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A Study of the Effectiveness of Korea's Technical Cooperation to Develop the Skills of the Trainees of the BKTTC: An Evaluation of Vocational Training under KOICA's Project in Bangladesh*

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Abstract: *While technical cooperation (TC) has long been recognized as a catalyst of development, especially of the LDCs, there is an increasing debate about the effectiveness of TC in the academia. As such, the paper attempts to examine the effectiveness of Korea's TC to develop the skills of the trainees of the Bangladesh-Korea Technical Training Centre (BKTTC). To assess the effectiveness of Korea's TC, the study evaluated two types of the vocational training, that is, two year trade certificate course and one year skill certificate, as part of KOICA's Project implemented at the BKTTC, Dhaka, Bangladesh. The study found that vocational training as a whole was effective to develop the skills of the trainees of the BKTTC while the training was not very effective despite the fact that Korean Government transferred modern technology and skills due mainly to lack of alignment between trainees' needs and government's policy, and shortage of absorptive capacity. However, two year trade certificate course was more likely to be effective to develop the skills of the trainees since it involved more practical orientation. Hence, the study suggests that TC to be effective both for developing and developed partners, there should be strong focus on demand-driven and need-based approach in TC and building absorptive capacity as well.*

Keywords: Vocational education and training (VET), ODA, Technical cooperation (TC), Technology transfer, Demand-driven TC project, Absorptive capacity

Background of the Study

Vocational Education and Training (VET) usually involves a systematic education and training activity which equips individuals with necessary technical knowledge and skills on various trades or works

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aimed at securing employment for them. According to Cedefop, VET is concerned with "education and training which aims to equip people with knowledge, know-how, skills and/or competencies required in particular occupations or more broadly on labor market" (2008, p. 2002). However, VET in a broad sense, known as Technical and Vocational Education and Training (TVET) which is preferably used by the UNESCO to refer to acquisition of knowledge and skills for the world of work. TVET is the combined process of all education and training activities concerned with enhancement of technical and occupational skills for the individuals. According to the UNESCO (2002),

> Technical and Vocational education' is used as "a comprehensive term referring to those aspects of educational process involving, in addition to general education, the study of technology and related sciences, and the acquisition of practical skills, attitudes, understanding, and knowledge related to occupations in various sectors of economic and social life (p. 7).

VET can play an important role to step up a country's economic progress and societal well-being. Many countries have achieved economic growth and prosperity with provision of sound vocational education and training system. Korea and Singapore are the classic examples of achieving economic development through human resource development which was largely attributed to their proper systems of vocational education and training (Rao, 1996; Lee and Jung, 2005; Seng, 2007; Kong *et al*., 2008; Chae and Chung, 2009). Apart from Korea and Singapore, vocational education and training has served as an engine of economic and social progress in many developing countries including China, Malaysia, Vietnam and Egypt since VET aims at raising employability, productivity and economic prosperity of a country[1]. As such, VET has received increasing importance to facilitate national human resource development of the developing countries like Bangladesh, and has become integral part of international development cooperation efforts of many multilateral and bilateral development agencies including ILO, UNESCO, KOICA, JICA, GTZ (UNESCO, 2002, 2006, 2010; GTZ-VETA, 2000; ILO, 2003; UNESCO-UNEVOC, 2004; JICA, 2005, 2007; KOICA, 2005, 2008 and 2011).

However, due to mismatching or lack of alignment between technical cooperation (TC) projects and needs or desires of the beneficiaries/ targeted groups, the development cooperation efforts in many developing countries have not generated optimum outcomes (Morgan and Baser, 1993; Morgan, 2002; Browne, 2002; Denning, 2002; Fukuda-Parr, Lopez and Malik, 2002; Degnbol and Pedersen, 2003; Riddell, 2007). Fukuda-Parr, Lopez and Malik (2002) held that TC has been criticized for undermining local capacity, distorting priorities, choosing high profile activities, fragmenting management, using expensive methods, ignoring local wishes, and fixating on targets. TC projects have further been criticized for being supply rather than demand-driven (Browne, 2002; European Commission, 2008, 2009; OECD, 2011). Moreover, due to lack of proper policy and absorptive capacity on the part of the recipient countries to make use of it, TC has not been so useful and has mixed effects in many developing countries (Browne, 2002; Fukuda-Parr, Lopez and Malik, 2002;

[1] ADB (2008) argues that the development of technical and vocational skills is critical for economic development due to two important reasons. Firstly, technical and vocational skills are needed for enterprise productivity and profitability; secondly, it is needed for national productivity and wealth creation.

Riddle, 2007; GSDRC, 2009). Hence, there is a controversy in the academia about the effectiveness of TC. As such, the present paper aims to examine whether TC is effective to fulfil its designated objectives. However, the paper mainly attempts to critically assess the effectiveness of KOICA-led TC project implemented in Bangladesh in the field of VET so as to develop the skills of the trainees of the Bangladesh-Korea Technical Training Centre (BKTTC). The focus was given on the effectiveness of two kinds of vocational training executed at the BKTTC as part of the implementation of the Project to develop the skills of the trainees. The paper also examines the extent to which these two kinds of vocational training fulfilled the needs or desires of the trainees and could facilitate their employability.

ODA and Technical Cooperation

Official development assistance, commonly known as ODA, is a form of international development cooperation provided by the OECD's DAC member countries. According to the OECD (2008a, 2008b), ODA is defined as those flows to countries and territories on the DAC list of ODA Recipients and to multilateral development institutions which are: i) provided by official agencies including state and local governments, or by their executive agencies; and ii) each transaction of which:

a) is administered with the promotion of economic development and welfare of developing countries as its main objective; and
b) is concessional in character and conveys a grant element of 25 per cent.

In addition to financial flows technical cooperation or TC is included in aid. Grants, loans and credits for military purposes are excluded. TC, on the other hand, has been defined by the OECD (as cited in Arndt, 2002) as activities financed by a donor country whose primary purpose is to augment the level of knowledge, skills and technical know-how, or productive aptitudes of population of the developing countries, i.e., increasing their stock of human capital or their capacity for more effective use of their existing factor endowment (p.158). The OECD (2008a, 2008b) suggests that TC involves a) grants to nationals of aid recipient countries receiving education or training at home and abroad, and b) payments to consultants, advisers and similar personnel as well as teachers and administrators serving in recipient countries (including the cost of associate equipment).

However, Korea's bilateral ODA implemented by the Korea International Cooperation Agency, namely the KOICA includes: a) **grant aid**, and b) **technical cooperation**. Grant aid encompasses project aid (provision of equipment), aid in kind, disaster relief, and support to NGO, while technical cooperation includes training, expertise sharing, Korea Overseas Volunteers (KOVs), and development studies (KOICA, 2001, 2006a). KOICA's TC is included in its grant aid. Since its establishment in 1991, the KOICA has been increasingly supporting the developing countries in order to achieve their sustainable economic and social development (KOICA, 2006b, 2009). KOICA is under the supervision of the Ministry of Foreign Affairs and Trade (MOFAT). KOICA implements around 40% of the total budget of Korea's bilateral ODA. KOICA has 28 representative offices in 27 partner countries, and these overseas offices play a critical role in implementing KOICA's aid programs in the field. Vocational training makes up the largest portion of KOICA's aid in the education sector (KOICA, 2008).

Vocational Education and Training System in Bangladesh

The vocational education and training programmes in Bangladesh offer a variety of vocational courses starting from the junior secondary level (class VIII). Vocational training institutes (VTIs), polytechnic institutes, commercial institutes, technical training centers (TTCs), and other specialized institutes offer these vocational courses. However, vocational education and training (VET) in Bangladesh usually operates under the management and supervision of two governmental organizations: i) The Directorate of Technical Education (DTE) which is under the Ministry of Education (MOE), and ii) The Bureau of Manpower, Employment and Training, (BMET) which operates under the Ministry of Expatriates' Welfare and Overseas Employment (MOEWOE). There are 51 vocational training institutes (VTI) in Bangladesh which are administered by the Directorate of Technical Education (DTE) while there are about 37 Technical Training Centers (TTCs) directed by the Bureau of Manpower, Employment and Training (BMET).

Both VTIs and TTCs provide VET in secondary level while Bangladesh-Korea Technical Training Centre (BKTTC) provides vocational training after secondary education. Besides VTIs, there are about 24 polytechnic institutes under the Ministry of Education providing mid-level technical education in higher secondary level. Polytechnic institutes offer 4 year's diploma courses in various fields of technology. The diploma certificate, equivalent to Higher Secondary Certificate, is issued by the Bangladesh Technical Education Board (BTEB). Apart from polytechnic institutes, there are some other institutes such as textile and leather technology institutes, and a marine technology institute providing diploma courses in their respective fields.

KOICA's TC project in the field of VET in Bangladesh

Korea has a unique experience of transforming its economy from a poverty-driven country to an industrialized one, in particular, through developing its human resources. In other words, human resources development (HRD) has played a key factor of Korea's economic and social development (Kim 2005; KOICA, 2008). As such, the KOICA has concentrated it development cooperation in such areas where Korea has a comparative advantage. VET is one of such areas where Korea has a comparative advantage to support its developing partners since VET was instrumental to develop human resources of Korea (Rao, 1996; KOICA, 2005, 2006a, 2006b and 2008).

In consideration of the institutional capacities of the BMET and its key role in developing human resources in Bangladesh, the training capacity of Mirpur Technical Training Centre (TTC) was required to be upgraded since its vocational training program was not satisfactory both in quality and quantity (GOB, 2007). To cope with the present competitive world, the Mirpur TTC was expected to be renovated with modern technology to deliver its vocational training in line with technological changes. Therefore, the BMET approached the KOICA through Economic Relations Division (ERD) to assist to enhance the vocational training capacity of Mirpur TTC (GOB, 2007). Having received a

request from the Bangladesh Government, the KOICA undertook a TC Project in 2007 entitled "Program to Enhance the Vocational Training Capacity of Bangladesh" which was implemented at Mirpur TTC, Dhaka. The Training Centre was renamed as Bangladesh-Korea Technical Training Centre (BKTTC) after it was renovated as part of the implementation of the Project. The Project was jointly executed by the BMET under the Ministry of Expatriates' Welfare and Overseas Employment (MOEWOE), the Government of the People's Republic of Bangladesh and the KOICA, the Republic of Korea during the period 2007- 2009. The key objective of the Project was to generate skilled manpower or workforce to meet the demand for local and overseas employment through introducing modern vocational training system.

Vocational Training at the BKTTC under the KOICA's Project

Before implementing KOICA's TC Project, the BKTTC (earlier known as Mirpur TTC) used to offer SSC (Voc) course like other technical training centers (TTCs) of the country. However, due to the implementation of the Project, the BKTTC stopped offering SSC (Voc) course and introduced two year trade certificate course in its place with a new system totally that was replication of Korean vocational training system in Bangladesh though it was partly modified so that it could adjust with Bangladesh society and local educational components (Prof. Lee, Korean Expert, personal communication, August 17, 2011). The BKTTC offered two year trade certificate course on six deferent trades which were developed under the technical consultation of Korean Experts who were professors of Korea University of Technology and Education of the Republic of Korea. These six different trades are: a) Automobile; b) Mechanical; c) Construction; d) Industrial Facility (Welding and Refrigeration); e) Electrical; and f) Electronics (BKTTC, 2009). The course curricula along with relevant text books were prepared by the Korean Experts in association with the instructors of the BKTTC.

However, two year trade certificate course was withdrawn two years after its inception. Instead of two year trade certificate course, one year skill certificate course was initiated on aforesaid six different trades so as to generate skilled manpower, and seek employment at home and abroad. Moreover, the BKTTC also offers modular courses alongside one year skill certificate course on 26 trades, the duration of which are ranging from 2 to 6 months.

Methodology of the Study

The present study was primarily an evaluative study of which data were collected directly by the researcher himself as part of his research project at doctoral program. The study employed multiple data sources including interviewing, direct observations and document analysis. To evaluate the effectiveness of KOICA's TC Project to develop the skills of the trainees of the BKTTC, the study assessed the effectiveness of two kinds of vocational training- two year trade certificate course[1] and

[1] Two year trade certificate course was designed and developed by the Korean Experts as part of the implementation of the KOICA's TC project entitled "Program to Enhance the Vocational training Capacity of Bangladesh."

one year skill certificate course[1] executed at the BKTTC as part of the implementation of the Project. A total of 42 respondents were selected from the trainees of the BKTTC undertaking these two kinds of vocational training based on purposive and snowball[2] sampling procedures due to convenience of the researcher. The selected respondents were interviewed by structured interview schedule while the structured questions were supplemented by open-ended questions and probing.

Hence, the study sought to evaluate the effectiveness of two kinds of vocational training by comparing the responses of two groups of trainees one of which consisting of 16 undertaking two year trade certificate course and the other comprising 26 undertaking one year skill certificate course. The responses of the respondents were measured in terms of Likert-type scales[3]. Due to ordinal nature of data, the study reasonably used median rather than mean.

The study, however, tested some research hypotheses so as to determine significance of the effectiveness of vocational training depending on its types and corresponding trades by reasonably employing nonparametric hypothesis testing tools, often called nonparametric statistics. The nonparametric tools of hypotheses testing employed in the study involved Chi-square (χ^2) test, Mann-Whitney-U-test, and Kruskal-Wallis H-test. Multiple regression analysis was also employed to determine the causes contributing to the effectiveness of training. To find out the reliability or internal consistency of the items of the measurement, the Cronbach's alpha was carried out. The Cronbach's alpha Coefficient was .866 indicating that the items of scales in the measurement are reliable. The study sought to validate the following hypotheses:

Table 1: Research and Null Hypotheses

S L #	Research Hypotheses (H_a)	Null Hypotheses (H_0)	Testing Tools
01	Course curriculum of two year trade certificate course is more likely to be well-combination of theory and practice.	Course-curriculum of two vocational training courses does not vary significantly in terms of well-combination of theory and practice.	Mann-Whitney –U-test
02	Two year trade certificate course is more likely to allow the trainees to use Korean technology.	Using Korean technology does not vary significantly across the trainees depending on the type vocational training.	Mann-Whitney –U-test
03	There is a significant association	There is no association between	Ch-Square (χ^2)

1 One year skill certificate course is a contracted and modified form of vocational training designed by the Bangladeshi vocational instructors introduced at the BKTTC instead of two year trade certificate course.
2 Snowball sampling is a non-probability sampling method often employed in field research whereby each person interviewed may be asked to suggest additional people for interviewing (Babbie, 2007, p. 184).
3 Five or three point Likert-type scales were defined in terms of lowest degree to the highest degree of effectiveness or favorableness. In 5-point Likert-type scale, 1= very ineffective, 2= ineffective, 3= somewhat effective, 4= effective, and 5= very effective (San Jose State University, 2011). However, in 3-point Likert-type scale, 1= not, 2= somewhat, and 3= very much.

	between type of training and its effectiveness to develop skills of the trainees.	two variable- type of vocational training and the effectiveness of training.	test
04	Two year trade certificate course is more likely to be effective to develop the skills of the trainees.	Effectiveness of vocational training does not vary significantly depending on the type of training.	Mann-Whitney –U-test
05	There is a significant association between the name of the trades majored by the trainees and the effectiveness of vocational training to develop their skills.	There is no association between the name of trades majored by the trainees and the effectiveness of vocational training to develop their skills.	Ch-Square (χ^2) test
06	Effectiveness of vocational training to develop the skills of the trainees varies significantly across the trades.	Effectiveness of vocational training to develop the skills of the trainees does not vary significantly across the trade groups.	The Kruskall-Wallis Test
07	Fulfillment of the trainees' needs and desires varies significantly depending on the type of training	Fulfillment of the trainees' needs and desires does not varies significantly depending on the type of training	Mann-Whitney –U-test
08	The trainees undertaking two year trade certificate course is more likely to be confident about their employment.	The extent of confidence of the trainees about their employment does not vary significantly across their groupings (two samples groups).	Mann-Whitney –U-test

Empirical Findings

Table 2: Evaluation Summary of the Effectiveness of Vocational Training

Measurement or Rating Indexes	**Groups of the Trainees**	**Group Median**	**Obtained Combined Median Score**	**Total Score**	**Combined Rating**
The extent to which vocational training has fulfilled the trainees' needs and desires.	One year skill certificate course	2.50 Little	3.00	5.00	Somewhat
	Two year trade certificate course	3.00 Somewhat			
The extent to which the	One year skill	2.00			

course curriculum is well-combination of theory and practice.	certificate course	Somewhat	2.00	3.00	Somewhat
	Two year trade certificate course	3.00 Very			
The extent to which the trainees have used Korean technology (Korean training equipment).	One year skill certificate course	2.00 Somewhat	2.00	3.00	Somewhat
	Two year trade certificate course	3.00 Very much			
The extent to which vocational training has been effective to develop the skills of the trainees of the BKTTC.	One year skill certificate course	3.00 Somewhat effective	4.00	5.00	Effective
	Two year trade certificate course	4.50 almost very effective			
The extent to which the trainees are confident about their employment at home and abroad.	One year skill certificate course	2.00 Somewhat confident	2.00	3.00	Somewhat
	Two year trade certificate course	3.00 Very confident			

Summary of the Results of Hypotheses Testing:

Table 3: Hypotheses Testing Results Summary:

SL #	Hypotheses	Statistical Test	Obtained/ Calculated Value	P-Value	Alpha Value	Statistical Significance
01	Two year trade certificate course is more likely to be well-combination of theory and practice.	The Mann-Whitney U Test	8.000	.000 (1-tailed)	0.01*	Significant
02	Two year trade certificate course is more likely to allow the trainees to use Korean technology.	The Mann-Whitney U Test	29.000	.000 (1-tailed)	0.01*	Significant

03	There is a significant association between type of training and its effectiveness to develop the skills of the trainees.	Chi-Square Test	27.462	.000	0.01*	Significant
04	Two year trade certificate course is more likely to be effective to develop the skills of the trainees.	The Mann-Whitney U Test	24.000	.000 (1-tailed)	0.01*	Significant
05	There is a significant association between the name of the trades and the effectiveness of training to develop their skills.	Chi-Square Test	8.704	.560	0.05	Not significant
06	Effectiveness of vocational training to develop the skills of the trainees varies significantly across the trades.	The Kruskall-Wallis Test	2.525	.773	0.05	Not significant
07	Fulfilment of the trainees' needs and desires varies significantly depending on the type of training	The Mann-Whitney U Test	84.500	.000 (2-tailed)	0.01*	Significant
08	The trainees undertaking two year trade certificate course is more likely to be confident about their employment.	The Mann-Whitney U Test	116.000	.0035 (1-tailed)	0.01*	Significant

* P < 0.01(significant at 1% level of significance)

Multiple Regression Model

The study employed **multiple regression analysis** to determine which factor/factors have influenced or contributed to the effectiveness of vocational training at the BKTTC:

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Independent Variables	Dependent Variable
1. Years of Schooling (X_1) **2.** Using Korean Technology (X_2) **3.** Type of Vocational Training (X_3) (Duration of Training) **4.** Trades of the Vocational Training (X_4) **5.** Age of the Respondents (X_5)	**Effectiveness of Training**

Therefore, the multiple regression equation can be written as follows

Effectiveness of Training = $\beta_0 + \beta_1 * X_1 + \beta_2 * X_2 + \beta_3 * X_3 + \beta_4 * X_4 + \beta_5 * X_5 + u$

Where

Independent Variable-1 = Years of Schooling (X_1)

Independent Variable-2 = Using Korean Technology (X_2)

Independent Variable-3 = Type of Vocational Training (X_3)

Independent Variable-4 = Trades of the Vocational Training (X_4) (Such as mechanical trade)

Independent Variable-5 = Age of Respondents (X_5)

β= Regression Weight (relative contributions of several independent variables)

u = Residual (error term)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimates
1	.872[a]	.760	.692	.429

The above model summary table shows that the Pearson Correlation Coefficient (R) is .872, and "R Square" is .760 which means that 76% of the variation was explained. The table also shows that "Adjusted R Square" is .692 which means that 69% of the variance was explained.

ANOVA[b]

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	18.669	9	2.074	11.247	.000[a]
Residual	5.902	32	.184		
Total	24.571	41			

a. Predictors: (constant) Age of the Respondents, type of vocational training, Dummy Trade1, Dummy Trade2, Dummy Trade3, Dummy Trade4, Dummy Trade5, Years of Schooling, Using Korean Technology, b. Dependent Variable: Effectiveness of Vocational Training

The above ANOVA table shows the overall significance of the regression model. As shown above, the P-value (.000) is less than the alpha value (0.01) at 99% confidence level. Therefore, the model is significant.

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Table 4: Multiple Regression Coefficients

Independent Variables	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t-value	Sig.
Using Korea Tech	.839	.294	.539	2.853	.008*
Years of Schooling	-.042	.082	-.063	-.511	.613
Dummy Trade-1	.166	.251	.070	.661	.513
Dummy Trade-2	-.041	.251	-.017	-.163	.871
Dummy Trade-3	-.010	.284	-.004	-.035	.972
Dummy Trade-4	.036	.214	.020	.166	.869
Dummy Trade-5	-.269	.231	-.144	-1.161	.254
Type of Vocational Training	.464	.313	2.94	1.482	.148
Age of the Respondents	.112	.047	2.82	2.392	.023**

Dependent variable: The extent to which vocational training has been effective to develop the skills of the trainees (Training Effectiveness).

*P < 0.01 (significant at 1% level of significance)

**P < 0.05 (significant at 5% level of significance)

Interpretation and Discussion

Table 2 shows the evaluation summery of the effectiveness of vocational training. It is noticeable that the vocational training as a whole has somewhat fulfilled the trainees' needs and desires. The study identified three important reasons as to why vocational training under KOICA's Project has moderately fulfilled the trainees' needs and desires. These key reasons are: first, no scope to pursue HSC in line with the training; second, no scope or direct channel to be employed at home or abroad, especially in Korea after completion of the training; and third, certificate has still no or less valuation and recognition in the country's job market. However, the study found that the fulfillment of trainees' needs and desires varies depending on the type of vocational training. As shown in Table 3, the empirical evidence has supported our research hypothesis (H_a) that the fulfillment of the needs or desires of the trainees varies significantly depending on the type of training [Mann-Whitney-U= 84.500, P-value (.001) < 0.01]. Hence, two year trade certificate course is more likely to fulfill the trainees' needs and expectations than one year skill certificate course while both the trainings have limitations in terms of their valuation and recognition in the job market. The study found apathy or lack of motivation among the trainees to undertake vocational training at the BKTTC. Consequently, the study found that there was less participation of trainees to receive vocational training at the training centre despite the BKTTC is equipped with Korean modern training equipments.

Table 2 reveals that the course curriculum of vocational training as a whole is somewhat well-combination of theory and practice while it varies in terms of type of vocational training. The course

curriculum of one year skill certificate course is somewhat well-combination of theory and practice whereas the course curriculum of two year trade certificate is very much well-combination of theory and practice. As shown in Table 3, the empirical evidence has supported our research hypothesis (H_a) that the course curriculum of two year trade certificate course is more likely to be well-combination of theory and practice [Mann-Whitney-U = 8.000, P-value (.000) < 0.01]. Hence, the standard of the course-curriculum of two year trade certificate course is better than that of one year skill certificate course since it more likely to reflect Korean vocational training system and it involves more practical orientation.

It is evident from Table 2 that the vocational training as a whole has allowed the trainees to use Korean technology moderately. However, the use of Korean technology among the two groups of trainees has varied. One year skill certificate course has allowed the trainees to use Korean technology moderately while two year trade certificate course has allowed the trainees to use Korean technology largely. In this regard, our research hypothesis (H_a) as shown in Table 3 has been supported that two year trade certificate course is more likely to allow the trainees to use Korean technology [Mann-Whitney-U = 29.000, P-value (.000) < 0.01]. Thus, it may be inferred that two year trade certificate course is more likely be helpful for the trainees to develop their technical skills as it involves much time and more practical orientation.

The study found that the vocational training under KOICA's Project at the BKTTC has been effective as a whole with to develop the skills of the trainees of the BKTTC. Nevertheless, the study suggests that vocational training has not been very effective to develop the skills of the trainees despite the training centre has sophisticated training equipments provided by the KOICA. In this connection, the study has identified some key reasons. These are: first, withdrawal of two year trade certificate course; second, not sufficient time to go through the whole course due to contraction of the duration of the vocational course; third, less focus on the practical class due to contraction of the course duration; fourth, lack of instructors' necessary knowledge and skills how to operate the sophisticated equipments, hence the BKTTC has lack of absorptive capacity to utilize technology transferred from Korea; and fifth, negligence of some instructors to handle the equipments.

However, effectiveness of vocational training to develop the skill of trainees has varied depending on the type of training. One year skill certificate course has been found to be moderate effective with a median value of 3.00 while two year trade certificate course has been found to be almost very effective with a median value of 4.50 to develop the skills of the trainees of the BKTTC. In this regard, the study sought to find out why the trainees belonging to one year skill certificate course evaluated less favorably and why the trainees belonging to two year trade certificate course evaluated more favorably to develop their skills corresponding to their vocational training. The following reasons have been identified:

a) Two year trade certificate course allowed the trainees to go through the whole course as designed by the Korean Experts;

b) The trainees belonging to two year course got much time to focus on their practical class;
c) Two year course is more likely to enhance technical capacity of the trainees as it involves highly well combination of theory and practice;
d) Two year trade certificate course allowed students to connect more with advanced technology, and thus is suitable for enhancing technical skills of the trainees;
e) In one year skill certificate course, there is less emphasis on practical class, and is little scope to handle advanced technology due to contraction of the course, thus, one year skill certificate course is not so suitable to develop the technical skills of the trainees.

The empirical evidence of the study has supported our two major research hypotheses (H_a). First, there is a significant association between type of training and its effectiveness to develop skills of the trainees of the BKTTC [χ^2 = 27.462, P-value (.000) < 0.01]. Second, two year trade certificate course is more likely to be effective to develop the skills of the trainees of the BKTTC than one year skill certificate course [Mann-Whitney-U = 24.000, P-value (.000) < 0.01]. However, the empirical evidence failed to support our research hypothesis (H_a) that effectiveness of vocational training to develop the skills of trainees varies significantly across the trades [Kruskall- Wallis H-statistic = 2.525, P-value (.773) > 0.05]. Hence, trades do not have any effect on skills.

The study found that the trainees undertaking two year trade certificate course are likely to be very much confident about their employment while the trainees undertaking one year skill certificate course are somewhat confident about their employment at home and abroad. In this regard, the empirical evidence of the study has supported our research hypothesis (H_a) that that the trainees undertaking two year trade certificate course are more likely to be confident about their employment [Mann-Whitney-U = 116.000, P-value (.0035) < 0.01]. They thought that they are skilled enough to be employed at home. By this time, most of the trainees completing two year certificate course have managed to be employed in different companies and factories at Dhaka city. However, the study found that the trainees, undertaking Industrial Facility Trade, were bit worried about their employment since most of the companies and factories are not familiar with the name of this trade.

A multiple regression analysis was carried out in order to find out the factor (s) influencing or contributing to the effectiveness of vocational training. As shown in the Table 4, using Korean technology [P-value (.008) < 0.01] and Age of the respondents [P-value (.023) < 0.05] have contributed to the effectiveness of vocational training. Hence, these two factors have impacted on the effectiveness of vocational training to develop the skills of the trainees of the BKTTC. However, trainees' years of schooling (educational qualification), their respective trades and type of training do not have any impact on the effectiveness of training. Independent variable-1 (years of schooling) has no impact since its corresponding p-value (.613) is greater than the alpha value (0.1) at 90% confidence level. Furthermore, all P-values corresponding to the trades (dummy variables) are greater than alpha value (0.1) and thus, there is no significant difference across the trades in terms of their effectiveness. Hence, the trades (mechanical, automobile, civil, electrical, electronics and so on)

have no impact on the effectiveness of training to develop the skills of the trainees of the BKTTC. Type of training has no impact since its P-value (.148) is greater than 0.1. Based on multiple regression analysis, it can be said that using Korean technology or training equipments have enhanced trainees' enthusiasm for learning and practical knowledge and skills and thereby has influenced the effectiveness of vocational training. On the other hand, age of the respondents may be positively associated with trainees' motivation for work, knowledge, and experience on technical work, dedication, sincerity and thereby has contributed to the effectiveness of vocational training. However, in this multiple regression model, sex variable was deliberately excluded. [1]

Policy Recommendations

a) While the KOICA provided the BKTTC with adequate modern training equipments, the training centre could not capitalize on Korean modern technology to develop the skills of the trainees optimally due mainly to withdrawal of two year trade certificate course, and lack of knowledge and skills of the instructors to utilize Korean technology. Hence, two year trade certificate course should be reintroduced with proper valuation or recognition in the job market, and the BMET should organize advanced technical or skill development training for the instructors in line with technological change and global needs so as to develop absorptive capacity of its constituent technical training centers;
b) The research findings suggest that uncertainty of jobs after completion of vocational training demoralizes the trainees to undertake vocational training or to continue with their training at the BKTTC. As such, country's VET system or VET policy should be linked to its employment policy. Hence, VET policy should be framed in accordance with employment policy or vice versa;
c) The study reveals that there is a great demand from the trainees of the BKTTC for having a scope for further study since job is uncertain or job is not guaranteed for them. Thus, long-term vocational training should be integrated with country's formal technical education system and there should be a scope of further study so that a trainee can continue his/her studies as long as he/she wishes or is able to do so. In view of this matter, if their vocational training is integrated with country's formal technical education system or if there is a scope for the trainees to do diploma at the polytechnic institutes or to do HSC (Voc) at such institutions in Bangladesh after completion of their training provided that they meet the given qualification (e.g. GPA or credits) for pursuing diploma at the polytechnic institutes or do HSC (Voc), they could develop their employability skills and build up their careers in the face of competitive world. By doing so, Bangladesh as a least developed country not only could generate highly skilled manpower and technicians but also could produce diploma engineers as per demands of the local industries or companies and changing needs of the globalized world;
d) It was reported by most of the respondents that there should be HSC (Voc) replacing one year skill certificate so that a trainee could achieve skill certificate as well as academic certificate at the

[1] In the Multiple Regression Model, 'sex' was not treated reasonably as an independent variable by the researcher since there was only one female respondent out of a total of 42 respondents. In this regard, this is noteworthy to mention that the Training Centre (BKTTC) has lack of female trainees. While conducting fieldwork at the BKTTC, very few female trainees were found.

same time. Therefore, Dual Certification can be introduced. The empirical evidence suggests that two year trade certificate course is more likely to be effective to develop technical skills of the trainees as it is more likely to allow the trainees to use technology and thereby allowing the trainees to be practically sound. Given this matter, it is recommended that BMET should reintroduce two year long certificate course with giving valuation of HSC (Voc). However, if it is not possible on the part of the BMET to introduce HSC (Voc), one year skill certificate course should have a strong focus on practical class alongside theory, and there should be a scope for the trainees of the BKTTC to continue his/her studies after completion of the training;

e) The empirical evidence suggests that 'using Korean technology' has influenced or contributed to the effectiveness of vocational training at the BKTTC Hence, there should be a strong focus on using Korean technology or practical orientation alongside theory as part of vocational training;

f) The research finding suggests that most of the trainees of the BKTTC have enrolled with a view to seeking overseas employment, particularly in Korea. Moreover, one of the core objectives of the BKTTC is to promote exporting of highly skilled workforce. Nevertheless, there is no direct channel or no such arrangement on the part of the BMET to allow the trainees to be employed in Korea or elsewhere after completion of their training. As such, the BMET should correspond with the KOICA or concerned agencies of Korea so that Korea could take skilled manpower from the BKTTC based on the merits of trainees each and every year. Or there should be a quota for the trainees of the BKTTC in the Employment Permit System (EPS) of Korea so that the BKTTC not only could attract a number of trainees from across the country to develop their skills and but also could export skilled manpower abroad and thereby contribute to Bangladesh economy. Thus, Korean Government should prioritize this issue and take skilled or semi-skilled labor from each of the six trades of the BKTTC based on the trainees' merits each and every year.

Conclusion

In summary, it may be argued that while Korea's technical cooperation (KOICA's project-type cooperation), has been effective to develop the skills of the BKTTC, it has not been very effective to develop their skills despite the KOICA transferred modern technology and skills. Moreover, the KOICA's Project has not been so effective to attract its targeted groups to undertake vocational training at the training centre and to generate overseas employment, in particular, in Korea even though there is high demand for labor in Korean labor market. As such, the KOICA's Project with introduction of Korean vocational training system and transfer of modern technology has not fulfilled its overall objectives due to mismatching between trainees' needs and desires and government's policy, and lack of absorptive capacity to take advantage of Korean technology. Hence, TC to be effective both for developing and developed partners, there should be strong focuses on demand-driven or need-based approach and building absorptive capacity in the international development cooperation efforts. In addition to recipient country's needs, much emphasis should be paid on the needs and desires of the beneficiaries or targeted groups. Before implementing TC, it is very necessary to assess whether or not it could meet the beneficiaries' needs and desires and be aligned with the recipient country's policy. Finally, it can be said that though the KOICA's Project on VET has

not optimized its results, the Project has not failed as a whole since the BKTTC is now offering short or modular vocational training courses on 26 different trades by taking advantage of Korean training equipments that has become popular across the trainees, and thereby supporting in human resources development in Bangladesh.

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