



## Technical and vocational education and training for development

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### Abstract

The study aims at to find out the relation technical and vocational training for development. Knowledge, skills, and innovation power of mass people are very important factors for making economic growth of any country like Bangladesh. Technical and Vocational Education and Training (TVET) is the only system to convert people from Human resource to Human capital. Bangladesh's HDI value for 2015 is 0.579 which put the country in the medium human development category positioning it at 139 out of 188 countries and territories. Between 1980 and 2015, Bangladesh's HDI value increased from 0.338 to 0.579, an increase of 71.3 percent or an average annual increase of about 2.19 percent. BTEB also has affiliated a total of 7773 public and private institutes with seat capacity of 714,644 up to December 2015. It is observed that only 9% of the total seat capacity is under public institutes and rest 91% are in private institutes. Technical and Vocational Education and Training (TVET) is indispensable for the development of human capital in Bangladesh. Bangladesh is the 8th most populous country in the world which presents an immense opportunity in terms of labor force. Technical and Vocational Education and Training (TVET) for Bangladesh is vital to provide innovative education and training to meet the needs of individuals, communities, industries and for the sustainable development of the country.

**Keywords:** technical, vocational, training, education, development

### 1. Introduction

Development means "improvement in country's economic and social conditions". More specially, it refers to improvements in way of managing an area's natural and human resources in order to creating wealth and improving people's lives. Dudley Seers while elaborating on the meaning of development suggests that while there can be value judgments on what is development and what is not, it should be a universally acceptable aim of development to make for conditions that lead to a realization of the potentials of human personality<sup>[1]</sup>.

The country has generally two types of resources, Natural resources and Human resources. Natural resources are like gas, forests, sea resources, petroleum, coal, etc. On the other hand, human resources are the people of the country, the most valuable resources. The Term 'Human Resources' is defined as noun as the personnel of a business or organization, especially when regarded as a significant asset<sup>[2]</sup>. Human resources are the people who make up the workforce of an organization, business sector, or economy. "Human capital" is sometimes used synonymously with "human resources", although human capital typically refers to a narrower view (i.e., the knowledge the individuals embody and economic growth). Likewise, other terms sometimes used include "manpower", "talent", "labour", "personnel", or simply "people"<sup>[3]</sup>. Thus,

[Human Resources] + [Economic Growth] = [Human Capital]

Pioneering economist John R. Commons used the term "human resource" in his 1893 book *The Distribution of*

Wealth but did not further build upon it. The term "human resource" was subsequently in use during the 1910s and 1920s as was the notion that workers could be seen as a kind of capital asset<sup>[4]</sup>. Among scholars the first use of "human resources" in its modern form was in a 1958 report by economist E. Wight Bakke. The term began to become more developed in the 19th century due to misunderstandings between the employers and employees<sup>[5]</sup>. Human resources play an important part of developing a country. The country's development is mostly depending on how the country's people being developed. Human resource indicates the nature of the country like developing country or developed country.

A developing country, also called a less developed country or an underdeveloped country, is a nation or a sovereign state with a less developed industrial base and a low Human Development Index (HDI) relative to other countries<sup>[6]</sup>

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According to authors such as Walt Whitman Rostow, developing countries are in transition from traditional lifestyles towards the modern lifestyle which began in the Industrial Revolution in the 18th and 19th centuries. Kofi Annan, former Secretary General of the United Nations, defined a developed country as "one that allows all its citizens to enjoy a free and healthy life in a safe environment"<sup>[8]</sup>.

The study purpose to find out the condition technical and vocational training for development.

## 2. Methodology

For this study secondary data related to Technical and vocational education and training for development were collected and finally analyzed by using different statistical software.

## 3. Result and discussion

The development of a country is measured with statistical indexes such as Gross national income per capita, Gross

domestic product, life expectancy at birth, the rate of literacy etc. The UN has developed the Human Development Index (HDI), a compound indicator of the above statistics, to gauge the level of human development for countries where data is available. The UN sets Millennium Development Goals (MDGs) and Sustainable Development Goals (SDGs) from a blueprint developed by all of the world's countries and leading development institutions, in order to evaluate growth.

### 3.1 Comparison between developed and developing countries

**Table 1:** Comparison between developed and developing countries

Basis for comparison	Developed countries	Developing countries
Meaning	A country having an effective rate of industrialization and individual income is known as Developed Country.	Developing Country is a country which has a slow rate of industrialization and low per capita income.
Unemployment and Poverty	Low	High
Rates	Infant mortality rate, death rate and birth rate is low while the life expectancy rate is high.	High infant mortality rate, death rate and birth rate, along with low life expectancy rate.
Living conditions	Good	Moderate
Generates more revenue from	Industrial sector	Service sector
Growth	High industrial growth.	They rely on the developed countries for their growth.
Standard of living	High	Low
Distribution of Income	Equal	Unequal
Factors of Production	Effectively utilized	Ineffectively utilized

### 3.2 Bangladesh's HDI trends based on 1980-2015

**Table 2:** Bangladesh's HDI trends based on 1980-2015

Year	Life expectancy at birth	Expected years of schooling	Mean years of schooling	GNI per capita (2011 PPP\$)	HDI value
1980	53.5	4.9	2.0	1,148	0.338
1985	55.6	5.0	2.4	1,202	0.356
1990	58.4	5.6	2.8	1,301	0.386
1995	61.9	6.5	3.3	1,469	0.424
2000	65.3	7.5	4.1	1,688	0.468
2005	68.0	8.4	4.5	2,025	0.505
2010	70.1	9.5	4.9	2,660	0.546
2011	70.5	10.0	5.1	2,793	0.559
2012	70.8	10.0	5.1	2,954	0.563
2013	71.2	10.0	5.1	3,082	0.567
2014	71.6	10.0	5.1	3,191	0.570
2015	72.0	10.2	5.2	3,341	0.579

*Source:* Human development report 2015, UNDP.

Bangladesh's HDI value for 2015 is 0.579 which put the country in the medium human development category positioning it at 139 out of 188 countries and territories.

Between 1980 and 2015, Bangladesh's HDI value increased from 0.338 to 0.579, an increase of 71.3 percent or an average annual increase of about 2.19 percent.

### 3.3 Bangladesh's HDI indicators for 2014 relative to selected countries and groups

**Table 3:** Bangladesh's HDI indicators for 2014 relative to selected countries and groups

Country	Life expectancy at birth	Expected years of schooling	Mean years of schooling	GNI per capita (2011 PPP\$)	HDI Value	HDI Rank
Bangladesh	71.6	10.0	5.1	5.1	0.570	142
Pakistan	66.2	7.8	4.7	4.7	0.538	147
Nepal	69.6	12.4	3.3	3.3	0.548	145
South Asia	68.4	11.2	5.5	5.5	0.607	-
Medium HDI	68.6	11.8	6.2	6.2	0.630	-

*Source:* Human Development Report 2015, UNDP.

### 3.4 Bangladesh's Work indicators for 2014 relative to selected countries and groups

**Table 4:** Bangladesh's Work indicators for 2014 relative to selected countries and groups

Work Indicators	Bangladesh	Medium HDI	Developing countries	South Asia
Employment to population ratio (% ages 15 and older)	67.8	55.7	60.7	53.2
Labour force participation rate (% ages 15 and older)	70.8	58.8	64.3	55.6
Share of employment in agriculture (% of total employment)	48.1	42.5	36.9	45.9
Share of employment in services (% of total employment)	37.4	35.3	39.1	30.6
Vulnerable employment (% of total employment)	85.0	65.1	54.0	77.3
Total unemployment (% of labor force)	4.5	5.3	5.6	4.2
Youth unemployment (% of youth labor force)	8.7	15.1	14.6	10.9
Labor productivity: output per worker (2011 PPP \$)	3,457	9,483	-	8,117
Child labor (% ages 5-14 years)	12.8	11.6	14.5	12.3
Working poor, PPP \$2 per day (% of total employment)	76.4	46.9	33.8	54.9
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Mandatory paid maternity leave (days)	112.0	98.0	99.0	84.0
Old age pension recipients (% of statutory pension age population)	39.5	27.7	51.0	23.9
Internet users (% of population)	9.6	21.9	31.9	17.6
Mobile phone subscribers (per 100 people)	75.9	91.5	91.2	75.6

Source: Human development report 2015, UNDP.

### 3.5 Growth of TVET in Bangladesh

Knowledge, skills, and innovation power of mass people are very important factors for making economic growth of any country like Bangladesh. The countries having high quality education and skills can face the challenges of world economy successfully. Skilled manpower contributes to implement economic, social and employment policies in Bangladesh so that the country can move forward for middle income country

by 2021 and developed country by 2041. Technical and Vocational Education and Training (TVET) is the only system to convert people from Human resource to Human capital. The table-5 shows the relationships between TVET enrollment and the remittance earned. It has been found that if people acquiring skills with proper knowledge and attitudes then they can earn more <sup>[9]</sup>.

**Table 5:** Relationship between remittance and growth of TVET in Bangladesh

Year	Total Remittance (in Billion Taka)	TVET Enrollment (in Number)	TVET Institute (in Number)	TVET Teacher (in Number)
2007-2008	542.96	360779	4160	19752
2008-2009	666.77	427604	4484	20703
2009-2010	760.11	488767	5145	21523
2010-2011	829.91	527075	5956	22455
2011-2012	1018.82	673423	6487	22919
2012-2013	1156.47	768023	6835	26322
2013-2014	1105.84	809435	7245	27073
2014-2015	1189.93	920305	7560	28798
2015-2016	1168.57	1038820	7773	30903

Source: Bangladesh bank report, BTEB enrollment report, BANBEIS report.

In National Education Policy 2010, highest importance is given to turn students into competent manpower through technical and vocational education. There is a high demand of skill manpower abroad and in domestic market. This will gradually increase in the coming years. Skilled manpower will earn more foreign currency from overseas and contribute country's technical development leading to economic development of the country <sup>[10]</sup>.

In National Skills Development Policy, 2011 Bangladesh Technical Education Board is mandated to provide relevant, accessible, high quality and efficient technical education and skills development and maintain uniform standard throughout the country. It is found that labor force increases 2.0 million annually in Bangladesh. Millions of youth are dropped out from schooling. Policy needs to accommodate those youths <sup>[11]</sup>. For this it is necessary to collect data on this group of youth for mapping enrollment in different curriculum in TVET <sup>[12]</sup>. The assessment of the demand for skilled workforce in the economy requires enrollment information. A

painstaking effort to be adopted by Government with the authorities, various working groups, employers, industry and expert from the institutions in framing strategies for planning, implementation, employment generation and skill training. In order to match between the population and economy need of the country's demand for the TVET programs has been recognized by the government. In National Strategy for Accelerated Poverty Reduction II (NSAPR II) paper, the enrollment target for TVET has been set to 20 percent by 2020. To achieve this target, Bangladesh Technical Education Board (BTEB) administers a network of more than seven thousand Institutes that serve students throughout the state. BTEB has developed 28 different curriculums for offering different types of course or program in different engineering trade, technology and specializations. BTEB also has affiliated a total of 7773 public and private institutes with seat capacity of 714,644 up to December 2015. It is observed that only 9% of the total seat capacity is under public institutes and rest 91% are in private institutes.

#### 4. Conclusion

Technical and Vocational Education and Training (TVET) is indispensable for the development of human capital in Bangladesh. Bangladesh is the 8th most populous country in the world which presents an immense opportunity in terms of labor force. Skill training is essential for ensuring the country's competitiveness in the global market and ensuring decent work for all. Skills, knowledge and innovation are driving forces of economic growth and social development globally. Government aims to ensure Bangladesh's competitiveness in the global market and reduce poverty by improving the quality of vocational education and training in Bangladesh. Skills development is the potential for economic transformation in Bangladesh. Bangladesh has the best opportunity of harvesting demographic dividend.

Bangladesh is in need for highly skilled human resources to address the present demand-supply gap in various industries particularly those driving economic transformation. Skills and quality are crucial for poverty reduction, economic recovery and sustainable development of a country. Growth of industry in Bangladesh is advancing in a fast pace. Overseas market for skilled labor is also expanding. Huge number of skilled manpower will be required to support the rapid industrial growth and overseas labor market. School dropouts are found suffering without proper channel to acquire a qualification or gain relevant experience which can enable them to enter job market with relevant skill expected by the industry. Opportunity for Bangladesh arising from demographic dividend to be harnessed by providing skill to a large number of new entrants into job market every year and up-skill the expanding labor force that is still undereducated and inadequately trained. Training and skills must have a higher tendency to obtain foreign employment and to meet domestic labor market needs. Vocational and technical education is the best path to excellence career. As a consequence, policy attention to Technical and Vocational Education and Training (TVET) for Bangladesh is vital to provide innovative education and training to meet the needs of individuals, communities, industries and for the sustainable development of the country.

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