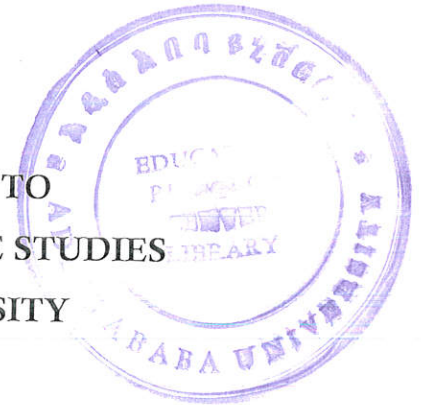


THE IMPLEMENTATION OF APPRENTICESHIP TRAINING
PROGRAM IN TVET INSTITUTIONS IN DIRE-DAWA

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MIHRETEAB TEKLU

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MIHRETEAB TEKELU

COLLEGE OF EDUCATION
DEPARTMENT OF EDUCATIONAL PLANNING AND MANAGEMENT

Approved by board of Examiners:

Dr. Yetupocamlak Alemu
Chairman, Dept, Graduate Committee


Signature

Dr. Tilare Kassahun
Advisor


Signature

Wanna Uka (PhD)
External Examiner


Signature

Dr. Yetupocamlak Alemu
Internal Examiner


Signature

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ABBREVIATIONS

The following abbreviations are used in the study

E.A.A:	Educational Annual Abstract
ETP:	Education and Training Policy
IGAs:	Income Generating Activities
ILOs:	International Labor Organizations
ITA:	Industrial Training Authority
ISTARN:	Informal Sector Training and Resource Sector
MOE:	Ministry of Education
NGO:	Non-Government Organizations
NTVETS:	National Technical Vocational Education and Training Strategy
NYA:	National Youth Administration
REB:	Regional Educational Bureaus
ROR:	Rate of Return
SSA:	Sub Saharan Africa
SSI:	Small scale industries
TAP:	Traditional Apprenticeship Training
TVET:	Technical and vocational education training
UNESCO:	United Nations, Educational, Scientific and Cultural Organization

ABSTRACT

The principal aim of undertaking this research study was to investigate major problems hindering effective apprenticeship training in the TVET institutions In Dire-Dawa. To this end, an attempt was made to examine the roles and responsibilities of TVET institutions, the organizations and the trainees, the degree of cooperation between TVET institutions and organizations and major factors such as financial, managerial and social issues. A descriptive survey method was employed for the study. Three sample TVET institutions were selected on the basis of purposive sampling techniques. The samples used for the study were 3 deans, 3 vocational counselors, 163 trainees and 20 workplace supervisors. The respondents' sampling was carried out through availability, purposive, stratified and random sampling techniques, depending on the size and the nature of the sample respondents. The data for the study was obtained through questionnaires, interviews and relevant documents, and analyzed using percentages and chi-square test methods. The results of the study depicted that inadequate co-operation between TVET institutions and enterprises, reluctance of enterprises to offer training, financial and managerial problems made the apprenticeship training program ineffective. Thus, trainees suffered from hardships of obtaining training places, left unattended in the workplace, assigned on non-relevant workplaces and the skill they obtained were very low. Hence, it was concluded that the state of TVET institutions in the region exhibits challenges in implementing apprenticeship training effectively. Therefore, it is recommended that to build the capacity of TVET institutions with qualified trainers and relevant up to date machineries, equipment and other inputs; relevant authorities expected to establish a special unit incorporating chambers of commerce and industry, regional TVET council, TVET institutions and other stakeholders to overtake the responsibility to implement sustainable apprenticeship training. Furthermore, enacting apprenticeship regulation should receive special attention form the government.

CHAPTER ONE

THE PROBLEM AND ITS APPROACH

1.1. Background of the Study

Education can generally be viewed as a crucial point for rapid economic growth of nations, and essential for reducing poverty by increasing the productivity of poor, by reducing fertility and providing people with the skills they need to participate fully in economic and in society.

Technical and Vocational Education and Training (TVET) is one of the sectors of education, which can play a vital role in national development in terms of economic growth as well as social mobility.

Several countries in Sub-Saharan Africa (SSA) have introduced legislation stipulating the need to develop programs focused on practical aspects of training by organizing in-firm internship (UNESCO, 2002). Consequently, there have been numerous suggestions for assisting school-to-work transitions. Many of these but in particular youth apprenticeship rely on the involvement of employers in providing work-based learning opportunities for students (Hamilton, 1990; Stern 1990).

Moreover, the organization of learning in the workplace has taken a new significance in the current climate of various countries. Issues that call for better attention of preparation of young people to fit into the world of work are not a peculiar characteristics of Ethiopia. It appears to be a touching issue to all the developing countries. This is explained by the words of O'yenya, (1980:28) as follows:

Much discussion in the developing countries today surrounds the relationship between the section of society concerned with the supply of manpower – the education system and the world of work.

To promote quality TVET in Ethiopia, the education and training policy of (1994 E.C.) gives special attention to TVET by providing broad and multi level foundations. Presently TVET is divided into training for industry, business, agriculture, health, and teacher training. Serious attention is given to industrial, commercial and skill trainings as well as training manpower for the development of the program that the country needs (MOE 1994:16-17). Consequently, on March 1, 2004, No 391/2004 TVET law was promulgated. This law devotes TVET in general, and apprenticeship, training in particular. The document describes the duties and responsibilities of enterprises, TVET institutions and trainees during the course of apprenticeship training program to be conducted throughout the country (Federal Negarit Gazeta, March 1, 2004). The major advantage of apprenticeship training is best explained by National Alliance of Business (1992:13), as follows:

The major advantage of apprenticeship training is its vicinity to the world of work. Trainees are thus systematically exposed to the world of work. And learn to occupational practice in a real life situation. Experience shows that this leads to significantly better training outcomes, practical skills, work attitudes and theoretical comprehension of the occupational requirements. Furthermore, enterprises get to know the trainees, which often lead to employment after graduation.

Although apprenticeship appears to be an effective means of familiarizing trainees very early with the condition of work environment, there are many difficulties in applying this system in many countries. Stating the problems in the TVET system of Asian countries, Wallenborn (1996:125) have identified the following main problems:

- Financing problems;
- Management and implementation problem of education measure;
- Labor market and employment problem;
- Lack of co-operation among possible training providers, and
- The absence of inadequate infrastructure.

The research study by Middleton, Zideman and Adams (1993:14) stated TVET training program in most developing countries failed to meet the desired objectives. According to their findings, some of the constraints for effective TEVT implementation are irrelevant curriculum; high training cost due to low student – teacher ratio, expensive machinery, tools and materials. Similarly, according to Louglo and Lilis (1998:21), the implementation of TVET program in general and apprenticeship training in particular, are hindered by lack of clarity of curriculum, problem in assessment, lack of collaboration between TVET institutions and local enterprises.

On the top of this, the establishment of apprenticeship is not only requires changes in the way TVET institutions are organized but also how TVET institutions are located (Sweet 1996: 27). These schools in economically viable location and/or which had previous ‘school-to-work’ links to employers appeared to be in a good position to established school-based apprenticeships. In comparison, institutions in remote, rural or declaiming economic location found difficulty in accessing government or private industries, school link agencies, nationally registered training providers, and suitable training experience and employment for potential apprentice in many countries.

1.2. Statement of the Problem

As the component of the TVET curricula, the apprenticeship training programs in TVET institution in Dire-Dawa is carried out at the end of each academic year. However, the apprenticeship training program is not yielding satisfactory results due to certain reasons. Some of the principal constraints are lack of co-operation between TVET institutions and organizations, lack of commitment by local organizations to absorb potential apprentice and poor management of the training program. Therefore, apprentices are not able to benefit from this training scheme.

The curriculum developed by the Ministry of Education (MoE) in 24 different trades allocated 312 hours for out of school apprenticeship training and about 500 hours for the main courses (MoE, 2003:8). It can be easily noted that time allocated for apprenticeship training is more than half of that of major courses offered in school training. To this end, by giving special attention for apprenticeship training program TVET law was promulgated. The document clearly stipulated duties and responsibilities TVET institutions, organizations and trainees during apprenticeship training program that should be functional throughout the country. However, the implementation of apprenticeship training program is not yielding satisfactory results because of insufficient number small scales industries (SSI) that can meet the growing demand of the country.

According to Logiam and Mankind (1995:6), in developing countries, like Ethiopia, due to the weak nature of industrial base, there are normally not enough places to absorb all the trainees during apprenticeship training. The large number of trainees compared to the available opportunities and reluctance of enterprises to cooperate is the prominent problem in the implementation of apprenticeship training in these countries.

According to Masersha (2004:107) the implementation of apprenticeship training program in Oromiya, had not been backed by legal frameworks and the selection of organizations to offer apprenticeship training was not based on some definite criteria. Moreover, the preparedness of the organizations to cooperate was inadequate.

The previous research made on this area had been focused on the application of legal frameworks in the implementation of apprenticeship training. However, this study gives emphasis on the role played by TVET institutions and local organizations and their degree of co-operation to further promote the implementation of apprenticeship training in Dire-Dawa.

Therefore, the principal purpose of this study is to investigate problems encountered in the implementation process of apprenticeship training program in Dire-Dawa and come up with solutions that should be applied to alleviate these problems. Moreover, the study tries to answer the following basic questions:

1. What are the roles played by TVET institutions, local organizations and trainees in the implementation of apprenticeship training program in Dire-Dawa?
2. What are the criteria used to select organizations, assigning trainees, and supervisors in the TVET institutions of Dire-Dawa?
3. What are the existing legal frameworks, incentive mechanisms, monitoring and supervision practices during apprenticeship training?
4. Are there adequate relevant local and international organizations to absorb all apprentices in Dire-Dawa?
5. What are the prominent managerial, social and economical problems encountered in TVET institutions in Dire-Dawa implementing apprenticeship training?
6. What innovative intervention strategies and mechanisms should be applied to promote effective apprenticeship training program in Dire-Dawa?

1.3. Significance of the Study

By the means of apprenticeship training program, trainees are systematically exposed to the world of work and learn the occupational practice in a real life situation. However, due to some problems the apprenticeship-training program

is not yielding satisfactory results. Hence this study is expected to be significant for the following reasons:

1. This study may provide Dire-Dawa's education planners and authorities with some ideas regarding the major problems to implement effective apprenticeship training program.
2. It may help researchers and highlights areas of further research on the modes of apparent ship training.
3. It will help to find alternative strategies that could help promoting quality apprenticeship training.
4. The results of this study may also contribute as additional information and serve as a database of the existing materials and research findings in the field.

1.4. Delimitation of the Study

It is obvious that challenges in the provision of TVET in Ethiopia, are many and diverse. This study, however, limits itself mainly on the implementation of apprenticeship training program in Dire-Dawa. Concerning level of training program, those that are aimed at producing middle level technicians, 10+2 and 10+3 are chosen for diversified courses, which are offered currently. Related to field of study business education, industrial technology, and construction fields were considered. Furthermore, the study includes government and private TVET institutions.

1.5. Research Design and Methodology

1.5.1. Research Methodology

The study used a descriptive survey method. The reason behind using this approach is that the study was aimed at gathering data, facts and figures that provide descriptive information on the system and enables diagnostic investigation of the problems that hinders effective implementation of TVET program in general and apprenticeship training in particular.

5.1.2. Source of Data

Both primary and secondary data were used for the study. The basic data for the study were collected from records, questionnaires and interview. In the secondary data, relevant books, journals and internet which indicate the practice and problems in implementation of TVET both in developed and developing countries were reviewed to support the study. In addition to this various reports and documents in TVET institutions, local education offices, local enterprises were reviewed to obtain relevant data that supports the study.

1.5.3. Sample Population and Sampling Techniques

In Dire-Dawa Provisional Administration, there is one government and nine private TVET institutions. Out of 10 TVET institutions, one government TVET institution and two private TVET institutions were included by purposive sampling. Purposive sampling techniques is used to secure adequate and best information. Accordingly, Dire-Dawa TVET College, Top College and Microlink TVET College were selected as samples of the study. When selecting samples from private TVET institutions, the numbers of trainees and diversity of TVET Programs offered were considered.

The samples of this study were principals, trainees, vocational counselors found in the sample TVET institutions and personnel in enterprises/organization offering apprenticeship training. Regarding principals and vocational counselors, availability-sampling technique were employed due to limited available numbers.

Regarding trainees, there were 755 TVET trainees; (460) from government and (295) from private TVET who took apprenticeship training in different organizations in the academic years of 2005/06. Out of these 163 were included in the sample. Based on the proportionate number of trainees in each field of study, stratified sampling technique was employed in determining the

number of samples from each field of specialization. Accordingly, 99(60.7%) trainees in business education, 52(31.9%) in industrial technology and 12(7.4%) in construction from both government and private TVET institutions are constituted in the sample respondents within this group. Finally, random sampling technique was employed to draw sample respondents from each field of specialization.

The other group of respondents constitutes 88 organizations that offered apprenticeship training in the city. Out of this 20 (25 %) were included in the study using purposive sampling technique. This technique is mainly help to include organizations from different sectors and size of operations, thus this composition represents various economic areas of the region.

1.5.4. Procedures, Data Gathering Instruments and Pilot Test

1.5.4.1. Procedures

In order to identify major problems in implementing apprenticeship training in the TVET institutions of Dire-Dawa, the following procedures were used. First, relevant literatures have been reviewed to investigate various ideas concerning the problem under study. Following that, specific key questions were developed. Second, documentary analysis has been made. Third, data gathering tools were prepared and then pilot test have been employed to check the appropriateness of the items. Fourth, after improving the data gathering instruments on the basis of pilot test results, administration of instruments were carried out and eventually analysis of the collected data have been made using appropriate statistical tools.

1.5.4.2. Data Gathering Instruments

The main data gathering method, employed for this study were questionnaires and interviews since they are more appropriate to secure factual information, opinions and attitudes in a structural framework from respondents. In addition

to this, documents were analyzed to see the current status of apprenticeship training implementation in Dire-Dawa city provisional administration. Regarding questionnaires, four set of questionnaires, both open and closed ended type were prepared for subjects of the study.

1.5.4.3. Pilot Test

To avoid the ambiguity of statements, the drafts of questionnaires were first administered to limited occupations. Thus, some vague statements were rectified. Basically, convenient time was arranged for the respondents in order to maximize the quality of responses and degree of return.

1.5.5. Methods of Data Analysis

Data that were collected on the basis of the study through the aforementioned instruments were tallied and organized properly. Then appropriate statistical tools like percentages, and chi-square were employed wherever they are necessary.

1.6. Definition of Key Terms

Apprenticeship: a business like system substantially carried out and regulated by statutory law or custom according to oral or written contract which imposes mutual obligations on the two parties concerned: the apprentice and normally an employer, who has assumed responsibility for giving initial vocational training for the apprentice for recognizing occupation (UNESCO, 1978:39-40).

Apprentice: A person undergoing apprenticeship pursuant to tripartite agreement concluded among a training institution, on organization and a trainee (Federal Negarit Gazeta, March 1, 2004, No. 391/2004).

Technical and Vocational Education: refers to all forms and levels of educational process involving in addition to general knowledge, the study of technologies and related sciences and acquisition of practical skills, know-how, attitudes and understanding relating to occupations in the various sectors of economic and social life (UNESCO, 1989:2).

Trainee: a person who participates in technical and vocational education and training program provided by a training institution with a view to acquiring or upgrading his technical and vocational skills.

Curriculum: a systematic guide for TVET delivery describing the didactical and methodology way proposed to conduct TVET program and to facilitate the teaching and learning process (MOE, 2006:46).

Flexibility: possibility that qualification can be achieved through different types and duration of TVET and those TVET providers design and adjust programs in accordance with the specific needs of the target groups and local labor market (MOE, 2006:47).

Employment: any remunerative work, whether for an employer or a self employed person (UNESCO, 1978:42).

1.7 Organization of the Study

The study was organized into four chapters; the first chapter deals with the problem and its approach. Therefore, the basic questions that the study attempted to answer and the research procedure followed were treated. The second chapter devoted to the review of the related literature. The third chapter describes the presentation and interpretation of the data. Finally, chapter four deals with the summary of findings, conclusions and recommendations.

CHAPTER TWO

REVIEW OF THE RELATED LITERATURE

In order to have a brief theoretical framework on the implementation of apprenticeship training, the following chapter provides the major works done by various authorities in the area of the problem under study.

2.1. TVET's Role in National Development

TVET is one of the sectors of education, which can play a vital role in national development in terms of economic growth as well as social mobility. According to Woodhall (1997:219) Human Capital Theory has powerful influence on the analysis of labor market. Woodhall notes that investment in education and training provides benefit both to the individual and society as a whole. The return on investment for society will be a skilled workforce that will enable global competitions and economic growth, while the return of the individual will be a better career path, increased earning and better quality of life.

According to Fagerlind and Shah (1989) the concept of "human capital" suggests that education and training raises the productivity of workers and increases their lifetime earning. According to Indermit et.al (2000:1) governments perceive increased demands for skills when the labor supply shows rapid growth, when employment grows quickly or when employment increases significantly. They argued that governments have called upon TVET systems to help unemployed young people and older workers get jobs, reduce the burden on higher education, attract foreign investment, ensure rapid growth of earnings and employment and reduce the inequality of earnings between the rich and the poor. But Zymelman (1976) and Paschropoules (1987) argue that TVET has less ROR than general education. However, Benell (1996) replies that even though TVET students are less academically brilliant; the ROR to TVET is still high. Foster also (1965) aggressively criticize that vocational

schools is a fallacy in development planning but he also points that vocational education can be effective if acquired skills will be utilized properly. Colin (1999) mentions that TVET can play vital role for development planning but he warns that if the policy makers don't make it up-to date and TVET institutions don't have enough qualified faculties and sufficient facilities to offer quality TVET, it will not proven praiseworthy. He also mentions that these are not the limitation of TVET but the limitation of the educational policy of the country. Bennell (1996) viewed that though TVET has a powerful influence in development planning; indiscriminately offering TVET may have negative impact to development. Bacchus (1988) though criticizes that TVET does not play an appropriate role in development and he also mentions higher investment on TVET do not seems to be compensated for by high return. However, the definition given by UNESCO, (1985:2) can explain a good significant role of TVET in development as the follows:

TVET refers to all forms and levels of Educational process involving, in addition to general knowledge, the study of technologies and related sciences and the acquisition of practical skills, know-how, attitude and understanding relating the occupations in the various sectors of economic and social life.

According to Masirsha (2004: 16), TVET serves the individual by imparting knowledge, skills and attitudes that will be used to procure and sustain gainful employment. Besides this, society equally benefits from such human resources development and it is responsible for increased gross national product.

From the above discussions, it becomes clear that from the economic, social and political stand point, national development requires education and training which is intended to meet the range of different national needs. These include those associated with building an appropriate workforce, a stronger economy as well as cohesive literate and healthy society. Therefore, a cautious step in

offering of TVET programs will have the noteworthy role in national development.

2.2. Features of TVET System

2.2.1. Policy in TVET

The combined forces of globalization, technological change and liberalization of markets are creating a more and more competitive economic environment and changing the very nature of work and work organization. At the same time as opening new job opportunities, they are increasingly worker's vulnerability. The ILO's World Employment Report that, of a world labor force of 3 billion workers, 25 to 30 percent are underemployed and about 140 million are unemployed (ILO, 2001).

In this environment, the quality of the labor force become a major determinant in the competitiveness, and adaptability of enterprises, workers and the economy; it also poses a challenge to the TVET systems to meet the rapidly and continuously changing labor market demands that need urgent response in many countries. To tackle these problems the countries should formulate and implement growth oriented policies that focus on available abundant resources such as human resource and land. Hence, the TVET policy should be designed in order to address the above mentioned socio economic problems (UNESCO, 1983:1).

Though the role of the private sectors partners in designing TVET policies and systems varies among countries and sectors, in many developing countries, their involvement is restricted to the presences of employers' and workers' representatives on the training boards and committee. Their effectiveness in shaping TVET policies and systems depends largely on:

- The existence of a strong public policy in favor of private sector participation,

- The strength of the private sector institutions,
- Their level and quality of representation,
- A participative culture and effective machinery to enable them to reflect their concerns and the realities of this world of work.

Generally, to promote TVET provisions various policy measures are taken in many countries; shifting the policy focus from inputs to out puts, through new financing and certification mechanisms, involving social partners in governance, granting more autonomy to TVET institutions, promoting private providers and company based training (Atchoarena, David and Andre, 2002:2)

2.2.2. Objective of TVET

A country's TVET system is a decisive factor determining the competitive strength and level of development of its economy. The level of competence of a country's skilled workers and technicians is centrally important to the flexibility and productivity of its labor force. Skilled workers and technicians enhance the quality and efficiency of product development, usage, production and maintenance, and they supervise and train workers with lesser skills. The development of a skilled labor force makes an important contribution to national development (Lugujjo and Monyindo 1995).

By realizing the importance of TVET, many countries set objectives of TVET. The purpose and objectives advanced for technical and vocational education in a given country delineate the scope within which TVET is to be developed and implemented. An overview of many countries clearly indicates the uniformity of purpose and agreement in several objectives.

Most countries have stated in one form or another general objective of TVET as follows:

To provide, alongside general education, knowledge and skills in technical and vocational fields in order to meet national manpower requirements in agriculture, business, industry and other technical service (UNESCO, 1996:16).

Based on the conceptual framework of TVET, Louks (1988:20) stated four central objective of TVET as follows:

- To train skills workers and middle level manpower's of industry, commerce or services.
- To encourage positive attitude towards manual work
- To reduce excess demand for higher education
- To facilitate the schooling of low achievers.

2.2.3. Legislation of TVET

Significant federal legislation and reform initiatives affects TVET provisions in many countries. The importance accorded to TVET in a given society is reflected in the existing legislation establishing it. In India, for example, there is hardly any legal framework for vocational education policies as in many other countries. The Indian constitution does not provide specific thoughts or directives on TVET. There are no national laws to regulate the efforts in this area. The states also have not resorted to legislation on TVET. Indian Education in general is non-legislative in nature (Porter, 1998).

On the contrary, career and technical education programs found in U.S secondary and post secondary school exist because of federal legislation. In fact, since the beginning of federal support for public vocational education as mandated by Smith-Huges act of 1917, the federal government has been a predominate influence in determining the scope and direction of TVET.

Legislation dealing with TVET in most African countries came into effect much later after the promulgation of the Education Acts. TVET may have been mentioned as was the case of Ashby commission of Nigeria in 1960 and in the Kenya Education Act in 1968 but effective policy implementation was to come much later on. Vocational training, however, was well recognized as proven by to establishment of vocational training Act in Ghana (1970), Kenya (1971), and

Uganda (1979). There was a clear demarcation between vocational education and vocational training then (UNESCO, 1996:17).

Many African countries, Ghana, Kenya and Uganda, have introduced legislation stipulating the need to develop programs focused on practical aspects of training by organizing in firm internships for TVET trainees (Atchoarena and Andre, 2002:11). In Ethiopia, regarding legislation of TVET, it was only on 1st March 2004, the law was promulgated. Amongst other issues, in it, of apprenticeship training fully described.

2.2.4. Financing TVET

Today, governments in many developing countries, like Ethiopia are forced to make difficult choice to control spending on education, which absorbs a large share of overall government budget. As compared to general education TVET programs are expensive; the cost of one TVET school is equivalent to two or three schools of general education. Previously, in developing countries, government took the overall responsibility of finance TVET program with some donor agencies (Atchoarena, 1966:3).

Even though it is expensive, government and private sector must recognize that TVET is an investment, not a cost, having important returns such as well being of the workers, increase productivity and international competitiveness. Hence, funding the program must be shared among government, industry, the community and the learner. In come generating and fund raising means should be assigned by training institutions in order to add up on other funding activities. The share balance may vary from one country to another, however, all partners in society who share the benefit should take the responsibility to contribute to the creation and on going vitality of the TVET system by cost sharing, incorporating appropriate government financial incentives (UNESCO, 1999:670).

As a strategy of cost cutting in TVET, various methods are devised. The cost reduction methods incorporate student's fees, sponsorship of trainees, sales of extension education service, sales of student's products, introduction of a training levy on employers, and apprenticeship training. Apprenticeship training is a cheap way of training youngsters from side of government as the cost of this training is shared between employers and apprentices (Atchoarena, 1994:164).

The major source of funds in most of the developed countries for full time apprenticeship education is the payroll tax levied on most firms. This is formal financial involvement of employer with education and training (Lauglo and Lillis, 1988:58).

According to the World Bank policy paper (1991:51) in developing country, training finance policy has two major objectives:

1. To ensure stability of funding needed to develop sustainable institutional capacity.
2. To ensure the level of financing needed to improve public training.

To achieve these objectives, the government budgetary financing is not enough. Therefore, diversifying the source of training finance is pertinent to overcome the budget constraints. Employers and workers who receive its benefits must increasingly share the cost of training, Accordingly, expansion of enterprise and private training institutions, payroll levis on enterprise, direct cost from employers and trainees must be encouraged.

Generally, in order to promote effective system in a country it highly requires the development of feasible TVET objectives, financing system and enforcement of reliable education acts.

2.3. The Two Polar Types of Apprenticeship Trainings

2.3.1. The Traditional Apprenticeship

Traditional apprenticeship is a form of skill training program in which students learn the skills for a particular trade or job usually under the tutelage of a master craftsman. It emerged as a system of skill training during the time of ancient Greeks and Romans; and took root as a formalized training system in 13th century. In the traditional apprenticeship system, the master crafts men agree contractually to train young men in their crafts as much as they might their own sons. Traditional apprenticeship generally lasts five to seven years, during which the master provided his apprentice a room, boarding, clothing and tools; and basic training in the skills of reading, writing, calculating and knowing scripture. In exchange, the apprentices provide labor, starting with menial tasks at first, but gradually becoming more valuable as their skills improved (Unger, 1996:39).

Traditional apprenticeship was the major means of vocational training in the western world until the second industrialization in the mid 19th century. It was functional very well during the Middle Ages, but in the 19th century, it had collapsed because of the rapidly developing technology and the factory system of production that came with it. The reasons for its collapse can be explained by three reasons:

1. The small home industries become more like factories: it become more difficult for the master to maintain the same type of relationship with the apprentices;
2. The start of division of labor within the factories: the necessity of training individuals for the whole spectrum of the production became too costly and very obsolete; and
3. The increased mechanization in the industries: there emerged a huge demand for unskilled laborers which absorbed both the trained and untrained workers on equal grounds (Gallinelli, 1974)

The break down of traditional apprenticeship took place in European countries such as England and France; but in Germany unlike other countries the system remained and used as a base for the emergence of modern apprenticeship including the dual system of trainings. However, in many developing countries including Ethiopia traditional apprenticeship had a significant role in training of crafts or trades. Moreover, it still remained as one mode of training for traditional crafts and modern technical trades in small firms of informal sectors (Middleton, Zeidermen and Adams, 1996:17).

2.3.2. The Modern Apprenticeship

Modern apprenticeship training is considered as one of the most efficient cost effective mechanism of training. It saves the cost of the government that was supposed to be expended on training for it allows employers to share most of the training cost. Moreover, as it provides for the combination of the same resources, such as instructors, equipment, materials and time, to gather the total cost pertaining to national economy will also be minimized (Lauglo, 1993; Zideman, 1988). Modern apprenticeship involves a contractual agreement between the apprentice and the employer where the latter provides training and allowance in return for the formers untrained labor (Lauterbach, 1994; Unger, 1996). It takes usually an average of two to five years for its successful completion.

Modern apprenticeship is different from comparative education or alternative training. Lauterbach (1994:312) indicated that in alternative training scheme, students who attended school based technical and vocational training in the full time TVET are assigned to different enterprises for the intension of facilitating these vocational orientation and career choice, or giving them some on-the job experience in the world of work. In such schemes, there is no matching between the curricula of the two training places: the full time vocational schools and the firms where the students are assigned to different in

firm internship programs which aid them to add hands-on experience to the primarily theoretical training they receive in their full time schools.

On the contrary, according to Atchoarena and Deluer (2002), in the modern apprenticeship scheme, the full time vocational schools teach only the contents of vocational theory and to some extent general subjects, where as the firm place major emphasis on providing job related training, and on the complementing the vocational theory by practical training. In this system training is based on the complementary between the enterprise and the school in the sense that it involves not merely the sum of the knowledge acquired in the classroom plus the know-how acquired within the enterprise but also the constant application of the knowledge acquired. Hence, in the modern apprenticeship training the two milieus reinforce and complement each other to produce trainees who are better qualified and able to adapt to the business world. In addition to importing the practical skills, modern apprenticeship gives attention to acquire theoretical knowledge and work attitudes.

Finally, the two types of apparent ship training have a common objective, that is, they are aimed to familiarize youngsters to the world of work. However, modern apparent ship training is considered as one of the most effective mechanism. It saves the cost of the government because employers share most of the cost. Since the same resources are combined together, the total cost of the national economy will be also minimized.

2.4. Conceptual Framework of Apprenticeship

2.4.1. The Work Place Learning Environment

Today's business environments are characterized by a number of factors such as increased competitions and rapid technological change that, theoretically, should act to motivate a greater investment in training. The organization of learning in the workplace has taken on a new significance in the current policy

climate of various countries. In many respects, as Carton, M. (1984:12) noted, learning about work has come full circle. Once it is valued as a learning site, the workplace was gradually replaced by more structured approaches to learning with rise of specialist schools and colleges.

The nature of this learning that takes place in a workplace varies widely. Learning can be associated with formal training programs that may or may not result in some form of certification. This tends to be associated with the use of experts (trainers) who play a leading role in transferring the required knowledge and skills to workers. However, the workplace is also a site for informal or incidental learning. Research evidence points to the value of both types of learning in the workplace and the importance of achieving a productive balance between the two (Hagar, 1997). In general, it is accepted that on the job learning aids transfer of skills and is more authentic. According to Dennis (2000:252), well planned, properly supervised work based learning can provide the following benefits:

- Increase the individual worker's productivity;
- Provide the versatility necessary to meet changing conditions;
- Provide the most efficient way to train all rounded worker;
- Improve the success of youth in moving in to employment and becoming contributing member of the community;
- Promote the focus on science and technology and respond to changing nature of skilled occupations requiring greater technological and information processing expertise; and
- Maintain the community of skilled trade.

However, on-the-job, training environment also has some significant disadvantages for learning. Related to this, Harris (2000:34) noted the following:

In many instances the goals, methods, ideas and strategies of business enterprises are very different from those of learning institutions. The former is concerned with productivity and survival, the latter with learning and professional growth. Thus, an enterprise is not primarily concerned with learning, and in particular, the sort of learning that might lead to qualifications.

Generally, the shift from a supply to a demand driven TVET system has been exerted greater pressure on industries to deliver workplace training and reclaiming of the work place as on authentic site for learning. In effect, vocational learning is increasingly being de-institutionalized. The training reforms in many countries have placed greater emphasis on work places and the personnel to provide relevant, conceptualized job specific learning opportunity in a manner that will contribute to the growing pool of qualified workers in a cost effective manner.

2.4.2. Vocational Guidance and Placement of Trainees

Vocational guidance is a type of guidance activity that enables students to make decisions for their future career. In connection to this, Herr and Cramre (1992:4), describes vocational guidance as "the process on program of assistance designed to aid the individual in choosing and adjusting to a vocation".

Vocational guidance is more than providing information, it is a blend of self development to adapt, a changing cultural and economical situation and learning and assimilation of career, providing educational, labor market and economic opportunities information (Ipaye, 1986: 94-95)

According to the National youth administration (NYA) in Herr and Cromer (1992:6) the following five guidance goals are identified to increase the employability of youngsters

1. To help trainee evaluate himself/herself,
2. To help trainee make a vocational choice,

3. To help trainee plan his/her training program to achieve this choice,
4. To places him/her in the work, and
5. To follow up on the work assignment to insure goal results for him/her.

The preparation and implementation of vocational guidance and job placement necessitates enacting legislation that defines goals of vocational guidance and job placement system. It should describe the range of service to be provided and stipulate the revel of resource. The legislation should apply to the service to be provided to training in vocational training institutions (Ipaye, 1986:98).

Further more, career guidance and counseling has paramount advantage for all stakeholders of the education system. Hence, the interest of industry, individuals and parents should be considered in guidance and counseling and be sensitive to the need of every trainees and circumstances. Its role should include preparing students and adults for the actual opportunity of career change during the period of unemployment as well as employment in the formal and informal sectors. Guidance and counseling service should be extended beyond to educational institution; so that it is accessible to the population at large (UNESCO, 1999:64).

Generally, in developing countries like Ethiopia, appropriate vocational guides serves not only helping trainees in choosing and adjusting to a vocation, but also minimize the wastage of scarce resources, which is invested on trainees due to their wrong or unwise choice of vocations.

2.4.3. Contracts of Apprenticeship and Areas of Responsibility

2.4.3.1. Contracts of Apprenticeship

Apprenticeship contract is concluded between an employer and a young person combining on the job training, formal learning and productive work. Once entered into, the agreement places up on both employer and the young person a set of reciprocal rights and duties. The employer agrees to ensure that the

apprentice follows the stipulated program of TVET which will be based on national standards formally recognized by the sector concerned. A non-negotiable part of the agreement will be that on the job training will be complimented by the off the job training in on education institution. In return, the apprentice agrees to confidentially peruse the stipulated program of education and training, to undertake productive work related to his/her course of training within the company and to accept a training wage appropriate for the his/her age and the stage of this/her apprenticeship training (Steedman, 1998:17).

A self-employed person is not a worker within the labor law; however, apprentice is brought within the pure view of the labor law, even if only probation. A labor law, according to Ipaye (1986:187), defined as:

A branch of law which creates a contract of employment between one person and another for the purpose of learning a trade or working for wages, either or not the contract is to the executed independent of control and regulate all rights and duties incidental to that relationship both under the common law and the statue.

However, in modern apprenticeship context, apprenticeship contract is an agreement concluded among training institution; apprentice and employer based on mutual interest. All concerned partners should sign a memorandum of agreement about apprenticeship training so that the tripartite partnership can become more mutually influential. Such an agreement determines the content of apprenticeship training as well as the duties and responsibilities of the parties.

2.4.3.2 Areas of Responsibility During an Apprenticeship

The role of the employer:

- To provide a safe learning and working environments.
- To provide qualified work place trainers to mentor apprentice.

- To become a registered employer with the Industry Training Authority.
- To allow the apprentice to attend technical training sessions.
- Pay the apprentice's wages.
- Provide opportunities to relocate the apprentice to various trade related work areas within the company.
- Complete the recommended referral form indicating the completion of apprentice's on the job-training component.

The role of the apprentice

- To identify an employer in relevant trade areas that is willing to provide apprenticeship training.
- To register as an apprentice with the industry training authority
- To be safety conscious at all times.
- Abide by the behavior standards and practices of the work place.
- Understand the rights and responsibilities of employees in the workplace.

The role of industry training authority (ITA)

- Working with post secondary institutions to ensure that standards of training and conception of credentials are met with industry requirements.
- Registering apprenticeship agreements.
- Revising prior work hours for individuals choosing to acquire trade qualification through the challenge process.
- Processing certificates for qualified apprenticeship journey person (Kwantlon University Colleges, 2003).

2.5. Challenges to Apprenticeships Training

Technological change is exerting a dramatic influence on apprenticeship training in two ways. First, there is a shift from the traditional semi-skilled occupations to those that have an increasing reliance on technology. Business and industry are addressing this change by either upgrading the skill requirements for existing trades or by seeking the establishment of new trades,

some of which might be good conditions for the use of the apprenticeship model. Second, employers, government, colleges and non-government organizations are all exploring the use of technology for the delivery of the technical portion of apprenticeship training. Currently, most apprentices must attend a college or private trade school to acquire this training. This increases the need for income support previously provided by Human Resource Development center. Distance learning and computer basic learning approaches can make the theoretical portions of apprenticeship training more accessible to many apprentices.

In order to implement apprenticeship program effectively it greatly requires mutual understanding of TVET institutions and apprenticeship providers, enterprises. However, cooperation between public training institutions and employer has been difficult to establish in the public training systems of many developing countries. Two fundamental problems: lack of incentives and lack of capacity lie at the heart of the matter (Harschbach in Middleton 1993:23).

As it is mentioned above, although enterprises are the final consumers of the TVET products, they are reluctant in involving to provide places for apprentices. Most enterprises will avoid it if possible on the ground that the training is expensive. However, there are also other important reasons for the reluctance (UNESCO, 1996:31).

- Under the presence of economic down turn, most enterprise operate below capacity and fear that taking inexperienced trainees would further marginalized their production and profits as well;
- Trainees on attachments are risk factors for enterprise because they are often uninsured against accidents;
- Larger enterprises have wider international interests besides training. Majorities of local enterprise are still small and weak. They do not have sufficient capacity to co-operate with TVET institutions to conduct training programs.

The other major problem in this area is: inappropriate methods of assessment and inadequate incentives for trainees. Although apprenticeships are considered to be an integral and important part of the trainees training, they are often not counted in the overall evaluations of the trainees, which leads to a lack of responsibility on the part of both parties involved, trainees and enterprises (Atchoarena David and Andre, 2002:61). Obviously, trainees attending apprenticeship program often require sufficient financial support to cover their traveling and subsistence costs. These are in most cases too meager for trainees to value and concentrate on the available apprenticeship program. The financial problem is much severe for those coming from rural and low-income families.

Walenborn (1996:102), identified the major common problems in the TVET systems provisions:

- Lack of co-operation among potential training providers,
- Management and implementation problems of education measures,
- Labor market and employment programs,
- Financial problems, and
- The lack of adequate infrastructure.

Generally, constraints in conducting apprenticeship as an integral part of the TVET system are more complex and largely diversified as they are discussed above. However, Lauglo and Lillis, (1988:2), identified common challenging on implementation of apprenticeships:

- Lack of clarity of curriculum,
- Lack of proper assessment,
- Shortage of qualified trainers,
- Lack of status or attractiveness to trainees and their families,
- Requiring high costs, and
- Demanding management capacity,

To sum up, challenges of apprenticeship training in many countries are more common and complex, as it is explained above. This also hold true in Ethiopia. Therefore to promote effective apprenticeship training strong collaboration among TVET institutions, private sectors and the government is crucial.

2.6. Strategies to Improve Apprenticeships Programs

2.6.1. Introducing Outcome Based Approach

In the outcome based TVET system, the goal of TVET providers is to create the necessary skills, knowledge and attitude of trainees, so that they are able to perform according to occupational standards, and hence receive certification. Zambia, Tanzania and South Africa, among other African countries, have introduced competency-based training. Its implementation is complex and must include the development of standards based on job analysis, the preparation of new modular curriculum, and the design of assessment methods and new performance test. The value of competency-based training is that it focuses on the skills needed for performance in a job, and it places pressure on instructors and center management to deliver these skills. It can lead to a reduction in training duration as well as greater flexibility (The World Bank, 2004:82).

To create a competent, capable and adaptable workforce to be the backbone of economic and social development in Ethiopia, and to enable on increasing number of Ethiopians to find gainful employment also self employment in to different economic sector of the country, the TVET system, in line with many modern TVET system worldwide, will be re-organized into on outcome based system. Thus, identified competencies needed in the labor market will become the final benchmark of training and learning, and that all institutions, rules and regulations of the TVET system will be redefined so that they support Ethiopians to become competent (MoE, 2006:2).

Generally, outcome based approach is introduced in both developed and developing countries and showed fruitful results. Since it focuses on the skill need for performance in a specific job, it may promote Ethiopians' TVET delivery if it is introduced nationally.

2.6.2. Introducing Cooperative Training

The flexibility of TVET delivery allows for strengthening and further development and deepening of co-operative TVET. Co-operative training is a mode of TVET provided in partnership between enterprises and TVET institutions. Usually, the TVET institutions' training takes place in an enterprise, while theory and initial practical exposure provide the bulk of practical. In more advanced TVET system for instance in many European countries cooperative TVET schemes are organized as formal apprenticeship training, implying a work or apprenticeship contract between the trainee and the company (MOE, 2006:24).

In times of limited public resource for TVET, cooperative and in-company /enterprise, training provides a way to train more people without increasing government spending. Since trainees spend more time in companies /enterprise during their training, more trainees can be taught at the TVET institution/ college in the same amount of time without additional financial or personnel resources. Investments for expensive equipment and workshops can be reduced if the parts of the training requiring this equipment are conducted in the companies /enterprise.

2.6.3. Encouraging Employers Involvement in Apprenticeship

Young people planning to enter the work force may drive considerable benefit from school supervised work-based learning programs such as apprenticeship. While many educators recognize the values of such experience, few employers have seemed enthusiastic about becoming involved in such programs. It is

proposed that employer involvement in school to work transition could be enhanced by innovations in both governmental and non- governmental policies and programs. It is suggested that several dimensions should be kept in mind when designing incentives: type of work place, policy level, government versus non-government, size of participating employers, motivations of business participants, and rewarding existing programs versus building paths to partnership (Bremer, 2004).

To encourage more participation by enterprise more innovative alternatives besides paying of rebates should be explored. Some of this may include:

- Honoring those companies that are active by awarding scholarships or research grants in their names;
- Naming building or laboratories after them;
- Recognizing their contributions on graduation days;
- Allowing them to advertise by exhibiting their products or services in institutions.

2.6.4. Improving TVET's Instructors Training

Since successful school to work transition can demand a different set of teacher responsibilities than has been the case with traditional education, teacher engagement in school to work transition activities would have wide range of new and different responsibilities. To identify and delineate TVET teacher's involvement in and contribution to school to work transition important to:

- Involving students in organized work place experiences,
- Helping students to understand the work place,
- Involving workplace representatives in school curriculum and instruction (Gregson, 2005).

For quality instruction, a continuous supply of teacher and instructional personal with a substantial level of subject matter mastery is vital. Competent TVET teachers and coordinators thus should be continuously prepared on to

basis of integrating strong theoretical knowledge with capable practical skills training in the specific occupations. Besides, because TVET curricula are dynamic in nature, always need changes and modification in line with the continuously changing technology, continuous technological changes coping up trainings should be organized for those teachers and coordinators who work in the respective programs (Murnane and Levery, 1996).

Highly skilled, qualified, motivated, flexible and creative TVET teachers and instructors are the backbone of any TVET system, capable of adjusting to changing technological environments and creating conducive learning environments for different target groups. To this end, the fundamentally overhauling the system and provision of TVET teachers/ instructor training is crucial. This helps to create a corps of TVET teachers/instructors capable for preparing trainees from different target groups and with different learning requirements to develop relevant occupational competencies. Systematic training, education and further training will be provided for teacher and instructors in the TVET system at all levels: at the higher education level for technical teachers in to formal TVET programs as well as at lower level for instructors in the non-formal TVET schemes (MoE, 2006:32).

2.6.5. Promote the Role of Vocational Guidance

Increased attention will be given to vocational guidance to enable further trainees, in particular youth, to choose the right career and make full use of the initial and life long learning opportunities provided by the TVET system. Vocational guidance has to start at school level. However, TVET institutions will also assign and train vocational guidance staff. They will cooperate with schools for early orientation of school levels and with NGOs, community organizations and other relevant organization to offer guidance to other local target groups. The vocational guidance staff at TVET institutions will be instrumental in facilitating apprenticeships and preparing youth for apprenticeship training.

Moreover, they will also be focal points in organizing self-employment support for TVET graduates. To this end, The TVET Authorities will develop a concept for the introduction of appropriate vocational guidance structures with in the TVET system, including a system of aptitude testing to support personal career choices (MOE, 2006:26).

2.6.6. Encouraging the Income Generating Activities

Strengthening the income generating capacities of TVET institutions is another way to supplement resources available to the TVET systems. Existing income-generating activities, (e.g. the sale of products produced by students, commercial activities or renting of facilities.) can still be increased by improving management and marketing skills of TVET institution managers and by easing regulations regarding the use of generated funds. Furthermore, the TVET authorities may devices budgetary procedures and/or incentive schemes to increase institutions to increase their income generating effort (MoE, 2006:34).

Instruments to encourage and stimulate an increase in income generating activities usually include:

- Granting autonomy to training institutions in terms of the use of the generated funds (with in the overall legal and regulatory framework) is usually a first step to encourage IGAs.
- Enforce income-generating activities through reduced budgetary allocations.
- Develop training and reorientation of school management towards market oriented management approaches. (MoE, 2006:63).

2.6.7. Introducing Training Levy (Or Training Tax)

Developing countries use two basic types of payroll training taxes each of which reflects a rather different objective; although in practice there are mixed models. The revenue rising plans-so called the Latin America model is

essentially used to support public sector training provision, with the emphasis on initial training at formal public training institutions. The alternative levy grant, or rebate, scheme encourages firms themselves to provide in plant training (Ziderman, 2003:912). In many cases, the declared intention underlying the introduction of payroll levy is to lighten public sectors financing burdens (Atchoarena, 1996:8).

2.7. The Practice of Apprenticeship Models from Selected Countries

It is undeniable that various countries provide their secondary students with different training programs they think are relevant to their particular needs and objectives of TVET. It is of paramount to examine the experience of some selected countries in exercising and implementing apprenticeship program in their countries. Thus, the purpose of this section is to examine the experience of Germany, and Zimbabwe.

2.7.1 The German Cooperative Training System

The cooperative training system ("dual system") has a longstanding tradition in Germany. It is the main form of TVET in Germany, i.e. the majority of trainees go through cooperative training. The cooperative training system dates back many centuries and has evolved from the guild-based training of the Middle Ages to its current state. Hence German companies/enterprises are very much involved in training and consider it one of their main responsibilities. Companies /enterprise and their representatives (usually the chambers) are one of the key stakeholders in German TVET. The other is the state, which sets the regulatory framework for TVET (Munch, 1995:49).

There has been a vocational training act as a federal law since 1969, in which the cooperative training system is regulated; so as to meet the need for suitably qualified manpower in the labor market. This vocational training act constitutes

the regulatory framework for German cooperative training taking place in a company/enterprise. Regional state school laws govern the part of the training time spent in TVET schools.

In many countries, the cooperative training system differs from pure school based education in two respects:

- The larger part of the training takes place in production facilities or service companies/enterprise in industry and commerce. In Germany, in company/enterprise training of three to four days per week is complemented by one to two days per week school-based training for 3 to 3^{1/2} years time. This leads to a training certificate, which recognized and accepted nation-wide.
- The responsibility of training lies both with the state and with private companies/enterprise. In Germany, chambers as a companies/enterprise' representatives possess a vocational committee in which equal numbers of representatives of employers and trade unions are responsible for making sure the implementation in companies corresponds to the respective regulations.

Since the early 1980s, many studies have examined the distribution of boys and girls in the vocational training branches. Out of two thirds of the age cohort covered by vocational training in 1995, 58% were boys and 42% were girls, compared to 75% and 25% respectively in 1950 (Schmidt and Alex, 1998). While the situation has improved in terms of the percentage of women apprentices, occupational segregation is still striking in certain sectors of the vocational training system. Although in recent years, young women's demand for apprenticeship places has increased markedly they are still under-presented in the dual system (43%) and concentrated in a small number of specialized occupations that offer fewer prospects for promotion than those in which young men are concentrated (Munch, 1995:88).

In Germany, the assessment of trainees in the dual system is based on three types of certification:

- a certificate issued at the end of the training period upon successful completion of a national final examination, which all trainees must take, regardless of industry sector;
- A certificate issued by the firm's trainer; and
- An assessment by the vocational school,

The combination of the three and their external and internal assessments helps ensure that standards of competency are maintained and not left solely under the control of the firm where the training takes place. These three certificates make up a "certification system" whose components are independent and complementary but not coordinated (Reiss wilfried, 1997:37).

2.7.2. Zimbabwe's Apprenticeship Training System

As the main TVET program established with the arrival of the European settlers in the last decade of the 19th century, apprenticeship training was affected under the masters and servants command. Under this law, contracts of apprenticeship were registered and loosely supervised by the magistrate; however through various education acts, it has undergone several changes (UNESCO, 2002:237).

The traditional apprenticeship programs (TAP) represents an interesting initiative launched within the informal sector training and resource network (ISTARN). It is developed on integrated approach to strengthen the informal sector, and increasing employment and business valubility within the sector.

A TAP is a development intervention aimed at providing vocational skills training which is cost effective, relevant and accessible to relatively large numbers of people. The TAP attempts not to alter the character of the

traditional apprenticeship or to interfere excessively, but to enhance it. Therefore, TAP interventions are aimed to improve the skills transfer process and thus increase the ability of trainees to create their own jobs. The main features of the program are the following:

- It is vary flexible in its operation.
- It requires minimal educational entry level.
- The training is aimed at the informal sector employment and self employment
- It does not involve long-term formal training; average traditional apprenticeship duration does not exceed 12 months in total.

It is to be noted that graduates from this program who have potential to start their own business are further supported by:

- Access to credit for tools or other start up capital;
- Access to small business management training;
- Regular monitoring visits by small business advisers to give appropriate advice and monitor performance.

TAP seems to have had a satisfactory success rate in as far as employment is concerned for its graduates. Moreover, available data also suggest the program is cost effective (Atchoarena, David and Andre, 1996:284).

2.8. Current State of Ethiopian Apprenticeship System

Traditionally, Technical and Vocational Education and Training (TVET) in Ethiopia has been fragmented and delivered by different providers at various qualification levels. Both formal and non-formal training is provided by public, private and NGOs. Unlike formal training, non-formal training programs are not systematically recorded. Informal (on-the-job) training is widespread, but due to the absence of a systematic testing and certification system there are currently

no mechanisms to recognize informal occupational learning. Traditional apprenticeship in small and micro enterprise sector constitutes another presumably important, yet entirely un-researched, training environment (MoE, 2006:3).

In the year prior to late 1990, in Ethiopia, technical and vocational education received less attention. It generally used to occupy a small, of not a marginal position in the education system of the country. For instance, the Ministry of Education (MOE, 2002), indicated that an average it used to occupy only 2% of the total secondary school students population in the years before 2001/2002. However, in recent years, the government has made huge efforts to design and implement a new school based technical vocational education and training TVET programs in various levels of its educational system. In this regard the government has drafted TVET strategy. In its statement, the policy paper states, "parallel to the general education, diversified technical and vocational training will be provided for those who leave schools from any level of education" (MoE, 2002:6)

Though the enrollment capacity in the sector is rapidly increasing from time to time, the country's TVET programs are facing many challenges from different angles. It has been indicated in MOE, (2002:29) and Wanna (1998:62):

- Inadequate equipments and facilities,
- Lack of appropriate and sufficient number of qualified trainers,
- Non-flexible and outdated occupational standards,
- Inadequate functional relationships between the training institutions and the real world of work,
- Lack of interest of the stakeholders to participate in the curriculum design and implementation, and
- Insufficient and non-transparent management capacities were the major bottleneck for success of the program.

Despite these immense structural problems, important reform steps have been introduced after the adoption of the National TVET strategy of 2002 and the TVET proclamation of 2004. In Ethiopia, concerning the Governance of TVET, starting from March 2004 the Federal Government has given the ultimate responsibility of managing the program to the MoE, particularly to the TVET sector office. Accordingly, the office has a power (authority) by law to provide superior leadership and to prescribe standards regarding TVET carried out in the country. Moreover, TVET council has been established by law to provide advice and render service to the, office to enable it to carry out its power and duties effectively (Negarit Gazeta, March 1, 2004:2578).

In order to provide options for increasing number of school leavers, the government embarked on a massive expansion of formal TVET some years ago. Between 1996/07 and 2004/05, the number of TVET schools providing formal non- agriculture TVET increased from 17 to 199, and enrollment from 3,000 to 106305 (MOE, 2004/05). However, despite the enormous expansion, formal TVET only caters for less than 3% of the relevant age group. Enrollment figures in formal TVET programs show a fair gender balance with 51% female students. However, girls are over proportionality represented in business trades and typical female occupations such as textile and hospitality, and under represented in agricultural TVET programs and some 10,000 in teacher training institutions and colleges (MoE, 2004/05).

Concerning apprenticeship training program, Ethiopia had its own traditional apprenticeship through which craftsmen and artisans were offering skill training to the apprentices for centuries. Then, after with the emergence of modern vocational education and training, modern apprenticeship is introduced in the TVET system. The scheme was designed to familiarize trainees with the real world of work who eventually qualified as self or wage employees in their specialized areas. The curriculum developed by the ministry of education (MOE) for middle level technical and vocational education and

training allocates 312 hours for out of school apprenticeship training and about 500 hours for the main course (MOE, 2003:8).

To strengthen the implementation of apprenticeship program as the component of TVET, on 1st March 2004 TVET law was promulgated. This law devotes one of its parts fully for apprenticeship training. In this document, duties and responsibility of the TVET institutions, apprentices and organizations were thoroughly covered.

To sum up, TVET in Ethiopia have posed different reform. At the present, sectors have gained policy attention and support of the federal government. Thus, TVET has to respond to the skills need of the labor market and create a competent and adaptable work force capable of driving economic growth and development. Although greater efforts are made to promote Ethiopian apprenticeship program of TVET, it is challenged by:

- Shortage of apprenticeship providing organizations,
- Organizations unable to assign appropriate trainers to guide the apprentices,
- Lack of joint planning between apprenticeship providing organizations and TVET institutions, and
- Financial problem of trainees

CHAPTER THREE

PRESENTATION AND INTERPRETATION OF THE DATA

This part of the study deals with the presentation and interpretation of the data collected from the sample principals, vocational counselors, apprentices and work place supervisors in organization offering apprenticeship training. The relevant data and information collected through questionnaires, interviews and documents were analyzed and interpreted. Hence, the basic questions raised in the first chapter were given appropriate treatment.

Out of the total 189 questionnaires distributed to TVET trainees, 163 (86.2%), out of 22 questionnaires distributed to supervisors in organizations offering apprenticeship training 20 (90.9%) and out of 6 questionnaires distributed to college deans and vocational counselors, 6(100%) were filled and returned. Based on the responses obtained from the sample respondents, the analysis and interpretation of the data are presented following each table.

3.1. Personal Characteristics of Respondents

The respondents were asked to furnish their personal (demographic) information during the study. Their responses have been summarized as under.

Table 1: Demographic and Program Information of Trainees

	Items	Respondents					
		Government TVET		Private TVET		Total	
		No	%	No	%	No	%
1	Sex:						
	A. Male	94	71.8	21	65.6	115	70.6
	B. Female	37	28.2	11	34.4	48	29.4
	Total	131	80.4	32	19.6	163	100
2	Training program						
	A. 10+2	49	37.4	12	37.5	61	37.4
	B. 10+3	82	62.6	20	62.5	102	62.6
	Total	131	80.4	32	19.6	163	100
3	Field of study						
	A. Business	67	51.1	32	100	99	60.7
	B. Construction	12	9.2	-	-	12	7.4
	C. Industrial Technology	52	39.7	-	-	52	31.9
	Total	131	80.4	32	19.6	163	100
4	Occupations of Trainee's parents						
	A. Employees	48	36.6	14	43.7	62	38.0
	B. Farming	4	3.1	-	-	4	2.5
	C. Trades	58	44.3	16	50.0	74	45.4
	Others	21	16.0	2	6.3	23	14.1
	Total	131	80.4	32	19.6	163	100

As can be seen from Table 1, (29.4%) of the total respondents of trainees were females, and which holds (28.2%) from government and (34.4%) from private TVET institutions. This figure shows very lower participation rate of females. However, enrollment rate of females in the sample TVET institution were (28.5%) out of the total trainees in academic year of 2004/2005 during which they took apprenticeship training. Thus, it is possible to deduce that the representation of each sex in the study was proportional to the rate of enrollments. Hence, the information gathered from the sample respondents reflects the idea and opinion of both females and male. Recently, in the present academic year 2006/07 the rate of female's enrollments raised to 40.8%. Still this figure manifests the need to promote female participations in TVET institutions.

Regarding the training programs 102 (62.6%) of sample trainees were enrolled in 10+3 level while the rest 61(37.4%) were in 10+2 level. Since apprenticeship training is mandatory, in TVET institutions at the end of each year, majority of the sample trainees had undergone apprenticeship training at least for two

consecutive programs. Hence, they can provide complete and relevant information for the study.

As indicted in item 3 of Table I, 99(60.7%) of sample trainees were enrolled in business education in both government and private TVET institutions. On the other hand, in government TVET institutions only 12(7.4%) were enrolled in construction and the rest 52(31.9%) were in industrial technology. Being the participation rate of females was very low, still their representation in industrial and construction fields was insignificant. Possible explanation for smaller participation rate could be misconception of the society where vocational training was considered traditionally as profession devoted to males.

Concerning the occupation of trainee's parents the finding revealed that 74 (58.0%) of them were employees while 62 (38.0%) were traders and the rest very few were engaged in farming. As it is clearly seen, the majority of parents 136 (83.4%) were engaged in non farming occupations.

Table 2: Description of Principals, Vocational Counselors and Supervisors by Qualification, Field Of Study and Service

No	Item	Respondents					
		Principles		Vocational counselors		Supervisors	
		No	%	No	%	No	%
1	Qualification						
	BA. /BSC	3	100	3	100	1	5.0
	College Diploma	-	-	-	-	2	10.0
	Bellow Diploma	-	-	-	-	17	85.2
	Total	3	100	3	100	20	100
2	Field of Study:						
	Industrial Technology	-	-	-	-	3	15.0
	Business Education	2	66.7	2	66.7	14	70.0
	Construction Technology	1	33.3	-	-	1	5
	Textile and Garment	-	-	-	-	-	-
	Others	-	-	-	-	2	10.0
Total	3	100	3	100	20	100	
3	Years of service in current position						
	1 – 5 years	-	-	-	-	-	-
	6 – 10 years	-	-	1	33.3	2	10.0
	11 – 15 years	2	66.7	2	66.7	14	70.0
	Above 15 years	1	33.3	-	-	4	20.0
	Total	3	100	3	100	20	100

It has been recorded in Table 2 of item 1, that all principals and vocational counselors in the sample TVET institutions had BSc. and Bed. Thus all were well qualified to plan and organize the whole TVET program in general, apprenticeship-training program in particular. On the other hand, majority 17(85.0%) of supervisors in organizations offering apprenticeship training had below college diploma while (5.0%) was a degree holder. Therefore, in the view of their academic qualification, it is possible to deduce that the majority of the supervisors in organizations could not offer valuable contribution to help trainees able to obtain sufficient and relevant theoretical knowledge. Delivery of quality apprenticeship training depends to a considerable extent on the capability of the supervisor who was responsible to train and guide apprentices. However, this situation is not met sufficiently due to under qualified levels of these personnel.

Concerning field of study, only (33.percnet) of vocational counselor was a graduate of psychology while the rest were graduates of industrial technology and business education. On the other hand, all the sample principals (100%) were trained in TVET college at degree level.

As indicated in item 3, the majority of the principals and vocational counselors served for more than 11 years in their current positions. The larger service years of TVET principals indicated their familiarity with apprenticeship training planning and organization. Therefore information gathered from them could be reliable and complete.

3.2. Profile of Organization

The study had also tried to probe into the profiles of organizations that offered apprenticeship program. The results have been summarized in Table 3.

Table 3: Profiles of Organizations Participated in the Provision of Apprenticeship Training

No	Items	Responses	
		No	%
1	Level of your organization		
	A) Small/informal sector enterprise	6	30.0
	B) Medium size enterprise	11	55.0
	C) Large modern enterprise	3	15.0
	Total	20	100
2	Type of Business:		
	A) Manufacturing	2	10.0
	B) Trade	4	40.0
	C) Service	14	70.0
	Total	20	100
3	Type of ownership		
	A) Government	12	60.0
	B) Private	7	35.0
	C) NGO	1	5.0
	Total	20	100
4	No of apprentice attended apprenticeship training during the year 2005/2006?		
	A) 1 – 5	12	60.0
	B) 6 – 10	7	35.0
	C) 11 – 15	2	10.0
	D) 16 and above	-	-
	Total	20	100

Because of the increasingly important role played by enterprises in providing entry-level employment and expansion in the range of occupations available to apprentices and trainees, it was important to examine the profile of organizations offering apprenticeship training. As it can be seen from the Table 3, supervisors in sample organizations gave responses, concerning the profile of their organizations. Accordingly, (55%) of the supervisors indicated that their organizations belonged to medium size enterprises while the rest (30%) and (15%) were employed under small and large scales modern sectors, respectively. Therefore, this finding indicates that the majority of apprentices were undergoing trainings under medium level enterprises, which could influence them to obtain adequate practices.

Item 2 of the same Table describes that majority 14(70%) of sample organizations were service-providing organizations and manufacturing accounts for (10%) of the total organizations. This very low proportion of manufacturing organizations could not only limit the capacity to absorb trainees but also had an impact on the economic development of the region.

Concerning the type of ownership of the sample organizations, great majority 12(60%) were government organizations. Only very few non-government organizations (NGOs) were given the training.

This lower participation of private and non-government organization to offer apprenticeship training could be due to poor awareness creations and coordination activities of TVET institutions.

Regarding the absorption capacity of sample organization, the majority (60%) supervisors indicated that they offered a maximum of 5 trainees while (10%) confirmed that they offered less than 10 trainees in each organization. This manifests that trainees had suffered from the problem of getting place for apprenticeship training.

3.3. Conditions of Offering Apprenticeship Program

An attempt was also made to investigate the conditions under which the apprenticeship program had been implemented. The results have been summarized in the tables that follow along with corresponding discussion.

Table 4: Condition of Trainee's Accommodation and Proximity of Organization

No	Item	Responses	
		No	%
1	Which one of the following was used for your accommodation during apprenticeship training?	-	-
	A) Dormitory	-	-
	B) Your permanent residence	122	74.8
	C) Rented house	26	16.0
	D) Residence of relatives	15	9.2
	Total	163	100
2	How far was the location of apprenticeship training offering organization from your permanent residence?		
	A) 1 – 5 kms	25	15.3
	B) 6 – 10 kms	88	54.0
	C) 11 – 15 kms	29	17.8
	D) 16 – 20 kms	8	4.9
	E) 21 – 25 kms	7	4.3
	F) > 25 kms	6	3.7
	Total	163	100

As it is cited in the literature of this thesis, the location of the TVET institutions and the economic climate in the community have ramifications in relation to equity issues with regard to the ability of trainees to access an employer, as well as for an employer exercising user choice in accusing a nationally accredited training providers.

In light of the above concept, items in Table 4 were constructed to examine trainee's condition of accommodation and how far they should travel to reach organizations offering apprenticeship training. Accordingly, 122(74.8%) of them asserted that they attended their practice situated in their family house. The rest 26(16%) and 15(9.2%) attended using a rented house and relatives residence, respectively. Thus, since the majority of apprentices shared rooms and foods with their families they were not exposed for additional expenses during their apprenticeship training.

Concerning the location of sample organizations, in replying to item 2 of the same Table, majority 88 (54%) of them indicated that they traveled in the radius of not greater than 10 kms away from their residence during apprenticeship training. On the contrary, very few 6(3.7) were expected to travel greater than 25 kms. Thus, it is concluded that the former were living with their families, and the later could come from neighboring regions such as Jijga to attend 10+3 program in Dire-Dawa as it is explained by the trainees.

Table 5: Assignment of Supervisors

Item	Responses			
	No	%	Total	
			No	%
Did the organization assigned workplace supervisors?				
A) Yes	43	26.4	43	26.4
B) No	120	73.6	120	73.6
Total	163	100.0	163	100

Basically, well-planned and properly supervised work based learning increases the individual apprentice productivity and improve the success of youth in moving in to employment and becoming contributing members of the community. To this effect, organizations are responsible to provide competent personnel to supervise and support apprentice.

Related to the above idea, Table 5 was constructed to examine whether supervisors were assigned or not in the sample organizations. Accordingly, 120(73.6%) of the apprentice confirmed that workplace supervisors were not assigned to monitor and support trainees. Thus, the finding reveals that the majority of the apprentices were left completely to work independently during the trading program without any form of direct supervisor, feedback and motivation that could help to enhance efficiency and competency of the trainees.

Table 6: Incentives Offered to Organization

No	Item	Respondents							
		Principals		Vo. Cons.		Supervisors		Total	
		No	%	No	%	No	%	No	%
1	Were there any incentives given to organizations participated in apprenticeship training?								
	A) Yes	2	66.7	2	66.7	3	15.0	7	26.9
	B) NO	1	33.3	1	33.3	17	85.0	19	73.1
	Total	3	100	3	100	20	100	26	100
2	If yes, what was the incentive given?								
	A. Tax exemption on important machines and equipment	-	-	-	-	-	-	-	-
	B. Acknowledgements and recognitions	2	100	2	100	3	100	7	100
	C. Charge free training for employees	-	-	-	-	-	-	-	-
	D. Provision of consultancy service	-	-	-	-	-	-	-	-
	Total	2	100	2	100	3	100	7	100

To encourage more participation by organizations offering apprenticeship training more innovative alternatives besides paying off rebates such as awarding scholarship, naming buildings after them and giving recognition to organizations had been identified in many literature.

In order to assess whether some kind of incentives was given to encourage the roles of organizations in the implementation of apprenticeship, item 1 in Table 6 was designed. To this end, the majority of the respondents 19(73.1%) confirmed that TVET institutions to enhance cooperation capacity of sample organizations did not create encouraging conditions. Amongst the respondents, supervisor holds the most 17(85%), the rest principals and vocational counselors (33%) each. In item 2 of the same table, the respondents who reacted positively, though they are as few as 7(26.9%), indicated that acknowledgments and recognitions were taken as the only incentive mechanisms. The rest, other mechanisms listed at A, B and C, were not considered at all. This could be some of the reasons for reluctance of organizations to participate in offering apprenticeship training.

Table 7: Financing Apprenticeship Training

No	Item	Respondents							
		Principal s		Trainees		Superviso rs		Total	
		No	%	No	%	No	%	No	%
1	Were trainees charged fees for the apprenticeship training?								
	A) Yes	-	-	-					
	B) NO	3	100	163	100	20	100	186	100
	Total	3	100	163	100	20	100	186	100
2	Were trainees paid for their labor during apprenticeship training?								
	A) Yes	-	-	16	9.8	2	10.0	18	9.7
	B) No	3	100	147	90.2	18	90.0	168	90.3
	Total	3	100	163	100	10	100	186	100
3	Who covers trainees expenses during apprenticeship training?								
	A) Trainees/Family	3	100	143	87.7	18	90.0	164	88.2
	B) TVET institution	-	-	-	-	-	-	-	-
	C) The organization	-	-	20	12.3	2	10.0	22	11.8
	D) Sponsorship	-	-	-	-	-	-	-	-
Total	3	100	163	100	20	100	186	100	
4	How do you rate the capacity of trainees to pay for apprenticeship training?								
	A) High	-	-	-	-	-	-	-	-
	B) Medium	-	-	8	4.9	2	10.0	10	5.4
	C) Low	3	100	155	95.1	18	90.0	176	94.6
Total	3	100	163	100	20	100	186	100	

The financial attributes of apprenticeship are both complex and important for its viability. The direct and indirect costs of the training fall to all of the three partners: employer, apprentice and taxpayer – who potentially benefit from apprenticeship. As the benefit shared amongst the relevant parties, so the costs should be shared. The apprentice can expect to gain, in terms of expected future earnings. The sponsoring employer gains a large subsequent supply of skilled labor. The taxpayer and the wide economy also gain, to extent that a greater supply of skilled labor increases productivity, as well as through the development of a more educated and knowledgeable society.

In light of the above discussion, Table 7 describes about how apprenticeship training was financed. Accordingly, as it was clearly shown in the table, all respondents (100%) confirmed that apprentices were not charged fees for

apprenticeship training. Similarly, the great majority (90.3%) of the total respondents affirmed that the apprentices were not paid wages or allowance by the organizations to cover apprentice's personal expenses. In addition to these reply, great majority of the respondents (88.2%) affirmed that expenses of trainees during apprenticeship training were fully covered by them or their respective families. However, in the contrary, (12.3%) of the trainees and (10%) of supervisors ascertained that organizations were covering apprentices expense. On the other hand, all respondents did not mention TVET institution or sponsorship for these responsibilities in this regard.

The direct and indirect expenditure of apprenticeship training needs to be shared among the beneficiaries of the training, namely the employees, the trainees and the public.

In item 4 of the same Table, respondents were asked to identify the capacity of trainees to pay for apprenticeship training. To this end, the majority of the trainees (94.6%) confirmed that trainees' capacity to pay apprenticeship training fee is found to be low.

Thus, from this finding it is possible to deduct that no public funds was devoted to cover or subsidize apprenticeship training to enhance the implementation of the program. Therefore, mechanisms such as apprenticeship wages, grants and other forms of incentives should be considered for organizations offering apprenticeship training so as to achieve the desired objectives of apprenticeship training program.

3.4. Partnership

This research had attempted to measure the extent of partnership existing between TVET institutions and hosting organizations.

Table 8: Degree of partnership between TVET institutions and the organization those participated in apprenticeship training

No	Item	Alternatives						DF	value of X ²	P value
		High		Medium		Low				
		No	%	No	%	No	%			
1	Joint organization & management of apprenticeship training									
	Principals	-	-	1	33.3	2	66.7			
	Supervisors			2	10.0	18	90.00			
	Total			3	13.0	20	87.0	1	1.252	.263
2	Preparation of curricula & rules & regulations for apprenticeship training									
	Principals	-	-	-	-	3	100			
	Supervisors					20	100			
	Total					23	100			
3	Common & complementary use of training personnel, materials & machinery									
	Principals	-	-	-	-	3	100			
	Supervisor	-	-	1	5.0	19	95.0			
	Total	-	-	1	4.3	22	95.7	1	.157	.69
4	Participation in evaluation of apprentices									
	Principals	-	-	2	66.7	1	33.3			
	Supervisor	-	-	6	30.0	14	70.0			
	Total	-	-	8	34.8	15	65.2	1	1.546	.214
5	Financial support for apprenticeship purpose									
	Principals	-	-	-	-	3	100			
	Supervisor	-	-	2	10.0	18	90.0			
	Total			2	8.7	21	91.3	1	.392	.567
6	Participation in development of qualified staff									
	Principals	-	-	-	-	3	100			
	Supervisor	-	-	-	-	20	100			
	Total	-	-	-	-	23	100			
7	Advise to TVET institutions									
	Principals	-	-	-	-	3	100			
	Supervisor	-	-	2	10.0	18	90.			
	Total	-	-	2	8.7	21	91.3	1	.329	.567

In order to implement apprenticeship training program effectively, it greatly requires mutual understanding and strong co-operation between TVET institutions and organizations. However, co-operation between the two has been difficult to establish in the training systems of many developing countries. Hence, the data tabulated in table 8 designed to investigate the degree of co-operation between TVET institutions and organizations offering apprenticeship

training. Accordingly, the total respondents confirmed that all the listed areas of co-operation were rated low.

A chi-square test was employed to check whether or not perceptual difference exists between the two study groups. Accordingly, the result manifests that for 1 degree of freedom at 0.05 level of significance the P value was greater than 0.05 implying that there is no statistical significant difference among perception of the principals and supervisors.

Furthermore, even though in all areas of cooperation were rated low, amongst others, preparation of curriculum, rules and regulation and preparation in development of qualified staff were rated very low, relatively. Therefore, these findings indicated that the degree of partnership between the TVET institution and organizations in implementation of apprenticeship training were very poor. Thus, from these findings one can easily deduce that the proclamation concerning apprenticeship training were left aside and ignored totally.

5.3. Selection Procedure

The respondents were asked to reflect up on the procedures involved in the selection of organizations and assignment of trainees for apprenticeship training. Their responses are organized in Table 9.

Table 9: Organization selection procedure and Trainees Assignment

No	Item	Respondents							
		Vocational Counselors		Trainees		Principals		Total	
		No	%	No	%	No	%		
1	How was the total number of trainees assigned to each organization decided?								
	A) By agreement made between TVET institution & organization	2	66.7	-	-	2	66.7	4	66.7
	B) By TVET institution on the bases of preset criteria	-	-	-	-	-	-		
	C) By each organization unilaterally	1	33.3	-	-	1	33.3	2	33.3
	D) On the basis of the statements of law	-	-	-	-	-	-	-	-
	E) There is no formal procedures	-	-	-	-	-	-	-	-
	Total	3	100	-	-	3	100	6	100
2	Who was responsible for organizing apprenticeship training?								
	A) The vocational counselor	3	100	96	58.9	2	66.7	100	59.8
	B) The trainers	-	-	3	1.8	-	-	3	1.8
	C) The department head	-	-	13	8.0	1	33.3	14	8.3
	D) The vice-dean	-	-	16	9.8	-	-	16	9.5
	E) The trainees	-	-	35	21.5	-	-	55	20.7
	Total	3	100	163	100	3	100	169	100
3	Were there criteria set to select organizations participating in apprenticeship training?								
	A) Yes	2	66.7	-	-	3	100	5	83.3
	B) No	1	33.3	-	-	-	-	1	16.7
	Total	3	100	-	-	3	100	6	100
4	If yes, which of the following were used as major factors								
	A) Type of business	-	-	-	-	-	-	-	-
	B) The size of the organization	-	-	-	-	-	-	-	-
	C) No of employees	-	-	-	-	-	-	-	-
	D) Relevance of the training	2	100	-	-	3	100	5	100
	E) Nearness to the TVET	-	-	-	-	-	-	-	-
	F) Facilities delivered to trainees.	-	-	-	-	-	-	-	-
	Total	2	100	-	-	3	100	5	100

Depending on the institutional or historical context, the major criteria for defining the size and type of enterprisers include legal status, ownership status,

and the distinction between the operation of an enterprise at a craft or industrial level or the industry in which a firm operates.

As it has been stated in the literature, a body empowered by the state, based on guidelines and criteria determined before hand, is expected to select organizations that shall participate in the provision of apprenticeship training. Related to this concept, item 1 of table 9 was constructed to identify which mechanisms were used to determine the total number of trainees to be sent to organizations offering apprenticeship training. Thus, the majority of the respondents (66.7) confirmed that it was determined by agreement made between TVET institution and organizations. The rest (33.3%) indicated that each organization unilaterally determined the total number of trainees. On the other hand, in the same item, B, D and E were not replied by any of the respondents.

Item 2 of the same table, the respondents were asked to indicate the authority in charge of planning and organizing apprenticeship training programs in TVET institutions. Accordingly, 3(100%) of the vocational counselors, 96(58.9%) trainees, and 2 (16.7%) of the principals indicated that the vocational counselors were responsible for this purpose. On the other hand, quite a significant (41.1%) of the trainees indicated that other personnel such as the department head and the vice-dean, and the trainees themselves were responsible for planning, managing the apprenticing training program.

This finding reveled that vocational counselors were not completely devoted to this responsibility. This could be due to the availability of the large number of trainees in TVET institutions and that was difficult to handle by only one vocational counselor, or the vocational counselors were engaged with other academic activities.

In item no 2 of Table 9, respondents were asked the presence of any criteria to select organization offering apprenticeship training. To this end, the majority (83.3%) of the respondents ascertained that the selection of the organizations was not carried out through predetermined criteria. Therefore this finding indicates that the selection process was undertaken without considering at least a minimum requirement that could fit with the training modules presented in the curriculum.

On the last item of the same table, respondents who answered positively, regarding the presence of preset criteria for the selection of organization, who asked to enumerate the criteria for eligibility. Accordingly, all the respondents confirmed that only the relevance of the training was the mere criterion used for eligibility.

Therefore, it is possible to say that apprentice could possibly attain their apprenticeship training in unqualified and non-relevant work places only for sake of full-filling the program.

3.6. Role and Responsibility of TVET Institutions

An attempt was also made to examine the role and played by TVET institutions in implementing the apprenticeship training program. Under this topic, respondents were asked to rate the activities indicated. Their responses have been summarized in Table 10.

Table 10: Role of TVET Institution in Promoting Apprenticeship Training

Item	Alternatives							X ² Value	P-value
	High		Medium		Low		DF		
	No	%	No	%	No	%	No		
A) Assigning personnel that follow-up the apprenticeship training									
Supervisors	-	-	4	20.0	16	80.0			
Vocational counselors			2	66.7	1	33.6			
Principals	6	16.7	43	26.4	114	69.9			
Total	6	3.2	49	26.3	131	70.4	4	.3856	0.426
B) Considering grades given for apprenticeship training as a component criteria for certification									
Supervisors	20	100	-	-	-	-			
Vocational counselors	3	100	-	-	-	-			
Trainees	13	75.5	32	19.6	8	4.9			
Total	146	78.5	32	17.2	8	4.3	4	7.91	.126
C) Considering suggestions offered									
Supervisors	-	-	3	15.0	17	85.0			
Vocational counselors	-	-	3	100	-	-			
Principals	-	-	29	17.8	134	82.2			
Total	-	-	35	18.8	151	81.2	2	13.26	.001
D) Prepare, guidelines and schedules that help proper implementation of apprenticeship training									
Supervisors	-	-	3	15.0	17	85.0			
Vocational counselors	-	-	1	33.3	2	66.7			
Principals	9	5.5	25	15.3	129	79.1			
Total	9	4.8	29	15.6	148	79.6	4	2.027	.731
E) Work-in coordination with the organizations									
Supervisors	-	-	2	10.0	18	90.0			
Vocational counselors	-	-	3	100	-	-			
Principals	5	8.0	41	25.2	11.7	71.8			
Total	5	2.7	46	24.7	135	72.6	4	12.373	0.15

Duties and responsibilities to be carried out by TVET institutions to implement apprenticeship-training program was precisely stated in the TVET proclamation. Hence, the items in table 10 were constructed to examine the state of TVET institutions in promoting apprenticeship training. Accordingly, the majority of the total respondents (70.4%) affirmed that activities institutions made TVET institutions assign professional personnel's to monitor and assess the progress of trainees were found to be low. Similarly, by the majority of the total respondents confirmed that such activities as considering suggestions offered from organizations, preparing guideline and scheduling the training and working in co-ordination with the organizations were also rated low. On the other hand, the majority of the total respondents (78.5%) rated high for the action taken considering grades obtained from the apprenticeship training as the component of the curriculum.

In order to check the existence of perceptual differences among the three groups a chi-square test was employed. Accordingly the result revealed that for 4 degrees of freedom at 0.05 level of significance, no statically significant difference existed in the perception of the respondents concerning about assigning professionals, preparing guide line and scheduling apprenticeship training program considering grades and working in coordination with organization.

On the other hand, significant difference existed among the three groups concerning about considering suggestions offered by organization offering apprenticeship training. Moreover, though all the three groups rated to a high degree concerning item B, the trainees' response however was relatively lower where only (75.5%) of them did rate highly. Therefore, from the above findings it can be safely inferred that the efforts made by TVET institutions to promote apprenticeship training deemed to be very poor. Since TVET institution are responsible they should take sufficient measure to enhance the whole training in general and apprenticeship training in particular, with strong coordination with legal organizations and other stakeholders.

Table 11: Application of Legislation for Apprenticeship Training

No	Items	Respondents								DF	Value of X ²	P-Value
		Principal		Voc. Coun..		Super		Total				
		No	%	No	%	No	%	No	%			
1	Did apprentice sing contract of agreement for apprenticeship training?											
	A) Yes	-	-	-	-	-	-	-	-			
	B) No	3	100	3	100	22	100	26	100			
	Total											
2	Where there any laws supporting the implementation of apprenticeship training?											
	A) Yes	1	33.3	1	33.3	4	20	6	23.1			
	B) No	2	66.7	2	66.7	16	80	20	76.9			
	Total	3	100	3	100	20	100	26	100	2	1.21	.273
3	If yes, which of the following was applied?											
	A) Apprenticeship training act	-	-	-	-	-	-	-	-			
	B) Apprenticeship guide line	-	-	-	-	1	25.0	1	16.7			
	C) TVET law.	1	100	1	100	3	75.0	5	83.3			
	Total	1	100	1	100	4	100	6	100			

Individual contracts between trainees and company as well as the organizational setting are subject to a dense set of laws. As cited in the literature of this thesis, from the experience of Germany it can be learned that there has been a vocational training act as a federal law since 1969, in which co-operation training is regulated. This vocational training act constitutes the regulatory framework for German co-operative training place in a company. Regional state school laws govern the part of the training time spent in TVET schools.

The major advantage of apprenticeship training is its vicinity to the world of work. Trainees are thus systematically exposed to the world of work and learn to occupational practice in a real life situation. However, this can be only achieved by meaningful co-operation of organizations, and backed by law.

In light of the above discussion, table 11 was designed to examine the implementation state of apprenticeship training legislation. To this end, in item 1, sample respondents were asked if there were any laws backing the

implementation of apprenticeship training. Accordingly, the majority of the total respondents (76.9%) confirmed that non-existence of any law backing the implementation of apprenticeship training. On the other hand, (23.1%) though they were few, reacted positively. A chi-square test was employed for 2 degrees of freedom at 0.05 level of significance and the result revealed that no statically significant difference existed among the perception of the three study groups concerning the presence of any law supporting apprenticeship training indicating agreement of responses among the respondents.

In item 3 of the same Table among the respondents who reacted positively, the majority (83.3%) indicated that TVET laws were used in the implementation of apprenticeship training. Consequently the first item in the same Table respondents were also asked whether apprenticeship contract was signed among the three parties the trainees, TVET institutions and organizations. Accordingly no single respondent from each group confirmed the existence of a duly signed apprenticeship contract agreement.

Therefore, from the above findings it is possibly to deduce that TVET law did not adequately diffuse through the whole stakeholders. Besides this, even it was known, totally ignored. Thus, trainees could not be benefited form this training program.

3.7. Performance of Supervisors

Under this topic, trainees asked to evaluate their workplace supervisors. Their responses have been tabularized in Table 12.

Table 12: Capabilities and Willingness of Supportive Workplace Supervisors

Item	Alternatives							
	High		Medium		Low		Total	
	No	%	No	%	No	%	No	%
How do evaluate your workplace supervisors?								
A) Skills on presentation	4	9.3	5	11.6	34	79.1	43	100
B) Skill on giving practical training	36	83.7	4	9.3	3	7.09	43	100
C) Knowledge of the subject matter	11	25.6	22	51.2	10	23.3	43	100
D) Willingness to co-operate and give technical advice	38	88.4	3	7.0	2	4.7	43	100
E) Capability to evaluate trainees	3	7.0	11	25.6	29	67.5	43	100

By providing training to apprentices, the supervisors can play an essential role in maintaining the integrity of his trade and building the work force of tomorrow. Yet, the critical issue is to what extent the workplace trainers are ready, willing and committed to play this role.

In order to examine workplace supervisors' commitment in course of apprenticeship training in sample organizations table 12 was designed. On doing so, trainees who ascertained for the presence of workplace supervisors were asked to rate the level that quality supervisor should possess. Accordingly, majority of the respondents affirmed that their supervisors' willingness to co-operate and skills on giving practical training were rated high. Conversely, by the majority of the respondents, supervisors' skills on presentation and ability to evaluate trainee's progress rated low.

From these findings it is possible to deduce that work place supervisors couldn't sufficiently carried out the responsibilities that were expected from them. Moreover, the work place supervisors in the sample organization were not specially trained and properly selected to be involved the process of apprenticeship training program

Table 13: Relevance of Training Content and Skill Obtained

No	Item	Alternatives							
		High		Medium		Low		Total	
		No	%	No	%	No	%	No	%
1	How do you evaluate the degree of the skill obtained during apprenticeship training and that of TVET institution?	18	11.0	39	23.9	106	65.0	163	100
2	How was the degree of similarity of materials for practical training in the organization and TVET institution?	13	7.9	42	25.8	108	66.3	163	100
3	How do you evaluate the relevance of activities that you have undergone during apprenticeship training against your field of study?	25	15.3	42	25.8	96	58.9	163	100

Relevance of a given training has a significant role to play with regard to external efficiency of TVET graduates; which describes the relationship between the output of the training system (graduates) and economic and social success (employment).

In light of the above discussion, in item no 1 of table 13 trainees were asked to rate the level of skill obtained in the sample organizations and that of TVET institutions. Accordingly, 106 (65.0%) of the sample trainees rated low while 18 (11.0%) rated high.

Similarly, as indicated in item no 2 and 3 the same Table, the majority of the respondents 108 (66.3%) and (58.9%) the similarity of materials for practical training and relevance of the activities in organization rated low, respectively.

Therefore, these findings revealed that organizations were not selected properly using preset standard criteria in order to achieve the desired TVET objectives.

3.7. Retention and Completion

Respondents were also enquired to identify the rate factors that could influence smooth implementation of the training program. Their responses are organized in Table 14.

Table 14: Factors Affecting retention & completion of Apprenticeship Training

No	Item	Alternatives								DF	X ² Value	P-Value
		High		Medium		Low		Total				
		No	%	No	%	No	%	No	%			
A	Financial problem											
	Apprentices	94	57.7	43	26.4	26	16.0	163	100			
	Vocational counselors	-	-	1	33.3	2	66.7	3	100			
	Supervisors	1	5.0	12	60.0	7	35.0	20	100			
	Total	95	51.1	56	30.1	35	18.8	186	100	4	25.72	.000
B	Higher distance to organization for apprenticeship training											
	Apprentices	70	42.9	78	47.9	15	9.2	163	100			
	Vocational counselors	-	-	2	66.7	1	33.3	3	100			
	Supervisors	3	15.0	13	65.0	4	20.0	20	100			
	Total	73	39.2	93	50.0	20	10.8	186	100	4	19.470	.001
C	Lack of proper support from the organization											
	Apprentices	82	50.3	60	36.8	21	12.9	163	100			
	Vocational counselors	-	-	2	66.6	1	33.3	3	100			
	Supervisors	-	-	14	70	6	30.0	20	100			
	Total	82	44.1	76	40.9	28	15.1	186	100	4	21.014	.000
D	Irrelevant tasks and duties given to apprentice											
	Apprentices	94	57.6	44	27.0	25	15.3	163	100			
	Vocational counselors	3	100	-	-	-	-	3	100			
	Supervisors	6	30.0	9	45.0	5	25.0	20	100			
	Total	103	55.4	53	28.5	30	16.1	186	100	4	7.978	.092
E	Lack of interest by apprentice											
	Apprentices	13	8.0	30	18.4	120	73.6	163	100			
	Vocational counselors	-	-	1	33.3	2	66.7	3	100			
	Supervisors	1	5.0	5	25.0	14	60.0	20	100			
	Total	14	7.5	36	19.3	136	73.1	186	100	4	1.196	.897
F	Other personal problems											
	Apprentices	14	9.0	35	21.4	114	69.9	163	100			
	Vocational counselors	-	-	-	-	3	100	3	100			
	Supervisors	-	-	8	40.0	12	60.0	20	100			
	Total	14	7.5	43	23.1	129	69.4	186	100	4	5.992	.200

A contract of training is successfully concluded when an apprentice leaves the training system with a nationally recognize qualification. The pathway to completion can, however, be interrupted by a number of factors such as personal, learning and environmental issues. The literature therefore suggests that a range of factors can contribute to an apprentice decision to remain as a trainee.

Based on this, items in table 14 were constructed to identify factors those could negatively contribute for the completion of apprenticeship training offered to apprentice in the local organizations. Accordingly, factors such as financial problem, lack of proper support, and irrelevant tasks given to apprentice were rated high by the majority of the total respondents, 51.1%, 44.1% and 55.4%, respectively. A chi-squares test also is employed to check whether or not perceptual difference existed among the three groups. Accordingly, the result revealed that for 4 degrees of freedom at 0.05 level of significance the P-values were lesser than 0.05, implying that there were statistically significant differences among the perceptions of apprentice, vocational counselor and workplace supervisors concerning financial problem and lack of proper support. This difference could occur due to the fact that trainees were the most concerned groups about the problems amongst others, therefore, they rated high.

On the other hand, factors such as lack of interest by apprentice and other personal problems rated low by the majority of respondents 73.1% and 69.4%, respectively. A chi-square test reveled that for 4 degrees of freedom at 0.05 level of significance the P-values were greater than 0.05. Hence no statically significant difference existed among the perception of the trainees, vocational counselors, and supervisors concerning the low rated factors mentioned above. The findings revealed that factors such as irrelevant tasks given to the trainees, financial problem, lack of proper support from the organization were found to be the most important reasons for trainee's completion of apprenticeships

training. From these findings it can be inferred that factors these negatively affected successful completion of apprenticeship training could emanate from social, economic and administrative problems.

3.9. How effective were Apprentices?

The participants of the study also were asked to rate apprentices activities during the training program. Their responses have been summarized in Table 15 that fallow along with corresponding discussion.

Table 15: Performance of Trainees during Apprenticeship Training

Item	Alternatives								DF	X ² value	P Value
	High		Medium		Low		Total				
	No	%	No	%	No	%	No	%			
A) Work according to rules and regulations											
Supervisors	16	80.0	3	15.0	1	5.0	20	100			
Vocational counselors	1	33.6	2	66.7	-	-	3	100			
Total	17	73.9	5	21.7	1	4.3	23	100	2	4.12	.127
B) Utilize tools and machines with care											
Supervisors	2	10.0	15	75.0	3	15.0	20	100			
Vocational counselors	1	33.7	2	66.7	-	-	3	100			
Total	3	13.0	17	73.9	3	13.0	23	100	X ²	.518	.472
C) Perform tasks carefully											
Supervisors	2	10.0	17	85.0	1	5.0	20	100			
Vocational counselors	-	-	3	100	-	-	3	100			
Total	2	8.7	20	87.0	1	4.3	23	100	2	1.63	.458
D) Co-operate with other employees											
Supervisors	-	-	4	20.0	16	80.0	20	100			
Vocational counselors	-	-	1	33.3	2	66.7	3	10			
Total	-	-	5	21.7	18	78.3	23	100	2	.518	.772
E) Perform practical activities											
Supervisors	-	-	4	20.0	16	80.0	20	100			
Vocational counselors			1	33.3	2	66.7	3	10			
Total			5	21.7	18	78.3	23	100	1	.273	.602
F. Utilize inputs efficiently											
Supervisors	-	-	15	75.0	5	22.0	20	100			
Vocational counselors	-	-	1	33.6	2	66.7	3	100			
Total	-	-	16	69.6	7	30.4	23	100	1	2.13	.144

As displayed in table 15, the items were constructed to examine the performances of apprentice while they were attending apprenticeship training in the sample organizations. Thus, among the listed areas of activities, the majority of the total respondents 73.9% rated high for working according to rules and regulations. On the contrary, 78.3% rated low for co-operating with other employees and practical skills. On the other hand, the rest activities mentioned in item B, C and F were rated moderate by the majority of the total respondents.

In order to check perceptual difference existed or not between the two groups a chi-square test was employed for each items of table 15. Accordingly, the result revealed that for 2 degrees of freedom at 0.05 level of significance the P-values were greater than 0.05. Therefore no statically significant difference was existed on the perceptions of the two groups concerning the given activities. Therefore, form these findings one can easily deduce that apprentices were behaved and performed moderately in organizations offering apprenticeships training. The low rated practical skills indicated above could be the result of cumulative problem existed in the TVET institution. However, it needs further investigation to identify the core problems. Even though TVET institutions curriculum were designed in modular unit and the time allotted for practical activities made higher, trainees were not able to exploit the whole available resources to enhance their skills.

Table 16: Follow up Activities During Apprenticeship Training.

	Item	Respondents							
		Trainees		Voc. Con.		Supervisors		Total	
		No	%	No	%	No	%	No	%
1	Did TVET institutions assign supervisors to follow up trainees' performance during apprenticeship training?								
	A) Yes	45	27.6	2	66.7	3	15.0	50	26.9
	B) NO	118	72.4	1	33.3	17	85.0	136	73.1
	Total	163	100	3	100	20	100	186	100
2	If "yes" how frequently was the follow-up?								
	A) Daily	-	-						
	B) Once in a week	4	8.9	-	-			4	8.0
	C) Once in a two weeks	8	17.8	-	-			8	16.0
	D) Once in a month	14	31.1	1	50.0	1	33.3	16	32.0
	E) Once in a while	19	42.2	1	50.0	2	66.7	22	44.0
	Total	45	100	2	100	3	200	50	100

In item one of table 16 respondents were asked to confirm whether professional from TVET institutions undertook any follow-up activities during the apprenticeship training. Thus, most of the respondents 72.4% of the trainees, and 85.0% of supervisors ascertained that there were no follow-up activities undertaken by the TVET institution during apprenticeship training. Though they were few, 33.3% of the sample vocational counselors confirmed the absence of such on activities.

Following the response given above, item 2 of the same table was designed to examine how often the concerned personnel from TVET institutions carried out the follow-ups. To this end, respondents who rated positively, 26.9% of the total respondents indicated different levels. (44.0 %) of them confirmed that the follow-up activity was taken once in a while. Though they were as few as 8%, confirmed that the monitoring carried out once in a week.

Thus, from this findings once can easily deduce that TVET institutions were not committed to assign professionals to monitor apprentice-training progress at work places. This could be resulted from shortage of finance, shortage of trainers due to summer vacations and the reluctance of he TVET institutions.

Table 17: Organizations Readiness Offering Apprenticeship Training

Item	Alternatives							
	High		Medium		Low		Total	
	No	%	No	%	No	%	No	%
How do you evaluate the roles of organization in the provision of apprenticeship training?								
A) Co-operate and work with TVET institution								
Supervisors	13	65.0	6	30.0	1	5.0	20	100
Vocational counselors	-	-	2	66.7	1	33.3	3	100
Principals	12	7.4	53	32.5	98	60.1	163	100
Total	25	13.4	61	32.8	100	53.8	186	100
B) Assign apprentice in the agreed area of work								
Supervisors	4	20.0	14	70.0	2	10.0	20	100
Vocational counselors	-	-	1	33.3	2	66.7	3	100
Trainees	6	36.8	25	15.3	132	81.0	163	100
Total	10	5.4	40	21.5	136	73.1	186	100
C) Give orientation								
Supervisors	16	80.0	3	15.0	1	5.0	20	100
Vocational counselors	-	-	3	100	-	-	3	100
Trainees	99	60.7	51	31.3	13	8.0	163	100
Total	115	61.8	57	35.0	14	7.5	186	100
D) Provide raw materials, tools, and other necessary inputs								
Supervisors	2	10.0	15	75.0	3	15.0	20	100
Vocational counselors	-	-	-	-	3	100	3	100
Trainees	5	3.1	23	14.1	13.5	82.8	163	100
Total	7	3.8	38	20.4	141	75.8	186	100
E) Evaluate apprentice performance								
Supervisors	14	70.0	6	30.0	-	-	20	100
Vocational counselors	-	-	1	33.3	2	66.7	3	100
Trainees	26	16.0	130	79.8	7	4.3	163	100
Total	40	21.5	137	73.7	9	4.8	186	100
F. Assign workplace supervisors								
Supervisors	3	15.0	5	25.0	12	60.0	20	100
Vocational counselors	-	-	1	33.3	2	66.7	3	100
Trainees	3	1.8	33	20.2	127	77.9	163	100
Total	6	3.2	D39	21.0	141	75.8	186	100

Effective implementation of apprenticeship training basically relay on the roles and responsibilities of each parties: the TVET institutions, the organizations and the trainees. However, the commitment that could be made by organizations offering apprenticeship training plays a pivotal roll in the success of the training program.

In order to examine the role played by sample organizations in promoting apprenticeship training, Table 17 was designed intentionally. Accordingly, the great majority of the total respondents 75.8% confirmed that almost all the activities such as co-operating with TVET institutions, assigning apprentice in the agreed area of work, providing necessary inputs and assigning workplace supervisors were rated low.

On the other hand, the majority (61.8%) of the respondents confirmed that orientations delivered to the trainees by sample organizations were rated high. These findings, disclosed that sample organizations didn't give greater attention in delivering the apprenticeship training in the right way. But, they were rather very conscious on giving orientations to minimize risks and accidents that probably could occur.

Therefore, it can be concluded that local organizations were not understand the objectives of TVET institutions since the awareness creation effort made by TVET institutions were inadequate and no incentives mechanisms were developed to encourage these organizations.

3.9. Awareness Creation

Respondents were also asked questions pertinent to the awareness creation activities made by TVET institutions. Their responses are presented in Table 18.

Table 18: Awareness Creation Activities made by TVET Institutions

No	Items	Respondents							
		Principals		Vo. Cons.		Supervisors		Total	
		No	%	No	%	No	%	No	%
1	Were organization made to be aware of issues relating to apprenticeship training								
	A) Yes	3	100	3	100	18	90.0	24	92.3
	B) No	-	-	-	-	2	10.0	2	7.6
	Total	3	11.5	3	11.5	20	76.9	26	100
2	If your response to item no 2 is 'yes' how what organizations made familiar with the issues?								
	A. Through workshop or seminar	-	-	-	-	-	-	-	-
	B. Through training of trainers	-	-	-	-	-	-	-	-
	C. Through cooperation guide lines	3	100	3	100	18	100	24	100
	D. Through Letters	-	-	-	-	-	-	-	-
	Total	3	100	3	100	18	100	24	100
3	The understanding level of organization about TVET objectives:								
	A) High	-	-	-	-	1	5.0	1	3.8
	B) Moderate	1	33.3	1	33.3	6	30.0	8	30.7
	C) Low	2	66.7	2	66.7	13	65.00	17	65.4
	D) Not understood	-	-	-	-	-	-	-	-
	Total	3	11.5	3	11.5	20	76.9	26	100

In many African countries, including Ethiopia, TVET system suffers from a relatively poor public image. TVET is usually associated with blue color-jobs, low salaries and lack of personal development opportunities. It is generally perceived as a place of last resort for those students who failed to get into higher education. This misconception needs to be rectified by creating awareness through various mechanisms.

Yet, the main concern was to what extent TVET institutions made effort to promote apprenticeship training. Thus, in table 18 item 1 was designed to assess the sensitization effort made to encourage further cooperation of all concerned bodies in the implementation of apprenticeship training. Accordingly, all the principals and vocational counselors (100%), and the greater majority of supervisors 18(90%) confirmed that organizations offering apprenticeship training were made aware of this issue. On the other hand, only few supervisors (10%) were confirmed negatively.

As can be seen in item 2 of the same table, though the majority of the total respondents (92.3%) replied positively, the method used for awareness creation was only through cooperation guidelines other strongest methods like workshops or seminars were not employed.

The last item was designed to identify the understanding level of organizations about the TVET objectives. Accordingly, the majority (65.4%) of the total respondents rated low while others (3.8%) rated high.

Generally, the findings in the above table reveal that even though the activities to create awareness and organize apprenticeship training seemed positive, the mechanism used were not adequate. Thus, organizations didn't understand the main objectives of the TVET program in general and apprenticeship training in particular.

3.10. State of Organizations

Under this topic, respondents were asked to rate the levels of readiness and resource capacity of organizations offering apprenticeship training. Their responses have been organized in Table 19.

Table 19: Adequacy, Willingness and Resource Capacity of Organizations Offering Apprenticeship Training

No	Items	Respondents										DF	X ² Value	P value
		Voc.Con.		Principals		Trainees		Supervisors		Total				
		No	%	No	%	No	%	No	%	No	%			
1	How do you rate the readiness of organizations to participate in apprenticeship training?													
	A) High satisfactory	-	-	-	-	-	-	3	15.0	3	11.5			
	B) Satisfactory	2	66.7	2	66.7	-	-	2	10.0	6	65.4			
	C) Unsatisfactory	1	33.3	1	33.3	-	-	15	75.0	17	23.3			
	D) Highly unsatisfactory	-	-	-	-	-	-	-	-	-	-			
	Total	3	11.5	3	11.5	-	-	20	76.9	26	100	4	1.451	.835
2	If your response for item no 1 is unsatisfactory or highly unsatisfactory which could be the reason?													
	A) Lack of relevant rules & regulations	-	-	-	-	-	-	-	-	-	-			
	B) Lack of awareness about apprenticeship training	1	33.3	1	33.3	-	-	2	11.8	4	23.5			
	C) Lack of sufficient place for apprentices	-	-	-	-	-	-	11	76.5	11	64.7			
	D) Fear of insufficient skill of trainees	-	-	-	-	-	-	2	11.8	2	11.7			
	E) Lack of incentive to organizations	-	-	-	-	-	-	-	-	-	-			
	Total	1	5.8	1	5.8	-	-	15	88.2	17	100			
3	How do you rate to adequacy of apprenticeship training offering organization?													
	A) Highly satisfactory	-	-	-	-	-	-	-	-	-	-			
	B) Satisfactory	-	-	-	-	15	9.2	-	-	15	8.8			
	C) unsatisfactory	3	100	2	66.7	11.6	71.2	-	-	121	71.5			
	D) Highly unsatisfactory	-	-	1	33.3	32	19.6	-	-	33	33.0			
	Total	3	1.8	3	1.8	163	96.4	-	-	169	100	4	1.78	.755
4	How do you rate the resources capacity of organization offering apprenticeship training?													
	A) Highly satisfactory	-	-	-	-	36	22.1	2	10.0	38	20.1			
	B) Satisfactory	2	66.7	2	66.7	24	14.7	16	80.0	44	23.2			
	C) Unsatisfactory	1	33.3	1	33.3	103	63.2	2	10.0	107	56.6			
	D) Highly unsatisfactory	-	-	-	-	-	-	-	-	-	-			
	Total	3	1.6	3	1.6	163	86.2	20	10.6	189	100	4	49.65	.000

In item 1 of table 19, respondents were asked to rate the state of readiness of sample organizations to offer apprenticeship training. To this end, the majority (65.4%) confirmed that the readiness of sample organizations was unsatisfactory. Consequently, the majority (64.7%) of the respondents identified that the main reasons for the reluctance was lack of sufficient place to absorb trainees by organizations. The rest (23.5) and (11.7%) of the total respondents identified that lack of awareness and fear of insufficient skills of trainee's were the main reasons for the reluctance, respectively.

A chi-square test is employed to check the existence of perceptual difference among the three study groups. Accordingly, the result revealed that 4 degrees of freedom at 0.05 level of significance the P-value was greater than 0.05. Therefore, there was no statically significant difference among the perception of principals, supervisor and vocational counselors concerning the willingness of organization to participate in the apprenticeship-training program. Therefore, from these findings one can deduce that the unsatisfactory commitment of the organizations could be due to lack of qualified and committed vocational counselors or vocational counselors were overloaded by other academic and social activities in the TVET institutions. Furthermore, lack of incentives and awareness also contributes to the reluctance of organizations to participate in eh training scheme.

In item 3 of the same table, the respondents were asked to rate the availability of adequate and relevant local organizations to offer apprenticeship training. To this end, the majority of the total respondents (71.5%) confirmed that the adequacy was unsatisfactory. A chi-square test was employed and no statically significant difference existed among the perception of the three groups concerning the availability of adequate organizations to offer apprenticeship training.

The last item was designed to examine the resource capacity of sample organizations offering apprenticeship training. Accordingly, the majority of the total respondents (56.6%) rated unsatisfactory. A chi-square test result revealed that there was a statically significant difference among the perception of the four study groups regarding the resource capacity of the sample organizations. The statically significant differences could be resulted due to the reason that since the trainees were in the actual workplace area they can judge the real resource capacity of the organizations. Since it confirmed unsatisfactory by the majority of the trainees; there fore, the difference can be ignored.

Generally, from the above findings it can be conclude that trainees were send to apprenticeship training since it was obligatory in TVET institution. Besides this, trainees were compelled to spend their time without achieving the desired practical skills in the work place training.

CHAPTER FOUR

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

4.1. Summary of the Major Findings

The principal aim in undertaking this study was to investigate the major problems encountered in implementing effective apprenticeship training in TVET institutions in Dire-Dawa. To this end, more specifically, the study tried to find solutions to the following basic questions: what are the roles played by TVET institutions, trainees and organizations offering apprenticeship? What are the existing legal frameworks, incentive mechanisms, monitoring and supervision practices during apprenticeship training? What are the prominent managerial, social and economical problems encountered in implementing apprenticeship-training program?

How, the study employed descriptive survey method; and to address the raised research questions, the researcher reviewed relevant literature, prepared four sets of questionnaires and analyzed documents. The study was conducted in three TVET institutions. These sample institutions were selected on the basis of availability sampling for government institutions and purposive sampling technique for the private institutions. The samples of the study were 3 principals, 3 vocational counselors, 163 trainees and 20 workplace supervisors. Accordingly, the respondents sampling was carried out through purposive, availability, stratified and random sampling techniques. The trainees were selected through both stratified and random sampling techniques. On the other hand, the principals and vocational counselors were selected through availability sampling techniques while supervisors of organization were selected using purposive sampling.

The data and information for the study was obtained through questionnaires, interviews and documentary analysis. The data obtained were analyzed using percentage and chi-square test. Based on the results of the data analysis, the following major findings were identified:

1. According to the finding females' participation rate in the TVET institutions were accounted only 29.4% of the total enrolled trainees in the year 2005/06. Moreover, this very low rate was also reflected in the industrial and construction field of study.
2. Even though there were several fields of study in the TVET institutions, the finding indicated that majority (60.7%) of them were engaged in Business education. Other fields such as industrial and Construction captures, relatively very few trainees.
3. Regarding the academic profiles of vocational counselors and principals/deans in the TVET institutions the finding indicated that all (100%) had first degree, which satisfies the standard set by the MoE. Concerning supervisors in organization, the majority (85.%) had below college diploma.
4. As the findings of the study disclosed, duties and responsibilities of each party, the TVET institutions, the organizations and the trainees were not tied-up by legal frameworks in order to implement effective apprenticeship training as stated in the TVET proclamation. Concerning to this, legislation dealing with TVET in most African countries come into effect much latter after the promulgation of education acts.
5. According to the finding, a large proportion, 85% of the trainees attended apprenticeship training in medium and small/informal local organizations. Furthermore, the finding depicted that majority (60%) of

the sample organizations were service rendering while 30% trades and 10% industries.

6. The occupational profile of trainee's families depicts that the majority of them were government employees and traders. Thus, the majority of the trainees were traveling a maximum of 5kms radius to reach apprenticeship-offering organizations.
7. The study disclosed that the selection of organizations for apprenticeship training and assignment of trainees in sample organizations were not based on predetermined standard measuring criteria. Furthermore, the finding revealed that the personnel in charge of assigning apprentices were found to be the vocational counselors, the principals, and the trainees themselves.
8. It was found out by the results of the study that, in quite a high proportion of organizations offering apprenticeship, supervisors were not assigned to guide and support apprentice. On the other hand, where supervisors had been assigned the finding depicted that supervisors' theoretical knowledge of the training contents, presentation ability and capability to evaluate apprentice's performance were unsatisfactory. As cited in the literature, well planned, properly supervised work place learning improve the success of youth in moving into employment becoming contributing members of the community.
9. Regarding the degree of co-operation between TVET institutions and organizations in the implementation of apprenticeship, the findings revealed that it was low. Particularly, preparing curriculum, rules and regulations and the effort made to promote qualified staff were relatively very low. Related to this Herschbach (1985), noted that co-operation

between public training institutions and employer has been difficult to establish in the public training systems of many developing countries.

10. According to the great majority of the total respondents (95.6%), awareness creation activities to promote apprenticeship training were in a place. However, where these activities had been existed, the finding depicted that the only mechanism employed were only through circulars and which was not strong.
11. The Study disclosed that the institutional roles of TVET institutions to further promote effective implementation of apprenticeship training such as assigning professional to monitor and assess trainee's performance, considering suggestions offered and co-operations with organization were found to be discouraging. Conversely, considering grades achieved by apprentice during apprenticeship training for certification system were completely encouraging.
12. The results of this study had shown that the number of relevant organizations offering apprenticeship training, both government and private, were inadequate. As cited in the literature, in developing countries, due to the work nature of industrial basis, there are normally not enough places to absorb all the trainees during apprenticeship training.
13. Majority of the respondents confirmed that the willingness and readiness of organizations to offer apprenticeship training was low. It was, in fact, remarked as reluctance of enterprises to provide work place training. Besides this, the majority of these organizations lacked the required human, financial and material resources to effectively provide on the job training. Although enterprises are the final consumer off the TVET products, they are reluctant in involving providing places for apprentices.

14. The study disclosed that majority of the apprentice were found to be very sensitive and alert in keeping rules and regulations at work places. On the contrary, the finding revealed that their ability on practical works and utilization of inputs were unsatisfactory.
15. The study also revealed that enterprises offering in company training performance with regard to fulfilling their respective roles and responsibilities were discouraging. That is, the efforts made assigning trainees at relevant workplace, providing apprentice with necessary inputs and assigning workplace supervisors were not carried out. On the other hand, it was ascertained in the finding that sufficient orientation had been delivered to the apprentices to keep rules and regulations.
16. The finding indicated that no incentives, other than recognizing organizations contribution on graduation days, were given to the organizations those offered apprenticeship training in order to stimulate further cooperation in the areas.
17. Regarding the financial aspects of apprenticeship training, the finding depicted that apprentice were neither charged training fees nor paid wages for their labor. Moreover, apprentice personal expenses (subsistence and traveling costs) were fully covered by the apprentice and or their respective families. In many literature, the major source of funds in most of the developing countries levied on most firms.
18. The study disclosed that the relevance of contents of work place practical training, the similarity of materials and equipment used and the skill acquired from the organizations found to be very low. Related to this, as indicted in the literature, in many instances the goals, methods,

ideas and strategies of business enterprises are very different from those of learning institution.

19. It was identified by the study that reasons for the reluctance of organizations to absorb potential trainees were shortage of sufficient places, lack of awareness about TVET objectives, and fear of trainees' insufficient skills.

20. In relation to factors that could hinder effective apprenticeship training, the great majority of the total respondents indicated that reluctance of organizations, financial problem, inadequate co-operation between TVET institutions and organizations, absence of awareness creation and lack of incentives made to encourage organizations were the major factors those could have profound impact on successful implementation of apprenticeship training program.

4.2. Conclusions

With the framework of national training and education strategies TVET has become very important aspects of human resources development; and the success of such strategies is by and large dependent on the capability of TVET institutions to produce competent trainees on the needs of employers and the willingness of organizations to offer apprenticeship training. However, role played by of TVET institutions and organizations offering apprenticeship training were not satisfactory.

- Factors such as inadequately, low resource capacity and reluctance of organizations offering apprenticeship training, absence of endeavors made to create general economic environment and incentives conducive to encourage organizations to co-operate during apprenticeship training and lack of standard criteria to select organizations have a

negative influence on offering adequate and relevant skill to TVET trainees that meet the needs of the employers.

- On the top of this, trainees' skills in practical activities that were acquire from TVET institutions were found to be unsatisfactory to win the trust of organizations to offer them major activities in their organizations. Thus, failure in organizations to co-operate effectively during apprenticeship training is a cumulative result of conditions which in turn could be determined by the extent of facilities and availability of qualified trainers.
- Furthermore, unit in charge of TVET institutions and enterprises relation for organizing and monitoring the apprenticeship training was found to be inexistent. The absence of this trend leaves many individuals trainees struggling to seek apprenticeship placements for practical training and eventually leads to conflicts and mismanagement of the apprenticeship training program.
- To sum up, with in the current prevailing environment, it can be concluded that the apprenticeship training program in Dire-Dawa demonstrates a cumulative challenges and thus it is found to be *unsatisfactory*; there fore, it needs special attention to alleviate the existing problems in order to meet the objective of apprenticeship training program.

4.3. Recommendations

On the bases of the findings obtained and conclusion reached at, the following suggestions are forwarded to improve the apprenticeship-training program in general and to enhance its effective implementation in particular

1. It was found out that legislation on apprenticeship agreement issued by the government only states general requirements with out specifying

models of operations. Therefore, it needs the development of more specific and detailed other legal documents such as apprenticeship training and regulations and apprenticeship training guidelines that complement the main law by addressing issues at operational level. Thus it is recommended that the regional TVET council and the TVET commission should develop and implement procedures and rules for apprenticeship training for this responsibility fall under its jurisdiction.

2. The efforts those are necessary to strengthen the linkage between TVET centers and enterprises need highly targeted support, particularly at the local level, where these relationships are easier to promote. It was found that, the great majority of the training institutions do not have a unit in charge of relations with enterprises. Therefore, instructions at a national level should have as a function the registering of data concerning the local enterprises, their activities, and if possible, their needs. Targeted continuing training activities, the organization and monitoring of apprenticeship programs, the provision of labor market assistance to graduate and later on, and their follow-up should also come under this responsibility.
3. It is apparent that when industrial bases are inadequate, the TVET trainees do not have an opportunity for work related practical training in real world of work. Therefore, to fill this gap production unit where trainees could be engaged in producing goods and services in real-life situations for customers on semi-commercial basis need to be established in TVET institutions. This gives the trainees the opportunity to acquire practical experiences at the shop floor level and also enable the TVET institutions to generate some income such as selling trainees' products, maintenance and repair of machines and equipments to supplement government grants for their operations.

4. There is no universal model for investing in apprenticeship training. But it needs as a prerequisite a general economic environment and incentives conducive to encourage individuals and organizations to invest individually or jointly. The very thing is that organizations have critical role to play in investment in training. The social partners should strengthen with government for investing in, planning and implementing training network of cooperation that includes regions.

5. It was established that apprenticeship training was conducted usually during summer vacation. Hence, all the TVET institutions available in the region send trainees to organization for apprenticeship training on the same interval. On the other hand, there are organizations, which were inadequate and not willing to absorb all trainees. Therefore, there is a large gap between the total number of apprentice demanding place for on job-training and available work places. Thus, trainees are compelled to attend their trainings in non-relevant places, or for sure, remain home. Therefore, to overcome this obstacle, since TVET curricula are designed in modular unit, special program should be devised and arranged so that trainees could be sent at different scheduled time. Furthermore, this mechanism creates opportunities to assign trainers to supervise their trainees in organizations without disturbing their usual vacations.

6. The task of organization apprenticeship training should be given to autonomous body, such as apprenticeship training and entrepreneurship penal, to be organized at both federal and regional levels. The development of the organization structure of this body at all levels should be centered on organized and flexible integration between the TVET institutions and the world of work.

7. It was discovered that employers had not sufficient confidence in the practical skills of TVET trainees to trust them perform certain duties. The full exploitation of the potential benefits that trainees could drive from work place training is jeopardized by inadequate and obsolete facilities for practical training in TVET institutions. Many existing facilities, equipments and materials should be up graded and improved on the basis of thorough analysis. As the government budget alone does not meet this demands, voluntary contribution of the industry as a whole, in the form of donations of equipment and machinery, opening work shops for practical modules and common and complementary uses of these physical facilities should also deemed as immediate viable possibility.
8. The quality of apprenticeship training depends on the efforts made by the government to obtain well-trained trainers and vocational counselors. Thus, it is important that priority should be given by the MOE to recruitment and initial preparation of well-trained teaching staff. To this end, training integrated into the degree-level programs should be conduct largely in synergy with business/industry via the inclusion of work-related, practical-skills, training in firms. In addition, there should be arrangements of continuous professional upgrading at TVET institutions throughout instructor's career to enable them to function effectively.
9. It was discovered that there was no reliable cooperation between the TVET institutions and the enterprises in the apprenticeship training programs. The lack of effective co-operation is partly the cause of maladjustment between the TVET training provided and the needs of the industry and the commercial world. Therefore, to reduce the gap between technical and vocational education offered by institutes and the realities of employment, it is important that the representation of professionals at all training levels should be reinforced in order to bring improvements. Their mission should be pedagogic improvements and management of

TVET centers. In order to do so, a system of partnership among the training institutions and enterprises, well assisted by the government, need to be set up. Thus, they all fight for the same purpose more dynamic training schools for a more efficient professional world.

10. Apprenticeship training promotion schemes often requires appropriate awareness campaign at various levels. Stated differently, for further deepening apprenticeship training and increasing employer's share of training delivery, it is often necessary to reflect clear image of the training to employers. This awareness creation campaign should be accomplished through the establishment of advocacy system among the relevant stakeholders focusing on mutual advantages derived from the apprenticeship-training scheme. Therefore, the dissemination of information through mass-media, workshop, and panel discussions is expected to be undertaken by MoE, Regional Education Bureau (REB) and the TVET institutions. Furthermore, other legitimate incentive such as provision of training advisory services may be used.
11. It was found out that most organizations selected to offer on-the-job training were unable or reluctant to discharge their training role adequately. They lack the capacity to provide structured apprenticeship training effectively. Thus, to lesson this problem, the Regional TVET commission and council must set crystal clear criteria relating to the selection of legible enterprise to provide on-the-job raining, by giving special emphasis to the relevance of the training contents.
12. It is apparent that when supervisor in organizations offering apprenticeship training are found to be inadequate in the knowledge and experience for certain specialized parts of the curriculum, the TVET trainees do not able to get sufficient experience in the industrial settings to make their time there worth while. Therefore, tailor made trainings

that fill this gap should be organized and continuously undertaken in the TVET institution.

13. In many instances responsibility for matters of TVET is solely vested in TVET institution authorities that leave no legal scope for organizing systematic training programs in organizations. Thus, authorities in the state must also take part and play a crucial role in organizing apprenticeship training. Moreover other apprenticeship training organizers and facilitators such as chamber of commerce or industry should either be founded or strengthened. These could takeover responsibility in facilitating apprenticeship training in different organizations. As a result more apprenticeship training schemes could be carried out. Furthermore, government policy makers are expected to take measures for the development of the small-scale industries and entrepreneurs. TVET institutions also should work in collaboration with industries and market.
14. Since this study is not an end in area of implementation of apprenticeship training, further study should be carried out focusing the need and advantages of cooperative training to promote transition of trainees to the world of work.

BIBLIOGRAPHY

A. Books

- Atchoarena, David and Andare Dellue (2002). **Revisiting Technical and Vocational Education in Sub-Saharan Countries**. Paris: UNESCO/IIEP.
- _____ (1996). **Financing Vocational Education: Concepts, Examples and Tendencies**. Paris: UNESCO/ IIEP.
- Atchoarena, D (1994). **Policy and Planning for Vocational Education and Training** Paris: UNESCO.
- Bacchus, K. (1998). **(The Political Context of Vocationalization of Education in Developing Countries)**. Washington D.C. The World Bank.
- Bennell, P., (1996). **(General Versus Vocational Secondary Education in Developing Country: A Review of Rates of Return Evidence)**, London: Published by Frank Cass.
- Carton, M. (1984). **Education and the World of Work**. Paris: UNESCO.
- Chailklen, S. and Lave, T. (eds) (1993). **Understanding, Practice**. Cambridge: Cambridge University Press.
- Cohen, L. and L. Manion (1980). **Research Methods in Education**. London: Croom Helm Ltd.
- Colin, N. Power (1999). **Technical and Vocational Education for the Twenty First Century**. Washington D.C.: The World Bank
- Dennis, G. (2000). **Competence Based Training in Scotland, England, Australia and New Zealand**. Darmstadt: GTZ Sector Project.
- Dougherty, C. (1989). **The Cost Effectiveness of National Training Systems in Developing Countries**. Washington, D.C: The World Bank.
- Evans. N.R. (1971). **Foundation of Vocational Education**. Ohio: Charter E. Merii Publishing Company.
- Fagerlind, I. & Saha, L.J. (1989). **Education and National Development. A Comparative Perspective**. Oxford: Pergamo Press.

- Federal Negrit Gazeta. **TVET Proclamation. No 391/2004.** Addis Ababa. Brehanena Selam Printing Enterprise.
- Foster, P. (1965). "The Vocational School Fallacy in Development Planning" In C. A Anderson and B. Bowman, (eds.) **Educational and Economic Development.** Chicago: Aldine Publishing Company.
- Gallinelli, J. (1979). Vocational Education Programs at the secondary Level: A Review of Development and Purpose. In Abramson, T.C. and Cohen, L. (eds.), **Hand Book of Vocational Education.** London: SAGE Publication Ltd.
- Gasskov, V. (1997). **Managing Vocational Training System.** Geneva: ILO.
- Hamilton, S.H (1990). **Apprenticeship for Adulthood.** New York: The Free Press.
- Harris, R and et al, (2001). **Factors that Contributes to Retention and Completion in Apprenticeship and Traineeships.** Adelaid: National Centre for Vocational Education Research.
- Harris, R. and J. Bone (2000). **More than Meets the Eye? Rethinking the Role of the Workplace Trainer.** Adelaide: National Centre for Education Research.
- Herschbach, D. (1985). **Linking Training and Employment: An International Perspective.** Washington, D.C: USAID.
- _____ (1994). The Right to Organize: Implication for Preparing Students for Work. In R.D. Lakes (ed.), **Critical Education for Work: Multidisciplinary Approaches.** Norwood, NT: Ablex.
- Herr, E.L. and S.H Cramer. (1972). **Vocational Guidance and Carrer Development in the Schools.** New York: Houghton Mifflin Company.
- ILO, (2001). **World Employment Report 2001: Life at Work in the Information Economy.** Geneva, Swithizerland. ILO.
- Indermit, et al (2000). **The Challenge of TVET for Human Resource Development.** London: Oxford University Press.
- Ipaye, T. (1986). **Educational and Vocational Guidance: Concepts and Approaches.** Ibaden: University of Ife Press Ltd.

- Kerre, B.W. (1996). "Co-operation in Technical and Vocational Education".
Establishing Partnership in Technical and Vocational
Education. Berlin: UNEVOC.
- Lauglo, J. and Kevin Lillis (1988). **Vocationalization: In International
Perspective**. London: A Wheaton and co. Ltd, Exeter.
- Lauglo, J., (1993). **Vocational Training: Policy and Modes**. Paris: UNESCO.
- Lauterbach, U. (1994). Apprenticeship, History and Development of In Husen,
T. and Postlethwaite T.N, (1994). **International Encyclopedia
of Education**, 2nd edition, Oxford: Programon Press.
- Loucks, K. (1988). **Training Entrepreneurs for Small Business Creation**.
Geneva: ILO.
- Lugujjo, E. and Manyindo B. (1995). "Co-operation between Educational
Institutions and Enterprises in Technical and Vocational
Education". **Establishing Partnership in Technical and
Vocational Education**, Berlin: UNESCO.
- Middleton, J., A. Ziderman and A.V. Adams (1993). **Skills for Productivity:
Vocational Education and Training in Developing
Countries**. New York: Oxford University Press.
- MOE (1994). **Education and Training Policy**. A.A: St. George Printing Press.
- _____ (1994). **Education Sector Strategy**. A.A: Chamber Printing House
- _____ (2001) **Middle Level Technical Vocational Training Program:**
Curriculum Guide. A.A: EMPDE.
- _____ (2002). **The Education and Training Policy and its Implementation**.
A.A. Megu Printing Enterprise.
- _____ (2003). **የኢትዮጵያ ቴክኒክና መ.ያ ትምህርት ሥልጠና ስትራቴጂ: አዲስ አበባ፣
ብርሃንና ሰላም ማተሚያ ቤት::**
- _____ (2005). **Annual Statistic Abstract**. A.A: Berhan Selema Printing
Enterprise.
- _____ (2006). **National Technical and Vocational Education and Training
(TVET) Strategy** A.A: EMPDE.

- Munch, J. (1995). **Vocational Education and Training in Federal Republic of Germany**. Bonn: European Centre for the Development of Vocational Training.
- Ministry of Education and Research, (1997). **Vocational Training in the Dual System in Germany**. Bonn: M.E.R.
- Munch, F. (1991). **Vocational Education and Training for Youth: Towards Coherent Policy and Practice**. Paris: OECD.
- Murnane, J. and Levy, F. (1996). **Teaching the New Basic Skills**. New York: The Free Press.
- Napier, W.R. (1992). **School Guidance Services: Focus on the Developing Nations**; London: Evans Brothers Ltd.
- National Alliance of Business (1992). **Real Jobs for Real People: An Employer's Guide to Youth Apprenticeship**. Washington, D.C: U.S. Department of Labor.
- O'yeneye, H. (1980). **Skill Development in Sub-Saharan Africa**: Washington, D.C: The World Bank.
- Psacharopoulou, G. (1987). **Economics of Educational Research and Studies**. Washington, D.C., Pergamon Press.
- Reiss, W. (1997). **The German System of Assessment and Certification in Vocational Training**. Bonn: M.E.R.
- Schmidt, Hermann and Alex (1997). The Dual System of Vocational Education and Training in Germany. **In Doing Business with Germany**. Ed. Roderic Millar and Jonatham Reuvid. London: SAOE Publication Ltd.
- Stern, D (1990). **Combining School and Work: Options in High School and Two years Colleges**. Washington, D.C.: U.S. Department of Vocational and Adult Education.
- Tekeste Negash. (1990). **The Crisis of Ethiopian Education**. Sweden: Uppsala University.
- UNESCO, (1978). **Terminology of Technical Vocational Education**. Paris: UNESCO.
- _____ (1983). **The Transition from Technical and Vocational Schools to Work**. Paris: UNESCO.

- _____ (1996). **The Development of Technical and Vocational Education in Africa**. Dakar:UNESCO.
- _____ (1999). **Second International Congress on Technical and Vocational Education: Life Long Learning and Maintaining a Bridge to the Future**. Paris: UNESCO.
- _____ (2000). **Learning for Life and Future: Stimulating Reform in Southern Africa Through Sub-Regional Co-operation**. Botswana: UNESCO.
- _____ (2002). **Technical and Vocational Education and Training for the 21st Century**: UNESCO and ILO Recommendations. France: UNESCO.
- Unger, H. G. (1996). **Encyclopedia of American Education**. New York: Facts on File, Inc.
- Wallenborn, M. (1996). "Dual, Co-operative Training System. An Alternative in Asia." **Establishing Partnership in Technical and Vocational Education**. Berlin: UNESCO.
- Wanna Lekka (1988). "The Current Status of Vocational and Technical Education in Ethiopia: Problems and Prospects. **Proceedings of the Conference on Quality Education in Ethiopia: Vision for 21st Century**. A.A: Institute of Educational Research.
- Wirth, A.G (1983). **Productive Work – in Industry and School: Becoming Persons Again**. London, MD: University Press of America.
- Woodhall, M. (1997). **Human Capital Concept in Education, Culture, Economy and Society**. Haley A. H., Brown P; A. S (eds) Oxford: Open University.
- World Bank (1990). **Vocational Education and Training and Developing Countries: Policies for Flexibility, Efficiency and Quality**. Washington D.C: The World Bank.
- _____ (1991). **Vocational and Technical Education and Training. A World Bank Policy Paper**, Washington, D.C.: The World Bank.
- Ziderman, A. (1988). **Manpower Training: Theory and Policy**. London: Macmillan.
- _____ (2003). **Financing Vocational Training in Sub-Saharan Africa**. Washington D.C: The World Bank.

Zymelman, M. (1997). **The Economic Evaluation of Vocational Training Programmes**. Baltimore, MD: Johns Hopkins University Press.

B. Journals

Bremer, C.D. (1995). "Encouraging Employer Involvement in Youth Apprenticeship and Other Work-Based Learning Experiences for High School students." **Journal of Vocational and Technical Education**. Vol. 12, No. 1.

Buechtemann, C., J. Schupp and D. Soloff. (1993). "Road to Work: School -to -work Transition Patterns in Germany and the U.S." **Industrial Teachers Journal**. Vol.24, No.2.

Gregson, J. A. (1995). "The School-to-Work Movement and Youth Apprenticeship in the U.S.: Educational Reform and Democratic Renewal?" **Journal of Industrial Teacher Education**. Vol. 32, No.3.

Guile, D. and Young, M (1998). "Apprenticeship as a Conceptual Basis for a Social Theory of Learning." **Journal of Vocational Education and Training**. Vol. 50, No.2.

Hager, P. (1996) "What's General About Education and Training?" **Unicorn**. Vol. 22, No.1.

Hatcher, T. (1995). "From Apprentice to Instructor: Work Ethics in Apprenticeship Training." **Journal of Industrial Teacher Education**. Vol. 33, No.1.

Mura Castro (1999) "Vocational and Technical Training: Setting the Record Straight." **In International Prospects**. Vol.29, No 1.

Partzner, F.C. (1985). "The Vocational Education Paradigm: Adjustment, Replacement, or Extinction?" **Journal of Industrial Teacher Education**. Vol. 13, No.1.

Rejewski J. W. (2002) "Preparing the Workforce of Tomorrow: A Conceptual Framework for Carrer and Technical Education". **Journal of Vocational Education Research** Vol. 27, Issue 1.

Rieble A.S. (1996). "Institutional Arrangements of Germany's Vocational Education System: What are the Policy Implications for the U.S.?" **International Journal of Comparative Sociology**. Vol. 37. No.2.

Stedman, H. (1994). "Assessment, Certification and Recognition of Occupational Skills and Competencies" **European Journal of Vocational Training**. No1.

_____ (1993). "Youth Training in Germany." **The Economic Journal** Vol. 103, No. 1.

Teklehaimanot Hailesellasize. (2002). "Misconception on Technical and Vocational Education and Training in Ethiopia." **IER FLAMBEAU**, Vol.10 No. 1.

C. Unpublished Materials

Apling, R.N. (1992). Youth Apprenticeships: Improving School-to-work Transition for the Forgotten Half". (Unpublished). London.

Bremer C. (2004). Encouraging Employers Involvement in Youth Apprenticeship. <http://scholar.lib.vt.edu/ejournals/TVET/V/znl/bremer.html>.

Federal Ministry of Economics (1992). Vocational Training: Importance of Vocational Training, the Context in Developing Countries, Objectives and Principles of assistance in the Vocational Sector. (Unpublished) Bonn.

Getachew Heluf (2005). "Training in Technical and Vocational Education and Employment Prospects: the Case of Oromiya."

Gordon, J. (1993). European Center for Development of Vocational Training Systems and Procedures of Certification of Qualifications in the European Community, (Unpublished). Paris.

Grogson I. (2005). Facilitating School-to-Work Transitions <http://www.reserve.Brekeley.edu/allone?MD,93m.html>.

GTZ (2000). Cooperative Dual Training Systems, Acts, Frameworks from some Selected Countries. (Unpublished) Addis Ababa.

ILO, (2002). The changing Role of Government and Other Stakeholders in TVET. <http://www.UNESCO.Org/odu/html>.

Kwontlen University Collge (2003). Apprenticeship Technical Training
[http://www. Kwantlen. Be.ca/calendar/ programs/appr.
html.](http://www.Kwantlen.Be.ca/calendar/programs/appr.html)

Masresha Geleta (2004) "Apprenticeship in Vocational and Technical Schools.
The Case of Oromiya", Master Thesis, Unpublished Material,
Addis Ababa University.

MOE (1994). ኢትዮጵያ የቴክኒክና ሙያ በሥራ ላይ ሥልጠና (ያልታተመ) አዲስ አበባ።

_____ (2002). Apprenticeship Training Guide. (Unpublished) Addis
Ababa.

_____ MOE (2006). Cooperative and In Company/Enterprise Training.
(Unpublished) Addis Ababa.

_____ MOE (2007). Cooperative Training: Handbook for TVET Institution
and Enterprises. (Unpublished) Addis Ababa.

Porter, J. (1998). Vocational Education Training Policy Directions. [http://
www.aare.edu.au/Porter. html.](http://www.aare.edu.au/Porter.html)

Yekunoamlak Alemu (2000). "A Comparative Analysis of Vocational Training
and Employment Opportunities in Government and Non-
government School in Ethiopia". Master's Thesis, Addis Ababa
University.

APPENDIX -1

ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES
DEPARTMENT OF EDUCATIONAL PLANNING AND MANAGEMENT

Questionnaire to be filled by Trainees

Introduction: The purpose of this questionnaire is to gather information and opinion regarding the implementation of apprenticeship training in TVET institutions of Dire-Dawa. Thus, your frank, sincere and timely responses to the items in the questionnaire help to meet the objective of the study.

Please Note that:

- No need of writing your name.
- Where alternative answers are given, please mark your answer using an "X" in the corresponding box.
- Please be as brief as possible in answering the open ended questions.

Thank you in advance for taking time to complete this questionnaire!

Part one: General Background

1. Name of the TVET institution
2. Address of the TVET institution
 - A. Zone
 - B. Woreda
 - C. Kebele
3. Training Program enrolled in:
 - A. 10+1
 - B. 10+2
 - C. 10+3
4. Field of training _____
5. Address where general secondary education attended:
 - A. Region
 - B. Woreda
 - C. Zone
 - D. Town
6. Sex: Male Female
7. Age:
 - A. 15 – 20
 - B. 21 – 25
 - C. 26 – 30
 - D. 31 - 35
 - E. Above 34
8. Parent's occupation
 - A. Civil Servant
 - B. Farmer
 - C. Trader
 - Other _____

Part Two: General Questions

1. Who is responsible for organizing apprenticeship training such as, identification of organizations, communication with the organizations, assigning trainees, etc. in your TVET institution?
 - A. The Vocational Counselor
 - B. The trainer
 - C. The department head
 - D. The vice dean
 - E. Through trainees private effort Other _____
2. Did you sign a contract agreement with organization that offered you apprenticeship training? A. Yes B. No
3. Accommodation you used during apprenticeship training?
 - A. Rented house
 - B. Dormitory
 - C. Your family residence
 - D. Your relatives residence
 - E. other _____
4. What was the distance between your permanent residence and the organization where you attended apprenticeship training?
 - A. 1 – 5 kms
 - B. 6 – 10 kms
 - C. 11 – 15 km
 - D. 15 – 20 kms
 - E. 21 kms and above
5. Who covers the personal expense of trainees (such as pocket money, transportation cost, etc) during apprenticeship training?
 - A. Trainees/Families
 - B. TVET institution
 - C. The organization
 - D. Sponsorship Agencies
 - E. public fund
6. Did you pay fee for the apprenticeship training?
 - A. yes
 - B. No
7. If the trainees are required to share the cost of apprenticeship training how do you rate their capacity to pay?
 - A. High
 - B. Medium
 - C. Low
8. For how long did you attend apprenticeship training within each training period?
 - A. _____ Months
 - B. _____ Days
 - C. _____ Hours
9. Are there criteria set relating to selection of apprenticeship training offering organizations?
 - A. Yes
 - B. No

10. If your response to question no 9 is “yes” the criteria determined to select that shall take part in the provision of apprenticeship training? (you may choose more than one answer)

- A. Type of business
- B. The size of the organization
- C. No of employees
- D. Relevance to the training in the institution
- E. Nearness to the TVET institution
- F. Facilities delivered to trainees

11. How does the number of trainees to be assigned to each organization for apprenticeship training determined?

- A. By agreement made between TVET institution and organization
- B. By TVET institution on the basis of preset criteria
- C. By each organization unilaterally
- D. On the basis of the statement of the low
- E. There is no formal procedure

12. Which of the following factor do you think are significant reasons for trainees’ dropout before they complete their apprenticeship training? Please rate their significance.

Item	High	Medium	Low
Financial problem /inadequate incentives			
High distance to the organization that offers apprenticeship training			
Lack of proper support from the organization.			
Irrelevant tasks and duties given to apprentice.			
Other personal problem (such as health, marriage, etc)			
Lack of interest by trainees			

13. How do you evaluate the degree of apprenticeship training to the skills acquired from TVET institutor?

- A. High
- B. Medium
- C. Low

14. How do you rate the performance of TVET institutions with regard to the following duties and responsibilities?

Item	High	Medium	Low
Assigning personal that follows-up apprenticeship training			
Considering grades given for apprenticeship training as a component criteria for certification			
Planning & organizing apprenticeship training with enterprise			
Preparing guidelines and schedules that help proper implementation of apprenticeship training			
Working in collaboration with enterprises			
Sensitizing organizations offering apprenticeship training			

15. How do you rate the adequacy of apprenticeship offering organizations in the town where your institution is found?

- A. Vary Adequate B. Adequate C. Inadequate
 D. Very inadequate

16. How do you rate the readiness /willingness of organizations offering apprenticeship training?

- A. Highly satisfactory B. Satisfactory
 C. Unsatisfactory D. Highly unsatisfactory

17. How do you rate the resource capacity of these apprenticeship training offering organizations?

- A. Highly satisfactory B. Satisfactory
 C. Unsatisfactory D. Highly unsatisfactory

18. Did your TVET institution assign supervisor who closely monitor your performance and behavior during apprenticeship training?

- A. Yes B. No

19. If "yes", how frequent was the following-up?

- A. Daily C. Once in two weeks
 B. Once in a week D. once in a month
 E. Once through out the apprenticeship-training period

20. Which of the following duties and responsibilities were not practical by the organization that provided apprenticeship training?

- A. To cooperate and work in coordination with the relevant TVET institution
- B. To assign the apprentice in the agreed area of work
- C. To give orientation about the rules and regulations of the organization as well as advice about safety rules.
- D. To provide raw materials tools and other necessary inputs for apprentices
- E. To evaluate, mark and report the achievements and performance of the trainees.
- F. To assign supervisors/trainers to follow-up and support the trainees

21. Qualities that a supervisor should possess are listed here under. How do you evaluate your supervisor's capabilities and willingness that was manifested during apprenticeship training?

Item	High	Medium	Low
A. Skills on presentation			
B. Skills on giving practical training			
C. Knowledge of the subject matter			
D. Willingness to co-operate and give technical advices and support			
F. Capability to evaluate trainees			

22. What was the degree of similarity of materials for practical training in an organization and TVET institution?

- A. High B. Medium C. Low

23. How do you evaluate the degree of apprenticeship training to the skills acquired from TVET institution?

- A. High B. Medium C. Low

24. Which of the following problems prevail in your institution? (Multiple responses are possible).

- A. Shortage of trainers
- B. Low skill of trainers
- C. Shortage of training materials
- D. Equipments & facilitates
- E. Shortage of reference material

25. How do you evaluate the relevance of the activities you have undergone during apprenticeship training to your field of study?

A. High

B. Medium

C. Low

26. Would you please suggest major problem you faced during apprenticeship training?

A. _____

B. _____

C. _____

D. _____

27. What possible solutions would you suggest to mitigate the problems you listed above?

A. _____

B. _____

C. _____

D. _____

APPENDIX -2
ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES
DEPARTMENT OF EDUCATIONAL PLANNING AND MANAGEMENT

Questionnaire to be filled by Vocational Counselor

Introduction: The purpose of this questionnaire is to gather information and opinion regarding the implementation of apprenticeship training in TVET institutions of Dire-Dawa. Thus, your frank, sincere and timely responses to the items in the questionnaire help to meet the objective of the study.

Please Note that:

- No need of writing your name.
- Where alternative answers are given, please mark your answer using an "X" in the corresponding box.
- Please be as brief as possible in answering the open ended questions.

Thank you in advance for taking time to complete this questionnaire!

Part One: General Background

1. Name of the TVET institution _____
2. Qualification _____
3. Major field of specialization _____
4. Total years of service _____
5. Year of service as vocational counselor _____
6. Training programs offered:
A 10+1 B. 10+1 and 10+2 C. 10+1, 10+2 and 10+3

Part Two- General Questions

7. The number of organizations that can provide apprenticeship training in your locality:
A. Productive _____ C. Service _____
B. Trade _____ Total _____
8. From these organizations how many of them did provide apprenticeship training?
A. Productive _____ C. Service _____
B. Trade _____ Total _____

9. Were you given training on vocational counseling?
 A. Yes B. No
10. If yes, how long was the training course? _____
11. Currently you carry out vocational counseling services:
 A. In addition to teaching
 B. In addition to other managerial task
 C. Being assign only for the tasks
12. Were there laws supporting the implementation of apprenticeship training?
 A. Yes B. No
13. If your response to question number 12 is "Yes" which of the following were employed by your TVET institution to promote apprenticeship training?
 A. Apprenticeship guidelines
 B. Apprenticeship training act
 C. Apprenticeship training regulation and contracts
 Others _____
14. Who is responsible for organizing apprenticeship training (such as, identification of organizations, communication with the organizations, assigning trainees, etc) in your TVET institution?
 A. The Vocational Counselor
 B. The trainer
 C. The department heads
 D. The vice dean
 E. Through trainees private effort
 Others _____
15. Did trainees sign a contract agreement with organizations offering apprenticeship training
 A. Yes B. No
16. Who covers the personal expenses of trainees (such as pocket money, transportation cost, etc) during apprenticeship training?
 A. Trainees/Families D. Sponsorship agencies
 B. TVET institution E. Public fund
 C. The organization
17. Do apprentice pay fee for the apprenticeship training?
 A. Yes B. No
18. If the trainees are required to share the cost of apprenticeship training, how do you rate their capacity to pay?
 A. High B. Moderate C. Low

19. How do you rate the flexibility of TVET curriculum, to maintain the interest of organizations offering apprenticeship training/employer?

- A. Highly flexible C. Less flexible
 B. Moderately flexible D. Not flexible

20. The understanding of TVET objectives by the relevant stakeholders

- A. High C. Low
 B. Moderate D. Not understood

21. Are there criteria set relating to selection of apprenticeship training offering organizations?

- A. Yes B. No

22. If you response to item number 21 is "yes" what were the criteria determined for the selection? (you may choose more than one answer)

- A. Type of Business D. The number of employees
 B. Type of ownership Others _____
 C. The amount of capital

23. How does the number of trainees to be assigned to each organization for apprenticeship training determined?

- A. By agreement made between TVET institution and organization
 B. By TVET institution on the basis of preset criteria
 C. By each organization unilaterally
 D. On the basis of the statement of the law
 E. There is no formal procedure
 Other _____

24. Which of the following factor do you think are significant reason for trainees' dropout before they complete their apprenticeship training? Please rate their significance

Items	High	Medium	Low
Financial problem			
High distance to the organization that offers apprenticeship training			
Lack of proper support from the organization			
Irrelevant task and duties given to apprentice			
Lack of interest			
Other personal problems (such as health, marriage, etc)			

25. How do you rate the adequacy of apprenticeship offering organizations in the town where your institution is found?

- A. Very adequate B. Adequate
 C. Inadequate D. Very inadequate

26. How do you rate the readiness/willingness of organization offering apprenticeship training?
- A. High Satisfactory B. Satisfactory
 C. Unsatisfactory D. Highly Unsatisfactory
27. How do you rate the resource capacity of this apprenticeship offering organizations?
- A. High Satisfactory B. Satisfactory
 C. Unsatisfactory D. Highly Unsatisfactory
28. Which of the following duties and responsibilities were not practical by the organization that provided apprenticeship training?
- A. To co-operate and work in accordance with the relevant TVET institution
 B. To assign the apprentice in the agreed area of work
 C. To give orientation about the rules and regulations of the organization at will at advice about safety rules
 D. To provide raw materials, tools, and other necessary inputs for apprentices
 E. To evaluate, mark and report the achievements and performance of the trainees
 F. To assign supervisors/trainers to follow-up and support the trainees
29. How do you evaluate to similarity of materials for practical training in apprenticeship offering organization and TVET institution?
- A. High B. Medium C. Low D. Vary low
30. If your response to item number 30 is "low" or "very low" which one of them well equipped?
- A. The TVET institution B. The organization
31. How do you evaluate the capability of the supervisors, assigned by organization, to evaluate the performance of apprentices?
- A. High B. Medium C. Low
32. Would you please list major problems that constraints the implementation of apprenticeship training?
- A. _____
 B. _____
 C. _____
 D. _____
33. What possible solution would you suggest to mitigate the problem you listed above?
- A. _____
 B. _____
 C. _____
 D. _____

Appendix – 3
ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES
DEPARTMENT OF EDUCATIONAL PLANNING AND MANAGEMENT

Questionnaire to be filled by Supervisor in Organizations offering apprenticeship training

Introduction: The purpose of this questionnaire is to gather information and opinion regarding the implementation of apprenticeship training in TVET institutions of Dire-Dawa. Thus, your frank, sincere and timely responses to the items in the questionnaire help to meet the objective of the study.

Please Note that:

- No need of writing your name.
- Where alternative answers are given, please mark your answer using an “X” in the corresponding box.
- Please be as brief as possible in answering the open ended questions.

Thank you in advance for taking time to complete this questionnaire!

Part One: General Background

1. Name of the organization _____
2. Address
A. Zone _____ Woreda _____ Kebele _____
3. Your position in the organization _____
4. Years of service _____
5. Qualification _____
6. Sex A. Male B. Female
7. Type of ownership A. Government B. Private C. NGO
8. Type of business
A. Service B. Manufacturing C. Trade
9. Number of employees in the organization _____
10. For how long did TVET trainees attend apprenticeship training in your organization?
A. _____ months B. _____ days C. _____ hours

11. The number of TVET trainers attended apprenticeship training in your organization.

A. 1997 E.C _ B. 1998 E.C _____ Total _

Part Two: General Questions

1. How was your organization made to provide apprenticeship training?
 - A. On the basis of instruction/guideline ordered from local administration office
 - B. On the basis of request by local TVET institution
 - C. On the basis of discussion and agreement made between TVET institution and the organization
 - D. Through trainees personal efforts
2. To which one of the following categories does your organization/ enterprise belong?
 - A. Small informal sector enterprise (that employ fewer than 10 people)
 - B. Medium sized enterprise (has stable work force, employ from 10 to 50 wage employees)
 - C. Large modern enterprise (has large work force, highly qualified employees)
3. Are there criteria set relating to selection of apprenticeship training offering organizations? A. Yes B. No
4. If your response to question No 3 is "yes" what are the criteria determined to select the organization that shall participate in the provision of apprenticeship training? (multiple responses are possible)
 - A. Type of enterprise
 - B. Type of business
 - C. The size of the organization
 - D. The number of employees
 - Other _____
5. Were your organization made to be aware of issues relating to apprenticeship training
 - A. Yes
 - B. No
6. If your response to question number 6 is "yes" how was your organization made familiar with the issue?
 - A. Through a workshop or seminar which participate higher officials of the TVET institution and organizations /enterprises
 - B. Through training of trainers/supervisors about apprenticeship training
 - C. By providing apprenticeship training co-operation guideline to the organization
 - Other _____
7. Who assignees trainees for apprenticeship training in each selected organization?
 - A. The Vocational Counselor
 - B. The Department heads

- C. The vice dean
- D. Through trainees personal effort

Other _____

8. Which of the following activities were not performed by the TVET institution in the process of apprenticeship training? (multiple responses are possible)

- A. To assign an apprenticeship coordinator
- B. To follow-up and to evaluate the apprenticeship
- C. To utilize apprentice evaluation done by your supervision
- D. To collaborate with your organization by preparing guideline, work and schedule for implementation of apprenticeship training

9. How does the number of trainees to be assigned to each organization for apprenticeship training determined?

- A. On the basis of the guidelines of co-operation/statement of the low
- B. By discussion and agreement made between TVET institution and organization
- C. By each organization unilaterally
- D. By TVET institution on the basis of predetermined criteria
- E. There is no formal procedure

10. How do you evaluate the degree of partnership between your organization and the TVET institution relating to the following co-operation areas in the process of promoting apprenticeship training program?

	Item	High	Medium	Low
A	Preparation of curricula and rules and regulations for apprenticeship training			
B	Joint organization and management of apprenticeship training program			
C	Common and complementary use of training personnel, materials and machinery			
D	Financial support for apprenticeship purpose			
E	Giving allowance to trainees and covering other expenses			
F	Co-operation in development of qualified staff			

11. Duties and responsibilities expected of apprentices are listed here under. How far these were practiced by the majority of the trainees during apprenticeship training?

	Item	High	Medium	Low
A	The ability to work according to this rules and regulations of the organization			
B	The ability to use tools, instruments machine and other equipment with due care			
C	The ability to carefully perform the task given to apprentice			
D	The ability to co-operate with other employees			
E	The ability to perform practical activities			
F	The ability to utilize inputs efficiently			

12. How do you evaluate your organization committed to the implementation apprenticeship training?

A. High B. Medium C. Low

13. If your response to question number 12 is "low" which of the following could be the significant reason for the reluctance? (multiple response are possible)

A. Lack of incentive for the organization

B. Fear that taking in experienced trainees would marginalize the organization's production and profit.

C. On the ground that the training is expensive

D. On the ground that trainees are uninsured against accident

14. Do apprentice pay fee for the apprenticeship training?

A. Yes B. No

15. Did your organization make payments (such as allowance, transportation cost, etc.) to apprentice? A. Yes B. No

16. How do you rate the relevance of the curriculum/the content, the duties and tasks that was learned in the TVET institution to the workplace component?

A. High B. Medium C. Low

17. How do you rate the similarity of the materials for practical training in your organization and the TVET institution?

A. High B. Medium C. Low

18. Were there incentive given to your organization for offering apprenticeship training? A. Yes B. No

19. If your response to item number 18 is “yes” what was an incentive given? (you may choose more than one answer)

- A. Tax exemption on imported machines and other equipments
- B. Acknowledgment and recognition
- C. Charge free training for employees of the organization in TVET institution
- D. Deduction of expenses from taxable incomes

Other _____

20. Did trainees sign apprenticeship contract agreement with your organization?

- A. Yes
- B. No

21. How do you rate the interest of your organization to offer apprenticeship training in the future?

- A. High
- B. Medium
- C. Low

22. Which of the following factor do you think are significant reasons for apprentice dropout before they complete their apprenticeship training? Please rate their significance.

Item	High	Medium	Low
Financial problem/inadequate incentives			
High distance to the organization that offers apprenticeship training			
Lack of proper support from the organization			
Irrelevant tasks and duties given to apprentice			
Lack of interest			
Other personal problem (such as health, marriages, etc)			

23. The understanding of TVET objectives by your organization is:

- A. High
- B. Moderate
- C. Low
- D. Not understood

24. Would you please list major constraints that hinder the implementation of apprenticeship training?

- A. _____
- B. _____
- C. _____
- D. _____

25. What possible solutions would you suggest to mitigate these problems?

- A. _____
- B. _____
- C. _____
- D. _____

Appendix – 4
ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES
DEPARTMENT OF EDUCATIONAL PLANNING AND MANAGEMENT

A guide for documentary analysis and questionnaire to be filled by TVET principals

Introduction: The purpose of this questionnaire is to gather information and opinion regarding the implementation of apprenticeship training in TVET institutions of Dire-Dawa. Thus, your frank, sincere and timely responses to the items in the questionnaire help to meet the objective of the study.

Please Note that:

- No need of writing your name.
- Where alternative answers are given, please mark your answer using an “X” in the corresponding box.
- Please be as brief as possible in answering the open ended questions.

Thank you in advance for taking time to complete this questionnaire!

Part One: Personal Data

1. Name of the TVET institution _____
2. Sex: A. Male B. Female
3. Your academic qualification
 A. Diploma C. MA/MSc.
 B. BA/BSc. D. Ph.D
4. Your field of specialization
 Major _____ Minor _____
5. Years of service
 A. As a teacher _____ C. As education officer _____
 B. As a principal _____ Others _____
6. Age A. 20 – 30 C. 40 - 50
 B. 31 – 40 D. Above 51

Part Two General Questions

1. The current number of teaching staff by qualification
 - A. Diploma _____ D. Ph.D _____
 - B. BA/BSc./Bed _____ Total _____
 - C. MA/MSc. _____
2. Did all concerned partners /your institution, the organization and the apprentices/ sign contract of agreement about apprenticeship training?
 - A. Yes
 - B. No
3. How do you evaluate the extent of partnership between your TVET institution and public and private organizations relating the following co-operation areas in promoting apprenticeship training?

	Item	High	Medium	Low
A	Joint organization and management apprenticeship training			
B	Preparation of curricula and rules regulations for apprenticeship training			
C	Common and complementary use of training personnel, materials and machinery			
D	Participation in evaluation and testing of apprenticeship training			
E	Financial support for training purposes			
F	Giving allowance to trainee and covering other expenses			
G	Participation in development of qualified staff			

4. Who assigns trainees to each selected organizations? _____
5. What were the strategies devised by your institution to improve links with apprenticeship offering organizations?

6. Is there trained/qualified vocational counselor in your TVET institution?
 - A. Yes
 - B. No
7. Who covers trainees' personal expenses during apprenticeship training? _____

8. Did organizations demonstrate commitment to offer apprenticeship training program?
 - A. Yes
 - B. No
9. If your answer question number 8 is "No" what were the reason for the reluctance ____

10. How do you rate the adequacy of the following facilities in your institution
 - A. High
 - B. Medium
 - C. Low

11. Were there any incentives given to organization offering apprenticeship training?
 A. Yes B. No
12. If your answer to question No 11 is "yes" specify _____
-
13. How do you rate the availability of trainers in your institutions?
 A. Very adequate C. inadequate
 B. Adequate D. very inadequate
14. How do you rate the industrial experience of trainers at your institutions?
 A. Very high B. High C. Low D. Very low
15. Were there professional assistances assigned during apprenticeship training?
 A. Yes B. No
16. If 'No' specify _____
17. How do you rate the understanding of TVET objectives by the relevant stakeholders?
 A. High B. Moderate C. Low D. Not understood
18. To what extent are the programs that trainees are studying relevant to the world of work?
 A. Highly relevant C. Irrelevant
 B. Relevant D. Highly irrelevant
19. How do you rate the adequacy of apprenticeship offering organizations in the town where your institution is found?
 A. Very adequate B. Adequate C. Inadequate
 D. Very inadequate
20. How do you rate the readiness/willingness of organizations offering apprenticeship training?
 A. Highly satisfactory B. Satisfactory
 C. Unsatisfactory D. Highly unsatisfactory
21. Is there any follow-up activity during the apprenticeship training?
 A. Yes B. No
22. If your response to item "21 is yes, how often is conducted?
 A. Once in a week C. Once in a while
 B. Once in a month
23. Did all concerned partners sign memorandum of agreement about apprenticeship training? A. Yes B. No
24. Were there criteria set to select apprenticeship training offering organization?
 A. Yes B. No

25. If yes, please list the main element of the criteria

26. Were there any laws supporting the implementation of apprenticeship training?

A. Yes B. No

27. If Yes, specify _____

28. Would you please state major problems your institution faced while implementing apprenticeship training?

A. _____

B. _____

C. _____

D. _____

29. What possible solution you suggest to mitigate this problem?

A. _____

B. _____

C. _____

D. _____

30. Please provide students enrollment by field of study and sex.

Year	Field of study	Number of students			
		Male	Female	Total	Remark
1996	1.				
	2.				
	3.				
	4.				
	5.				
	Grand Total				
1997	1.				
	2.				
	3.				
	4.				
	5.				
	Grand Total				
1998	1.				
	2.				
	3.				
	4.				
	5.				
	Grand Total				
1999	1.				
	2.				
	3.				
	4.				
	5.				
	Grand Total				

31. Please provide information relating to the experiencing of apprenticeship training in your TVET institution in the table presented below.

No	Occupational area of Training	Number of Trainees Legible for Apprenticeship Training						Number of Trainees who Completed Apprenticeship Training						
		2004/2005			2005/2006			2004/2005			2005/2006			
1	Business Education													
	1.1. Accounting													
	1.2. Banking and Insurance													
	1.3. Sales/marketing													
	1.4. Purchasing													
	1.5. Secretary													
2	1.6. Information Technology													
	Hotel Service and Beautification													
	2.1. Cooking													
	2.2. Bakery and confectionery													
	2.3. House Management													
	2.4. Hotel service													
3	2.5. Hair Dressing													
	Construction Technology													
	3.1. Drafting													
	3.2. Surveying													
	3.3. Wood work													
	3.4. Road Construction													
4	3.5. Building construction													
	Industrial Technology													
	4.1. Electricity													
	4.2. Electronics													
	4.3. Automotive													
	4.4. General mechanics													
5	4.5. Machine Technology													
	Textile and Garment													
	5.1. Textile craft													
	5.2. Tailoring													
	5.3. Dress making													

Submission Approval Sheet

This thesis has been submitted for examination with my approval as a university advisor.

Name: Dr. Tilaye Kassahun

Signature: 

Date of Submission: _____

Submission Approval Sheet

I, the undersigned declare that this thesis is my original work and has not been presented for a degree in any other university, and that all sources of materials used for the thesis have been duly acknowledged.

Name: Mihretab Teklu

Signature: 

Date: July 2007