in knowledge economies and a rapidly changing work environment. (MacLean & Wilson, 2009) explain it as gaining education and skill to increase the potentials of productive work and personal empowerment and socio-economic development for ensuring sustainable livelihood in the rapidly changing work requirements. Furthermore, (Kingombe, 2012) and (Badawi, 2013) claim that UNESCO and the ILO adopted TVET in consultation with their member states and partner agencies incorporating the study of technologies and related sciences, and the acquisition of practical skills, attitudes, and knowledge in various sectors of economic and social life. (UNESCO, 2005) also asserted that what differentiates TVET from other forms of education and training is its emphasis on work productivity. TVET strengthens manpower development strategy that leads to the acquisition of applied skills as well as basic scientific knowledge for useful living within the society.

### 4.2 TVET as a Tool for Skilled Human Resources Development

TVET can generate the innovative capacity of nations if provided with career counseling and soft skills such as creative skills that can be used nationally to find new technological solutions or be exported to developed nations. As an indispensable

complement to general education, TVET equips the labor force with the necessary skills to grasp opportunities in the job market. In spite of having an abundance of natural resources, underdeveloped or developing countries fail to attract multinational enterprises through foreign direct investments which cause the foreign investors to relocate due to the dearth of pertinent skills and knowledge in the labor market (Farstad, 2009). Special emphasis has been given to TVET by the developing countries by incorporating it in their development plan and policies. Due to the enhanced access to the labor market productive and skilled workforce has a chain effect on economic growth. If TVET programs are implemented properly skilful human resources development gets accelerated and skill empowerment of the labor force, therefore, makes them productive. TVET helps raise employment opportunities for developing nations, especially in rural areas. The South Asian nations like, Pakistan, Nepal, Bangladesh, and Sri Lanka that face a high rate of unemployment heavily relies on foreign employments for sustainability and thus can benefit from skill centered TVET programs to prepare for foreign employment and also to implement youths in the local market (Martinez-Fernandez & Choi, 2013). Skills of the workforce are built upon the wheel of technical and vocational education and training. In the age of globalization, we cannot expect sustainable human capital development without the effective implementation of vocational and technical education. Since vocational and technical education acts as an instrument for change and development and provides service-oriented skills, which play a significant role in human resources development for sustainable economic revival.

#### **4.3 Sustainable Development and TVET**

Sustainable development has been defined as fulfilling the needs of the present generation without jeopardizing the ability of future generations to meet their own needs (World Commission on Environment and Development, 1987). (Kurya & Hassan, 2007) defined it as a continuous and progressive expansion of the volume of goods or services in a given economy with the improvement in the socio-economic life of the current and upcoming generation. (Hardi, 1997) indicated that sustainable development is an ongoing process of evolution rather than a fixed state of harmony; in which people take development-oriented actions to satisfy their present needs and at the same time enable the future generations to meet their own needs. With these conceptual understandings in place, sustainable development in the Bangladesh economy can be seen as a pattern of development that permits future generations to have access to basic life-sustaining essentials, such as food, protection, healthcare, clothing, and shelter as well as the current generation to have access to at least a high level of living, self-esteem, and freedom. For sustainable development, TVET skills simply mean standing on a more holistic approach to TVET programs to create a rebranded Bangladesh for youths of present and future generations. It aims to assist youths in continuously acquiring TVET skills in order for them to make informed decisions for the benefit of themselves and others, both now and in the future. Hence, TVET skills for sustainable development as an approach not only provides academic information to youths but also gives them hands-on experience that can be used to move Bangladesh towards sustainable development.

#### **4.4 Role of TVET in Human Resources Development and Sustainable Development**

The United Nation's International Centre for TVET (UNEVOC) highlighted the role of TVET in terms of job creation and sustainable development, especially in the changing nature of global business and technological landscape demand for skilled and motivated human resources are felt intensely which we can be met effectively by TVET interventions and thus the quality of socio-economic and environmental conditions can be improved (UNESCO-UNEVOC, 2009).

(The UNESCO-UNEVOC, 2012) in its report firmly asserted that this form of education can be an instrument for tackling poverty, enhancing employability through skill acquisition, and boosting sustainable development in a different continent. Developed and developing countries, already recognized TVET as a great intervention in equipping individuals with necessary competencies, thus enabling them to effectively contribute to social, economic, and technology innovation (Netherlands Organization for International Cooperation in Higher Education, 2010).

(The UNESCO, 2010b) further estimated that about 80% of occupations around the world are based on the application of TVET skills for the world of work. This indicates acquisition of TVET skills will largely determine the future success of any country, individual, enterprise, and community. (Akerle, 2007) and (Rufai, 2013) described TVET as a practical aspect of education that enables students to acquire demonstrable skills that could be used to realize economic benefit as well as a sustainable livelihood.

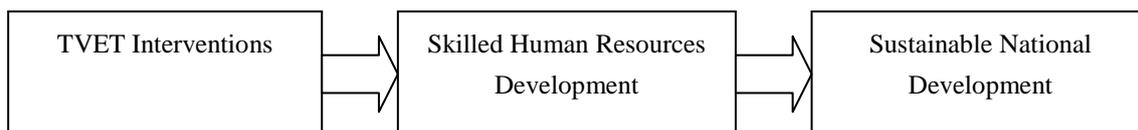
From the evidence of some Asian countries, it seems that there has been a paradigm shift to TVET. The economic development of Japan, Singapore, and Korea has been significantly accelerated by the TVET sector (Asian Development Bank, 2004). Since

the TVET system of these countries is well-established unemployment rate remained constantly low and sustained high economic growth due to the possession of TVET skills by their populations (Agrawal, 2013). Based on their success story, the government of Bangladesh may replicate the policies that have been put in place in these countries so that it can develop marketable skills in its youths and transform these skills into generating employment through venture development. (Tilak, 2003) had observed that TVET plays a pivotal role to reduce mass joblessness and equip graduates with skills that enable them to be self-reliant and thus collective growth can be achieved.

(Maclean, 2008) further stated that effective skill development for employability and sustainable livelihood is essential if sustainable development is to be achieved, and this further provides a foundation for peace building through poverty alleviation and rising income levels. (Awotunde, 2000) and (Igwe & Oragwu, 2014) suggested that TVET due to its huge contribution to economic development through job creation and securing employment for its graduates hence it should be an indispensable part of national development strategies. (Burchardt et.al, 2002) also illustrated that investing in human capital enhances the quality of human resources thus economic growth and development can be stimulated and social costs can be saved. If graduates are well-taught and properly inculcated with the TVET skills it would help them secure gainful employment and start their own business, thus exploiting employment opportunities would give them more dispensable income that further fuels sustainable development. (Hailu, 2012) stated that career options of TVET graduates with requisite skills are either wage employment or self-employment, both are vital in that the former is to supply the skilled human resources to the industry and the other one is venture creation. Thus TVET is an important program that equips recipients with the requisite skills required to improve access to employment opportunities, raise income capacities for poverty alleviation, and promote peace and security.

From this elaborate review of literature, it is clear that TVET plays a significant role in producing skilled human resources who can subsequently contribute to sustainable national development.

Based on this finding we can draw a conceptual model of how TVET can help to generate skilled manpower and then contribute to national development.



*Figure 1: Conceptual Model of the Study*

## 5. Why is TVET intervention an urgent agenda for sustainable national development of Bangladesh?

The government of Bangladesh has taken vision 2021 and vision 2041 seriously to be middle income and developed countries by the years 2021 and 2041. Hence government of Bangladesh has taken SDG targets seriously to be achieved by 2030 which were fixed up by the United Nations as a follow-up action plan of the millennium development goals (MDGs) 2015. The 7th five-year plan of Bangladesh mostly focused on the SDG goals and targets. All newly implemented policies, development plans, projects, and programs are linked to and aligned with the SDGs and other national goals such as Vision 2021 and 2041. A serious discrepancy between our development expectations and the availability of required skills has been identified during resource allocation for these development activities. So, Skills development has become an urgent issue for Bangladesh to achieve its visions and to increase valuable foreign currency earnings in the form of export earnings and remittance (Abdin, 2017). A study conducted by (BIDS, 2017) titled “Labour Market and Skill Gap in Bangladesh” showed labor demand has been projected to increase from 63.5 million in 2016 to 88.7 million in 2025. The rapid increase in projected labor demand is the result of high projections of GDP growth. From the year 2021, labor demand will be in excess of the supply of labor in Bangladesh. In another study conducted by (BIDS, 2016) titled “Skill Gap Analysis for Selected Sectors” found that the agro-food sector experienced the highest skill gap followed by the RMG Sector and every sector of Bangladesh are in short supply for generally skilled workers and semi-skilled workers. A projection was made about the demand for skilled workers for the fiscal year 2025-26 in the same study and it was estimated to increase 261% in the agro-food sector, 54% in the construction sector, 54.95% in the healthcare sector, 35% in hospitality and tourism sector 100% in IT sector, 107% in the leather goods sector, 76.95% in the light engineering sector, 122.6% in RMG sector and 677% in the shipbuilding sector. It is clearly evident from these study findings that, to achieve the vision and to ensure the successful implementation of SDGs, Bangladesh has to develop skilled manpower in every sector. To meet this skill gap, the government is trying to restructure the

overall education system and the technical and vocational education systems are given priority over general education. Hence, TVET could be a catalyst for the future economic development of Bangladesh and it should be made a vital part of its education system to expedite its rapid industrialization.

## 6. Recommendations

The following recommendations have been proposed for making TVET interventions more effective.

- ❖ The private sector should be encouraged to establish technical institutes with up-to-date modules and laboratory facilities.
- ❖ The government should allow foreign investment in the capacity building sector of Bangladesh to facilitate technology and managerial capacity transfer.
- ❖ A massive initiative is required to draft and adopt a competitive course curriculum, modules, trained teachers, laboratory facilities, industrial attachments, and other necessary tools for skills development.
- ❖ Linkages between employers and most technical and vocational education and training (TVET) institutions should be enhanced so that, the responsiveness of TVET to job market demands becomes consistent.
- ❖ Infrastructure and facilities should be increased.
- ❖ Develop qualified staff with practical experience relevant to training students to meet the contemporary needs of industry and employers of labor.
- ❖ Budgetary allocations for TVET should be increased.
- ❖ Relevant and up-to-date TVET courses need to be developed.
- ❖ A wider range of TVET courses need to be developed in terms of demand and cost-effectiveness, not only for offering various courses but also for the duration of the courses, for students.
- ❖ Encourage industrial partnerships in skill training delivery to develop youths as a skilled workforce to meet the market's needs.

## 7. Conclusion

Technical and Vocational Education and Training (TVET) plays a pivotal role in human resources development and thereby accelerates the economic development, poverty alleviation, youth and women's empowerment, and social inclusion by creating skilled manpower, enhancing industrial productivity, and improving quality of life. The findings of the current study corroborate this phenomenon. If our recommendations are properly implemented, TVET interventions can be made more effective for the development of skilled human resources and, as a result, national economic development of Bangladesh can be accelerated. Despite its valuable insights, the current study is not free from limitations. Being a narrative review, it lacks the methodological robustness of a systematic literature review. Future studies may empirically testify the conceptual model of the current study to validate the claims made on this study.

## Copyright

The authors' publications in IJMIRR are distributed under Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>). The license was created for the purpose of promoting open access, i.e. free immediate access and unlimited reuse of all forms of original works.

## Reference

- [1] Abdin, M. J. (2017, December 18). *Skill development: a priority for sustainable development*. The Independent <https://m.theindependentbd.com/printversion/details/128560>
- [2] Adams, A. V. (2007). The Role of Youth Skills Development in the Transition to Work: A Global Review. *The World Bank, Washington, D.C.* Retrieved from: <https://www.marketlinks.org/sites/default/files/media/file/2020/10/The%20Role%20of%20Youth%20Skills%20%20Development%20in%20the%20Transition%20to%20Work-%20A%20Global%20Review.pdf>

- [3] Agrawal, T. (2013). Vocational education and training programmes (VET): An Asian perspective. *Asia-Pacific Journal of Cooperation Education*, 14 (1), 16-17.
- [4] Akerele, W. O. (2007). Management of technical and vocational education in Nigeria: The challenges of the country. *Lagos Journal of Educational Administration and Planning*, 3 (1).
- [5] Asian Development Bank (ADB) (2004). *Improving technical education and vocational training: Strategies for Asia*. Asian Development Bank. <http://www.adb.org/Publications>
- [6] Awotunde, D. O. (2000, August13). *Technical and vocational education for national development: The Nigeria experiences*. A Lead Paper Presented at the National conference, University of Ibadan, on Science, Ibadan.
- [7] Badawi, A. A. (2013). TVET and entrepreneurship skills. In revisiting global trends in TVET: Reflections on theory and practice. UNESCO/NEVOC International Centre for Technical and Vocational Education and Training.
- [8] Bangladesh Institute for Development Studies (BIDS) (2016, December 7) *Skill Gap Analysis for Selected Sectors*. [https://bids.org.bd/uploads/events/TS\\_1\\_KAS%20Murshid.pdf](https://bids.org.bd/uploads/events/TS_1_KAS%20Murshid.pdf)
- [9] Bangladesh Institute for Development Studies (BIDS) (2017, May) *Labour Market and Skill Gap in Bangladesh*. <https://seip-fd.gov.bd/publications/bids-study-report/>
- [10] Burchardt, T., Le Grand, J., Piachaud, D., Hills, J., & Grand, L. (2002). Understanding social exclusion. *London School of Economics, London*.
- [11] Edwards, J. R. (2008). Building a self-sustaining, indigenous film industry in Kenya. *A Study on Behalf of the World Story Organization*.
- [12] Farstad, H. (2009, January 12-13). *UNESCO strategy on technical and vocational education and training (TVET) international consultation meeting on TVET Bonn, Germany* Retrieved from: [http://www.unevoc.unesco.org/fileadmin/user\\_upload/docs/HalfdanFarstad.pdf](http://www.unevoc.unesco.org/fileadmin/user_upload/docs/HalfdanFarstad.pdf)
- [13] Global e-Schools and Communities Initiative (2013, January). *Development of 21st century skills for innovation and enterprise: Exploring the role of Informal learning environments in the development of skills and aptitudes for the digital creative media industries*. [https://www.gesci.org/fileadmin/user\\_upload/2\\_Youth\\_Skills\\_Enterprise\\_Files/AKE\\_research\\_-\\_21C\\_Skills\\_Full\\_Report\\_-\\_2012\\_.pdf](https://www.gesci.org/fileadmin/user_upload/2_Youth_Skills_Enterprise_Files/AKE_research_-_21C_Skills_Full_Report_-_2012_.pdf)
- [14] Gu, C. C., Gomes, T., & Brizuela, V. S. (2011). *Technical and vocational education and training in support of strategic sustainable development*. [Master Thesis on Strategic Leadership towards Sustainability] Blekinge Institute of Technology, Karlskrona, Sweden.
- [15] Hailu, E. T. (2012). *Analyzing the labour outcomes of TVET in Ethiopia: Implication of challenges and opportunities in productive self-employment of TVET graduates*. [Master Thesis] For Obtaining the Degree of Masters of Arts in Development Studies. Institute of Social Studies. Netherlands.
- [16] Hardi, P. A. (1997). Assessing sustainable development: Principles in practice. Manitoba: *International Institute for Sustainable Development*.
- [17] Igwe, L. E. B., & Oragwu, A. A. (2014). Techno-vocational skills acquisition and poverty reduction strategies in vocational institutions: The case of rivers state. *African Journal of Education and Technology*, 4 (1), 47-58.
- [18] Kingombe, C. (2012). Lessons for developing countries from experience with technical and vocational education and training. *Economic Challenges and Policy Issues in Early Twenty-First-Century Sierra Leone*, 278-365.
- [19] Kurya, U. L., & Hassan, B. (2007). *Technical and vocational education for productive and sustainable development in*

*Nigeria*. Proceedings of the 20th Annual Conference of the Nigeria Association of Teachers of Technology (NATT). Kaduna, Nigeria

- [20] Lisbon Council (2007). Skills for the future. *European Union's Lisbon Council*. Retrieved from [www.lisboncouncil.net/component/downloads/?id=214](http://www.lisboncouncil.net/component/downloads/?id=214)
- [21] Maclean, P. (2008). Education for peace building and sustainable development: Delusion, illusion or reality. Available from: <http://www.daneprairie.com>.
- [22] Martinez-Fernandez, C., & Choi, K. (2013). Skills development pathways in Asia. In *Skills development for inclusive and sustainable growth in developing Asia-Pacific* (pp. 155-179). Springer, Dordrecht.
- [23] McLean, R., & David, N. W. (2009). *International handbook of education for the changing world of work: Bridging academic and vocational learning*. Retrieved from [http://toolkit.ineesite.org/toolkit/INEEcms/uploads/1093/International\\_Handbook\\_of\\_Education\\_Changing.pdf](http://toolkit.ineesite.org/toolkit/INEEcms/uploads/1093/International_Handbook_of_Education_Changing.pdf)
- [24] Maclean, R., & Wilson, D. (2009). *International handbook of education for the changing world of work: Bridging academic and vocational learning* (Vol. 1). C. A. Chinien (Ed.). Dordrecht: Springer Netherlands.
- [25] Netherlands Organization for International Cooperation in Higher Education (NICHE). (2010). NICHE strategy on technical and vocational education and training (TVET).
- [26] Organization for Economic Co-operation and Development (OECD) (2009). Learning for jobs: OECD policy review of vocational education and training (initial report) Paris, *OECD*.
- [27] Prospects (2010). *Graphic design: Your skills*. Retrieved from [http://www.prospects.ac.uk/options\\_graphic\\_design\\_your\\_skills.htm](http://www.prospects.ac.uk/options_graphic_design_your_skills.htm).
- [28] Rufai, A. (2013). Human capital development in technical and vocational education and training (TVET) for sustainable national development. *Journal of Education and Practice*, 4 (7), 100-107
- [29] Tilak, J. B. (2003). Vocational education and training in Asia. In *International handbook of educational research in the Asia-Pacific Region* (pp. 673-686). Springer, Dordrecht.
- [30] UNESCO-UNEVOC (2009). *TVET and ESD*. Retrieved from [http://www.unevoc.unesco.org/wiki.0.html?&no\\_cache=1&tx\\_drwiki\\_pi1\[keyword\]=more\\_about\\_tvete\\_for\\_sd](http://www.unevoc.unesco.org/wiki.0.html?&no_cache=1&tx_drwiki_pi1[keyword]=more_about_tvete_for_sd)
- [31] UNESCO-UNEVOC. (2012). Transforming TVET—From idea to action. *UNESCO-UNEVOC International Centre for Technical and Vocational Education and Training, UN Campus, Bonn, Germany*.
- [32] United Nations Educational, Scientific and Cultural Organization (UNESCO). (2010a). *Education for sustainable development (ESD)*. Retrieved from <http://www.unesco.org/en/esd/>.
- [33] United Nations Educational, Scientific and Cultural Organization (UNESCO). (2010b). *Education for sustainable development (ESD)*. Retrieved from <http://www.unesco.org/en/esd/>
- [34] UNESCO. International Centre for Technical and Vocational Education and Training (UNESCO-UNEVOC). (2005). Normative instruments concerning technical and vocational education.
- [35] United Nations, (2015). World population prospects: The 2015 revision. *United Nations Econ Soc Aff*, 33(2), 1-66.
- [36] World Commission on Environment and Development (WCED) (1987). Our common future. *Oxford: Oxford University Press*.