

**An assessment of partnerships between
technical vocational education and training
and its stakeholders in the development
of Ethiopian SMEs**

*O evaluare a parteneriatului între învățământul
vocațional și tehnic și părțile interesate
în dezvoltarea IMM-urilor din Etiopia*

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Abstract

This paper examines the Ethiopian Technical, Vocational Education and Training (TVET) in terms of policy, strategies, curriculum, implementation, practice and challenges faced on the ground by both the TVET program and the nation in meeting the skills needs of industry and human capital development in general as enunciated in the goals of ESDP III, (Ministry of Education, 2005). In doing this the paper reviews the skills needs of industry against the capacity of the institutions of higher education's capacity to meet these needs. It is in this context that the appropriateness of the curriculum and its implementation in respect of the TVET goals is scrutinized (Ministry of Education, 2008). Furthermore, government policies and strategies in the identification and selection of appropriate candidates for the TVET program and the incorporation of stakeholders are examined. In this assessment issues of collaboration by stakeholders in the provision of training resources and facilities are assessed, especially financing and human resource requirements in respect of staffing levels and requisite technical skills and supportive equipment and other resources. Policies and organizational structures in the identification, mobilization and distribution of such resources are also examined. To this end any opportunities that may exist for the retention and further training of the TVET graduates already employed by the industry are also reviewed. An important aspect of this evaluation is to identify and understand the kind of relationships and partnerships that exist between the TVET colleges, and government. Similarly an assessment is done concerning curriculum implementation, practice and delivery.

Keywords: *technical vocational education, curriculum, implementation, partnership*

Rezumat

Această lucrare analizează Educația și Formarea Tehnică, Vocațională din Etiopia (TVET) în termenii politicilor, strategiilor, curriculum-ului, implementării, practicii și provocărilor cu care se confruntă pe teren atât programul TVET cât și națiunea, în obținerea de competențe necesare industriei și dezvoltării capitalului uman în general, așa cum s-a enunțat în obiectivele Programului de Dezvoltare a Sectorului Educației III, (Ministry of Education, 2005). În acest sens, în lucrare se discută abilitățile necesare industriei față de capacitatea instituțiilor de învățământ superior de a satisface aceste nevoi. În acest context, este controlată oportunitatea curriculum-ului și punerea sa în aplicare în raport cu obiectivele TVET (Ministry of Education, 2008). În plus, sunt examinate politicile guvernamentale și strategiile de identificare și selectare a candidaților corespunzători pentru programul TVET și atragerea părților interesate. În această evaluare sunt studiate problemele de colaborare cu părțile interesate în furnizarea resurselor și facilităților de formare, în special cerințele de finanțare și de resurse umane în raport cu nivelurile de personal și aptitudinile tehnice necesare, a echipamentelor de susținere și alte resurse. De asemenea sunt examinate politicile și structurile organizatorice pentru identificarea, mobilizarea și distribuirea acestor resurse. În acest scop sunt, de asemenea, revizuite orice oportunități care pot exista pentru păstrarea și perfecționarea profesională a absolvenților învățământului vocațional și tehnic angajat deja în industrie. Un aspect important al acestei evaluări este de a identifica și de a înțelege tipul de relații și parteneriate care există între colegiile TVET și industrie și, de asemenea, între diferite colegii și guvern. O evaluare similară se face în ceea ce privește punerea în aplicare a curriculum-ului, practica și serviciul oferit.

Cuvinte-cheie: educație tehnică vocațională, curriculum, implementare, parteneriat

JEL Classification: I21, I22, N47

Introduction and background

Ethiopia, like many other countries on the African continent, is a developing economy with a population of about 74 million out of which 50.5% are males and 49.5% are females. Of this population 55% is below the age of twenty. Eighty-five percent of the population lives in rural areas and most of them are engaged in agriculture, (Ethiopia-Central Statistical Agency, May 2007). The balance (15%) lives in urban areas where there are high levels of unemployment. The high level of illiteracy (67%) has impacted negatively on the rate of economic development of the country. Consequently Ethiopia is one of the poorest countries in the world with an average per capita income of US\$ 100 per annum. Some 31 million of her people live below the defined poverty datum line of US 45 cents per day.

Given this undesirable scenario, the government of Ethiopia is determined to face these major development challenges head-on in order to eliminate absolute poverty. According to the government's – Plan for Accelerated and Sustained

Development to End Poverty, PASDEP, 2005/6 – 2009/10, (MOFED, 2006a; MOFED, 2006b), it is estimated that the country has to raise its economic growth rate to 8% annually in order to achieve some of the Millennium Development Goals (MDGs), particularly the one which addresses the two dimensions of poverty - financial and non-financial. This five-year development plan, (MOFED, 2006a), carries forward important strategic directions pursued under the Sustainable Development and Poverty Reduction Program (SDPRP), (MOFED, 2002) – related to infrastructure, human development, rural development, food security, and capacity-building. These new directions include greater commercialization of agriculture, enhancement of private sector development, industry, urban development and a scaling-up of efforts to achieve the Millennium Development Goals (MDGs), (MOFED, 2004).

The government sees education and training as an important factor in the process of *human resource development* in order to break the vicious cycle of poverty that the country has been entangled in. In keeping with this goal, the government promulgated a number of social and economic policies to achieve this. One of these policies is the Education and Training Policy (ETP) of 1994 (Ethiopia Government, 1994). Since the introduction of this policy a number of changes have been made. The most salient changes that took place after the Second Education Sector Development Program (ESDP II), (Ministry of Education, 2002), between 1994/5 to 2004/05, was a significant increase in pupils' and students' enrolment at all levels including: (i) primary level (grades 1- 8) which increased from 3 million to 11.4 million; (ii) secondary level (grades 9-12) which jumped from 400,000 to 953,212; (iii) TVET institutions which increased from 3,000 to 106,305.

Thirty-one percent of students in the latter were trained in non-government TVET institutions. Around 60% of formal TVET is provided in the form of regular programmes and 40% in evening classes. However, despite the enormous expansion, formal TVET only caters for less than 3% of the relevant age group. Enrolment figures in formal TVET programmes show a fair gender balance with 51% female students and 49% males. In 2004/05, another 42,000 trainees were enrolled in agriculture TVET programmes and another 10,000 in teacher training institutes. Among the factors that contributed to the accelerated progress achieved in this period (i.e.between 1996/7 and 2004/5) is the significant increase in the number of TVET institutions providing formal non-agriculture programs, which rose from 17 to 199 in the same period (Ministry of Education, 2005).

However, in spite of the notable positive trends in TVET developments hitherto highlighted, people still shared several concerns on the programs. According to the Consolidated Outcomes of the 2005 Regional Consultations, the most common concerns were related to the quality of training, overcrowding of trainees in limited infrastructure, shortage of skilled manpower, and shortage of learning materials. A second set of major concerns involved gender imbalance in recruitment and participation arising mainly from traditional cultural barriers and attitudes. The third focused on the need for informal education, and affirmative programs for the socially disadvantaged, including adults and the illiterate.

TVET vision and objectives of the National TVET Strategy

The vision is stated in the TVET Strategy (Ministry of Education, 2008) as:

“Technical and Vocational Education and Training (TVET) in Ethiopia seeks to create competent and self-reliant citizens to contribute to the economic and social development of the country, thus improving the livelihoods of all Ethiopians and sustainably reducing poverty.”

“The overall goal of the National TVET Strategy is to create a competent, motivated, adaptable and innovative workforce in Ethiopia contributing to poverty reduction and social and economic development through facilitating demand-driven, high quality technical and vocational education and training, relevant to all sectors of the economy, at all levels and to all people in need of skills development.”

Specifically, the National TVET strategy aims to:

- a) Create and further develop a comprehensive, integrated, outcome-based and decentralized TVET system for Ethiopia
- b) Strengthen working organizations in view of making TVET institutions centers for Technology Transfer
- c) Create a coherent framework for all actors and stakeholders in the TVET system
- d) Establish and capacitate the necessary institutional set-up to manage and implement TVET in Ethiopia and to ensure a quality management system (QMS)
- e) Improve the quality of TVET (formal and non-formal) at all levels and make it responsive to the needs of the labour market
- f) Facilitate the expansion of relevant TVET offers in Ethiopia which are crucial to national development
- g) Strengthen the private training market and encourage enterprises to participate in the TVET system
- h) Empower women and rural people through skills development
- i) Ensure equal access of women and people with special needs to TVET
- j) Strengthen the culture of self-employment and support innovation in the Ethiopian economy, in particular in the emerging regions
- k) Develop a sustainable financing system for TVET with efficient and cost-effective delivery systems and management structures
- l) Build the necessary human capacities to effectively manage and implement TVET

In pursuing the objectives stated above, there is need to critically evaluate the pitfalls in the way of effective implementation of the TVET-link with industry and other service sectors in Ethiopia; and to do so, this paper begins by analysing the problems associated with TVET in Africa in general before zeroing in on Ethiopia. The findings of the African Union (2007), in its recent survey on the state

of TVET in 18 African countries excluding Ethiopia revealed the following observations:

Poor perception of TVET: The public and even parents consider the vocational education track as fit for only the academically less endowed. In many countries, students entering the vocational education stream find it difficult, if not impossible, to proceed to higher education. There is the need to make TVET less dead-end.

Gender stereotyping: Some vocational training programs like dressmaking, hairdressing, and cookery are associated with girls - very often girls who are less gifted academically. In Benin, for example, such girls are derogatorily referred to as following the "c" option of the secondary school curriculum.

Poor instructor training: The delivery of quality TVET is dependent on the competence of the teacher; competence measured in terms of theoretical knowledge, technical and pedagogical skills as well as being abreast with new technologies in the workplace.

Poor linkage between vocational and general education: In general, vocational education and training forms a separate parallel system within the educational system with its own institutions, programs, and teachers. This situation tends to reinforce the perception of inferiority of the vocational track. It is therefore important to create articulation pathways between vocational education and general education.

Poor linkage between formal and non-formal TVET: It should be possible for students who drop out of the school system to learn a trade to re-enter the formal vocational school system to upgrade their skills, either on part-time or full-time basis. Similarly, regular vocational school students should be able to acquire relevant practical skills in the non-formal sector.

Poor linkage of TVET to the labour market: The ultimate aim of vocational training is employment. TVET programs therefore have to be linked to the job market. In this way, the socio-economic relevance of TVET can be enhanced.

The above observations have been considered in our analysis of the TVET program in Ethiopia, policy measures behind it, its implementation, and the challenges it faces in its partnerships with various stakeholders. In addressing this task various analytical models were used to gather as well as to analyze the data.

The methodological analytical framework

The study adopted the Multiple Attribute Utility Theory (MAUT) to assess the partnerships. MAUT is a decision support (weighting) tool that can be used in conjunction with other methods to assess impacts (Winterfeld, and Edwards, 1986). MAUT is a structured methodology designed to handle the trade-offs among multiple objectives. MAUT is grounded on utility theory, which is basically a systematic approach for quantifying individual preferences. In this analysis, it was used to rescale a numerical value on some partnership attributes of interest on a scale of 1 to 10, with 1 representing the worst preference and 10 the best. The end result is a rank ordered evaluation of alternatives that reflects the decision makers'

preferences. TVET decisions not only have multiple objectives, they also often involve a multitude of stakeholders and institutions that will be directly or indirectly be affected in different ways by the decision. This makes MAUT to the most appropriate framework of assessing partnerships in TVET. Early applications of MAUT focus on public sector decisions and public policy issues (see <http://www.hsor.org>).

The overall value function for evaluation is defined mathematically as follows:

$$v(x) = \sum_{i=1}^n w_i v_i(x)$$

Here, $v_i(x)$ is the evaluation of the object on the i -th value dimension d_i . On the other hand, w_i refers to the weight determining the impact of the i -th value dimension on the overall evaluation (also called the relative importance of a dimension). Then n is the number of different value dimensions, so that:

$$\sum_{i=1}^n w_i = 1 .$$

The adoption of MAUT concepts in this analysis permitted the assessment of partnerships to be mapped on related tools such as the Goal Achievement Matrix (GAM) technique, Influence and Importance Matrix (IIM), and the Interaction Matrix (IM) technique.

Materials and methods

The study adopted both explorative and descriptive research design which sought to understand in detail the role of partnerships in linking TVET activities with the industry. Empirical evidence was gathered through key informant interviews with selected stakeholders from institutions such as TVET colleges, the ministry of education, GTZ and others. Additional evidence was gathered through past research work, a review of published and unpublished TVET documents including the National TVET strategy document, PASDEP, UNESCO report on higher education in Ethiopia, TVET System Reform Document (Ministry of Education), Revitalizing TVET in Africa (African Union document) etc. The stakeholder analysis approach was employed to analyze the role of partnerships and other issues relating to institutional dynamics. Specific stakeholder analysis tools employed as mentioned earlier on include the Venn diagramming technique, IIM, and IM. Qualitative data generated was subjected to content analysis while quantitative variables were analyzed within the context of the MAUT framework. For reasons of proximity, only TVET related institutions located in Addis Ababa were visited. Figure 1 gives a snippet of the various TVET centers found in Ethiopia.

The map from Figure 1 shows the distribution of TVET centers in different regional states: Somali, Oromia, Afar, Amhara, Gambela, Beinisangule Goumse, and SNNP. From the scatter distribution of the TVET centers, it can be observed that the pattern is critically skewed in favor of Central Oromia, North-eastern

SNNP, Amhara and Tigray. Regrettably, regions such as Afar, Southern Oromia and the entire Somali regions have very few, if any, TVET centers. This skewed distribution raises serious concerns over equity in terms of access to technical and vocational training, a concern which has critical implications on development patterns regions.

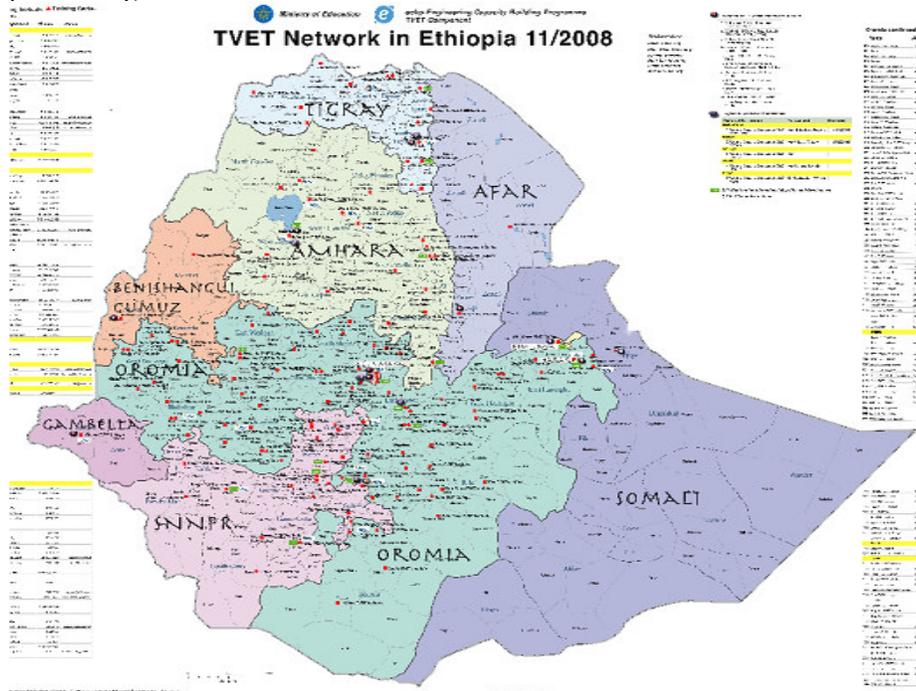


Figure 1. TVET network centers in Ethiopia

Notwithstanding, all the TVET institutions share a number of characteristics such that a closer look at any one particular case can provide a general understanding of operations and modalities obtaining in all. For this reason and also owing to reasons of proximity and other research logistics, empirical evidence on the activities of the TVET centers was gathered from a case study of Addis Ababa Tegbreid TVET College.

Addis Ababa Tegbareid Technical and Vocational Education and Training College

This is one of the many TVET institutions dotted around the country. A quick look at its history, curriculum and partnerships with various stakeholders provides us with an overall picture of how most of the colleges re structured as well as how they are linked with industry and other stakeholders. Addis Ababa

Tegbareid (AAT) is one of the earliest institutes, established in 1934 with the sole purpose of providing technical skills for the country's industrial and service sectors. It was first helped and directed by Italian artisans, French, Swedes and later by Americans with Ethiopian counterparts

To date AAT in its mission statement (AAT Information Bulletin, 2006) has remained committed to the following objectives:

- To offer training on 16 different fields
- To serve as a means of linking between and among business enterprises.
- To integrate construction, business and industrial training with the actual economic practices of the country.

To achieve the above objectives the college offers certificates and diploma programs to regular and evening students. Their recruitment is done by the Ministry of Education's Education Bureau on the basis of the results of the Ethiopian General Education Entrance Certificate Examination (EGHEECE). Two aspects of the recruitment process are worth clarifying here: The first deals with affirmative action in recruitment, and the second deals with payment of fees. The affirmative action recruits female students at about 0.2 points lower than their male counterparts. On payment the evening students meet their full fees requirements on the assumption that they can afford given that their bulk come from working backgrounds, but the regular students share cost with Government. These practices apply to all other TVET institutions whether private or government-owned.

Similarly, the curriculum of this college is also a reasonable yardstick to generalize about the rest. Its current curriculum is made up of 26 fields organized into 6 faculties, namely: Business; Accounting; Administration and Information Technology; Draughting and Surveying, Electricity, Electronics and Biomedicals; General Mechanics, Auto, Machine and Textile; and Construction. Note that these faculty categorizations do not necessarily follow any particular logic. These fields are clustered purely and primarily administrative purpose, itself also a pointer to shortage of either personnel or logistical infrastructure. Table 1 sum up the certificate and diploma programs issuing from these administrative faculties.

The certificate and diploma programs

Table 1

| Diploma 10+3 | Certificate 10+2 | Certificate 10+1 |
|-------------------------|-----------------------------|-----------------------------|
| Auto Mechanics | Auto Mechanics | Drafting |
| Electricity | Electricity | Woodwork |
| Electronics | Electronics | Accounting |
| Gen. Mechanics | Gen. Mechanics | Secretary Sc |
| Machine | Machine | Purchasing |
| Textile | Textile | Salesmanship |
| | Building Cons. | Info.Technology |
| | Road Cons. | |
| | Surveying | |

Source: (AAT Information Bulletin, 2006)

Now, to run the programs effectively, a pyramidal administrative structure provides the management. In Figure 2 it is shown the organizational chart of Tegbareid TVET College, a hierarchy which is fairly representative of the administrative structures of other colleges around the country.

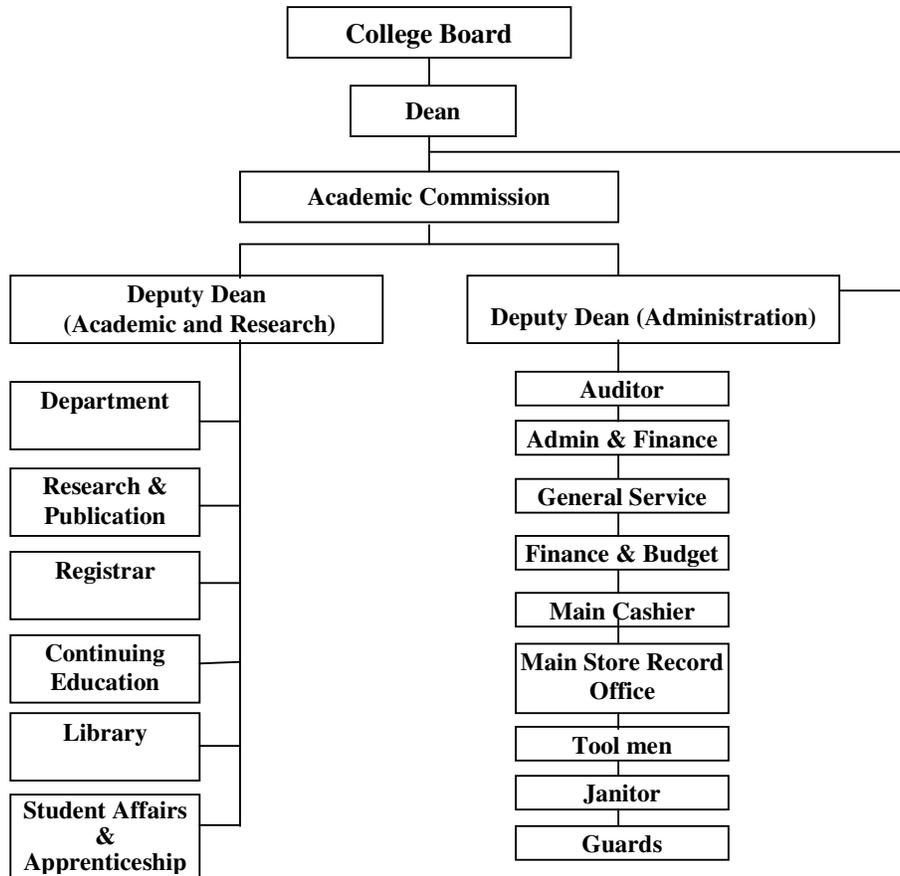


Figure 2. AAT TVET organizational chart

A further operationalisation of the organizational chart reveals that at present the personnel stands at about 93 full-time teaching members who are complimented by several part-timers mostly from industry and other service sectors, and 50 administrative support staff. Of these full-timers about 85% hold BA and BSc degrees in their areas of specialization; about 5-7% hold MA or MSc while the rest are experienced no-degreed Diploma holders respectively.

Analysis of findings

Findings from the case study and interviews carried out with selected key informants from the Ministry of Education, GTZ, The Ethiopian Economic Association and the Ethiopian Education Bureau were analysed using the Goal Achievement Matrix Technique, the Interaction Matrix Technique and the Importance and Influence Tool.

The Goal Achievement Matrix technique was used to evaluate the successes and failures of the TVET program on selected attributes (Figure 3).

Results indicate that the TVET program has been doing well in such areas as:

- Staff recruitment
- Curriculum development
- Monitoring and evaluation and
- Fostering working partnerships with the formal private sector.

| | | PERCEIVED PERFORMANCE | | | |
|-------------------------|---|-----------------------|-----|--------|------|
| | | NONE | LOW | MEDIUM | HIGH |
| Selected TVET attribute | Staff recruitment | | | | X |
| | Curriculum development | | | | X |
| | Training | | | X | |
| | Trainee follow-up schemes ¹ | | X | | |
| | Program implementation | | | X | |
| | Monitoring and evaluation | | | | X |
| | Partnerships with formal private sector | | | | X |
| | Partnerships with the informal sector | | X | | |
| | Partnerships with the public sector | | X | | |
| | Partnerships with other institutions ³ | | | | |
| | Staff retention | | X | | |
| | Inclusion of disadvantaged groups ² | | | X | |

Figure 3. Goal Achievement Matrix for assessing the effectiveness of selected TVET attributes

¹Currently there is no explicit follow up scheme for trainee graduates who have entered the informal sector industry.

²Disadvantaged groups in this analysis refer to the physically handicap and women.

³These include other non-state sector organizations such as, Non-Governmental Organizations (NGO's excluding GTZ and Italian contribution), Community Based Organizations (CBO's), the donor community and established associations.

However, despite marginal gains scored in other areas, more still needs to be done in such areas as: training, trainee follow up schemes, program implementation, partnerships with both the public and the informal sector, staff retention and the inclusion of disadvantaged groups.

The Education Bureau, through support from NGOs such as GTZ, its associates has played an instrumental role in forging partnerships between TVET activities with the industry. The current TVET program has four specific components, which include: university reform, TVET reform, quality infrastructure and clustering.

The relative importance and influence exerted on the industry by each program component was assessed through a combination of the importance and influence matrix tool and the Interact Matrix technique. The *Influence and Importance Matrix technique*, a tool normally used for stakeholder analysis was adopted and used to assess the influence and importance of TVET program components to the industry (both public and private). The relative positions of program components on the matrix have been guided by the weighting and scoring principles enshrined in the MAUT analytical framework adopted by the study. Results are portrayed on Figure 4.

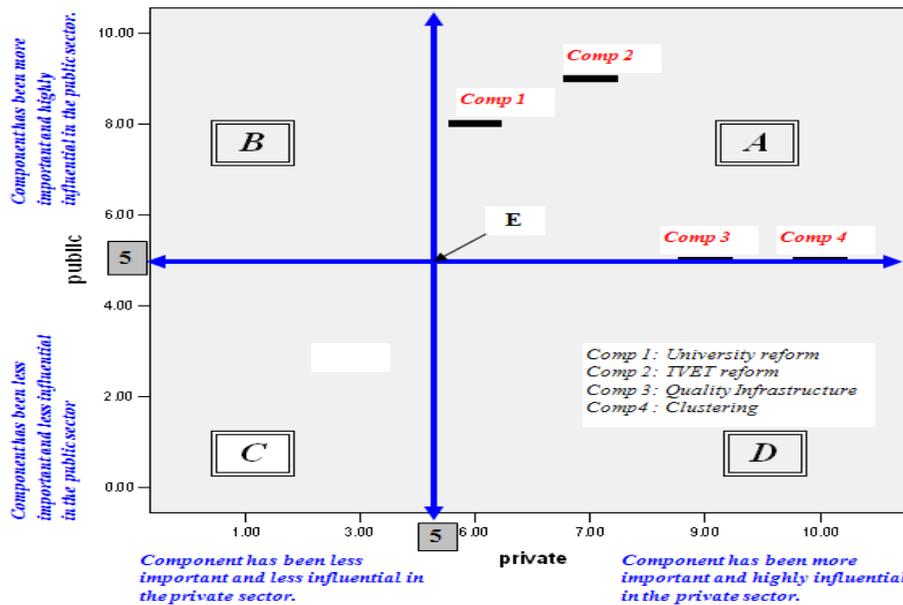


Figure 4: Influence and importance of TVET (GTZ) program components to the industry.

NB: Sample TVET official's perceptions were used to locate the various programs of the Education Bureau on the influence and performance scales. In quadrant A a program component would be performing better on both performance scales, with those furthest to point E being better performers. In B, the program component performs well on the public effectiveness scale but poorly on other scale. In C, the program component performs poorly on both scales, with those furthest from point E being the worst performers. In D, the program component performs well on the private effectiveness scale, but poorly on the other scale.

Program components such as quality infrastructure and clustering were found to fit well with private sector needs than they did with public sector. Conversely, the TVET and University reform programs were found to be more compatible with the interest of the public sector (Mulaw and Schmidt, 2006).

The study confirms that there is a very strong partnership between TVET institutions and the consumers of their products, the industries and the service sector. Such partnerships are however more biased to wards the private sector than they are to the public sector (Figure 5).

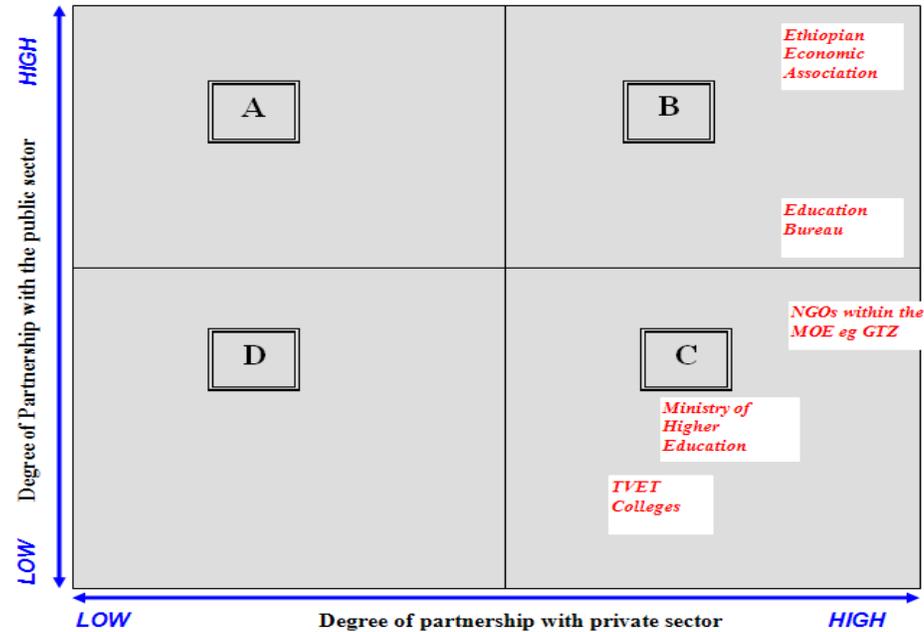


Figure 5. An assessment of the strength of TVET partnerships with industry

NB: Sample TVET official's perceptions were used to locate the various TVET institutions on the Interaction Matrix according to their degree of partnership with either the public or the private sector. In quadrant A an institution's partnership with the public sector would rate high while that with the private sector low. In quadrant B an institution's partnership with both the private and public sector would rate high. In quadrant C an institution's partnership with the private sector would rate high while that with the public sector low. In quadrant D an institution's partnership with both the public and private sector would rate low.

With the exception of the Ethiopia Economic Association and the Education Bureau, the role of sample TVET institutions such as GTZ, TVET colleges and the Ministry of Higher Education was found to be restrictive in the

public sector. For example the role of TVET colleges was found to be limited, largely to issues of HIV and AIDS issues. Despite this magnified inclination towards the private sector, the majority of TVET activities have largely remained confined to the private formal sector industry. There has been to date not deliberate action taken to incorporate informal sector activities into the TVET activities. It acknowledged that a sizable number of graduates enter this sector. There exist no formal channels of communication as well as collaborative platforms with this sector to the extent that the magnitude of impact of TVET activities to this industry is not known.

Emerging issues and challenges

National TVET Strategy

The new strategy replaces that adopted in 2002. It reflects an important paradigm shift of recent years which places quality and relevance of TVET as its priority. Global experience has shown that the mere expansion of TVET does not solve the problems of unemployment and low productivity of the economy. TVET has to respond to the skills needs of the labour market and create a competent, motivated and adaptable workforce capable of driving economic growth and development.

The new and main thrust of the strategy is that TVET development relies on an outcome-based system and dedicated and trusting cooperation among stakeholders.

Current state of TVET Development

From our literature review and interviews, we learnt that traditionally, Technical and Vocational Education and Training (TVET) in Ethiopia has been fragmented and was delivered by different providers at various qualification levels. Public TVET institutions under the education sector were concentrating on producing middle level technical graduates at post Grade 10 level and offered four level courses, ranging from one to four years. In parallel with this, public and private companies have had their own TVET programmes, as have NGOs and private TVET providers. Meanwhile, in non-formal TVET programmes, public institutions, NGOs, and private schools offer employment-oriented trainings to various target groups, including school leavers, people in employment, school drop outs and marginalized groups in the labour market. Unlike formal TVET, these programmes are not yet systematically delivered. Informal (on-the-job) training is widespread, but due to the absence of a systematic assessment and certification system there are currently no mechanisms to recognize informal occupational learning. Traditional apprenticeships in the small and micro enterprise sector constitute another presumably important, yet entirely un-researched, training environment. Public and private training schemes planned to produce administrative and health personnel to the market in sufficient quantity. Agriculture TVET programmes, which have been massively expanded during recent years, are disconnected structurally from non-agriculture TVET programmes, (Ministry of Education, 2008).

Shortcomings and/or gaps in current TVET Training

Insufficiency and inaccessibility of TVET Institutions. The authorities have acknowledged that it is generally unknown how many Ethiopians in total have access to relevant TVET (including formal, non- and informal TVET). It is therefore assumed, that demand exceeds by far the current supply and that the majority of the population is not reached by TVET offers at the moment. TVET is thus generally inaccessible to the following groups; school-drop outs, unemployed, workers in industry and the MSE sector, prospective entrepreneurs, people living in rural areas and the physically challenged, (TVET strategy revised Jan.2008)

Lack of relevance of curricula. The fact that government is committed to overhauling and reforming the basic framework and conditions of the TVET system shows that it is aware that the training programmes lack relevance to the workplace reality. As a result TVET is not maximizing its contribution to industry. A systematic integration of TVET with the world of work has not yet been achieved. Most curricula used in formal TVET were developed without due consideration to competences needed.

Lack of adequate resources due to misplaced priority. The observable delays in the implementation of the reform process was due to limited resources but was also affected by prioritization whereby all efforts and resources were directed towards the massive quantitative expansion of the public TVET supply. As a consequence, the programmes, by-and-large, do not address actual skills needs in the economy, with most programmes of low quality and theory-driven due to resource constraints and lack of skilled TVET teachers.

Poor stakeholder partnership. With the introduction of the new middle level TVET programmes, an industrial attachment period has been introduced to formal TVET. However, its implementation has faced a number of problems, mainly due to the lack of cooperation of the employers as they were not consulted during the planning process. An internship and cooperative training system based on profound cooperation between TVET institutions and employers and a joint training delivery still needs to be developed in order to increase the quality of TVET and hence the employability of graduates.

TVET lack of efficiency and effectiveness. Studies have shown that many TVET graduates remain unemployed even in those occupational fields that show a high demand for skilled manpower. Furthermore, substantial resource wastages occur as a result of underutilization of equipment in public TVET institutions. This compounded by the poor stakeholder partnership, where trainees are not adequately exposed to the appropriate work environment.

Shortages of TVET teachers/instructors. This is one of the obstacles to TVET development in Ethiopia. The quality of TVET teachers/instructors has suffered as a result of the low reputation of their profession. Most TVET teachers/instructors have relatively low formal qualifications, severely affecting TVET delivery at higher qualification levels. Furthermore, technical teachers, more often than not, have been unmotivated. They did not choose to become technical teachers, but were placed in technical teacher colleges because there were no other

options available to them. Finally, existing TVET teachers/instructors are (mostly) inappropriately practically skilled, i.e. not competent to provide TVET in accordance with the occupational standards. This is a result of a training system that long emphasised theoretical knowledge (though often not aligned with modern technology requirements), disregarding the importance of practical skills and appreciation of the world of work.

Under-funding of program. This is a structural problem in the TVET sector, particularly in the public system. Costs of TVET will remain high, if it is to be provided as centre-based training, which is still the predominant mode of TVET delivery in Ethiopia. As with most other countries, public TVET programmes in Ethiopia are usually more expensive than general education, requiring lower than average teacher/student ratio and substantial capital and recurrent expenses incurred through practical training. As a consequence of budgetary constraints, most urban public TVET programmes are under-funded while rural public TVET programmes suffer from poor facilities and shortages of training materials.

Conclusions

The study established that there is a very strong partnership between TVET institutions and the consumers of their products, the industries and the service sector, as evidenced by the proliferation of TVET institutions in most parts of the regions as well as the corresponding phenomenal growth in the industry's technical base, and as testified by other stakeholders such as the Ministry of Education, the Education Bureau, and GTZ-TVET officials at the Ministry of Education. Admittedly, more illuminating evidence could certainly have come from equally relevant stakeholders if research time had not been prohibitively limiting. These include the Ministry of Labour and Social Affairs, the Employers' Federation, and the Ethiopian Trade Union Organisation.

Nonetheless, the growing number of TVET institutions in most of the regions is sufficient evidence of the expansion of technical education as well as the diversification of technical trades across the country. In fact evidence from the Tegnareid case study overwhelmingly demonstrates this sharp rise in enrolment and diversification of trades over the years.

However, regrettably, there still remain yawning gaps that call for immediate attention if the overall goal of TVET hitherto stated is to be fulfilled; and more so if the TVET- Industry link is to be sufficiently oiled to achieve maximum national economic development. There are many grey areas crying out for attention but the major highlights can be summarized as follows: First, it has been observed that the spread of existing TVET institutions is concentrated in some regions at the expense of others. Regions such as Gambela, Somalia, Southern Oromia and Afar are evidently deprived as illustrated by the map on the distribution of TVET institutions in the country (Figure1). Such a skewed distribution is disturbing in that it results in skewed access to technical education

by different members of the region, resulting in obvious skewed development in respective region.

Secondly, in spite of the increasing number of graduates each year, there is apparently no formal mechanism to make a follow up, tracking of the TVET graduates employment destinations which would enable an effective assessment of the overall impact of the institutions' skills on industrial needs. This would inevitably lead to the much needed feedback from industries, which would subsequently bring about the necessary adjustments in TVET curriculum for effective national development. Of course, it has been established that industry does not only send to TVET institutions, its workers for training, retraining and trade testing; but also actively provides technical support in the form of part-time technical experts; but such positive transactions take place in the absents of an official policy framework that encourages, supports and regulates such links.

Finally, related to the above, there is hardly any officially interaction between TVET institutions and the informal sector, which in fact is a major contributor to economic growth not only in Ethiopia but in Africa as a whole. There is therefore need to look into these yawning gaps in order to improve partnerships between TVET institutions and its major stakeholders namely providers and consumers of its products and services.

Recommendations

In view of the above excavations, more needs to be done to expand the opportunities of all members of society in terms of access to technical education and training; and it therefore goes without saying that:

- More TVET colleges should be built in deprived regions.
- There is also need for a strongly fostered post training evaluation of the impact of graduates in industry in order to ensure that there is a constant alignment of industrial need and TVET curriculum.
- Thirdly, while the recruitment is evidently gender sensitive, there is still need to do a follow up assessment to establish how many of the female students make it to graduation and subsequently to employment stations. Such gender mainstreaming will ensure that the traditional barriers that hampered them in the past do not haunt them again in the employment sector.
- Finally, the cooperation between various stakeholders should also be constantly reviewed so that the current situation can translate into the much needed ideal. The diagrams from Figure 6 (model 1 and model 2), sum up what needs to be done to make the TVET industry link more effective and productive.

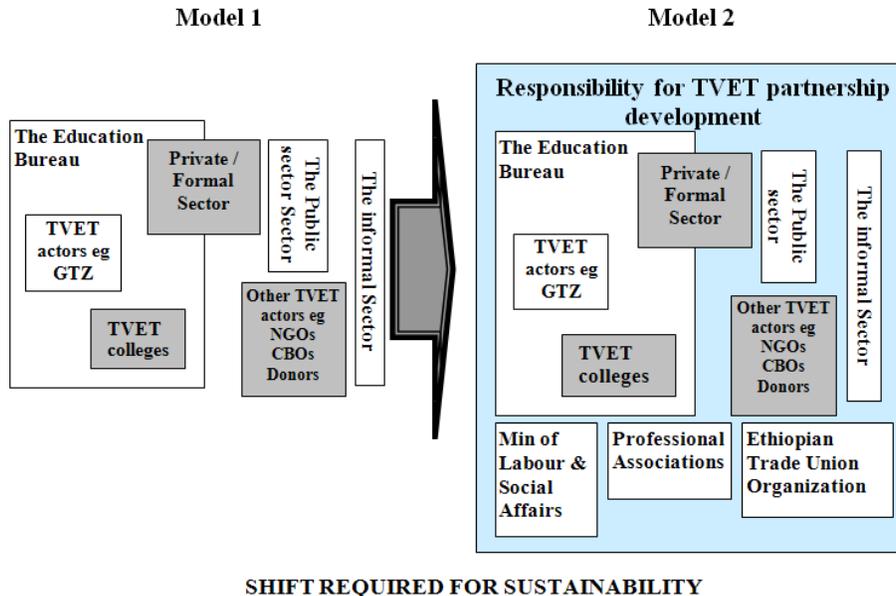


Figure 6. Moving towards sustainable partnership objectives will require integration of responsibility for TVET into all planning and developmental activities of all relevant institutions.

Model 1 represents the current situation of stakeholder interaction. Model 2 represents the ideal. The ideal state calls for the need for a policy framework that will co-ordinate and regulate the partnerships of the following stakeholders: the government through the ministry of education, the Education Bureau and the ministry of labour: the facilitating NGOs such as GTZ TVET and its associates, the TVET colleges (both public and private), the Employers’ Federation, Professional Associations, the Ethiopian Trade Union Organization and other relevant state-owned and private-owned enterprises. Their interactions can be coordinated by the policy through the creation of various sanctioned for of exchange.

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