

## **A Comprehensive Assessment of the Ethiopian TVET System: Implications for Employment and Self-employment Opportunities with Special Reference to Addis Ababa City Administration**

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**Abstract:** The Ethiopian government has entrusted the responsibility of preparing skilled labor force and providing entrepreneurial skills at varying levels to the Technical and Vocational Education and Training (TVET) system. This specialized educational system has the dual responsibilities of training the Ethiopian youth for salary/wage and self-employment. Nevertheless, due to over supply and skills gap, some of the TVET graduates could not secure employment even in highly demanded jobs. It is also noted that training in entrepreneurship is devoid of practical application and has not enabled graduates to initiate self-employment as an alternative to salary employment. To address this problem, albeit in hindsight, a strategy has been formulated to improve its quality. This article argues that implementing the strategy without the necessary preparations results in repeating the previous shortcomings of the system. Training TVET instructors, modularizing the curricula effectively, implementing a proactive TVET management, putting in place facilities for practical application and changing the TVET to demand-driven system are some of the pre-requisites to the implementation of the strategy. Constantly updating TVET teacher education is also of paramount importance. Objectives of the system are realized and transfer of skills and application of new technology are made possible only if TVET instructors and trainers are competent and responsible. With regard to self-employment, the opportunity that the informal sector can offer, the interplay among the TVET graduates themselves, regional states, the government, and NGO's are examined.

### **Introduction**

Studies in economics assert that sustainable economic development can only be realized with efficient utilization of all types of resources. Human resource has the most important contribution to the economic development

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of a country. Human resource is endowed with the ability to blend all the other economic resources and transform them into valuable goods and services that can satisfy human needs and wants.

Human resource development must target at raising and augmenting the productivity of labor. Technical Vocational Education and Training (TVET) is instrumental in developing the human resource and enhancing human capital formation. It provides job-specific technical and non technical training to render individuals ready for paid job or for self-employment. It is worth noting that proactive TVET management coupled with significant amount of investment can augment the productivity of the labor force.

In less developed countries like Ethiopia, the most important sectors providing employment opportunities are agriculture, industry and commerce. Training programs must assess the manpower demands of the three sectors before TVET institutions and colleges embark on training. Contrary to this time-tested modus operandi, most TVET programs were developed by anticipating that the job market is large enough to absorb all the graduates. Monitoring the job market before launching TVET programs renders the Ethiopian TVET system supply-driven as testified by a report made by the African Union in 2007:

Current training programs in many countries are supply-driven. TVET programs are very often not designed to meet observed or projected labor market demands. The emphasis appears to be on helping the unemployed to find jobs, without any critical attempt to match training to available jobs. This situation has resulted in many vocational school graduates not finding jobs or finding themselves in jobs for which they have no previous training (African Union, 2007, p. 26).

As stated above, if training programs are not developed based on observed or projected labor market, there will be a mismatch between the supply of graduates and the demand for them. This creates a situation where there

will be either an over supply or shortage of skilled manpower. While the shortage impedes investment the over supply exacerbates the unemployment and underemployment conditions in the country.

The informal sector in Ethiopia is almost untapped presenting immense opportunity for TVET graduates who seek self-employment in micro/small businesses. This can be achieved if the training in TVET bases itself on the objective realities of this sector of the economy

### **Operational Definitions of Terms**

**A skill gap:** is the difference between skills an employee has acquired through training or experience and the skill he/she needs but may not have to carry out his/her job or to perform a certain task.

**Competency based training (CBT):** is an approach to vocational education and training that places emphasis on what a person can do in the workplace as a result of completing a program of training.

**Entrepreneurship:** Capacity and willingness to undertake conception, organization, and management of a productive venture with all attendant risks, while seeking profit as a reward.

**Entrepreneurial spirit:** is characterized by innovation and risk-taking, and an essential component of a nation's ability to succeed in an ever changing and more competitive global marketplace

**Self-employment:** Earning one's livelihood directly from one's own trade or business rather than as an employee of another.

**Small business:** Designation for firms of a certain size which falls below certain criteria (that varies from country to country) in terms of annual turnover, number of employees, total value of assets, etc.

**The informal sector:** This essentially covers the unorganized spectrum of economic activities in commerce, agriculture, construction, manufacturing, transportation and services

**Technical Vocational Education and Training:** Activities which emphasize the application of the skills, knowledge and attitudes required for employment in a particular occupation or cluster of related occupations in any field of social and economic activity including agriculture, industry, commerce, the hospitality industry, public and private sectors.

### **Statement of the Problem**

Technical Vocational Education and Training has undergone qualitative and quantitative changes in Ethiopia. The number of TVET institutions and student enrollment has increased by leaps and bounds. The budget allocated for TVET and the institutional capacities of regional educational bureaus are elevated to a level never seen before. However, some TVET graduates do not secure jobs and this has resulted in an increase in the rate of unemployment. The effectiveness and efficiency of a TVET system is measured by its ability to prepare the right number of people with the right skills to meet the demand of the labor market.

Promoting self-employment through TVET is a challenging task. It entails monitoring the operation of the formal and the informal sectors, putting in place a modularized competency based curriculum, training skilled and competent instructors making available facilities for practical training and hosting of other factors that contribute to the quality of the training programs.

Graduates will have to be encouraged to create self-generated micro/small enterprises through training for competencies in entrepreneurial skills. This will synergize with government's and NGO's efforts. If the initiative of self-employment does not come from the graduates themselves, when the

support from other sources decreases the initiatives for self-employment will also wane. Therefore, the study addresses the following questions.

- What role does TVET play in improving the economic condition of Ethiopia?
- What possibilities can TVET and entrepreneurship training create in enhancing the employability of graduates either in paid or self-employment?
- What opportunities can the economic sectors offer to salary or self-employment?
- What are the obstacles to self-employment?

### **Objectives**

A well designed and implemented TVET system can equip trainees with job-specific skills. It enables them to start and manage their own small businesses to earn their living by generating a modest income. The micro/small business created by the TVET graduates can grow to a medium or a large business depending on the entrepreneurial skill of the owners. The major objective of this paper is to bring into light the impact of the Ethiopian TVET system on employment with special reference to self-employment. The study has the following specific objectives:

1. To assess the contributions of TVET system to the economic development of Ethiopia.
2. To discuss the opportunity that the economic sectors present to salary and self-employment.
3. To study the possibilities that TVET and entrepreneurship training can create in promoting self-employment.
4. To identify the obstacles in promoting self-employment opportunities and recommend ways and means they could be removed.

## **Methodology**

Secondary quantitative data on salary and self-employment are analyzed using descriptive statistics, mainly percentages. Information obtained from documents related to TVET policies and practices showing the gap between the objective conditions and the current performance of the TVET system are analyzed. Addis Ababa TVET Agency, Civil Service Commission, Ministry of Labor and Social Affairs and Central Statistics Agency, Addis Ababa Micro and Small Enterprises Development Agency and the Addis Ababa Housing and Construction Project Office were used as sources of the quantitative data.

Qualitative information obtained from the internet and data obtained from discussions with pertinent officials of the MoE are also incorporated in the study.

## **Scope and Limitations**

The scope of the study covers Addis Ababa and the formal TVET system. Addis Ababa is chosen as a representative with the belief that it is a microcosm of Ethiopia. Its socio-cultural condition and level of economic development places it in a unique position for salary employment and the promotion of self-employment. Relevant data on employment are difficult to obtain. Because of this, the study is limited to analysis of quantitative and qualitative data from the sources mentioned above.

## **Significance of the Study**

This study tries to make a modest contribution in providing insight into TVET in general and its effect on employment in particular. It recommends ways and means of enhancing the effectiveness of TVET system in Ethiopia.

It is believed that the outcome of the study may serve as a stepping stone for TVET instructors and graduates alike to undertake similar studies that would

help in furthering the improvement of the TVET system. The study, moreover, would show TVET and Technical Vocational Teacher Education institutions the need to focus on competency based (Outcome Based) delivery to produce creative, hardworking and competent workforce. The results of the study may help to **forge** cooperation between potential employers and training institutions so that the latter have their curricula based on the manpower demands of the former to the extent of assigning trainees to the potential employers for practical on the job training or apprenticeship

## **Review of Related Literature**

### **Current Status of TVET in Ethiopia**

**Statistics** shows that the number of TVET institutions has risen from 17 to 388 and total enrollment from 2738 to 191,151 (Wanna 1998). According to Education Sector Development Program (ESDP) **abstract of 2006 – 2007** the number of the teaching staff rose from 635 to 7094 in the 1995/96 academic year (Wanna 1998). The budget allocated to TVET for the 2008 academic year was birr 152,984,300 as compared to birr 117,251,000 allocated to general education and birr 1,348,377,900 to higher education (Ethiopian Negarit Gazeta, 2008). The training budget per student was birr 800.33 or USD 64 (exchange rate at the time the data were reported was 1USD = 12.58 birr).

The student-teacher ratio was 27 and this is lower than the ratio indicated by African Union (AU, 2007). This low trainee-instructor ratio indeed presents an opportunity of giving sufficient attention by instructors to trainees and adequate utilization of instructional resources during training sessions. However, it increases the cost per trainee because of expensive training equipment and materials used for practical training.

Ethiopia has a predominantly agricultural and labor-intensive economy. This economy has not yet undergone transformation to industrial economy; nor is

it able to create linkage between the two sectors. The economic realities of Ethiopia require TVET to enable students to acquire broad, adaptive and transferable skills to secure employment in the formal sectors and/or become self-employed in the informal sector. When economies change and technologies develop, the content of jobs also changes and develops. Under these situations, graduates of TVET have either to adapt quickly to the changing requirements of new technologies by updating their knowledge and skill through constant education and retraining or lose their jobs. Single jobs from narrow specializations are likely to become obsolete quicker than jobs of comprehensive nature unless they are enriched and enlarged through successive trainings.

In this connection, what should be the role of TVET? Should it be to train individuals in specific job skills or in broad skills adaptable to a variety of occupations? Thus, the new role of TVET calls for the development of comprehensive and diversified programs that:

Enable trainees to acquire broad, adaptable skills for wage and self-employment as well as for job-specific skills. This will enable graduates of TVET to adapt quickly to changing requirements of new technologies and to benefit from constantly updating their education and retraining opportunities (Wells 1987, p.18).

**UNESCO (n,d)** recommends that TVET should “lead to the acquisition of broad knowledge and generic skills applicable to a number of occupations within a given field so that the individual is not limited in his/her choice of occupation and is able to transfer from one field to another during his/her working life”

Therefore, because of the comprehensive nature of the field of specializations, graduates will have versatile abilities that could increase their employability in more than one job. Moreover, when we see this from the employers’ side, the training modality may be advantageous in that the



graduate with versatile abilities can, when the need arises, be assigned to different tasks at different times.

There are several TVET teacher training institutions in charge of pre-service and in-service training in the fields of agriculture, industrial education, home science, business education, health and teacher training. A tremendous increase has been seen in the number of TVET institutions over the last couple of years although manning the system with people qualified at a degree level has not yet been achieved. World Bank (2007, p. 59) indicates that “of the 5000 TVET teachers in government and non-government institutions in 2004/05, 60% had diploma or lower level education.” According to MOE (2005), there is a shortage of trainers in qualitative and quantitative terms. The available trainers lack practical experience and this makes it difficult for them to expose trainees to practical training. UNESCO (2009) suggests the need to simulate workplace conditions as part of the curriculum, when a condition for receiving practical work experience is difficult.

According to MoE (2010) the Ethiopian TVET system is structured in five levels such that levels one and two are given to trainees below grade 10, levels three and four are for those who have completed grade 10 in general education, and the fifth level is a training at the polytechnic level. To pass from one level to another, a person must pass a national job qualifying test given by Center of Competency (COC).

The apprenticeship program pursued by prospective TVET graduates at the end of training programs has not resulted in the expected outcomes due to the mismatch between the number of trainees and host organizations. Due to lack of coordinated efforts between TVET institutions and small/large companies, effective implementation of apprenticeship has become difficult. To do away with this difficulty, apparently, a cooperative training program was introduced in 2009/10 academic year. This program envisages delivering 30% of the training on a school based mode and 70% on a work place and school based training mode. This mode of delivery undoubtedly

removes the difficulty in apprenticeship. A priori, given the low development status of public enterprises in Ethiopia, assigning 70% of the cooperative training to this sector is too much and too early. This arrangement shelves the possibility of building the internal capacity, (i.e., machinery and equipment, new and up-to date training techniques and management) of TVET institutions. This would be shunning from taking responsibility of the essence of the training on the part of the TVET institutions.

TVET in Ethiopia is supply-driven and the oversupply of graduates has obliged the government to consolidate TVET operation time and again to offset unforeseen problems. With reference to the fact that the training is supply-driven the World Bank (2007, p. 57) confirmed that “in 1994, a new education policy that dramatically changed the education system and included a major supply-side push on TVET to facilitate the school-to-work transition” was formulated.

Employment is a function of economic development. Demand is the ability and willingness to pay a given sum of money to buy goods or services. By the same token, even though the need to employ (e.g. an office manager) is apparent, if the employer is not able and willing to dispose off money for salary, he/she has to abandon the employment. Need assessment is different from job market demand survey. In the Ethiopian context, training is a function of need. Many training programs, even at higher levels, are run after need assessment is undertaken. There might be a need to train for example an engineer in nuclear physics. If the job market does not demand the trained individual, then he/she is going to be a victim of wasteful/unplanned training practices.

The oversupply of graduates should not continue to be the norm in TVET. To address this wastage, the TVET must be changed to a demand-driven system. This entails training as many students as the number of jobs available in the job market. It should be noted that “supply-driven training will almost certainly result in giving the wrong (unemployable) skills to too many students, and this results in training for unemployment, which not only

wastes students' time but also makes an in-efficient use of government funding," (Palestine Expert Team, 1999, p.3). Moreover, most authorities in TVET agree that vocational education costs twice as much as general education. Utilizing TVET graduates effectively by engaging them in a socially gainful employment has an economic return. But not utilizing or underutilizing an economically productive force is like purchasing a tractor at a high price and rendering it idle instead of using it for cultivating land.

It is high time that Ethiopia's policy makers paid attention to the next recommendation forwarded by the World Bank to be implemented by "small, low-income countries":

In economies where the modern sector is small, where economic policies distort the marketplace, and where private training capacity is weak, the central government must play the key role in financing and providing training. This applies to many low-income agricultural economies that face serious resource constraints. The immediate objective of a training policy may be to build a small but strong base of training capacity by improving internal efficiency and training outcomes (World Bank, 1994).

As stated above, lack of a strong base of training capacity, among others, is the biggest problem of the Ethiopian TVET system. The number of TVET institutions and students enrolled in them has increased in a short span of time. This has led the system to be overextended hampering the development of quality job-related skills. The Ministry of Education has acknowledged that the Ethiopian TVET system is supply driven, inflexible and uncoordinated. The Ministry of Education emphatically expressed its concern over the lack of effectiveness and efficiency of the system indicating that many TVET graduates remain unemployed even in those occupational fields that show high demand for skilled manpower (MoE, 2005).

Effectiveness and efficiency according to the 1999 Palestine TVET Strategy is “ensured through comprehensive and continuous teacher training and curricula development and through the adaptation of TVET system that focuses on exposing students primarily to practical workshop exercises in an industry-like environment, rather than talk and chalk lectures,” (Palestine Expert Team, 1999, p. 2).

Proper funding of programs is one of the measures of cost effectiveness in TVET. However, Lan Joo in Lauglo (2004) pointed out that major shortcoming of financial capacity made the implementation of ‘vocationalization’ in developing countries like Ghana and Kenya was difficult. Vocational subjects in these African countries have been very severely under-funded, and the teaching of practical skills has often ended up implying in theory teaching. In the Ethiopian context soft skill TVET programs seem to be hard hit by under-funding. Some programs do not even have textbooks for the trainees, let alone using modern equipment for the delivery of courses.

In hindsight, the earlier TVET system is changed to an outcome-based training and is being implemented in all TVET institutions. “Outcome based training is based on identified competencies needed in the labor market and is the final benchmark of training and learning,” (MoE, 2006, 21). Simply put, “competency based learning, derived from behaviorist principles, defines skill as the ability to perform prescribed tasks with predictable accuracy,” (Ainley, 1994, p. 7). Graduates from TVET programs have already started to sit for national standard qualification examinations for certification. This mode of evaluation will shift the system from norm-to criteria-referenced (achievement-based) examination, which is the right instrument to measure how much the skill acquired corresponds to the job performed in the workplace. In this regard Finch (1989, p. 242) stated that “criteria associated with each competency have to reflect both the level of acceptable performance and the conditions associated with the performance”.

The Ethiopian TVET system shares the problems of the African TVET operation when examined from the African TVET Strategy perspective. In the search to find a viable solution to problems in the TVET system, Ethiopia has to harmonize its efforts with other African countries because if the training is raised to an acceptable level the graduates will have a competitive advantage in the African as well as other international job market.

### **The Current Status of TVET in Addis Ababa**

Nowadays, it is customary to hear people calling Addis Ababa “the capital city of Africa” because the head quarter of the African Union is in the city. We also note that Addis Ababa is the seat of several international organizations. The population of the city is 2.7 million, according to the recent census.

Since Addis Ababa is relatively more developed in industry, commerce and other services than all the other towns in the country, it attracts people from all over the country for different reasons. Some who come to secure jobs succeed to be self-employed or get employed by the private or public sector while others remain unemployed. Citing CSA (2006) Addis Ababa Micro and Small Business Enterprise Development brochure indicates that in Addis Ababa the unemployment rate is estimated to be 21.4 % for males and 36.1 % for females. The total average rate of unemployment is 28.75%. In simpler terms, the inflow of the population is greater than the outflow. But still there is no doubt that Addis Ababa is perhaps the biggest job market in Ethiopia providing abundant opportunity for the informal and the formal sector operators.

Because of the rising number of inflow, Addis Ababa is pressed hard with the burden of providing employment, education, health, housing, and other services. However, the workforce in Addis Ababa is characterized by low skill and very low educational level. As stated by MoE (2008, p. 8), “only 10% of the urban population has post-secondary education. Significant number of the urban workforce works as unpaid family workers and more

than 40% are self-employed in the informal economy. Most of these live on the edge of poverty.”

### **Selection and Placement of TVET Trainees**

An effective educational system makes use of vocational counseling and guidance even prior to streaming students either to college/university preparatory or TVET programs. This enables students to make their own occupational or career choices. Thus, UNESCO (2009, p. 15) recommends that “guidance should be viewed as a continuous process spanning the entire education system, and should be directed towards aiding all to make conscious and positive educational and occupational choices. It should ensure that individuals are provided with the prerequisites.”

As a consequence, streaming students to fields of study in TVET should have been preceded by vocational counseling or some kind of test, be it aptitude or multiple intelligence test. Such an exercise would help select individuals who have the potential for the different competencies in self-employment in particular and in TVET in general. Some effort must be made to know whether or not trainees have the physical and psychological traits for self-employment, before they enroll in a program for training.

Currently, students sit for a national examination upon completion of 10<sup>th</sup> grade. Those who score high in this examination pass to the second cycle of secondary school, to prepare for college/university. Other students who cannot pass the national examination have the opportunity to pursue TVET. This dichotomy in streaming students may give TVET enrollees the impression that TVET is for low academic achievers. This method of streaming also hinders the distribution of students with talents and aptitude for academic learning vocational training. Therefore, it is natural to find discontented individuals in both educational settings. Experience shows that interest assessed by tests (to identify potential for academic studies or TVET) yields the best results.

## Self-Employment and TVET

Vocational education is defined as “instruction in skills necessary for persons who are preparing to enter the labor force or who need training or retraining in the technology of their occupation,” (Encarta 1996, p.1). From this definition one can understand that skill building is at the heart of TVET or employment, and a person should get instruction in skills (technical and non-technical) before he/she joins the world of work. Training to a level that the occupation requires is a precondition for employment.

However, although TVET in Addis Ababa prepares individuals for employment, it does not necessarily create jobs. In this regard ILO (1996, p. 11) confirms that “training permits vacancies to be filled; it does not create vacancies and or job opportunities”. Furthermore, Grub and Ryan (1992, p. 2) state that

Building schools and training the unskilled will lead to employment and economic progress. But this approach tends to neglect the demand side. Education without employment and specific skill training without jobs requiring such skills may be valuable in their own right but they cannot enhance economic conditions.

They further added mockingly that building a soccer field does not itself create a great team. The authors suggested that the effort exerted to launch TVET programs must also be equally exerted to create employment opportunities. The success or failure of a TVET system is measured by the number of graduates who get employment opportunities, not by the number of TVET programs that are launched.

The employment opportunities of TVET graduates in public or private organizations is, therefore, a function to a steadfast investment by government, foreign and local investors in the country. These investments result in economic development, thereby increasing the demand for skilled manpower.

A certain percentage of TVET graduates can be employed by government and private organizations if the organizations have a demand the graduates' for their skills and knowledge. Obviously, others will be forced to be unemployed unless they create their own jobs through self-employment. According to [Wikipedia \(n.d\)](#), "Self-employment is where a person works for himself rather than for someone else or for a company that he does not own. To be self-employed, an individual is normally highly skilled in a trade or has a niche, product or service for his local community."

The TVET system, albeit diversified, does not sufficiently meet labor market needs. Moleke and others cited in World Bank (2007, p. 57) analyzed the issue and found that "the absorption rate of TVET graduates is very low due mainly to lack of employment opportunities and low quality of training". In most African countries including Ethiopia, due to an increase in the number of school leavers and a large number of TVET graduates, unemployment is widespread. TVET should, therefore, focus on the generation of self-employment as alternative to salary employment. Although TVET equips its trainees with skills, it should realize that to achieve self-employment:

entrepreneurship training must be the necessary part of any TVET curriculum for it equips TVET graduates with skills which enable them to engage in income-generating activities. In this way, it helps develop their community's economy, encourages self-reliance, and can be a good opportunity to promote growth and profitability of traditional crafts and industries. (UNESCO n.d, p.1)

In line with this recommendation a course Entrepreneurship has been incorporated in the curricula of TVET programs in Addis Ababa after the current policy was put in place. The course is offered to students of all specializations in TVET. According to ILO (1996), however, the course entrepreneurship should be designed according to the motivation and desired scale of entrepreneurship development.



In other words, to gear entrepreneurship training to a desired skill, the training has to be tailored in a manner that satisfies the requirement of the intended entrepreneurship development. Entrepreneurship training for those who want to invest in the formal sector is different from that of self-employment. Entrepreneurship training for self-employment is to enable TVET graduates to start micro/small businesses, in the informal sector, with a small start-up capital owned or borrowed from micro-finance institutions. The training approaches (HAAN, 2002. P.17) explains:

Entrepreneurship training is fundamentally different from training for work in the formal sector: it is primarily characterized by a very close link with production, a distinct target-group approach and an unconventional delivery for immediate results, with respect to micro-level training interventions.

To motivate students for self-employment, entrepreneurship training is becoming a common occurrence. Realizing this ILO (1991, p. 13) stated that "...attitudes to risk-taking, entrepreneurship and private gain evolve over time as a result of education and training..." Universities, private colleges, high schools, and out-of-school programs are teaching entrepreneurship. An increasing interest in entrepreneurship education has resulted in a proliferation of curriculum for entrepreneurship education. Researchers in the field argue that the desired attitudinal development can be achieved if the trainee is disposed to entrepreneurship and self-employment.

Self-employment is the attitude of the mind and it is this attitude that gives a person meaning and purpose in self-employment. Vasant (1999, p.24) states that "entrepreneurship is the propensity of the mind to take calculated risks with confidence to achieve a predetermined business or industrial objective in substance; it is the risk taking ability of the individual broadly coupled with correct decision-making". In the Ethiopian context, the attitude of TVET graduates towards self-employment is not yet awakened fully. Looking for paid employment in the public or private sectors, on the part of graduates is

unabated because, according to MoE (2005), they do not see that the alternative to salary employment is creating one's job (by establishing micro/small enterprises) and becoming self-employed.

### **Promoting Self-employment**

In a bid to alleviate poverty and unemployment, different countries have adopted different mechanisms of promoting self-employment. One of the mechanisms is through providing entrepreneurship training to those who have the potential, by involving the private and public sectors as well as NGOs. In the Ethiopian context, the stakeholders are the regional states, the federal government, NGOs, prospective employers and TVET institutions. The future self-employed is the focal point of the training. The reason why the future self-employed are on the limelight is, according to ILO (1996, p. 11) "In a strict sense, employment generation through self-employment activities would depend on the scale of individual investment and operation." Governments also "best utilize self-employment because they can shift responsibility on to the self-employed/entrepreneurs to ensure adequate levels of output and productive employment" (Loufti 1998, p. 1).

Promoting self-employment creates a condition whereby the working force actively participates in economic development of any country. As soon as the self-employed creates a small business, the business starts to contribute to the economic development of the country. It provides job opportunities. It is also a source of revenue taxation to the government.

The current belief, in an effort to promote self-employment is that the interplay among the TVET graduates, TVET institutions, the government, and NGOs can be brought to fruition. Particularly on the part of the government this calls for "Developing special employment creation schemes as a mechanism to alleviate the acute unemployment and poverty situation and undertaking careful diversion of huge resources and matching these resources with possible job opportunities that can be created" (ILO, 1991, p. 5).

## **The Self-employment Environment**

Self-employment in the Ethiopian context is linked with the informal sector. According to a CSA report (2009), 4,059,341 or (36%) of the Ethiopian labor force is engaged in value adding activities. The majority of the people in this sector are engaged in crafts and related trades, elementary occupation, service delivery, shop and market sales. According to (MoE, 2005, p. 44), out of 925,341 or (20.6%) of the workforce is self-employed in the informal sector in Addis Ababa. The aggregate 36% represents self-employed individuals without Micro and Small Enterprise Development Agency or NGO's support.

The illiterate, semi-skilled and unskilled workforces, and those who have attained education level of grades 1 to 8, constitute the informal sector operators. It was indicated that there are very few individuals with post-secondary education. According to MoE (2005, p. 49), the sector is considered as:

A proxy for assessing the opportunities in self-employment...and those with post secondary education including TVET graduates do not venture in this sector. The domination of the petty trade activities implies that this sector is mainly a refuge for the poor and it does not comprise quality jobs that could improve living standards and raise incomes.

How can the informal sector be attractive TVET graduates? The technical skills acquired from the TVET system, coupled with entrepreneurship training focusing on the informal sector, enables TVET graduates to produce competitive and marketable goods and services that satisfy the needs of consumers. To be rewarded adequately, the self-employed has the daunting task of developing the enterprise from micro/small to the next succeeding levels by putting into application his/her entrepreneurial skills. This would

possibly attract TVET graduates to be engaged in value-adding activity in the informal sector.

In the Ethiopian context the relationship between the formal and the **informal sectors is informal**. The public and the private sectors, on one hand and the informal sector on the other, can benefit mutually by creating a deliberate link between them. The formal sector, for example, can subcontract the informal sector to process raw materials into intermediate materials to be eventually used as an input in manufacturing finished marketable commodities.

### Data Presentation and Analysis

Addis Ababa City Administration, the private sector and different **NGOs** have established TVET institutions and colleges to train the workforce to be able to meet the industry/business needs. According to MOE (2010), the training programs of the TVET system consist of 10 programs, 55 occupations, and 73 specializations. Students of formal TVET institutions undergo training with high expectations of salary or self-employment and this is a driving force for their training. The following table portrays the number of TVET colleges/institutions in Addis Ababa.

**Table 1: TVET Colleges and Institutions in Addis Ababa**

	Government	Private	N G O	Total	Percent
Colleges	8	67	10	85	33
Institutions	5	66	10	81	26
Junior	10	21	-	31	8
Basic	9	97	-	106	31
Total	32	258	20	304	100

*Source: Addis Ababa TVET Agency, 1998*

As indicated in Table 1, private organizations run 258 (83%) TVET institutions and colleges, and 32 (11%) are under the Addis Ababa City

Administration. NGOs run 20 (6%) of TVET institutions. The number of private and NGO TVET colleges and institutions by far exceed that of the government ones. It gives the impression that the government has delegated the greater share of training responsibilities to the private sector and NGOs. TVET training through distance education is delivered by 7 private institutions with the approval of the Ministry of Education. The researcher has learned that distance education offered by private colleges has been stopped.

The total number of graduates from the TVET institutions of Addis Ababa is presented in Table 2.

**Table 2: Number of Graduates from Addis Ababa TVET Institutions and Colleges (2002-2008)**

Year	Male	Female	Total
2002	2,448	3,878	6,326
2003	6,729	6,252	11,981
2004	9,470	7,930	17,400
2005	7,031	5,965	12,996
2006	7,501	7,080	14,571
2007	7,114	5,389	12,503
2008	13,603	19,175	32,778
<b>Total</b>	<b>52,672</b>	<b>85,672</b>	<b>138,565</b>

Source: Addis Ababa TVET Agency, 2009

Table 2 shows the number of graduates from TVET institutions and colleges in Addis Ababa. The 7 years intake nearly matches the number of graduates. The male graduates account for 38% whereas female graduates account for 62. %. The TVET graduates will have the employment opportunities in public and private sectors as presented in Table 3.

**Table 3: TVET Graduates Employed by the Public Sector**

<b>Regional State</b>	<b>Certificate (10+1)</b>	<b>Diploma (10+2)</b>	<b>College Diploma (10+3)</b>
Tigray	15,658	–	16,100
Oromiya	82,019	506	69,415
Benishngul	3,486	843	1,731
SNNP	34,911	9,354	26,434
Gambella	1,682	81	819
Harrari	761	327	719
<b>Addis Ababa</b>	<b>3,781</b>	<b>5,183</b>	<b>5,909</b>
Dire Dawa	1,160	103	1,352
Federal Gov't	1,515	5,449	9,286
<b>Total</b>	<b>144,973</b>	<b>21,846</b>	<b>131,765</b>

*Source: Ethiopian Civil Service Commission, 2009*

Table 3 shows the number of TVET graduates employed in the public sector in the periods from 2002 to 2008. Job opportunities created by Regional States in ranking order are Oromiya (50.8%), Southern Nations Nationalities and Peoples (23.8%) and, Tigray (10.6%). The rest of the Regions combined account for 10%. A total of 298,584 jobs have been created by the public sector, of which 14873(5.6%) jobs have been held by Addis Ababa graduates.

The annual average number of graduates is 19,795. The annual average number of jobs created falls short of absorbing all the Addis Ababa TVET graduates by 4,922. The three possible explanations are some might have been employed in the private sector, other might have become self-employed or all of them have joined the army of the unemployed.

**Table 4: Number of Jobs Offered and TVET Graduates Placed by the Private Sector**

<b>Number of Registered TVET Job Seekers Collected from Public Employment Services</b>				
<b>Year</b>	<b>Male</b>	<b>Female</b>	<b>Total</b>	<b>Percent</b>
1999-2000	602	257	859	3.55
2006-2007	1885	1074	2959	6.4
2007-2008	3759	3607	7361	23.64
<b>Number of Placed TVET Job Seekers Collected from Public Employment Services</b>				
1999-2000	111	47	155	10.6
2006-2007	739	539	1278	6.15
2007-2008	602	257	859	4.35

*Source: Ministry of Labour and Social Affairs, 2009*

Out of 11,179 registered job seekers in Ethiopia, only 2292 (20.5%) TVET graduates have been placed in the private sector and 8887 (97.5%) job seekers are not employed. The reason for their unemployment is that private enterprises are authorized to process their own employment of TVET graduates without the need to place their demand and report it to the Ministry of Labour and Social Affairs. From the data it can be deduced that some of the vacancies that should have been filled by these job seekers are taken by unregistered TVET graduates. The other likely reason is that the private sector's absorption capacity is low: it cannot even absorb half of the registered job seekers. The percentage of jobs held by Addis Ababa TVET graduates is not indicated separately in the source of this data. This has made inference.

### **Unemployment and TVET**

According to 2006 census there were 323,256 unemployed people in Addis Ababa city Administration. It was recorded in the 2009 census that the number of unemployed individuals was 410,805. In three years (i.e., 2006-

2009) the number of unemployed people has increased by 87,549(21.3%). The number of unemployed 10+1 and 10+2 TVET graduates is reported separately. However, 10+ 3 graduates are reported to have been under “diploma and degree not completed” category, compounding the problem of treating this category with the rest of TVET graduates. This group represents 66,353 unemployed individuals comprising 10+3 TVET graduates. The number of unemployed individuals in this category is significant.

However, the word ‘diploma’ is a misnomer. In this context “Diploma” cannot particularly refer to 10+3 TVET graduates; it can be obtained only from universities and other learning institutions. This is why we have focused on data of TVET graduates that are reported separately. This group has the impact of a cumulative increase on the subsequent unemployed TVET graduates.

**Table 5: Currently Unemployed TVET Graduates**

	<b>Status/training</b>	<b>Male</b>	<b>Female</b>	<b>Total</b>
Addis Ababa/2009	10+1 & 10+2	4,346	3,221	7,567
Ethiopia/2009	10+1 & 102	8,419	9,690	18,108

*Source: Central Statistics Authority, 2009*

As can be seen from Table 5, there were 7,567 unemployed TVET graduates in Addis Ababa and 18,108 in Ethiopia in 2009. The figure accounts for 4.4% of the unemployed individuals in Ethiopia. These are TVET graduates that are unable to find employment.

### **The Informal Sector and TVET**

Addis Ababa Housing Development Project Office renders similar service under a line of operation different from that of Addis Ababa Micro and Small Enterprises (MSE) Development Agency. With the sponsorship of the German Technical Cooperation, condominiums are constructed for the city dwellers in different localities. From 2007 to 2008, Micro/small Enterprise



operators have produced and supplied construction materials to be used in the construction of condominiums as shown in the table below.

**Table 6: The Number of Items Produced and Supplied to a Public Enterprise**

Items	Unit of Measurement	Quantity Produced
Pre-cast Beam	Number	279,619
Slab Block	Number	539,250
Blocket (20)	Number	2,210,431
Block (10)	Number	425,357
Aggregate	Meter Cube	1,922,241

*Source: Addis Ababa Housing Development Project Office, 2008*

Table 6 above shows that subcontracting relationship between the formal and the informal sectors can be fruitful. In the same period operators of the informal sector (i.e., 14,475 TVET graduates and 54,602 unskilled and semi-skilled laborers below grade 12) participated in each condominium construction area.

The Addis Ababa Micro and Small Enterprise Development Agency, which was established in 2002 has served as a model for other regions. According to a response to an interview with the officials of the agency, it has helped many individuals and TVET graduates to create their own micro/small businesses. Private individuals and TVET graduates who have become self-employed are shown in Table 6.

**Table 7: Development Services Provided by MSE in the Business Activities from 2004 to 2009**

<b>Sectors</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>Total</b>
Textile and Garments	5507	8408	1805	781	1271	384	<b>18156</b>
Metal and Wood products	2613	14656	1265	834	1151	893	<b>21412</b>
Construction	1273	16282	1915	912	2397	1661	<b>24440</b>
Municipal Works	2231	4052	485	699	649	1974	10090
Town Agriculture	0	0	0	545	1619	687	2851
Food Catering	1703	9046	1302	997	147	1083	14278
<b>Others</b>	5807	22497	1453	1638	2675	1728	<b>35798</b>
<b>Total</b>	19134	74941	8225	6406	9909	8410	<b>127025</b>

*Source: Addis Ababa Micro and Small Business Development Agency, 2008*

The term “others” in the table is a composite of economic activities other than the six items listed in the table. In these sectors, of the total self-employed, 28.1% have obtained services rendered by the agency. This is the largest number. Owing to the Construction is a single field of economic activity that was capable of engaging 29.24% of the total self-employed. This can be taken as a prognosis that construction (29.24%), metal and wood work (16.87%), textile and garments (14.29%), and food and catering (11.24%) will become the most targeted programs in the TVET curriculum in the future. It is reported that the agency provides services like work/trade premises, credit, training, marketing, business development services, technology, information, and counseling services.

Of the 127,025 individuals, the percentage representing the TVET graduates who have been supported by the agency is not reported separately. Some TVET graduates have been able to create their own business in fields other than their own specialization after having retraining by the agency. Even those who have specializations relevant to the Agency, had to be retrained because their original training in entrepreneurship in TVET institutions was inadequate. The Addis Ababa City Administration has incurred training and

related costs for the formal training given in TVET institutions, and for retraining offered by the agency. This is evidence of inefficiency in the allocation of training resources.

### **Concluding Remarks**

In the Ethiopian context, Regional States, the private sector and NGOs are involved in the TVET operation to enhance the human resource development effort. The manpower planning of Ethiopia must take into account the TVET operations, if the system is to serve as a means of effective training and utilization of the human resource. To this end, it is recommended that the TVET operation must be tied with the overall manpower planning and training so that the right number of people will be trained for the available jobs to avoid the oversupply of TVET graduates.

When TVET system is supply-driven unemployment of part of the graduates is unavoidable. We cannot afford to let down TVET graduates until the job market forces determine the demand and supply equilibrium. Leaving every employment for the job market may work in an industrialized economy where multitude of jobs is available for TVET graduates. To get all graduates employed, all training must be based on job market demand and on information about the informal sector for self-employment. Those aspiring for salary employment must be trained separately from those who expect to be self-employed so that both sides will pursue their training with a clear vision and objective.

Ethiopia has made a stride in the development of economic sectors like construction and infrastructure; the service, and the leather industry. These economic sectors have required trained manpower that meets the expectations of employers. As of 2010 academic year, the existing supply-driven system is said to have been changed to demand-driven TVET system. Some TVET authorities regarded the full implementation of the demand driven TVET system with skepticism. The researcher also finds it premature to assess the impact of the said TVET system.

The participation of private organizations and NGOs in the TVET operations has a synergizing impact. It has to be encouraged but guarded against the following setbacks.

1. The salary of TVET system trainers in private organizations is higher than that of government TVET instructors. The outflow of competent teachers from government to private colleges and institutions, attracted by better salary is unavoidable. As a consequence, government institutions will be depleted of hardworking and competent teachers trained with government fund.
2. Government TVET colleges and institutions are public financed whereas the private ones are financed by private organizations. Trainees pay tuition fees for the training they are offered by private TVET organizations. This exposes trainees to huge tuition fees and commercialization of the training. To lessen the economic burden of the students and their parents (most parents in Addis Ababa live below the poverty line) the government must subsidize the training expenses of those who cannot afford to pay. If this is not possible, increasing the number of public TVET institutions and colleges to provide all inclusive training to TVET students of Addis Ababa will provide an alternative solution to the problem.

There is no one best curriculum design and training for a given country. Objective realities of that country dictate the curriculum design and implementation. A narrow specialization may be better suited to an industrialized economy. On the contrary a comprehensive specialization may be best suited to labor-intensive and low income countries like Ethiopia. In the Ethiopian context narrow specialization in training and uniformity in curriculum design for each Regional State and each training institution is going on unabated since diversity in training is strength, and because of these training modalities should be given opportunities to thrive.

An attempt to use intermediate materials, processed by the informal sector, as input for producing finished goods by the formal sector will boost the

economy of the country in a sustainable manner. This has been evidenced by the subcontracting relationship between Addis Ababa Housing Development Project Office and the informal sector operators. However, this kind of relationship is so far limited to one government enterprise. It has to pervade to other public as well as private enterprises in order to effectively promote self-employment.

The Addis Ababa Micro and Small Enterprise Development Agency and the Federal Micro and Small Enterprise Agency are providing services in developing micro/small enterprises, to the informal sector operators. Using these government institutions for cooperative training program is beneficial for both the trainees and the TVET institutions. The trainees will benefit from the different services the agencies render. They can realize their dreams of being self-employed. TVET institutions and colleges also must learn from the experiences of the aforementioned institutions and create micro/small enterprise development services of their own that are to be integrated in the training programs. That way the institutions and colleges can ensure the practical applicability of entrepreneurship training for self-employment.

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