



Vocational Training for Youth Employment: Comparing Cost-effectiveness of Apprenticeship vs. Formal Training?*

Background

Somalia has one of the highest youth unemployment rates in the world with two out of every three young Somali employment seekers not being able to find work. Even within the country, the youth (15-29 years) have much higher unemployment rate (67%) than the working age (15-65 years) population (47%).¹ Among the youth, female have even higher unemployment rate than the male (74% vs. 61%). These are extremely high unemployment rates, especially considering high labour force participation rate (66%) among the youth population. Employment generation for youth is an obvious priority for the country with 45% of the youth being unable to secure employment despite actively seeking work.

Although economic growth is usually expected to be the major driver of employment generation, the low skill levels among the youth is frequently identified as a constraint. Consequently, technical and vocational training (TVET) has become one of the few prominent tools for generating employment among the youth. Two models of providing TVET, Enterprise Based (EBTVET) and Institution Based (IBTVET) are two common approaches for providing vocational training. While EBTVET takes a more hands-on apprenticeship approach, IBTVET is relatively more structured and conducted through vocational training institutes (VTI). We compare the evidence of employment rates and income of the graduates of EBTVET and IBTVET with the specific objective of conducting a cost-effectiveness analysis.

Data and methodology

This fact sheet compiles findings from four separate “tracer studies” conducted between 2012 and 2016, each measuring the employment rates of the TVET graduates about 6 months to 3 years after finishing their trainings. Evaluation of the Alternative Livelihood and Employment Opportunity project (ALEO, 2012) traced 503 graduates from Puntland. Vocational Education and Training for Accelerated Promotion of Employment (VETAPE, 2012) program was implemented in Somaliland, Puntland and South Central, and the tracer study surveyed 475 graduates. Tracer study of *Horumarinta Elmiga* (HE, 2014) was conducted on the first cohort of graduates in the first phase of this program. Finally, HE (2016) study was conducted on 483 youths who graduated in 2013 and 2014 (about 2-3 years after their graduation). This fact sheet summarises findings from these four reports and additional analyses of HE (2016) dataset.

Findings

1. Employment rates of IBTVET graduates vary more substantially than EBTVET graduates – as Figure 1 shows, the employment rates of the graduates reported in these tracer studies range between 37% and 87%. However, we see that this variation in employment rates for EBTVET is much lower (59% to 87%) than the range for IBTVET (37% to 81%).
2. Except for the more recent study of 2016 in Somaliland, EBTVET graduates reported substantially higher employment rates than their IBTVET counterparts.

Figure 1. Employment rate by type of TVET training

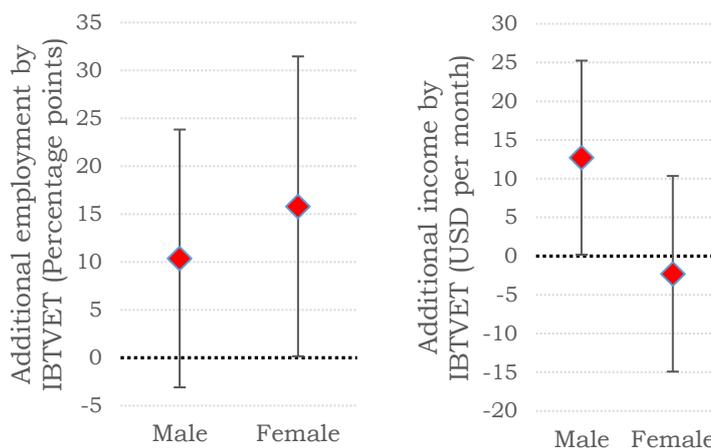


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¹ UNDP (2012), “Somalia Human Development Report – 2012: Empowering Youth for Peace and Development”.

Fact Sheet

3. According to the study of 2016, EBTVET trainees are younger and less educated. Among the few background indicators collected in the 2016 data, EBTVET trainees have education levels. For example, 28% of the EBTVET graduates have no education compared to only 7% IBTVET graduates. On the other hand, more than two-thirds of the IBTVET trainees have at least secondary education compared to 25% of EBTVET trainees. In terms of age, 26% of EBTVET graduates are 15-18 years old compared to 2% of IBTVET trainees. Both indicators suggest that **EBTVET model reaches relatively more vulnerable youth**. Part of this difference is most likely due to educational requirements for enrolling into IBTVET. However, 45% of EBTVET trainees are female compared 57% IBTVET trainees.
4. Since education, age and sex correlate with employment and income, we measure the difference in employment rates and income of the graduates after controlling for these factors. Figure 2 presents the results of regression analysis in the form of additional employment or income generated by IBTVET graduates compared to EBTVET. We find that IBTVET graduates have higher likelihood of employment (by about 10 percentage points for male and 16 percentage points for female). When it comes to income earned by the graduates, there is no statistical difference although male IBTVET graduates earn more. There are two important limitations in interpreting these differences as the “marginal effect” of IBTVET over EBTVET. Firstly, since there is no data on employment status of these graduates before they joined the program, we assume that they had similar employment rates. If the EBTVET participants actually had a lower (higher) employment rates than the IBTVET participants, the additional benefits of IBTVET are over (under) estimated. Secondly, we assume that there is no selection bias between the two groups in terms of any other characteristics (except age, education and sex). Provided these assumptions are valid, we can conclude that **IBTVET increases employment rates for male and female, and income of only male graduates**.

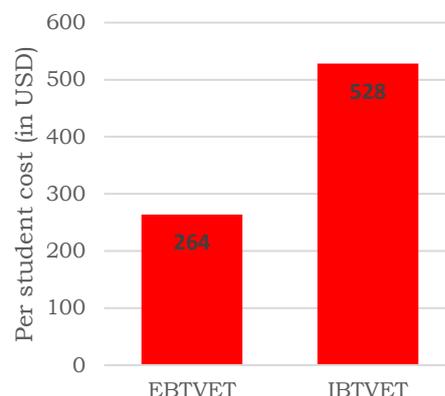
Figure 2. Additional benefits of IBTVET over EBTVET



5. However, the higher employment and income comes at a higher cost. While EBTVET is conducted for 6 months, the minimum duration of IBTVET is 8 months. Monthly costs of supporting each EBTVET trainee is USD 44 compared to USD 66 for IBTVET. Without considering the other indirect costs for IBTVET (through various supports to VTIs), this shows that the per student cost of IBTVET is at least twice that of EBTVET.

For a simple cost-effectiveness estimate, if we take the USD 6.6 of additional income earned by IBTVET trainees (although this estimate is not statistically significant) as the marginal benefit, the IBTVET graduates have to maintain this difference for 40 months to equalize the additional cost. This is a conservative estimate because of the cost difference and not discounting future gains. There is also a possibility that IBTVET trainees will have higher income growth than the EBTVET trainees, which could potentially reverse the cost-effectiveness conclusion.

Figure 3. Per student cost



If we consider the additional benefits in the light of cost difference, EBTVET (apprenticeship) is a more cost effective approach than IBTVET (formal training).

apprenticeship is a more cost-effective approach of vocational training in the country.

However, by comparing graduates of 2013 and 2014, we do not find any indication of higher income growth. Therefore, we conclude that the existing evidence suggest