

ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES
COLLEGE OF EDUCATION AND BEHAVIORAL STUDIES

**A SURVEY STUDY ON THE LINK BETWEEN AUTOMOTIVE
TECHNOLOGY TRAINING PROGRAM AND THE LABOR MARKET
DEMAND IN TIGRAY REGION: THE CASES OF FOUR SELECTED
TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING
INSTITUTIONS**

BY

KAHASE GEBREMEDHIN GEBREGZIABHER

JUNE 2011

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**A THESIS SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES OF
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REQUIREMENTS OF DEGREE OF MASTER OF ARTS IN
MANAGEMENT OF VOCATIONAL EDUCATION**

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TABLE OF CONTENTS

CONTENS	PAGE
Acknowledgments.....	i
Table of Contents.....	ii
List of Tables	v
Acronyms.....	vi
Abstract.....	vii

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study	1
1.2 Statement of the Problem.....	4
1.3 Objective of the Study	6
1.3.1 General objective of the Study	6
1.3.2 Specific objectives of the study	6
1.4 Significance of the Study	6
1.5 Limitations of the Study.....	7
1.6 Delimitation of the Study.....	7
1.7 Definition of Key Terms.....	7

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Labor- Market/Demand-Driven Training	9
2.2 Multitude of Labor Markets.....	9
2.3. Meeting the Labor Market	11
2.4. Labor Market Efficiency.....	12
2.5. Functions of Labor Markets.....	12
2.6. The Labor Market Impact of Small Firm Employment Growth.....	13

2.7. Labor Market Information	14
2.8. Failure in Labor Market Information and Counseling.....	14
2.9. Linkage between TVET and Labor Market	15
2.10. Relevance of Training.....	16
2.11. Curriculum in TVET.....	18
2.12. Curriculum Relevance	19
2.13. Relevance of the Skills which are needed in the Labor market.....	22
2.14. Ethiopian TVET Qualification Framework	22
2.15. Employment Opportunities.....	23
2.15.1. Kinds of Employment.....	24
2.15.1.1. Government and Private Employment.....	24
2.15.1.2. Self Employment	26
2.16. Unemployment.....	28
2.17. Vocational Guidance and Counseling.....	29
2.18. Global Purposes/ Objectives of TVET	31
2.19. Current state of TVET Development in Ethiopia	32
2.19.1. Demand-Orientation	35
2.19.2 Quality and Relevance	35
2.20. Purposes/ Objectives of TVET in Ethiopia.....	35

CHAPTER THREE

METHODS AND PROCEDURES OF THE STUDY

3.1 The Research Methodology	37
3.2 Data Sources	37
3.3 Sample Size and Sampling Techniques	37
3.3.1 Graduates	38
3.3.2 .Management Members and Supervisors.....	39
3.3.3. Trainers	39
3.3.4. Coordinators of Micro and Small Enterprises	39
3.3.5. Employers	39

3.4. Data Gathering Instruments and Procedures of Data Collection	40
3.4.1. Data Gathering Instruments	40
3.4.2. Data collection Procedures	41
3.5. Methods of Data Analysis.....	41

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1 Characteristics of the Respondents	43
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CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1. Major Findings of the Study	58
5.2. Conclusions.....	60
5.3 Recommendations.....	62
REFERENCE.....	64
APPENDICES.....	67

List of Tables

Table No.	Title	Page
Table 1-	Sample size of graduates	38
Table 2-	Sample size of respondents	40
Table 3-	Characteristics of the respondents	44
Table 4-	Opportunities to choose field of study in TVET institutions	46
Table 5-	Activities of guidance officers in TVET institutions	47
Table 6	Assessment of labor market and tracer study	48
Table 7-	Time allotted for practical training.....	49
Table 8-	Assessment results of automotive technology graduates	50
Table 9-	Linkage of automotive technology curriculum to labor market demand	51
Table 10-	Relationship between employers and TVET institutions	52
Table 11-	Adequacy of training facilities in TVET institutions	54
Table 12-	Employment situations of automotive technology graduates.....	55

ACRONYMS

AICC --Adigrat Industrial and Construction College

ECBP--Engineering Capacity Building Program

EOS--Ethiopian Occupational Standard

ETQS--Ethiopia TVET Qualification Framework

FEMSEDA-- Federal Micro and Small Enterprise Development Agency

HRM--Human Resource Management

ILO--International Labor Organization

LMIS--Labor Market Information System

MoE--Ministry of Education

MOLSA- -Ministry of Labor and Social Affairs

MSEs--Micro and Small Enterprises

OS--Occupational Standard

SDC--Skill Development Center

TVET--Technical and Vocational Education and Training

UNESCO--United Nations Educational, Scientific and Cultural Organization

COC--Center of Competence

REMSEDA-- Regional Micro and Small Enterprises Development Agency

Abstract

This study set out to assess the link of automotive technology program and labor market demand in Tigray region: the cases of four selected TVET institutions, and thereby forward possible suggestions for the improvement of link of automotive technology and labor market demand in these training centers. To achieve the objective of the study the basic questions are taken as a base. The skills of graduates comparing to labor market demand, TVET capacity in using labor market information, relationship of TVET training center with employers, satisfaction of employers and graduates in the provision of practical training, and understanding of employers in the program of TVET training are employed in the study. To assess the situations, four TVET institutions were selected using random sampling method out of eight TVET institutions which were providing automotive training in the region. Descriptive survey method was employed, the reason being that it could help to gather a large variety of data related to the subject under investigation. To gather the necessary data graduates of three consecutive years starting from 1999/2000-2002/03 E.C. were included. Moreover; trainers, management members and supervisors from selected institutions and regional TVET Bureau are included in the study using purposive sampling method. And graduates were traced by using snowball sampling. In addition to this, employers and coordinators of micro & small enterprises are also interviewed using convenience method. As data gathering instrument questionnaire, interviews and observation were used. The results of the study showed that, graduates of automotive technology were not equipped enough in practical training, employers and graduates are not satisfied in the practical training of the TVET institutions, there is a gap in between TVET institutions and employers, and labor market information system was underutilized, etc. Hence, the study recommended these selected TVET institutions of Tigray region should better improve the provision of practical training rather than theory, employ labor market information effectively, and work cooperatively with the employers etc.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Technical and vocational education and training (TVET) is one of the most powerful instruments for economic, social and political development. It is a means for enabling all members of the community to wisely use modern technology and help to solve their problems. It has also a great impact in producing skilled manpower that has substantial role in the development of the country. Hence, many countries recognized the importance of TVET and have been taking different measures since the last three decades to maximize its effectiveness in their education system (UNESCO, 1999).

Education reform encompasses technical and vocational education and training (TVET), which responds to the needs and qualification requirements of the Ethiopian labor market. TVET is geared towards enhancing the competitiveness of all economic sectors through a dynamic, demand-driven and quality assured system of skills development. This will result in life-long learning and equal access opportunities for all target groups and envisage the formation of citizens able to contribute to the social and economic development of the country (MOE, 2007).

In line with this, the ultimate aim of vocational training is employment. Therefore TVET programs have to be linked to the job market. In this way, the socio-economic relevance of TVET can be enhanced. Then, TVET helps us to reduce the unemployment rate or prepare individuals to be employed on the labor market both in public or private and in the form of self-employment. The assumption of TVET system is that the graduate trainees from various institutions can get job opportunity for wage employment or starts their own business.

According to the above statement, TVET systems are well placed to train the skilled and entrepreneurial workforce that countries need to create wealth and emerge out of poverty. TVET also can be delivered at different levels of sophistication. This means that TVET institutions can respond to the different training needs of learners from different socio-economic and academic backgrounds, and prepare them for gainful employment and sustainable livelihoods.

Therefore, the major rationale for providing technical and vocational education and training (TVET) is based on its use in the labor market. People seek training to help them get jobs or get better jobs and better positions in the jobs they already have and raise their earnings, etc. These are some of the labor market outcomes people seek when they undertake TVET. Governments organize and finance TVET in order to increase their national competitiveness, reduce unemployment, make the labor market function more efficient, etc.

These are some of the labor market outcomes governments seek when they organize and finance TVET. Also employers often organize and finance TVET for their employees, since they seek to increase the skill and productivity of their workers, the quality of their work etc, workers and employers are referred to as parties. The labor market is where the demand for labor meets the supply of labor, where as a principle the needs and interests of workers for employment meet the needs and interests of employers for workers.

Based on the above reasons, countries introduce TVET system to reduce unemployment problems. Therefore, those systems need mechanisms to make sure that the number of people trained in different occupations match labor market needs. Trainee preferences are relevant but such preferences on their own are usually not enough, and while employer needs are important it is not always easy to establish what those needs are, or how they will evolve. Publically funded provision needs to serve the interests of the whole society by balancing trainee preference and employer demand.

In supplying skilled manpower with the labor market demand labor market information is essential for the healthy functioning of training institutions and performing labor markets. It is also essential for the development of a society and its need reflects the interest to understand human development need of the specific society's socio-economy (Wieland, 2004). It also identifies that labor market information informs the supply side of the labor market (type, level and number of the labor need in the economy); thus efficient allocation of the resource for training are needed. In short it shows that existing skill gaps, employment trends, new observed investments of economic opportunities in different areas etc (MOE, 2006). In this context, relevance means the relationship between training supply and demand or between the objectives and outputs of the TVET subsectors and economic and social requirements (ecbp, 2006).

Accordingly, the researcher feel that to keep the balance between the demand and the supply TVET institutions could use labor market information through assessing the ground continuously together with the entrepreneur of the market.

Since, the ultimate objective of TVET is employability and employment promotion, it is necessary to link training to the needs of the labor market. Here, it shows that TVET should be relevant and demand -driven, rather than supply- driven and a stand-alone activity. In general, TVET system training should be relevant to labor market demand, equitable, efficient and of high quality.

In pursuing the objectives of the TVET in Ethiopia different crucial principles were pointed out to implement effectively. TVET institutions should focus or activate on the system of demand-orientation. Here, it indicates that all TVET in Ethiopia has to respond to the competence needs and qualification requirements in the labor market. TVET is geared towards enhancing the competitiveness of all economic sectors through a competent work force and towards improving peoples employability in the labor market and with regarded to self-employment.

Therefore, public TVET delivery system should have effective linkage or relevancy to the existing labor market demand. If so, TVET institutions can contribute in solving unemployment and labor market problems and increasing levels of productivity and income of the country. The TVET system has to provide an adequately trained workforce for industries as well as quality services. However, the current training system in TVET institutions as well as the system as a whole has-amongst others-shortcomings on practical training. Technical trainers as well as students have a skill gap as a result only a tiny minority of TVET graduates can currently find a job (ecbp, MOE, 2007).

Vocational guidance services are also crucial to get advantages of TVET training relevant to labor market demand. Guidance is helpful for individuals in transition from school to work- the choice of a vocation, adequate preparation for it, and the attainment of efficiency and success. Guidance is more than giving information. It is a blend of means of self-employment and of the learning and assimilation of career, providing educational and labor market information.

Guidance in TVET institutions assists trainees in planning their education and training by helping them to understand and appreciate their talents, relate effectively to others, explore

career alternatives, develop appropriate educational and vocational training plans, implement and complete their plans, and integrate successfully in society and the labor market. Guidance is also important to education and training institutions because it helps to ensure that students make the best use of the learning opportunities. It helps citizens to appreciate their talents and to develop them. Guidance helps to increase the skills of the labor force and therefore the economic of the country. However, in all regions of Ethiopia including Tigray region the link between training programs and industries (employers need) or relevance of supply side to demand side is not strong enough.

Therefore, according to the above mentioned problem and others, this research is designed to survey the link of automotive technology program and labor market demand in Tigray region: the cases of four selected TVET institutions and tries to make detailed analysis on the existing situation of practical skill of graduates of the automotive technology and employers need in the existing labor market.

1.2 Statement of the Problem

Relevance is the relationship between training supply and demand or between the objectives and outputs of the TVET subsectors of economic and social requirements. In short, relevance means comparison of the supply side to the demand side (ecbp, 2006). Therefore, to balance the supply side to demand side, good assessment of labor market is crucial. Hence, these four selected TVET training should be relevant to the labor market demand in order for the graduates of automotive technology get job opportunities. Accordingly, the provision of employment market information and occupational guidance services is a systematic and professional process of assisting potential graduates in locating possible employment markets which will match with their capacities and the existing labor market demand. Such services are also expected to aid the graduates of automotive technology in making occupational plan and adjustment in understanding effective self-direction and in meeting challenges of personal affairs related to the aspired occupation. In addition, effective market assessment helps TVET institutions to give quality training according the occupational standards and labor market demand. But, considering the current situation of labor market demand assessment and provision of training, it can be said that the curriculum is not effective since most of the graduates of automotive technology of the TVET institutions are still have problem to obtain jobs. On the other side, technology changes

from time to time to fulfill the needs of man due to continuous scientific investigations. Therefore, to know the latest demand of the labor market, suppliers (TVET) institutions should assess the need of employers according to the technological changes.

In general, it is known that TVET institutions have a responsibility to contribute in solving unemployment and labor market problems, increasing levels of productivity and income, and redressing inequalities among the people. However, the current practical training system of these selected TVET institutions of Tigray region is not adequate in that capacity of TVET institutions in making use of labor market information is low and there is less cooperative work between TVET institutions and employers in automotive technology training program. These problems are further aggravated by lack of linkage of TVET automotive training program and labor market demand. And also there is lack of proper communication and feedback between the TVET institutions and potential users of automotive technology graduates. TVET institutions of Tigray region especially automotive technology training program should work cooperatively with employers, try to employ labor market information system effectively, and provide effective practical training for the trainees. Therefore, to meet the objective of the study, the following basic questions were raised as guide for treating the problems related to a survey study on the link between automotive technology training program and the labor market demand in Tigray region: the cases of four selected TVET institutions.

1. To what extent do guidance officers provide guidance about labor market to graduates of automotive technology?
2. Was the provision of practical training of automotive technology in accordance with the labor market demand?
3. Did the employers agreed with the automotive technology curriculum provided in the selected TVET institutions of Tigray?
4. To what extent was the relationship between stakeholders and the selected TVET institutions of Tigray region?
5. Were the training facilities of the selected TVET institutions adequate?
6. What was the status of employment opportunities of automotive technology graduates in different sectors?

1.3 Objective of the Study

1.3.1 General Objective

The general objective of the study is to assess the current situation of linkage between automotive technology training program and labor market demand in Tigray region on the cases of four selected TVET institutions.

1.3.2. Specific Objectives of the Study

The specific objectives of the study are follows.

1. To examine the extent to which guidance officers provided guidance about labor market demand to graduates of automotive technology in the selected TVET institutions of Tigray.
2. To check whether the practical training of automotive technology was in accordance with the labor market demand.
3. To investigate the linkage of TVET institutions curriculum with the labor market demand of Tigray region.
4. To examine the relationship between stakeholders and the selected TVET institutions of Tigray region.
5. To investigate the training facilities of the selected TVET institutions.
6. To examine the status of employment opportunities of automotive technology graduates in different sectors.

1.4. Significance of the Study

TVET training should be demand-based, relevant, flexible, and responsive to the ever changing labor market context. Hence, the study is expected to have the following significance.

- It may add some insight to the already existing literature regarding the relevance of TVET training to labor market demand.
- It may serve as a base for other researchers who would try to study the issue in depth.
- It may inform policy makers about the condition of relevance of TVET training to labor market demand.

1.5. Limitations of the Study

It is difficult to mention all the limitations of the study from the outset. To mention some, the researcher faced was shortage of time. Inadequate related literature on the subject of the study is also another limitation that forces the researcher to use a limited number of references, and it is well known that the primary instrument in qualitative study is a researcher; all observations, interviews and analysis were filtered through researchers' world view, values and perspectives. Thus, it is impossible to say that it is free from bias hundred percent.

1.6 Delimitation of the Study

In terms of time dimension, the study is delimited to cover only graduates of automotive technology training program of three consecutive years 1999/2000- 2002/03 E.C. and have an educational level graduates of 2000 E.C. are 10+2 and 10+3 and graduates of 2001 & 2002/03 E.C. are level 3 and 4.

Additionally, the research focuses on the situation of the link on the automotive technology training program and labor market demand (practical skill of graduates, demand-driven training, current relationship of TVET with stakeholders, training facilities of the selected TVET colleges, contribution of guidance officers in providing guidance to trainees of the selected TVET institutions of Tigray).

1.7. Definition of Key Terms

Employment - A condition in which people are working for others at wages and salaries are working for themselves in their own enterprises (Hail, 2002).

Labor demand- Is also a flow concept. It is the number of persons employers seek to employ at the prevailing wage for a given kind of work. At lower wage level employers would be inclined to employ more workers, at higher wage levels they would incline to hire fewer workers.

Labor force - Comprises these people holding and seeking jobs i.e. those who are Employed and unemployed. And it represents the stock of labor.

Labor market- In its natural application and the bulk of literary treatments, refers to a market place in which supply and demand of labor interacts to determine how much shall be paid to who in performing what tasks (Gould, 2002). Here workers and employers are referred to as the parties of the labor market. This means that where the demand for labor meets the supply of labor where in the principle the needs and interests of workers for employment meet the needs and interest of employers for workers

Labor supply–It represents the flow of labor on to the labor market. It is the total number of persons offering their labor, including persons newly entering the labor market and looking for their first jobs and those who are employed but looking for new jobs, and those who are unemployed.

LMIS – The way which informs the supply side of the labor market (type, level and number) of the labor need in the economy or labor market? In short it indicates skill gaps, employment trends new observed investments of economic opportunities.

Relevance – Describes the relationship between the output of the training system and economic and social success, e.g. fields of training comparing to labor market demand. Or Employment and productivity (MOE, 2003)

TVET - Is education that is designed to train and educate students in specific traditional and modern fields of vocational skills for students who have completed grade 10 and show sufficient desire and inclination to be trained in the field of their choice (MOE, 2002 GTZ, 2000).

Unemployment – Refers only to involuntary idleness of manpower (Hail, 2002) is enforced idleness of wage earners who are able and willing to work but cannot find jobs.

CHAPTER TWO

REVIEW OF THE RELATED LITERATURE

This chapter consists of a review of related literature to the study. In the first section, a brief description on the basic concepts of demand driven training are given that include Multitude of labor markets; labor force; efficiency, function and impact of labor market; labor market information, linkage between TVET institutions and labor market. In the second section consists of the relevance of training, curriculum in TVET and its relevance, skills needed in labor market, and ETQF. The third section consists of types of employment opportunities, unemployment. The final section describes the vocational guidance and counseling, global purpose of TVET, current status of TVET development in Ethiopia and purposes of TVET in Ethiopia.

2.1 Labor-Market/ Demand Driven Training

One of the factors that determine the relevance of TVET is labor market demand. It can be relevant only if it achieves to equip people with the right skills for any type of employment. The skill & number of persons in training must be related to the skill and number of persons who will be needed by industry/employers. Thus, the training has to meet the demand of the labor market. (Yekunoamlak, 2000:18).

For the TVET system to be demand driven, it has to be more responsive to the demand of labor market through the establishment of stronger linkage between the labor market and training institutions, involvement of stakeholders in designing training programs, utilizing labor market information system, making tracer study on the destination of graduates in the job market that can provide useful feedback for the revision of training programs so as to enhance and fulfill employers need.

2.2 Multitude of Labor Markets

The conditions of supply and demand in all labor markets cannot be the same. Supply and demand conditions prevailing in one labor market can be completely different from supply and

demand conditions prevailing in another. Accordingly, demand of the labor can differ due to different reasons.

Just as there are different markets for different kinds of goods, there are also different markets for different kinds of labor. Labor is not homogeneous. There are no fixed categories that apply equally well in all countries, although most countries remain fairly close to the categories given here. One common categorization of labor is by skill level: such as, unskilled, semi-skilled, skilled, semi-professional and professional. Hence, each country tends to make adjustments to correspond to economic structure. Such categories are useful for describing the labor market.

Labor markets are influenced by geographic location, particularly as influenced by the natural environment, demographic patterns and infrastructure. There are differences even in industrialized countries, but in developing countries the differences are often much larger because of differences in cost of transportation, educational levels and environmental factors.

The natural environment shapes the ways of people live and work together, and therefore it shapes the labor markets.

People exploit advantages offered by the environment. The main difference is between urban and rural labor markets. Infrastructure (such as roads, bridges, schools, hospitals) is developed to enhance capacity to live and work. Labor markets near main roads are different from labor markets in remote and inaccessible areas. Even between similar kinds of environments, labor markets differ from place to place. One city tends toward manufacturing; another tends toward government, finance and business services. In some areas, persons with lower education and training tend to serve the local labor market, while better educated and trained persons tend to migrate in search of work. In other areas it is the lower-skilled workers who tend to migrate in search of work. Under the influence of the natural environment, the demographic structure, and the infrastructure, the labor market surrounding a community is determined by the kinds of economic activities carried out there and the kinds of labor that serves the market. The local labor market area corresponds to the places of economic activity or the places of recruitment. In other words, the local labor market for a given community is where most people in the community tend to work.

The labor markets of developing countries are often characterized by large informal sectors. The division of an economy into formal and informal sectors is to some extent arbitrary. The informal sector covers economic activities which are not effectively subject to formal rules of contracts, licenses, taxation, labor inspection, etc. It is thus to some extent beyond the reach of labor market law, and workers in the informal sector are not effectively protected. The informal sector involves predominantly “traditional” economic activities but in urban areas can also serve the fringes of the “modern” economy

All of these factors lead to differences between different labor markets in the same country. The most dramatic differences appear when these factors coincide. For example, the labor market for unskilled workers in urban areas with high industrial density is dramatically different from the labor market for unskilled workers in remote rural areas with low population density and little or no industry. Therefore, TVET institutions should have full understanding on the labor market demand before starting the training program using labor market information system.

2.3. Meeting the Labor Market

The labor force of a country comprises all people in the working-age population who are employed or seeking employment. The labor force therefore includes not only those who are working but also those who have not work but who are looking for work. It includes the unemployed, that is, those who are not employed, but are seeking work. It excludes discouraged workers, and those who have given up and are no longer looking for work.

In general perspective, a person is employed if he or she is actively engaged in work for which yields payment in some form. Labor markets in developing countries tend to have large informal sectors side- by-side with formal sectors. The formal sector if the labor market is characterized by formal employment contracts, payment of taxes, labor inspection, etc. The informal sector is characterized by informal employment arrangements and many countries employers who are not registered and do not pay taxes, are not inspected by labor authorities, etc. In the formal sector, many employment categories are clear, such as government employees, employees of public or private enterprises, self- employed persons operating business. In the informal sector, however, there are often no sharp lines between categories in labor force characterized by a large informal sector. Therefore, the context of labor force is used on the study to be having the understanding

of what labor force means and how TVET institutions meet labor market demand in using labor market information system.

2.4. Labor Market Efficiency

A labor market works efficiently if employers with vacancies and qualified job -seekers get together quickly, assuming that they agree on the level of wages. A labor market works efficiently, equilibrium can be reached quickly as the supply and demand circumstances change, perhaps in response to changing employers demand, or changing technology, etc.(ecbp,2001 HEART).

Because of the above context, employers need qualified job-seekers to increase their productivity or to become competent in the labor market as the technology and customers need change. Therefore, to provide enough qualified job-seekers in the labor market comparing the existing technology TVET institutions are crucial in giving effective training according the labor market demand. Since, TVET system has to provide an adequately trained work force for industries as well as quality services and aims to implement demand-driven system and responding to the needs of the labor market, both the formal and informal sector.

In addition to the above reason, TVET system has an important role to play in providing trained and educated labor to meet labor demand. Suppose TVET program is implemented to increase the supply of educated and trained workers according the needs of employers. Then, in doing this or in assessing effectively the labor market and providing relevant training through TVET institutions according the demand effective labor market can get on the ground to employee the graduates of the TVET institutions. Hence, understanding of labor market efficiency helps the study how employers and TVET institutions makes relationship in regarding the demand of labor market to increase their productivity.

2.5. Functions of Labor Markets

Functions of marketing process is the balancing of supplies and demands through adjustment in prices. (Heneman and Yoder, 1965) Although labor markets have distinctive features, the

function of labor market study begins and ends with the analysis of the demand for and supply of labor (Ehrenberg and Smith, 1994).

Accordingly, TVET institutions provide skilled manpower to the labor market in assessing the needs of the employer through labor market information. Here, TVET supplied trained or educated persons to the labor market and employers are demand trained job seekers according the technology changed in monitoring the labor market need. To supply the needed trained manpower, TVET institutions should be assess the market effectively regarding to the type, level and number of the labor market demand.

Therefore, to balance the two sides of the labor market, training institutions and employers should know the supply side and demand side so as to make good relationship between them. And also knowing what labor force means have an advantageous in doing supply manpower by TVET institutions. Since, labor force represents the stock of labor. Because it is the total number of persons employed, self-employed and unemployed at a given point in time. Here, supply of labor shows that it is the flow of labor in to the labor market. It is also indicates that an individuals offering their labor including persons newly entering the labor market and looking for their first jobs, those who are employed but looking for new jobs, and those who are unemployed. On the other side, the demand for labor is also a flow of concept. It is the number of persons employers seek to employ at the prevailing wage for a given kind of work.

The labor market tries to relate the supply of graduates from the TVET institutions to the labor needs of employers. Thus, TVET training should have relevance to the labor market demand since the aim of the training institutions is to reduce unemployment problem by providing quality training and producing skilled manpower.

2.6. The Labor Market Impact of Small Firm Employment Growth

The stimulation of new firm formation and self-employment has become a major plank of employment creation policies at national, regional and local levels through out many countries. It is important, therefore, to consider the type and quality of jobs created by new and small firms, in addition to the number of jobs created. Thus small firms may be expected to demand more flexible labor inputs than large firms. It may be expected that part- time and temporary jobs are more prevalent in small than large firms, and that small firms recruit a higher proportion of “high

turn over” employees. Wages and condition of employment will be inferior in small firms to those of larger firms. This is partly because small firms are likely to employ more peripheral workers, and also reflects the relatively low level of trade union membership in small firms. (Story and Johnson, 1987)

Therefore, individuals can be employed in different places like public, private, small firms and large firms, self-employment, etc. Hence, TVET training institutions should assess the labor market demand effectively. Since, the objectives of the TVET institutions are employment. But, now days the cooperation work between TVET institutions and employers are weak. Because of TVET institutions do not have clear understanding on the demand of labor market information and weak disseminating information system about the labor market demand for thier trainees before starting and on the process of the training program.

2.7. Labor Market Information

Labor market information is essential for performing labor market efficiently. It is also essential for the development of a society and its need reflects the interest to understand human development need of the specific society’s socio economy (Wieland, 2004). Labor market information informs the supply side of the labor market (type, level and number) of the labor need in the economy or labor market; thus efficient allocation of the resources for training and instituting infrastructure. In short it indicates skill gaps, employment trends, new observed investments of economic opportunities in rural areas and etc (MOE, 2006). The labor market information is also useful for responsive TVET policy. Since, specific economic need oriented TVET requires relatively accurate regular and update labor market information and socio economic trend analysis, periodic assessment of the labor market is useful. In doing this linkage of labor market to TVET institutions become effectively and can be more productivity in providing quality training. Therefore, the study examines the way how assessing the labor market demand by the guidance officers and disseminates information of labor market demand to trainees of the TVET institutions.

2.8. Failure in Labor Market Information and Counseling

Labor market information and counseling play an important role in providing the efficiency of the labor market. Labor market information is scarce, and moreover is not available to all job seekers. The Ministry of Labor and Social Affairs (MOLSA) is responsible for registration of job seekers and vacancies. MOLSA also recruits and refers candidates to employers. In addition, the Ministry maintains data on employment, working conditions and industrial relations. The employment exchange service in regions is the responsibility of regional Bureau of Labor and Social Affairs (BOLSA) (ILO 1986; Moe 2002). But in those three zones and woredas of Tigray office of labor and social affairs do not have documents of TVET graduates specifically in their fields simply they tried registered in general form. And TVET institutions also does not have full graduates document with their address. Therefore, it has difficulty to assess tracer studies du to these reasons and other problems. In addition to this there are no professional counselors in high school to help students' in choice of interest of their field of study regarding market demand.

2.9. Linkage between TVET and Labor Market

The provision of TVET should be assessed the prevailing labor market for the graduates of TVET. This is useful for all participating agents in the socio economic transformation of the country. TVET is related with labor market in two complimenting and non separable function (education as investment and as filtering) of education (Yeknoamlak,2001) “ the relationship between TVET and labor market is seen in terms of the relation between the function of education as investment in human capital and as a filter that sorts individuals according to their talents”.

Further Yekunoamlak explains, if one of the above two (as investment in human capital and as filtering mechanism) function of education is ignored there is imbalance between employment (manpower) need of the economy. Thus there will be unemployment and or inefficient economic performance.

The firm relationship between TVET and labor market for the effectiveness of TVET program is also pronounced by many authorities. Wanna (1998): stated the successful employment or self-employment of TVET programmed graduates is highly dependent on the relevance of the

curriculum to the labor market, and the sensitivity of the training institution to the changing labor market. In addition to this Wanna (1998), emphasized that consideration should be given to the relevance of skills provided by TVET institution in accordance with the specific skill labor needs in the local (regional) national labor market.

2.10. Relevance of Training

The concept of relevance finally relates the dimensions of quality and labor market responsiveness training can only be relevant if it achieves to equip people with the right skills for any type of employment, that is, skills in demand and help improving economic productivity. 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 and economic and social success, (MOE,2003).

As defined by UNESCO, relevance is the external productivity of the TVET, how well the objectives and outputs of the training system are oriented to economic and social requirements. According to those reasons and others the issue of relevance is an area of concern of many countries. In this light curricula reform in pursuit of meeting the labor market needs as well as integrating relevant socio-cultural needs incorporation of relevant subjects had become part of the major activities of TVET programmed. ILO (1998) stated that a system of continued interaction between workplace and technical institutions must be maintained to preserve relevant of training contents.

Accordingly, some of the stated basic principles in Ethiopia shown that, the reformed TVET system which becomes to implement on the ground is demand-orientation and quality and relevance is important to develop the productivity of the country. Here, it indicates that TVET curriculum and practical training should have respond to the competence needs and qualification requirements in the local labor market. Demand-oriented TVET uses the occupational standard as the target or expected out-come for TVET delivery and strives for highest quality and relevance of all TVET offers.

Ethiopian TVET principles are originated in comparing to the objective of the country. Since, the ultimate objective of TVET is employability and employment promotion, it is necessary to link training to the needs of the labor market. TVET must be relevant and demand-driven, rather than

supply-driven and a stand-alone activity. Here, TVET system should be relevant to labor market demand. Because TVET delivery is to qualify people according to the occupational requirements and geared at attaining the set of competences(technical, personal, interpersonal, methodological etc)Which is relevant for a certain occupation and defined in the respective Ethiopian occupational standard(MOE, 2007).

Foster (1965), in his influential study that produced the “vocational school fallacy” has beautifully pointed out vocational training as away of increasing the relevance of training to occupational features. This view of relevance includes the acquisition of employable skills and appropriate training which help graduates benefit from it in using the skills they are acquired in their livelihoods when there are, of course, enough job opportunities for relevant employment to be possible.

Central too many studies on TVET are the policy objective of developing effective, efficient, competitive, flexible, & responsive training system. This system aims to be demand driven. This means, the training provision aims at meeting the skill needs of the economy, of society, & of individuals. Each of the above elements is vital for TVET success (Ziderman 2003). In light of this, then, one of the powerful challenges to policy makers, planners & implementers has been the tasks of designing, developing & effectively implementing a relevant TVET program that meet the needs of the economy.

In this connection, the decisiveness of making TVET programs appropriate & Relevant must be stressed. These is because, first, most forms of TVET, by their natural Virtue, are assumed to have strong association with the labor market & with making livelihood after production. Second, TVET policies are in general attempts for greater labor market & relevance of education, and third , they bare to a large degree regarded as playing key roles in casing the transition from school to works & enabling trainees to acquire employment related skills (UNESCO,2000, Lauglo,1998).

In reinforcing the above view, Mekonnen (1989) also contends that, the principal goal of TVET programs is only to prepare proficient & competent manpower for the various modern economic sectors. Hence, for successful achievement of this goal, numerous essential measures should be taken to make graduates as relevant as possible to the objective needs of the prevailing labor

market. More over, these systems to insure relevancy, they must reflect the state of the art in the world of work (UNESCO, 1996:35).

According to ILO (1997) a number of factors seek devoted attention to make TVET programs more & more relevant. These includes; need assessment or situation analysis using LMIS, employment opportunities, etc Occupational analysis to single out skill levels of graduates, functional linkage (Strong partnership) amongst Government, industry, business & trainings providers, and monitoring & evaluation mechanisms.

Assessment of TVET systems in most developing countries in the 1990, have revealed the prevalence of imbalance between skills provided by the training programmed of the requirements of the labor market. This has occurred due to economic constraints & risings costs of training equipments & materials which have made it even more challenging for African TVET systems to offer quality relevant programs (UNESCO, 1996). A host of other reasons for this irrelevancy are also cited in ILO in Yekunoamlak (200) and ESDP-11(2002). These include: wrong assumptions about Labor market or employment opportunities, which are the consequences of inadequate need assessment, Lack of strong partnership between institutions and enterprises, Over dependence an exogenous models ,staff & institutional resistance & reluctance to changing skilled and labor market needs lack of flexible or up-to- date curricula & inadequate capacity to under take tracer study & regular monitoring activities. For enhanced articulation between training & subsequence application of acquired skill, attitude & knowledge in the world of work, more specifically in securing employment, therefore, the economic relevance of the training systems should deserve serious attention.

2.11. Curriculum in TVET

A curriculum is an action plan of what is to be provided in school as education or training. Hence, curriculum as field of study it includes how school programs are developed, implemented and evaluated. TVET curriculum must be relevant in terms of the needs of the trainees, employers and society. Consequently, there should be strong participation of relevant stakeholders at different hierarchal levels in planning, implementation and evaluation of curriculum. Accordingly, curriculum planers should obtained information and data from various relevant sources.

The relevance of any training curriculum, according to MOE (2002) it is determined heavily by the extent it meets the ultimate education and training objective and the degree it gears towards the socio-economic needs of the country. It encompasses all aspects of appropriateness, purposefulness, sustainability and realism of training in achieving predetermined goals of a given program.

The reformed Ethiopian TVET system is an outcome-based system. It utilizes the needs of the labor market and occupational requirements from the world of work as the benchmark and standard for TVET delivery. The requirements from the world of work are analyzed and documented-taking in to account international benchmarking-as Ethiopian occupational standards (EOS). In the reformed Ethiopian TVET-system, curricula and curriculum development play an important role with regard to quality driven TVET delivery. Curricula help to facilitate the learning process in away, that learner's acquire the set of occupational competencies (skills, knowledge and attitude) required at the working place and defined in the Ethiopian occupational standards (EOS). Occupational standards (OS) are a key factor with view to linking and matching the world of work with the world of education and training. Here, excellent demand-oriented TVET delivery as well as development of adequate competence assessment depends on accurate and sound information on the typical characteristics and specific requirements of an occupation (MoE, 2007).

2.12. Curriculum Relevance

Successful employment or self employment of TVET programs usually gives a great deal of emphasis to a relevance of the curriculum to the labor market & sensitively to the regularly changing nature of it (Wanna, 1998:61). In this regard, TVET programs relevancy can be judged in terms of content as well as training. The relevancy of any training curriculum, according to TGE (1994:2-3) is determined heavily by the extent it meets the ultimate education & training objectives and the degree it gears towards the socio-economic needs of the country, It encompasses all aspects of appropriateness, purposefulness, sustain ability & realism of training in achieving predetermined goals of a given program.

A major curricular issue, as regards this, is weather the present curriculum in TVET institutions is adequate & relevant to the needs of the modern world of work which constantly changing.

There is a growing concern over the relevance of traditional trade subjects such as wood work, metal work, electricity & Auto mechanics, etc offered in the curriculum in preparing the youth of today for the 21st century scientific & technological society (UNESCO, 1996:33-34).

Similarly, Psacharopoulos (1997:390) enumerates competencies & skills for graduates entering the Labor market so as to meet the changing needs of societies and the work place. He put them in order of priority. These include abilities to allocate & effectively use time, develop & prioritize goals, allocation of finance & budget preparation; ability to identify the need for data, properly employ the means to obtain them, & organize and keep them; ability to participate as a member of a team, & communicate with clients; know how social, organizational & technological systems work & how to operate them, ability to select technology of apply it to the best facts in hand. In his conclusion, he noted that emphasis should be made on communication skills rather than on narrow technical & vocational specialization.

Norton (1999:14) also discusses the following competences & skills which are practically necessary in all kinds of employment. These include cognitive & non-cognitive skills including manual & kinesthetic skills, spatial or visual skills, interpersonal skills & certain personal traits, independence, persistence, & motivation. Recently, also other competencies necessary for high performance work place were articulated. These are higher order skills or key or core skills which encompasses such skills as problem solving, communication skills & judgment. However, the competences enhanced by TVET programmes can vary substantially. Furthermore, the effect of TVET program on the job-related behavior assumes that, job requires these competences enhanced by the program rather than the program teaching competencies that are not required on the job an individual has or finds.

Hence, according to Wanna (1998:68-63) skills development in TVET program must correspond with the needs of the prevailing Labor market. To enhance such provision, curriculum used for training in schools must be based on comprehensive occupational analysis outcomes, this is to mean that jobs that are available on present labor market must be identified & analyzed to develop relevant curricula. Other wise, the consequence will be devastating. That is, if graduates leave schools with out having any employable or salable skill they will undoubtedly join the army of the unemployed.

Some other crucial issues, which need to be addressed in relation to effectiveness & relevance, are flexibility and transferability TVET programs, these days, should focus on transferability & adaptability of skills in order to optimize flexible & easy access of TVET graduated to evolving labor markets. They should be sufficiently responsive to regularly shaping the volume & composition of training in conformity with flexions in the economy as well as in anticipatory the impact of constant global economic & technological changes on national, regional & local market needs & demands (UNESCO, 2002:20; Middleton, 1993:48)

In shore, the preceding discussions can be beautifully put in few words. To meet the skill needs of economics and societies, TVET systems must be effective, efficient, competitive , flexible & responsive (Ziderman, 2003:1) Hence, comprehension of the prevailing skill market in deferent sectors of the economy & providing relevant & flexible training will be a corner stone for effective TVET training scheme.

Wanna (1998:61-62) states that successful employment or self-employment of vocational/ technical training program graduates indicates (a) relevance of the curriculum to the labor market and (b) sensitivity of the training institutions to the changing labor market. In order to develop relevant curriculum and to be sensitive to the changing labor market, established contact between the employers and graduates is crucial to the training institutions. Many institutions lack such contacts at a large scale. Without such contacts the training programs cannot be dynamic. In addition to this, vocational and technical training programs are less successful so far in developing countries like Ethiopia In order to have an effective training program; at least four issues must be addressed. These are:

- Relevance of the skills, which are needed in the labor market,
- Limited coverage of training programs
- Inequality in access
- Poor quality of the training program.

From among four of the above issues, the study gives focus to the discussion of the issue related to the objective of the research.

2.13. Relevance of the Skills which are needed in the Labor Market

Skills being developed in training programs must correspond with those needed in the labor market. Curricula used for training in schools must be based on occupational or job analysis. This means jobs available in the labor market must be identified and analyzed to develop relevant curricula. An ILO report (1988) states that lack of relevance in formal training are likely to include:

- Needs assessment which is inadequate or based on incorrect assumptions about labor market opportunities;
- A lack of communication between training institutions and potential skill users;
- A narrow view of training and its role in development;
- An inability or unwillingness of institutions or their staff to adapt to changing needs and circumstances

2.14. Ethiopian TVET Qualification Frame Work (ETQF)

Ethiopia technical and vocational education and training system is currently being reformed with the aim to increasingly orient TVET towards the demand of the labor market. The reformed TVET system will be outcome based, that is oriented towards the world of work. The establishment of an appropriate ETQF with its precisely defined occupational standards and assessment procedures is crucial for TVET providers and enterprises to develop and implement an outcome-based TVET system. The ETQF in particular contributes to the achievement of several of the guiding principles of the reformed TVET system, namely demand-orientation, quality and relevance, equal access, permeability, flexibility and life-long learning.

The ETQF success depends on the fact that it is established in a common effort of all stakeholders and in particular with employers and their representatives. The ETQFs main task is it to create awareness about the TVET reform and to build zones of mutual trust between stakeholders in order to start a private-public partnership. Most of the ideas introduced in this framework, therefore, are intended to support the development of this mutual trust between the TVET system (supply) and the world of work (demand), and to integrate the world of work in to

the TVET system in the form of training enterprises. If so, this thesis is tried to check the ground which is provided by TVET institutions selected from three zones.

2.15. Employment Opportunities

Conceptions of TVET planning often take the conception of human resource development of work as desired outcomes. That is, if the desired outcomes include enhanced earnings and employment then the process of developing a training program usually involves identifying employment opportunities. Employment opportunities or the Labor market is the mechanisms up on which the effect of TVET programs on the trainees to be judged. In light of this, TVET is feasible when occupation related to the training exist is the labor market (Bishop and Suk in Yekunoamlak, 2000:18; Norton, 1999:17).

According to Middleton (1993:50), recent studies have shown that when employment opportunities are available or growing and a match is made between training & available jobs, TVET programs were found to produce higher productivity, wage & investment, & vocational graduates have had advantage of getting initial employment opportunity over their counter parts non vocational or general education graduates.

Foster, Philip (1965:296-298) noted that expansion of vocational education & training alone will have long term or short run consequences, principal among those is the growth of unemployment among school graduates. The apparent fact is that it is easier to expand schooling rather than it is to expand employment opportunities. It would seem that, countries are likely to be faced with serve problems of unemployment until their economy has expanded adequately to provide opportunities for school graduates.

Hence , it directly brings us to the conclusion that the growth of TVET should be paralleled with sufficient job opportunities such achievements, however, are profoundly dependent on entrepreneurial activities and incentives & perceived opportunities in the economy (Foster in Yekunoamlak:2002:21), Bearing this is mind, the over all pictures suggests that , if skilled vacancies exceed supply, many graduates will easily find jobs regardless of their training quality (World Bank,1993:129), Psacharopoulos (1997:987) similarly confirmed that the cause of one of the known social ills, unemployment might be in first place be due to the lack of aggregate demand for labor in the economy as a whole. All kinds of skills, regardless of whether they are

defined as being vocational or general, are often affected during perceived economic growth or decline. There fore, in regard to TVET, will be of paramount importance to look in to the economic context of employment & skill demand. Economic growth, investment & competition, on the one hand, & population on the other hand seek due attention on the part of policy makes & planners. With out a great deal of under standing of the economic & population context of a given environment, formulating TVET programs could not be effective (Wanna in Amare, 1998:63)

2.15.1. Kinds of Employment

All economies provide a wide range of training activities that can serve different sectors of employment or markets for diverts skills, These provisions, in most case, adapt duality due to the different labor needs of the two different labor markets in the economy, the modern & the informal or traditional sectors. For these reason, the education & training of the job seekers have influence on the types of employment that are open to them (Stow in carnoy, 1977:52, Makenna, 1995:318).

Individuals could be trained in various ways to a faired different of skills. Vocational & technical education & training, in this respect, offers specific skills that a trainee is expected to use on the job. The extent to which the acquired skills are used effectively, how ever, depends to a large extent on the characteristics of different types of employment in a given economy. These are; wage employment in the modern sector & self employment or employment in the informal sector (Middleton, 1993:13)

2.15.1.1. Government & Private Employment

Modern sector employment notably indicates employment in public (Government) or private enterprise. But in most developing countries, including Ethiopia, this formal employment sector accounts for a relatively small properties of total employment & often shows little growth potentials. As a result, in many African economies, the majority of the labor force is heavily involved in the informal sector that ever. Growing potential labor forces might be expected to be absorbed in to productive employment. (ILO in Ziderman, 2003:30) According to Wanna (1998:60), modern sector (Public & private) in Ethiopia absorbs small proportion.

There is a long held assumption, never the less, that vocational preparation will significantly enhance the chances of the youth to secure stable wage employment. As a result, many types of training for entry in to jobs in the modern sector, TVET, accordingly, has an immediate purpose to prepare students for various occupations, which are open for jobs. The key intention is that the training is intended for jobs. The impulse is related to formal education & training & the modern sector of the economy (Wanna, 2000:61, King, 1985:17-18: Atchoarena and Andre, 2002:150).

According to Middleton (1993:14-16), the distinction between the modern & informal sectors of the economy seems confusing at the margin. Never the less, the modern sector is generally enterprises that are subjected to established Labor & industrial regulations. Such enterprises are found in agriculture, industry, commerce, & services in both urban & rural areas. They tend to employ many workers & many smaller forms also operate within this sector. In statistical sense, workers are considered employed in the modern sector, if they have either full or part time paying jobs (Mekenna, 1995:319) or permanent & temporary.

In recent years, investment in the agricultural sector has led to productivity gains. Furthermore, the Ethiopian government has focused on creating micro and small enterprises, based on their potential to create employment opportunities, as spelled out in the Industrial Development Strategy of the country. The Strategy identifies the important role that these enterprises could play in absorbing the young people graduating from schools and colleges to world of work.

The Federal Micro and Small Enterprise Development Strategy Agency (FeMSEDA) oversees the Promotion of micro and small enterprises development, while the direct support and promotional activities are carried out by institutions established at the Regional States (ReMSEDA). Over the past few years the Regional Governments have promoted MSEs by providing training and counseling, finance and credit facilities, organizational support, production and marketing space, market facilities and raw material supplies. In addition, the MSE Development Agencies have undertaken market support, business development services, training and counseling support for micro and small enterprises.

2.15.1.2. Self-Employment

In several major developed countries interest in the self-employment has paralleled interest in the role of small businesses as major source of job creation. Self-employment is generally defined as employers, own account workers, members of producer co-operatives and in some cases unpaid family workers. Clearly the growth of new businesses is likely to parallel growth in the numbers of employers but interest amongst employment policy-makers is also expressed in changes in the number of own account workers. The latter group, although they currently do not employ other individuals, in some instances may be thought of as apprentice employers. In some cases they may start a business as an own accountant worker but, in the event of an increase in demand for their product or service become an employer. (Storey and Johnson, 1987:34)

The lack of modern sector employment opportunities has obliged individual in many countries to resort to the benefits of the informal sector to make a living. This has led, consequently, to the rapid growth of the sector & accounts for a significant percent of urban employment opportunities (UNEVCO, 2002:15) similarly, Atchoarena (1994:134) and Ziderman (2003:3) asserted that in an economic climate where the Labor force has grown significantly & where there are greatly reduced opportunities for wage employment, great emphasis has been placed on the potential contribution to the economy by the self employed & the informal sector. As noted earlier, the main difference between the modern & informal sectors of the economy is the largely un regulated system of activity in the informal sector. Moreover, most informal sector is undertaken through self employment or very small firms (Middleton, 1993).

The informal sector Africa is characterized by the unregulated small scale activities & focused in self employment. Most of the informal sector enterprises provide market opportunities for the low income groups. Therefore, the sector has created conducive environment to grow since the majority of the population in Africa is in low, income group. Never the less, this sector which provides ample employment opportunities in most countries of Africa Doesn't get sufficient attention in numerous TVET training programs (UNEVCO, 2000:71; Atchoarena & Andre, 2003:150). So, what contribution can TVET make to the informal sector? In certain countries TVET program have designed Competency Based Education & Trainings system whose comprehensive approach enables training to be adapted to the needs of the informal sector it has been modularized to allow trainees to select the type of training according to the skills needed.

The provision has also been made school based or non formal education & training (UNEVOC, 2000:15).

There is a logical tie between the informal sector & unemployment in many developing countries it is connected with the discovery that a substantial number of people are working on their own account in the informal sector. In Ethiopia, as well, graduates of TVET & others join the informal sector when wage employment opportunities in the modern sector are quite limited. Since they can not find jobs, they have created job them selves. How ever school leavers may not be suitably capable of going to small business, especially where skill requirements are relatively high. This is due to first, such business requires both capital & advanced skills: & second the courses offered in training institutions are not intended to develop high level of occupational competency & are in most instances oriented to the technologies skill requirements of modern sector employment, not to the different forms and skill needs of informal sector. But in order to create jobs, they need skills & support system. Training is decisive to help these groups of people fit the specific circumstances of the informal sector. TVET systems should therefore, encourage the process of self employment earning one's; livelihood directly from one's own trade or business through a provision of level entrepreneurship skills (Middleton, 1993:17,187-188; king, 1985:29; Wanna, 2000:62)

In several major developed countries interest in self employment has ignited curiosity in the role of a small business as a potential source of job creation. These enterprises (Often one person operation) depend on local sources, labor intensive & allow competition in the Labor market. They do form a major source of income for employees & owners. They are privately owned & operated or established as producer cooperativeness. Notably, these small enterprises & self employment are engaged in trading, manufacturing & provision of services. However, a complex set of social and economic challenges are often associated with them such as lack of access to credit & raw materials, lack of concentrated markets for products, lack of transport, lack of sufficient support, etc. These barriers have limited rural as well as urban entrepreneurship (Storney, 1987:34; ILO in Middleton, 1993:19-20, Loucks in Yekunoamlak, 2000:15) social challenges on the other hand, often arise from graduates as well as their parents aspirations. First, some graduates are reluctant to accept informal sector employment; it may be due to their high aspiration & family back ground. They prefer to wait for wage earning employment in the formal

sector. They do not have the willingness to work in the informal sector at lower wages second, even their parent's look for high paying white collar jobs rather than blue collar jobs. Hence there exist a mismatch between aspirations & possible job opportunities by the labor market (Middleton, 1993: 47, 187-199; Simmons, 1986:167)

In sum, the Government, TVET institutions, graduates & the community should understand the significant economic contribution of the informal sector. High social regard must be placed on manual work, self employment & engaging in small business. Over reliance on wage employment in the modern sector is not, now days, viable & sustainable ways of making livelihood, particularly in developing countries like Ethiopia. This is due to the fact that, the limited growth of the sector may not guarantee high rate of absorption of skilled manpower including TVET graduates.

2.16. Unemployment

Unemployment is enforced idleness of wage earners who are able and willing to work but can not find jobs. It consists of all persons who during the reference period, were not working but who were seeking work for pay or profit, and available for work including those who never worked before. The unemployment rate is the proportion of the labor force that does not have a job and is actively looking for work. It is probably the best known labor market measure in many countries (World Bank, 2008/9).

The standard definition of unemployment is based on the "seeking work" criterion that can be interpreted as activity or efforts undertaken by non-working persons during a specified reference period or prior to it in order to find a job (that is paid or self-employment). The specific steps may include registration at a public or private employment exchange, application to employers, checking at work sites, farms, factory gates, market or other assembly places, placing or answering newspaper advertisements, seeking assistance of friends or relatives, looking for land, building, machinery or equipment to establish own enterprise, applying for work permits, etc.

Unemployment includes discouraged persons and future start and lay offs in addition to persons satisfying the standard definition. Discouraged job seekers are those who want a job but did not take any active step to search for work because they believe that they can not find one. Future starts are those persons without work who have made arrangements to take up paid employment

or to undertake self-employment activity at a date subsequent to the reference period. Lay offs are a person whose contract of employment or activity has been suspended by the employer for a specified unspecified period at the end of which the person concerned has a recognized right or recognized expectation to cover employment with the employer (ILO,1990).

Generally, unemployment includes persons without work and those who are available for work, including those who were or were not seeking work. That is the seeking work criterion is completely relaxed and unemployment is based on the “with out work” and “availability” criterion only. The availability in this situation is tested by asking the willingness to take up work for wage or salary in locally prevailing terms, or readiness to undertake self-employment activity, given the necessary resources and facilities. In general the unemployment rate, which is computed as the proportion of the unemployment persons out of the economically active population, can be used to measure the level of unemployed population of an area.

Information is costly, which means that finding a job always takes time. There are always some people moving out of their parents’ home, looking for their first job, getting out of the military, or finishing school. Those people will be unemployed for a while they are **searching** for a job (there’s no way to prevent it). That’s the **natural rate** of unemployment. If at the end of a person’s job search, she/he finds a job (it just took time to do so) we call the kind of unemployment frictional unemployment. If a person looks for a job, but discovers his skills do not match what employers are looking for (so he stops his job search to get retrained) we call the unemployment structural unemployment.

2.17. Vocational Guidance and Counseling

Vocational guidance plays its part in providing individuals with a comprehension of the world of work & essentially human needs; thus familiarizing individuals with the terms dignity of labor and work value. Vocational guidance could help people make a wise occupational choice and is the process assisting the individual to choose an occupation prepare for it & center up on it & progress in it.

The vocational counselor staff at TVET institution will be instrumental in facilitating cooperative & preparing youth for cooperative training and they will also be a focal point in organizing self employment support for TVET graduates. The function of counseling is to assess the adolescent

in college to learning effective ways of identifying & then achieving desired & described goals often in spite of certain obstacles to such learning. Counseling aids individuals to eliminate or to modify those disabilities, which act as obstacles to learning, through the building up of basic skills, including reading & social adjustments. Since the counseling service depends upon willingness, cooperation & positive acceptance by the individual, the counselor should not tell someone how to behave, but rather should allow the person to explore the range of choices available & to choose one by himself/herself

To meet the challenge of today& tomorrow, education must assume major responsibility for providing career guidance programs designed to foster the total development of all individuals over their life time. According to (MOE: 2006) the role, duties, & responsibilities of vocational guidance & counseling in TVET institutions in Ethiopia are : appropriate occupational training to be offered in the institution/ college, provide quality training, build partnership with relevant stake holder, to have a well organized information system & documentation, sort out the personal, family expectations & national requirements as well as labor market demands/relevance of the educational & vocational options available , to learn effective job - search procedures , trainees to overcome self-defeating behaviors, gain self-confidence and life skills, and to identify alternative occupations when current employment is in jeopardy.

In addition to the above, provide orientation for high school students & parents concerning TVET offerings in the institution in collaboration with TVET instructors, placement program for trainees completing TVET programs , assist in the individual vocational counseling trainees, promote TVET to the community, orient new trainees to institutions' procedures & the institutions' varied opportunities for training, information to colleges & potential employees according to provision of the policy on trainees records, disseminate occupational information to trainees & to classes studying occupations, and conduct activities to promote TVET trainees job search skills (ILO, 2006).

In general, guidance officer activities could help to improve the match between communities' demand for learning, and its supply it could increase the transparency of learning systems and their flexibility in response to consumer demand. It could help to improve the match between supply & demand by helping people to search for a better fit between their talents & qualifications & available work opportunities. It leads to greater efficiency in the allocation of

human resources, benefits could result at the social level such as enhancing the motivation of learners & workers, reducing dropouts from education & training, reducing mismatches between labor supply and demand, reducing the incidence of floundering between job transitions and improving the ways that learning and labor markets operate for example, by immediate attitudinal changes and increased knowledge; intermediate behavioral changes. It is needed in TVET colleges to students in making informed wise occupational choices, to facilitate smooth transition of trainees from school to work and to offer facts about job opportunities and characteristic feature. That is it is needed to give assistance for youth in the development of their ability, attitude & skill, which help to make wise choice & informed decision; there become self-confident as well as entrepreneur. Therefore, effective career guidance & advisory services can often help to maximize the return on investment of money spent on TVET programs. The purposes of guidance program are to provide occupational information services, which will meet the needs of job seekers in the process of job search. The vital purpose of occupational guidance is to provide job seeker with the information and skills needed to make wise decisions on problems of occupational adjustment. Therefore, guidance counselor needs in the training institutions of TVET, since to give awareness up on the existing situation of the labor market demand.

2.18. Global Purposes/ Objectives of TVET

The purpose of TVET is a reflection of the definition of the two terms; technical and vocations. Seen from such point of view, schools that are concerned with the provision of subjects that are of technical and vocational nature have the responsibility of the training people who would be able to work in the occupation available. Favoring the above idea, Evans as cited in Mekonnen, (1994:25) asserted that the objective of meeting the manpower needed by society is the “earliest and widely accepted.” Thus, one of the primary purposes of technical and vocational education training program is to meet the skilled manpower need of the specific area in which the schools have to operate.

Another objective of technical and vocational education, according to Evans (1994:22), is that it provides increasing options to students so that they could join areas of their performance. In addition, Twinning (1987) indicated that technical and vocational education should be seen as the means of resolving the problem of unemployment of school leavers.

Furthermore, the productivity objective of TVET is based on the fact that rates of return on all forms of training have been substantial. Where economic expansion is sustained, or where modern sector employment is large relative to the output of post-primary education, TVET graduates have been more readily absorbed in to the labor market. World Bank reports, (1990:16) that high rates of return result from the pre-employment center-agencies in middle income and developing countries.

Still another objective that TVET is expected to achieve the supply objectives which aims at production of skilled labor in anticipation of demand, (World Bank 1990:17). TVET program is also believed to attain employability objectives with special attention to access for youth and the disadvantaged to the world of work (Ibid).

Further still, Caillods in Atchoarena and Andre, (2002:38) underscored the need to pursue two other major objectives: to train the work force for self-employment and to raise the productivity of the informal sector. The fact that the system is ossified and impoverished makes it all the more difficult for TVET to take up these new challenges.

2.19. Current State of TVET Development in Ethiopia

Traditionally, Technical and Vocational Education and Training (TVET) has been fragmented and delivered by different providers at various qualification levels. Public TVET institutions under the education sector were concentrating on producing middle level technical graduates at post Grade 10 level. In parallel with this, public and private companies have had their own TVET program, as have NGOs and private TVET providers. Meanwhile, in non-formal TVET program, public institutions, NGOs, and private schools offer employment-oriented TVET program to various target groups, including school leavers, people in employment, school drop outs and marginalized groups in the labor market. Unlike formal TVET, these programs are not yet systematically delivered (MoE, 2008).

Overall it is unknown how many Ethiopians in total have access to relevant TVET (including formal, non- and informal TVET). It is assumed, however, that demand by far exceeds the current supply and that the majority of the population is not reached by TVET offers at the moment. In particular, TVET accessible to school drop outs, unemployed, workers in industry

and the MSE sector, prospective entrepreneurs, people living in rural areas and women is in very short supply.

Since late 1990s, the government has committed itself to overhauling and reforming the basic framework conditions of the TVET system. This measure recognized the fact that while the country was in dire need of craftsman and technician, training program lacked relevance to the workplace reality. Nevertheless, this reform process was slow and limited by the fact that all efforts and resources were directed towards the massive quantitative expansion of the public TVET supply. As a consequence, the program, by-and-large, do not address actual competence needs in the economy, with most program of low quality and theory-driven due to resource constraints and lack of skilled TVET teachers. A systematic integration of TVET with the world of work has not yet been achieved (MoE, 2008).

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

There are also indications that TVET lacks effectiveness and efficiency. Studies have shown that many TVET graduates remain unemployed even in those occupational fields that show a high demand for skilled manpower. Furthermore, substantial resource wastages occurred as a result of underutilization of equipment in public TVET institutions.

The shortage of a sufficient corps of TVET teachers/instructors represents one of the obstacles to TVET development in Ethiopia. The quality of TVET teachers/instructors has suffered as a result of the low reputation of their profession. Most TVET teachers/instructors have relatively low formal qualifications, severely affecting TVET delivery at higher qualification levels. Furthermore, technical teachers, more often than not, have been unmotivated. They did not choose to become technical teachers, but were placed in technical teacher colleges because there were no other options available to them. Finally, existing TVET teachers/instructors are (mostly)

inappropriately practically skilled, i.e. not competent to provide TVET in accordance with the occupational standards. This is a result of a training system that long emphasized theoretical knowledge (though often not aligned with modern technology requirements), disregarding the importance of practical skills and appreciation of the world of work.

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

Another important measure was to conceptualize and start implementing a new quality management system within the TVET sector. In line with international best practices, it was decided to move towards an occupational standard-based TVET system to replace the current curriculum-centered approach and to establish an occupational assessment system open to graduates and candidates from all formal, non-formal or informal TVET schemes. The system of occupational standards together with standard-based assessment and certification has to be considered the centerpiece of a TVET reform towards relevance, demand-orientation and accessibility.

In pursuing the objectives of TVET to the ground, the principles will guide and define further development and implementations of the TVET system and among these principles indicated in Ethiopia are:

2.19.1 Demand-Oriented

All TVET in Ethiopia has to respond to the competence needs and qualification requirements in the labor market. TVET is geared towards enhancing the competitiveness of all economic sectors

through a competent workforce and towards improving people's employability in the labor market and with regard to self-employment.

2.19.2 Quality and Relevance

The TVET system strives for the highest quality and relevance of all TVET offers. It will develop effective means of quality management, will continuously monitor the relevance of TVET program and will provide support and guidance to TVET institutions to achieve defined quality standards. An important mechanism for this will be the introduction of the system of occupational standards, assessment and certification.

2.20. Purposes/Objectives of TVET in Ethiopia

The main purpose of technical and vocational education in Ethiopia is more or less similar to the purposes discussed in the previous section. The training policy and its implementation (MoE, 2002:91) stated the following as far as the purpose of technical and vocational education is concerned.

The aim in all these programs is not only to train manpower for the development program that the country is in the process of implementing, but it is also intended to encourage the trainees to create jobs themselves and contribute to the national development efforts.

The overall objective of the national TVET Strategy is to create a competent, motivated adaptable and innovative work force in Ethiopia contributing to poverty reduction and social and economic development through facilitating demand-driven, high quality technical and vocational education and training, relevant to all sectors of the economy, at all levels and to all people in need of skills development. As could clearly be understood from the idea the goal of TVET system is to create a competent, capable and adaptable work force (both male & female) to be the backbone of economic and social development in Ethiopia, and to enable an increasing number of Ethiopians to find gain full employment and self-employment in the different economic sectors of the country (MoE, 2006:16).

To this end, the Ethiopian TVET system, in line with many modern TVET systems world wide, will be re-organized in to an outcome-based system. This means that 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 re-defined so that they support Ethiopians to become competent (Ibid:16).

Competence will be described in terms of the national occupational standards to be developed by people knowledgeable about and experienced in the world of work. Accordingly, the national occupational standards define the outcome of all training and learning expected by the labor market, and will form the benchmark of all quality management with in the TVET system.

CHAPTER THREE

METHODS AND PROCEDURES OF THE STUDY

3.1 The Research Methodology

In an effort to investigate the linkage of automotive training program and labor market demand, descriptive survey method was employed. This is because the study intended to make detail description and analysis of current situations of; practical skill of graduates' comparing to employers need, relationship of TVET institutions to stakeholders, labor market assessment and local market accessibility of automotive technology graduates of the selected TVET institutions in Tgray region. Thus, this method is chosen for its appropriateness to reveal the existing relevance of TVET training to labor market demand situation.

3.2 Data Sources

The data for the study were obtained from both primary and secondary sources. Primary data were collected from respondents; graduates, trainers, management members and supervisors, employers and coordinators of micro and small enterprises.

Secondary data were obtained from legal documents of Registrar office, Human Resource Development departments of the selected TVET institutions. Moreover reports, market assessment document of the selected TVET institutions and regional TVET Bureau were reviewed to obtain pertinent data such as the number of respondents, educational level, field of study, service years of the trainers' and management members and supervisors of the selected TVET training institutions and TVET bureau.

3.3 Sample Size and Sampling Techniques

To select a sample size of population is very crucial issue in processing research. Accordingly, totally there are 27(twenty seven) government of TVET institutions in Tigray. Out of which 8(eight) of them were provided training of automotive technology field. With the assumption of that these four TVET institutions were selected as a sample through random sampling method. In the study a sample of graduates, trainers, management members and supervisors, employers and coordinators of micro and small enterprises were considered.

3.2.1 Graduates

For questionnaire respondents the researcher identified total graduates of selected TVET institutions in the year 1999/2000-2002/03 E.C and he tried to determine the sample size of the selected TVET institutions in each year from the given total population as shown below in Table1

Table 1 Sample size of graduates

S. No.	Name of TVET institutions	Trainees registered in automotive			Drop-out			Total number of graduates			Sample size
		M	F	T	M	F	T	M	F	T	
1.	Adjgrat college										50%
	1999/2000	25	-	25	1	-	1	24	-	24	12
	2001	30	-	30	1	-	1	29	-	29	15
	2002/03	26	4	30	1	1	2	25	3	28	14
	Sub total	81	4	85	3	1	4	78	3	81	41
2.	Mekelle SDC										
	1999/2000	25	-	25	2	-	2	23	-	23	12
	2001	25	1	26	-	-	-	25	1	26	13
	2002/03	23	-	23	1	-	1	22	-	22	12
	Sub total	73	1	74	3	-	3	70	1	71	37
3.	Shire SDC										
	1999/2000	24	3	27	10	1	11	14	2	16	8
	2001	27	-	27	8	-	8	19	-	19	10
	2002/03	27	-	27	9	-	9	18	-	18	9
	Sub total	78	3	81	27	1	28	51	2	53	27
4.	Adigrat SDC										
	1999/2000	22	-	22	2	-	2	20	-	20	10
	2001	18	-	18	1	-	1	17	-	17	9
	2002/03	14	-	14	6	-	6	8	-	8	4
	Sub total	54	-	54	9	-	9	45	-	45	23
-	Total Graduates										
	1999/2000	96	3	99	15	1	16	81	2	83	42
	2001	100	1	101	10	-	10	90	1	91	47
	2002/03	90	4	94	17	1	18	73	3	76	39
	Grand total	286	8	294	42	2	44	244	6	250	128

As indicated in Table 1, total graduates of the selected TVET institutions were 250. From these, the sample size taken was 128 (51.2%).

3.2.2 Management of the Selected TVET institutions and Supervisors

For questionnaire respondents, the researcher identified 20 management members and 5 supervisors of the selected TVET institutions and regional TVET bureau respectively. All the management members and the supervisors in the selected TVET institutions and regional bureau were selected purposively because of their relevant information and experience on the issue being studied.

3.2.3 Trainers

Respondents for questionnaires, 12 trainers of automotive technology were taken as sample from total population of 12 trainers of the selected TVET institutions using purposive sampling method. Since, trainers of automotive technology have good understanding about curriculum and occupational standards due to their profession and experiences.

3.2.4 Coordinators of Micro and Small Enterprises

Coordinators of micro and small enterprises were included in the study as these individuals have knowledge of labor market information and they could facilitate credit and land accessibility for the graduates. Moreover, they are members of cluster committee. These were selected by using convenience sampling method. As a result, the sample size of the respondents' coordinators of micro and small enterprises for the interview was 18 out of the 24 total populations of the nearest woredas.

3.2.5 Employers

There are around 48 automotive technology firms in the three zones of Tigray. Since the graduates are going to be either employed in these firms or create their own business, it is necessary to take into account the needs and interests of owners of the automotive technology firms. Hence, from among owners of the 48 firms, 24 (50%) of them were selected and included as respondents of interview in the study using of convenience sampling method. The reason for

the 24(50%) selection was based on the conviction of the researcher that they could sufficiently represent the population and provide enough information on the issue being investigated.

Table- 2 Sample size of Respondents

S. No	Type of respondents	Available			Method of sampling	Sample size
		M	F	T		
1.	Trainers of automotive technology	10	2	12	purposive	12
2.	Management members and supervisors	23	2	25	purposive	25
3.	Employers	48	-	48	convenience	24
4.	Coordinators of micro and small enterprises	19	5	24	convenience	18
	Grand total	100	9	109		79 (72.5%)

As indicated in Table 2, from the total number of respondents (109), 79 (72.5%) were included in the sample. All in all, that is, when the graduates of automotive technology (128) are included, the total respondents were 207 (57.7%) from among the total population of 359. The researcher has strong conviction that the selected sample size of the respondents could provide relevant information and are representatives of their respective population.

3.3 Data Gathering Instruments and Procedures of Data Collection

3.3.1 Data Gathering Instruments

Questionnaires, interviews, and observation were employed for collecting data which are pertinent for the study.

Questionnaires were prepared for three groups of respondents. These groups are trainers, institution management members and supervisors, and graduates of automotive technology. Twelve, 25, and 128 copies of questionnaires were distributed to trainers, management members and graduates respectively. For the sake of clarity and to avoid misconception of the graduates, the questionnaire was translated into Tigrigna because it enables to appropriately communicate with the respondents.

Interview Guides were used to get additional information from employers and coordinators of micro and small enterprises in order to know the existing relationship and communication between TVET training and employers.

Observation Checklist was also prepared to secure information about the TVET institutions' automotive workshops whether they have enough work space, equipment/materials, and space for storage. Documents of the institutions and assessment results of Center of Competence (CoC) were also investigated.

3.3.2 Data Collection Procedures

The data gathering instruments were designed on the basis of the review of the literature and the intended data to be collected. In order to test the validity of the questionnaires, pilot test was employed and fifteen questionnaires were distributed to graduates of Axum SDC who graduated in automotive technology. As a result, some vague questions and unnecessary question items were clarified. Accordingly, some modifications were made for the final survey. Such as delete irrelevant questions from the questionnaires of graduates.

To maximize the quality of the response and the rate of return, the time convenient for respondents was arranged. The student researcher himself made the objectives of the study clear to all sample respondents at the time of the questionnaire administration. In order to avoid confusion and to make the administration easy, a close follow up was maintained to correct problems that may arise during the filling of the questionnaire. In addition, colleagues supported the researcher at the time of distribution and collection the questionnaires.

3.4 Methods of Data Analysis

Both quantitative and qualitative approaches were used in analyzing the information collected using different instruments. In processing the data, the raw data were organized in tables to produce descriptive statistics of the respondents. The data collected was also summarized using tables (frequency and percentages). The researcher used percentage to measure and analyzes the magnitude of respondents' opinions. Data obtained using open-ended items in interviews and observations were analyzed qualitatively and were mainly used to strengthen the results obtained

through statistical analysis. From the analysis, different cross tabulations were produced to show the relevance of TVET training to labor market demand in automotive technology.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS, AND INTERPRETATION

This chapter deals with the analysis and interpretation of the data gathered from the sample graduates, trainers of automotive technology, management members and supervisors of the selected TVET institutions and TVET Regional Bureau. In addition employers and coordinators of micro & small enterprises of the surrounding zones of the selected TVET institutions were employed in this analysis and interpretation.

The data obtained through questionnaires, interviews & observations were analyzed and interpreted. Out of the total of 128 questionnaires distributed to graduates of the automotive technology of the selected TVET institutions, 126 (98%) were filled and returned. On the other hand, from 25 questionnaires distributed to management members and supervisors 23 (92%) questionnaires were filled & returned. From 12 questionnaires distributed to trainers of automotive technology of the selected TVET institutions 12 (100%) were properly filled and returned. Totally out of 165 questionnaires distributed, 161(97.6%) were used for analyzing.

In order to substantiate & accentuate the data collected from the three groups of respondents, the opinions of 24 employers and 17 coordinators of micro and small enterprises interviews were used for triangulation of the quantitative data.

Based on the responses obtained from the sample respondents, the analysis and interpretation of the data are presented according the following table.

4.1. Characteristics of the Respondents

Table-3 shows the characteristics of respondents of the study in terms of sex, age, level of education, and service years.

Table 3 Characteristics of the respondents

S.NO	Item		Graduates		Trainers		Management members & supervisors	
				%		%		%
1	Sex	Male	122	96.8	11	91.6	21	91.3
		Female	4	3.2	1	8.4	2	8.7
		Total	126	100	12	100	23	100
2	Age	15-20	11	8.8	-	-	-	-
		21-25	49	38.9	3	25	-	-
		26-30	61	48.4	5	41.6	6	26
		31-36	5	3.9	3	25	5	21.7
		37&above	-	-	1	8.4	12	52.3
3	Educational level	Diploma	-	-	5	41.6	3	13
		BA/Bsc	-	-	7	58.4	19	82.6
		MA/MSc	-	-	-	-	1	4.4
		Ph.D.	-	-	-	-	-	-
		10+2	28	22.2	-	-	-	-
		10+3	12	9.5	-	-	-	-
		Level 3	10	8	-	-	-	-
		Level 4	76	60.3	-	-	-	-
4	Service years	1-5	-	-	6	50	8	34.8
		6-10	-	-	3	25	5	21.7
		11-15	-	-	2	16.6	4	17.4
		16-20	-	-	1	8.4	2	8.7
		21&above	-	-	-	-	4	17.4

Source- Four selected TVET institutions & TVET Bureau of Tigray

Table 3, of item 1, 2, 3, and 4 identifies that personal background of the respondents. Accordingly, item 1 indicates that sex proportion of the graduates, trainers, management members & supervisors of the selected TVET institutions. Therefore, as the data indicated in for item 1, 122 (96.8%), 11 (91.6%), and 21 (91.3%) of the graduates, trainers, and management

members & supervisors respectively are males. And the rest of 4 (3.2%), 1 (8.4%), and 2 (8.7%) of the graduates, trainers, and management members and supervisors respectively are females.

From the above data we can see that the participation of females in all levels were few. Here, there is less good involvement of females in the selected TVET institutions of management members, trainers and graduates of automotive technology departments. This can be one of the indicators of gender disparity in the working activities.

Regarding their age, in item 2, of Table 3 none of the trainers & management members is found below 20 years of age, while 8.2% of the graduates are below 20. Similarly 38.9% of the graduates and 25% of the trainers are between 21-25 years. Moreover 48.4%, 3.9% graduates are found in years of 26-30, 31-36 consecutively. But, none of the graduates are above 37 years. On the other hand 41.6%, 25% & 8.4% of the trainers of automotive technology are in between 26-30, 31-36 & above 37 years respectively. Management members and supervisors are found 26-30 (26%), 31-36 (21.7%) and (52.3%) above 37 years.

Therefore, the above data signifies that all of the graduates and trainers are youngsters and almost nearest to half of the management members and supervisors also youngsters that are in the age range where they can put for the maximum effort to execute their duties and responsibilities.

The success of any educational program is predicted on the availability of trained instructors, and management members and supervisors of institutions. This concept is especially applicable to the field of vocational education where skill and technical knowledge are required. Moreover, item 3, of Table 3, indicated that educational level of respondents are 5 (41.6%) of trainers and 3 (13%) of the management members of the institutions are diploma level. In addition, 7 (58.4%) of the trainers & 19 (82.6%) of the management members are degree holders. One of the supervisors is second degree holder. Graduates also have an education level of 30 (23.8%) are 10+2, 12 (9.5%) are 10+3, 84 (66.7%) are qualified in level 3 and 4.

These data reveals that, there are trainers who they are diploma holders provide training for level 4 and 5 trainees, therefore this shows that there is shortage of qualified trainers, and it may be lead to inefficient result of the graduates on the labor market, because of without qualified

trainers training programs could not be effective. Graduates also indicated that most of them are graduated in the new curriculum.

Table 3 of item 4, shows that service years of; a trainer, management members & supervisors of the selected TVET institutions and TVET regional bureau.

Hence, it is believed that when the more management members and half of the trainers are experienced, the better they trained, facilitate, direct and manage their major fields of study in the process of selected TVET institutions. This will assure to relate the theoretical aspect with practical aspect of training activities.

Table-4 Opportunities to choose field of study in TVET institutions

S. No	Items	Respondents						
		Management members & supervisors		Trainers		Graduates		
		Fr.	%	Fr.	%	Fr.	%	
1.	Do TVET institutions give opportunities to candidates so as to choose a field of study before they start their training program?	Yes	22	95.7	10	83.3	82	65
		No	1	4.3	2	16.7	44	35
2	Do you have interest to be trained & work in automotive technology field?	Yes			10	83.3	103	81.8
		No			2	16.7	23	18.2

As can be seen Table 4 of item 1, an opportunities to choose field of study in the selected TVET institutions. Respondents of management members and supervisors, trainers, and graduates of automotive technology of the selected TVET institutions were replied their opinion. Accordingly, this result shows that most of the respondents 114(70.8%) are said graduates were given a chance to select the field of study based on their willingness before starting the training program. But, there are significant number of graduates 47(29%) replied that they did not get a chance to choose field of study. As indicated item 2 of Table 4, most of the trainers and

graduates 113(81.9%) revealed that they have interest in the field of automotive technology. This implies that the field of automotive technology may have a demand in the labor market. Since, most of the graduates have interest in working and trained in this field, they chooses the field of automotive technology as their favorite area before they started their training program. On the other side TVET institutions were providing an opportunity for their trainees to choose their fields of interest, this may have its own advantage in the training program trainees may create more willingness in the program to follow effectively. And trainers have interest in working in the field of automotive technology departments.

This implies that the field of automotive technology has labor market demand in that the TVET institutions provided their trainees opportunity of choosing their areas and were interested to be trained and work in automotive technology.

Table-5 Activities of guidance officers in TVET institutions

S. No.	Items	Respondents						
		Graduates		Trainers		Management members & supervisors		
			Fr.	%	Fr.	%	Fr.	%
1.	Availability of guidance in providing labor market information in TVET institutions	Yes	44	35	6	50	23	100
		No	82	65	6	50	-	-
2.	How was effective in disseminating labor market demand information to the trainees of TVET institutions?	Yes	32	25.4	3	25	14	60.9
		No	94	74.6	9	75	9	39.1

As can be seen from Table 5 of item 1, the three sample groups of respondents of the questionnaires are provide their view on the availability of guidance counseling and disseminating of labor market information in TVET institutions for their graduates. Accordingly, graduates are answered yes 44 (35%), and 82 (65%) of them are said no. In line of this trainers also answered yes 6 (50%) and 6 (50%) are said no. In addition, the third group of respondents

23 (100%) of management & supervisors are said yes. This means that the provision of labor market information and guidance counseling in TVET institutions are disseminated well enough for the graduates. Since, none of these respondents are said no.

Table 5 of item 1, implies that most of the graduates & trainers 88(54.7%) are said that the provision of the labor market information was not satisfactory. On the other side, all of the respondents of management members and supervisors 23(100%) are said, guidance counseling and labor market information are disseminating for the automotive technology graduates.

Here, it implies that management bodies of the TVET institutions are believed that labor market information is provide effectively to the graduates. But, graduates are not satisfied on the provided information of labor market demand.

As shown in Table 5 of item 2 most of the respondents 49(30.4%) said that the information which was disseminated by TVET institutions were not adequate. Therefore, even though the labor market information was being disseminated by the TVET institutions for the trainees it was not in a proper way. In addition guidance officers have gaps in disseminating the labor market information. MOE (2006), stated that guidance officers have responsibilities of assisting their trainees in choosing occupations guide trainees in their participation in institution and community activities, obtain and disseminate occupational information to trainees and classes studying occupations in TVET institutions. However, Table 5 of item 2 shows that graduates were did not gain (have) enough labor market information.

Table-6 Assessment of labor market and tracer study

S. No	Items	Respondents				
		Management members& supervisors			Trainers	
			Fr.	%	Fr.	%
1.	Do the selected TVET institutions conduct labor market demand study?	Yes	23	100	9	75
		No	-		3	25
2.	Do the selected TVET institutions carryout tracer studies?	Yes	7	30.4	5	41.7
		No	16	69.6	7	58.3

In relation to identify the existing situation of labor market demand assessment and tracer study of the selected TVET institutions are indicated in table 6, of items 1 and 2. These items are treated by management members and supervisors, and trainers of the selected TVET institutions. Accordingly, item 1 indicated that, almost all of the management members and supervisors, and trainers 32(91.4%) are said that labor market assessment was done by the selected TVET institutions. However, the observation on the study indicated that the labor market assessment was done in the selected TVET institutions only on the types of occupations excluding the level and number of the needed manpower. On the other side, most of the respondents 23(65.7%) replied that these TVET institutions did not undertake tracer study effectively. According the respondents' point of view implies that these selected TVET institutions did not have full follow up and understanding of their graduates whether they are employed or not.

Table-7 Time Allotted for Practical Training

S. No	Items	Respondents						
		Management members & supervisors		Trainers		Graduates		
		Fr.	%	Fr.	%	Fr.	%	
1.	Is the time allotted for the training program, sufficient to acquire the needed knowledge and skill?	Yes	16	69.6	10	83.3	45	35.8
		No	7	30.4	2	16.7	81	64.2
2.	Is there an adequate practical exercise in the TVET institutions regarding to labor market demand?	Yes	11	47.8	6	50	46	36.5
		No	12	52.2	6	50	80	63.5

As can be seen Table 7, of item 1 and 2, indicates the respondents' idea about time allotment of the training program whether it is enough or not, and the adequacy of practical exercise of the provided training of TVET institutions regarding to labor market demand. As indicated in item 1 most of the respondents of management members, supervisors and trainers 26(74%) were argued that the time allotted for the stated program of automotive technology were enough. But, on the

contrary most of the respondents of graduates 81(64%) said that the allotment of the time for the program of the automotive technology were not adequate.

Table 7, of item 2 is regarding the adequacy of practical exercise in the TVET institutions in relation to labor market demand. Here, respondents of management members and supervisors, trainers, and graduates put their point of view. And most of the graduates' respondent 80(63.5%) shows that the practical exercise were not adequate in the TVET institutions. In addition, almost nearest half of the respondents of management members and supervisors, and trainers 63(39%) agree with the idea of graduates. This implies that the practical exercise of training program in TVET institutions had problem because most of the graduates were not satisfied on the time allotment and the provided training situation regarding to labor market demand.

Table 8 Assessment Results of Automotive Technology Graduates

S.No.	Name of institution	No. of graduates sat in assessment			Competent						Average					
					Theoretical			Practical			Competent			Not yet competent		
		M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
1	Adigrat industrial construction	25	3	28	21	1	22	2	-	2	2	-	2	23	3	26
2	Mekelle SDc	22	-	22	11	-	11	2	-	2	2	-	2	20	-	20
3	Shire SDc	18	-	18	8	-	8	3	-	3	3	-	3	15	-	15
	Total	65	3	68	40	1	41	7	-	7	7	-	7	58	3	61

Source: Tigray region CoC

As indicated in Table 8, the results of graduates' assessment were more or less comparable with these three TVET institutions. According to the document of TVET bureau, the majority of automotive technology graduates of TVET institution were not yet competent after they were assessed by CoC. As we can see the data of automotive technology graduates from Table 8, most of the graduates were not competent in practical assessment in comparison with the theory assessment.

This implies that, the provision of the automotive technology training in the TVET institutions were more of theoretical rather than practical training.

To search out further verification in different approach whether the graduates were knowledgeable or not comparing to labor market demand, the researcher found it necessary to recognize instructor's skillfulness mainly in providing practical training for the trainees. As shown in the interview most of the employers replied that trainers of automotive technology of the selected TVET institutions were not skilled enough. This implies that the provision of the training by these selected TVET institution especially in practical training were not satisfactory. Because of the trainers are not skillful in providing practical training as it indicated by the respondents' of interview point of view.

Table 9 Linkage of Automotive Technology Curriculum to Labor Market Demand

S.No	Items	Respondents						
		Management members & supervisors			Trainers		Graduates	
		Res.	Fr.	%	Fr.	%	Fr.	%
1.	Do you think the knowledge and practical skills of TVET graduates have acceptance by employers or labor market?	Yes	7	30.4	9	75	45	35.7
		No	16	69.6	3	25	81	64.3
2.	Is the provision of curriculum in the TVET institutions relevant to the labor market demand?	Yes	19	82.6	7	58.3	75	59.5
		No	4	17.4	5	41.7	51	40.5

Table 9 shows relevance of knowledge, skills, and curriculum of automotive technology to labor market demand. Item 1 is about the acceptance of graduates' knowledge and skills by employers. Accordingly most the trainers (75%) responded that they were accepted while most of the management members & supervisors and graduates replied (69.6% and 64.3% respectively) 'no'. the responses to the second item, showed that the provision of TVET curriculum in the TVET institutions was considered highly relevant by most of the management members and supervisors (82.6%) and moderately supported by both the trainers and graduates (58.3% and 59.5%) respectively.

From the above responses, one can deduce that most of the respondents view graduates' knowledge and skills of the TVET institutions were not up to the expectation of the labor market. Furthermore, the interview with the employers confirmed that the knowledge and skills of the graduates did not fit to the existing labor market demand. This indicates that graduates' contribution to the economic and social development in the area was limited. With respect to the curriculum relevance, observations witnessed that the curriculum is being developed based on the existing labor market demand from time to time. This is partly because moderate labor market assessment activities were being conducted by both the regional TVET bureau and respective clusters and institutions were given the mandate of developing curricula.

Table-10 Relationship between Employers and TVET Institutions

S. N. o	Items	Respondents						
		Management members & supervisors		Trainers		Graduates		
			Fr.	%	Fr.	%	Fr.	%
1.	Is there common understanding among key stakeholders and TVET institutions regarding the provision program and curriculum of automotive technology?	Yes	15	65.2	5	41.7	52	41.3
		No	8	34.8	7	58.3	74	58.7
2	Is there an availability of automotive working firms in your zone/region which can play a substantial role in creating job opportunities?	Yes	17	74	5	41.7	85	67.5
		No	6	26	7	58.3	41	32.5

Table 10, of item 1 shows employers' understanding about the activities of TVET institutions especially in the provision of the program and curriculum of automotive technology. Accordingly, 15(65.2%) of respondents of management members & supervisors replied yes, and 8 (34.8%) of the management members and supervisors are said no. In addition, trainers of the 5 (41.7%) said yes and 7 (58.3%) of them said no. Moreover, 52 (41.3%) graduates said yes and 73 (58.7%) of them said no.

The view of the respondents in Table 10 shows that, above half of the management members and supervisors 15(65.2%) revealed that employers had good understanding about the training of automotive technology program. But, on the other side most of the trainers and graduates said that the understanding of employers on the provision of the program and its curriculum were not satisfactory. In addition to this respondents of employers and coordinators of micro and small enterprises confirmed that the understanding of employers on the activities of TVET institutions were not adequate.

This implies that the cooperative work of TVET institutions and employers were inefficiently. Most of the respondents of trainers and graduates including the employers and coordinators of micro and small enterprises were agreed that employers understanding on the TVET institutions were weak with the exception of management members and supervisors. In addition, this view of respondents shows that there is a gap in between employers and TVET institutions.

In item 2, of Table 10, indicates that the availability of automotive technology firms in the selected TVET institutions zone which can play a substantial role in creating job opportunities. Regarding this issue respondents of management members and supervisors, trainers, and graduates provided their view as is indicated in item 2of the same table, management members and supervisors, trainers & graduates responded yes 17 (74%), 5 (41.7%), & 85 (67.5%), respectively. On the other side, respondents of management members and supervisors, trainers & graduates said no 6 (26%), 7 (58.3%) & 41 (32.5%), respectively.

Moreover, most of the interview respondents said that there are working areas of automotive technology in the zone. In addition, observation indicated that there are automotive technology working areas in the zones of the selected TVET institutions, but, the firms did not give employment opportunities to the graduates of automotive technology, and did not have communication to work cooperatively. Therefore, almost all the small firms or garages did not hire graduates of automotive technology; rather most of the employees of these firms are their family who are trained informally with in their working area, outside the TVET institutions.

Table-11 Adequacy of Training Facilities in TVET Institutions

S.No	Items	Respondents						
			Management members & supervisors		Trainers		Graduates	
			Fr.	%	Fr.	%	Fr.	%
1.	How do you rate the training facilities and equipments in your institution?	H	-	-	1	8.3	12	9.5
		M	18	78.3	8	66.7	48	38
		L	5	21.7	3	25	66	52.5
2.	How do you rate the adequacy of budget allocated to your institution/department of automotive technology?	H	-	-	-	-	-	-
		M	11	48	2	16.7	-	-
		L	12	52.	10	83.3	-	-

Table 11, of item 1&2 shows the existing situation of training facilities and budget allocation of the selected TVET institutions. As indicated in table 11 of item 1, 18 (78.3%) of management members and supervisors rated moderate and 5 (21.7%) of them rated low. And trainers responded 1 (8.3%) high, 8 (66.7%) medium and 3 (25%) low. The view of the respondents implies that there were shortages of training facilities of the TVET institutions. In addition, most of the graduates 48(38%), 66(52.5%); revealed that, training facilities of the TVET institutions were medium and low respectively. Observation witnessed that all the selected TVET institutions had scarcity of training materials which were needed for the automotive technology, and had not standardized shops.

Item 2, of the same Table respondents of management members and supervisors 11(48%), 12(52%) confirmed that the allocation of the budget was rated low and medium respectively. But, none of the respondents of management members and supervisors, and trainers are said high. This shows that the allocation of budget in the selected TVET institutions were less.

Therefore, due to the shortage of budget and training facilities of the automotive technology of the training institutions may lead to provide theoretical training rather than practical, hence, graduates of automotive technology becomes lack of confidence on their practical skill comparing to labor market demand.

Table -12 Employment Situations of Automotive Technology Graduates

S.No	Items	Respondents							
			Graduates		Management members & supervisors		Trainers		
			Fr.	%	Fr.	%	Fr.	%	
1.	Do the employers announce vacancy to recruit the human power for their organization?	Yes	94	74.6	18	78.3	11	91.7	
		No	32	25.4	5	21.7	1	8.3	
2.	Are you currently employed?	Yes	97	77	-	-	-	-	
		No	29	23	-	-	-	-	

As can be seen from Table 12, of item 1 & 2 indicated that employment situation of automotive technology graduates after graduated from the TVET institutions in the existing labor market. Therefore, item 1 shows that most of the respondents 123(76.4%) were replied that employers hired using vacancy.

In addition, most of the graduates of automotive technology 97(77%) were employed. But, significant number of graduates of automotive technology 29(23%) still they were not employed. On the other side, the researcher interview indicated that these employed graduates of automotive technology weak in practical activities comparing to other workers of the firms. This implies that these employed graduates of automotive technology were needed accompanying training in their working area to be competent on the labor market, and these unemployed graduates were the result of the inefficiency of the TVET institutions.

In addition, the employment status of automotive technology graduates indicated that on the questionnaires. Accordingly, most of the employed graduates were 68(70%), 24(24.7%), 5(5.3%) employed in the government, private and self-employment respectively. This implies that most of the graduates of automotive technology were employed in the modern sectors (government and private). But, self-employment was difficult to graduates of automotive technology due to different reasons; such as, lack of credit and land accessibility was mentioned in the interview.

CHAPTER FIVE

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The main purpose of this study was to assess on the link between automotive technology training program and the labor market demand in Tigray region: the cases of four selected TVET colleges. In light of this, the study focused on meeting the following specific objectives.

1. To examine the extent to which guidance officers provided guidance about labor market demand to graduates of automotive technology of the selected TVET institutions.
2. To check whether the practical training of automotive technology was in accordance with the labor market demand.
3. To investigate the linkage of TVET curriculum with the labor market demand.
4. To examine the relationship between stakeholders and the selected TVET institutions.
5. To investigate the training facilities of the selected TVET institutions.
6. To examine the status of employment opportunities of automotive graduates in different sectors.

The study was guided by the following basic questions and attempted to answer them.

1. To what extent do guidance officers provide guidance about labor market to graduates?
2. Was the provision of practical training of automotive technology in accordance with the labor market demand?
3. Did the employers agreed with the curriculum provided in the selected TVET institutions of Tigray?
4. To what extent was the relationship between stakeholders and TVET institutions?
5. Were the training facilities in TVET institutions adequate?
6. What was the status of employment of automotive technology graduates in different sectors?

The study was carried out in selected four TVET institutions found in three zones of Tigray, namely Adigrat Industrial and Construction College, Mekelle SDC, Shire SDC, and Adigrat SDC which were selected using random sampling method.

The study focused on five groups of respondents: graduates of automotive technology, trainers of automotive technology, management members and supervisors, employers, and coordinators of micro and small enterprises. Questionnaires were used to collect data from graduates, trainers, and management members and supervisors. Interview was used to get additional information from employers and coordinators of micro and small enterprises staff. Out of 165 questionnaires distributed to the three groups of respondents, 161(97.6%) were filled and returned. Except 3 questionnaires and 2 of the expected interviewees, the intended respondents provided their opinion. Finally, the data obtained were analyzed using percentage and qualitative analysis for the open-ended questions and interviews.

5.1 Major Findings of the Study

1. Good vocational training requires instructors who have technical and pedagogical skills as well as industrial work experience with the stated educational level of the qualification. Without qualified instructors, training programs could not be effective. But, the study indicated that diploma level instructors are training level 4 & 5 trainees. This shows that the training is offered by under-qualified instructors of automotive technology in these selected TVET institutions of Tigray.
2. Guidance officers of the selected TVET institutions provided guidance to graduates of automotive technology. But, it was not adequate and graduates were not having clear understanding on the labor market demand. In addition, guidance officers of the two institutions did not have training in related field of study to discharge the given responsibility. Due to this and others, awareness of graduates about the demand of the labor market and provision of guidance services is not enough.
3. The question of quality is an important issue in training programs. But, because of inadequately trained instructors the training process of the selected TVET institutions focused more on theory rather than practice. Accordingly, the practical training of automotive technology graduates was not satisfactory when compared to the labor market demand.
4. The understanding of employers concerning the curriculum of these selected TVET institutions was not satisfactory. That is, they do not have full understanding, especially

on the specialized program of the curriculum. Moreover, the curriculum was unstable, and as a result most of the graduates of automotive technology and employers have confusion. Some private enterprises go to the extent of expressing their dissatisfaction about the specialized areas of automotive technology.

5. TVET institutions need to work in cooperation with employers. However, no close relationships have been established between the firms and the selected TVET institutions of Tigray. This shows that there is a gap between the training provided in the institutions and the skills needed in the labor market.
6. No one denies the importance of budget and training facilities in the provision of quality TVET training. Nonetheless, those TVET institutions are not well-equipped regarding these issues. The net effect of this is production of graduates with below the necessary knowledge and skills.
7. The status of employment of automotive technology graduates in the existing different sectors was better in the government and private sectors rather than self-employment. Here, the study indicates that an opportunity to start own business was low. Since, most of the respondents replied that the status of self-employment in these three zones of Tigray were inefficient.

5.2 Conclusions

TVET is useful to promote people's ability to find jobs and remain employed and secures livelihoods and forms the bases for participation in community life. Occupational orientation, career counseling, and job placement contribute to matching supply and demand in the labor market. A skilled workforce plays an important role in determining whether companies will be able to compete in national and international markets. In addition, the availability of skilled workers through TVET makes a country more appealing as allocation for business and investment. Therefore, TVET should aim to implement demand-driven system and respond to the needs of the labor market, both the formal and informal sector in making effective relation with the stakeholders.

In the course of assessing the study on the link between automotive technology training program and the labor market demand in Tigray region: the cases of four selected TVET institutions, the researcher would like to put the following concluding remarks based on the findings obtained so far.

1. The educational level of some trainers of automotive technology is not appropriate to train levels of 4 and 5. According to ETQF, trainees in these levels should be trained by trainers having BA and MA respectively. Hence, these diploma holder trainers of the selected TVET institutions may not have full technical and pedagogical skills to provide the training as effectively as is needed by the labor market.
2. The guidance and counseling services of the four selected TVET institutions were not effective and guidance officers of the two selected TVET institutions do not have related field of study. In addition the practice of disseminating labor market information among the graduates was not adequate. Since, graduates of automotive technology did not have adequate understanding about the labor market demand. In general, graduates were not supported to secure jobs as per their training in providing guidance.
3. Graduates of automotive technology have a problem in practical skills compared to the labor market demand because the training provided by the selected TVET institutions of Tigray region is more theory and less practical. Most of the graduates lack practical skills that make them

attractive in the labor market. Sometimes, employers explain that those who were informally trained were better in practical activities than the regular TVET graduates

4. The understanding of the employers about the TVET curriculum of automotive technology was not satisfactory in the specialization and levels program. Some of them prefer employees with general training in automotive technology to those trained in specialized fields. This is because they want to hire a single individual rather than employing three or four individuals in order to minimize cost.

.5. There is a gap in the relationship between the selected TVET institutions and employers. As a result, those TVET institutions were not in a position to obtain the necessary information and support that help them to conduct training in the right way. The employers also did not have the chance to express their needs to the selected TVET institutions in a way that enables to produce well-equipped graduates of automotive technology in Tigray region.

6. Budget and training facilities were not adequate in those selected TVET institutions of Tigray region. Any training endeavor in the absence of facilities and budget cannot be productive in that it does not result in social and economic improvement.

7. The status of employment opportunities in different sectors of automotive technology was better in the modern sectors (government and private) rather than self-employment. Since, the accessibility of credit and materials of automotive technology was not effective.

5.3 Recommendations

In the light of the reviewed literature and major findings of the study, the following recommendations are drawn.

1. Some diploma holder trainers of automotive technology of the selected TVET institutions have problems of knowledge and practical skill in providing training in levels 3 to 5. Therefore, the regional TVET bureau of Tigray region has to help trainers of automotive technology to upgrade their educational level. The institutions should also devise mechanisms by which trainers can be exposed to industries in their respective fields and let them participate in short-term trainings that may help to enhance their skills.

2. TVET institutions conduct labor market assessment and provide guidance & counseling services to graduates of automotive technology. But, in these selected TVET institutions both the result of the labor market assessment and the guidance and counseling services were not known to the trainees. Consequently, the trainees could not benefit from such resources. In addition, those assigned to discharge the responsibility of guidance and counseling services of two guidance officers were not professionals in that field. Thus, the regional TVET bureau of Tigray has to support for these selected TVET institutions in securing guidance and counseling professionals. The TVET institutions should also organize and disseminate the labor market information in a planned manner. The regional TVET bureau and the TVET institutions have to conduct widespread tracer studies that enable to see the condition of employment of graduates of each TVET field of specialization.

3. As is revealed in the findings, practical skill of graduates is low. Since, the training program of automotive technology of these selected TVET institutions were providing more theoretically rather than practical. This may have happened due to lack of skilled instructors in providing practical training in the TVET institutions. So, the regional TVET bureau of Tigray should support in assign skilled trainers. The TVET institutions have also to send trainees to cooperative training organizations by signing Memorandum of Agreement in time and it is better to use the way of training in the ratio of 70:30.

4. The understanding of employers on the curriculum of TVET institutions was not satisfactory. Therefore, to solve these problem TVET institutions should better employers to be having clear understanding on the developed curriculum of automotive technology especially on the specialization and levels program in relating with the occupational standards of the country.

5. The study indicates that there are a lot of automotive firms in the study area. However, there is no tight communication between TVET institutions and the automotive technology firms. As a result, both parties did not benefit from each other. Therefore, TVET institutions have to prepare Memorandum of Agreement in collaboration with the firms and carry out the practice of cooperative training effectively. They should also give professionals that provide training for a short time, conduct research activities, and design project proposals that help to secure fund from the firms.

6. As indicated in the findings of the study, these TVET institutions have scarcity of budget and training materials. Hence, the regional TVET Bureau should avail adequate budget and support them by providing necessary training materials.

7. The study indicates that most of the graduates of automotive technology are employed in the private and government sectors. Therefore, the coordinators of MSEs and TVET institutions should help graduates in enhancing awareness and providing supportive facilities like credit and forming associations to start their own businesses.

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A Research on Relevance of Technical and Vocational Education and Training (TVET) to Labor Market Demand of Automotive Technology in Selected TVET Institutions

A questionnaire to be filled by **graduates** of automotive technology of the selected four TVET institutions.

Introduction:

The purpose of this questionnaire is to assess the relevance of TVET training to labour market demand in automotive technology of the four selected TVET institutions. Accordingly, the success of this study depends on the sincerity and frankness of your response to the questions raised to you in this questionnaire.

Please note that:

- ❖ No need of writing your name,
- ❖ Where alternative answers are given, please mark your answer by circling the letter of your choice,
- ❖ Put a “V” mark for the answers in the tables, and
- ❖ Please be as brief as possible in answering the open-ended questions.

Thank you for your time to complete the questionnaire.

Part I: personal History

1. Name of your trained institutions-----
2. Work place: Region----- Zone----- Town-----
3. Sex: A. male B. Female
4. Age: A.15-19 B.20-24 C.25-29 D.30 and above
5. Field of study-----
6. Graduation Date----- Month----- Year-----

Part-II: General Questions

1. Does the institution give opportunities so as to choose a field of study on the basis of your interest before you started your training program?

A. Yes B. No

2. If your answer for number 1 is “no”, what methods were used to place the students in the department of automotive technology?

- A. Interview
- B. Entrance exam
- C. Previous academic achievement
- D. Lottery method
- E. Others specify-----

3. Did you have interest to be trained in automotive technology department?

- A. Yes
- B. No

4. Did you get vocational advice after you joining the TVET institution regarding your field of study in relevant to the market demand?

- A. Yes
- B. No

5. If your response to question no. 4 is “yes”, was the advice adequate enough?

- A. Yes
- B. No

6. Do you think the programs that the TVET institutions provide in automotive technology are relevant to existing labour market?

- A. Yes
- B. No

7. Do you agree TVET institutions are producing competent manpower in practical skills and knowledge to the labour market specifically in the department of automotive technology?

- A. Yes
- B. No

8. Are there variations across programs and/or across contexts in terms of formal TVET supply to the market needs?

- A. Yes
- B. No

9. Is there an investment activity of automotive technology firms or companies in your zone or region which can play a substantial role in creating job opportunities?

- A. Yes
- B. No

10. Is the time allotted for the training sufficient to acquire the needed knowledge and skills?

- A. Yes
- B. No

11. In your opinion, are you trained enough practically related to the market/employers need?

- A. Yes
- B. No

12. Is the curriculum provided in the TVET institutions relevant to the labour market or employer needs regarding the automotive technology?

A. Yes B. No

13. Are you currently employed?

A. Yes B. No

14. If your response to number 13 is “yes”, the owner of the organization is:

A. Government B. Private C. NGO D. Self-employed

15. How long did it take you to join a job after you graduated from the TVET institution?

A. 1 year B. 2 years C. 3 years and above

16. Do the employers announce vacancy to recruit the manpower for their organization?

A. Yes B. No

17. Did you get adequate practical exercises in your field of study in the TVET institution in accordance with the labour market needs? A. Yes B. No

18. If your answer to no. 17 is “No”, what is the reason? You can choose more than one answer.

- A. Most of the time the training was theoretical.
- B. Competence of the trainers was weak in providing practical training.
- C. Lack of adequate training materials/machines.
- D. Lack of interest to practical training by trainees.

19. If you are not employed in the existing market, what is the problem?

- A. Lack of relevance of my field to the market.
- B. Lack of necessary competence in my field that matches to the labour market.
- C. Lack of confidence of employers on the graduates of TVET.
- D. Others specify-----

20. How do you rate the availability of employment opportunities in your zone or locality?

	Item	High	Medium	Low	No opportunity
1	Government organization				
2	Private organizations				
3	Self-employment				

21. How do you rate the availability of self-employment opportunities with respect to?

	Item	High	Medium	Low	Not available
1	Access to credit				
2	Access to raw material				
3	Others supports that facilitates self-employment				

22. In your opinion, how do you rate the relationship between TVET institutions and employers or stakeholders in helping the trainees to become employable?

- A. High B. Medium C. Low D. Too weak

23. Are the TVET institutions equipped with the necessary resources, for instance, trainers, machines, equipments, textbooks, etc.

- A. High B. Medium C. Low

24. In your opinion how is the competence of trainers, especially in giving practical training?

- A. High B. Medium C. Low

25. How do you rate the availability of employment opportunities for the graduates of automotive technology in your zone or region?

- A. High B. Medium C. Low D. No opportunity

26. How do you evaluate TVET institutions in assessing labour market needs before providing training?

- A. High B. Medium C. Low

27. How do you rate the skills of graduates in relation to the requirements of the employers' needs after you come to the market as compared to the others?

- A. High B. Medium C. Low

28. In your view, what are the major problems that affect the relevance of TVET training to labour market demand in implementing the training activities?

29. What alternatives do you suggest to improve the relevance of the TVET program to the labour market demand in employability of the graduates?

Thank you again for your cooperation!

Appendix 1.2 Trainers

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Department of Vocational Education Management

A Research on Relevance of Technical and Vocational Education and Training (TVET) to Labour Market Demand of Automotive Technology in Selected TVET Institutions

A questionnaire to be filled by trainers of the sampled TVET institutions

Introduction:

The purpose of this questionnaire is to assess the relevance of TVET training to labour market demand in the four selected TVET institutions. Accordingly, the success of this study depends on the sincerity and frankness of your response to the questions raised to you in this questionnaire.

Please note that:

- ❖ No need of writing your name,
- ❖ Where alternative answers are given, please mark your answer by circling the letter of your choice,
- ❖ Put a “√” mark for the answers in the tables, and
- ❖ Please be as brief as possible in answering the open-ended questions.

Part I: - Personal History:

1. Name of the institution: -----
2. Sex: A. Male B. Female
3. Age: A. 20-30 years B. 30-40 years C. 40-50 years D. 51 years & above
4. Major Field of study: -----
5. Service in years: A. 1-5 B. 6-10 C. 11-15 D. 16 & above
6. Educational level: A. Diploma B. BA/BSc C. MA/MSc D. Ph.D.

2. Part II: - General Questions:

1. Do you have interest in working in TVET institutions?
A. Yes B. No

2. Does the institution give opportunities so as to choose a field of study on the basis of their interest before they start training program?

- A. Yes
- B. No

3. If your answer for number 2 is “no”, what methods were used to join the department of automotive technology?

- A. Interview
- B. Entrance exam
- C. Previous academic achievement
- D. Lottery method
- E. Others-----

4. Is the vocational guidance and counselling unit well equipped both in manpower and materials?

- A. Yes
- B. No

5. Did your institution give vocational guidance to the trainees?

- A. Yes
- B. No

6. If your response is” yes”, how was the effect of advice?

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

7. Do you believe the knowledge and skills the trainees gained from the training are adequate to start their own business or employed in the organization?

- A. Yes
- B. No

8. If your response is “no”, what are the major factors?

- A. The training is not related to the world of work.
- B. More time is spent on theory.
- C. The machines and tools available in the institutions are not related to the practical work.
- D. If others mention -----

9. Is the labour market information system conduct in your institution?

- A. Yes
- C. No

10. What mechanisms are you using to get timely and adequate labour market information?

- A. Tracer study
- B. Labour market monitoring
- C. Needs assessment
- D. Others specify-----

11. Are there variations across programs and/or across contexts in terms of formal TVET supply to the market based on market assessment?

- A. Yes B. No

12. Do your institution conduct tracer study in your institution? A. Yes B. No

If your response is “yes”, how often are you assessing the labour market?

- A. Annually
B. Every three years
C. Every five years
D. If other mention-----

13. Is there an investment activity of automotive technology firms or companies in your zone or region which can play a substantial role in creating job opportunities?

- A. Yes B. No

14. Is there a shared understanding among key stakeholders and your institution about the relevance and applicability in different TVET contexts? A. Yes B. No

15. Is the time allotted for the training sufficient to acquire the needed knowledge and skills? A. Yes
B. No

16. How would you academically rate your trainees’ knowledge and skills?

- A. High B. Medium C. Low

17. How do you rate the training facilities and equipments in your institution?

- A. High B. Medium C. Low

18. How do you rate the adequacy of budget allocated to your institution/department?

- A. High B. Medium C. Low

19. The partnership between TVET institutions & employer organizations in order to facilitate the employment opportunities of graduates is:

- A. High B. Medium C. Low

20. To what extent are the programs that trainees are studying in the field of automotive technology relevant to the world of work?

- A. High B. Medium C. Low

21. Does the curriculum provided in the TVET institutions have relevance to the labour market or employer needs regarding automotive technology?

- A. Yes B. No

22. How do you rate the availability of employment opportunities in the graduates of automotive technology in your zone or region?

- A. High B. Medium C. Low D. No opportunity

23. How do you rate the match between the skills of graduates and the requirements of the employers in the labour market?

- A. High B. Medium C. Low

24. How do you rate the availability of employment opportunities in your zone or locality?

	Item	High	Medium	Low	No opportunity
1	Government organization				
2	Private organizations				
3	Self-employment				

25. How do you assess the availability of self-employment opportunities with respect to?

	Item	High	Medium	Low	Not available
1	Access to credit				
2	Access to raw material				
3	Others supports that facilitate self-employment				

26. What major problems do you observe in relevance of TVET to labor market demand in relation to job opportunity? -----

27. Please list down the alternative solutions for the problems what you mentioned above.

28. Would you comment on partnership between TVET institutions and employer organizations?

Thank you for your cooperation!

Appendix 1.3

Management members and supervisors

Addis Ababa University

School of Graduate Studies

College of Education and Behavioural Sciences

Department of Vocational Education Management

A Research on Relevance of Technical and Vocational Education and Training (TVET) to Labor Market Demand of Automotive Technology in Selected Four TVET Institutions

Questionnaires' to be filled by management members and supervisors of four selected TVET institutions and regional TVET bureau.

Introduction:

The purpose of this questionnaire is to assess the relevance of TVET training to labor market demand in four selected TVET institutions. Accordingly, the success of this study depends on the sincerity and frankness of your response to the questions raised to you in this questionnaire.

Please note that:

- ❖ No need of writing your name,
- ❖ Where alternative answers are given, please mark your answer by circling the letter of your choice,
- ❖ Put a “√” mark for the answers in the tables, and
- ❖ Please be as brief as possible in answering the open-ended questions.

Part I: - Personal History:

1. Name of the TVET institution-----

2. Sex: A. Male B. Female

3. Age: A. 20-30 years B.31-40 years C. 40-50 years D. 51 years & above

4. Service in years-----

5. Your current position-----

6. Qualification: A. Diploma B. BSc/BA C.MA/MSc D. Ph.D. E. Other specify-----

7. Major Field of study-----

Part II: - General Questions:

1. Does the institution give opportunities so as to choose field of study on the base of their interest before they start training program?

- A. Yes B. No

2. If your answer for number 1 is “no”, what methods were used to join the department of automotive technology?

- A. Interview
B. Entrance exam
C. Previous academic achievement
D. Lottery method
E. Others-----

3. Is the vocational guidance and counselling unit well equipped both in manpower and materials?

- A. Yes B. No

4. Did your institution give vocational guidance and counselling to the trainees regarding to the fields of study and labour market demand?

- A. Yes B. No

5. If your response is “yes”, how was the effectiveness of the advice?

- A. High B. Medium C. Low

6. Do you agree that TVET institutions are producing competent manpower in practical skills and knowledge to the labour market demand specifically in the department of automotive technology?

- A. Yes B. No

7. Are there variations across programs and/or across contexts in terms of formal TVET supply to the market needs?

- A. Yes B. No

8. Is there an investment activity of automotive technology firms or companies in your zone or region which can play a substantial role in creating job opportunities?

- A. Yes B. No

9. Is the time allotted for the training sufficient to acquire the needed knowledge and skills?

- A. Yes B. No

10. How do you rate the experience of trainers in automotive technology department?

- A. High B. Medium C. Low

11. How competent academically are most trainers in the department of automotive technology in practical skills?

- A. High B. Medium C. Low

12. Do you believe the knowledge and skills trainees gained from the training are adequate to start their own business or be employed in organizations competitively?

- A. Yes B. No

13. Is the labour market assessment conduct in your institution?

- A. Yes B. No

14. Could it be facilitated tracer study in your institution?

- A. Yes B. No

15. Are the stakeholders were participating in the labour market assessment?

- A. Yes B. No

16. How do you evaluate the participation of stakeholders in general & employers in particular in planning the training being offered in your institution?

- A. High B. Medium C. Low

17. In your view, how do you see the chance of job opportunities for automotive TVET graduates in the existing labour market?

- A. High B. Medium C. Low

18. To what extent are the programs that trainees are studying relevant to the world of work?

- B. High B. Medium C. Low

19. Is the curriculum provided in the TVET institutions relevant to the labour market or employer needs regarding automotive technology? A. Yes B. No

20. Are the TVET institutions equipped with necessary resources, for instance, trainers, machines, equipments, textbooks, etc?

- A. High B. Medium C. Low

21. How do you rate the adequacy of budget allocated to your institution?

- A. High B. Medium C. Low

22. How do you rate the availability of employment opportunities in your zone or locality?

	Item	High	Medium	Low	No opportunity
1	Government organization				
2	Private organizations				
3	Self-employment				

23. How do you assess the availability of self-employment opportunities with respect to?

	Item	High	Medium	Low	Not available
1	Access to credit				
2	Access to raw material				
3	Other supports that facilitate self employment				

24. Is there a shared understanding among key stakeholders and your institution about the relevance and applicability in different TVET contexts?

A. Yes B. No

25. What major problems do you observe in relevance of TVET to labour market demand in relation to job opportunity?

26. Please list down the alternative solutions for the problems you mentioned above.

27. Would you comment on partnership between TVET institutions and employer organizations?

28. To what extent are graduates of automotive technology employed in the market?

Thank you for your cooperation!

Appendix 2.2

Interview Guide for coordinators of micro and small enterprises coordinators

1. Do you think the programs that the TVET institutions provide are relevant to the world of work, especially in your zone?
2. Would you comment on the relationships between TVET institutions and enterprises?
3. Do you think there are problems in terms of?
 - ❖ Relevance of training to labour market demand,
 - ❖ Criteria of admission to TVET institutions,
 - ❖ Financing TVET,
 - ❖ Employment opportunities, and
 - ❖ Others.
4. Would you comment on the competence of TVET graduates? That is, skill, knowledge as compared to the labor market demand?
5. If you say “There is a problem”, what is the reason?
6. Do you think there are sufficient self-employment opportunities for TVET graduates?
7. What problems did you observe in terms of?
 - ❖ Access to credit,
 - ❖ Raw materials,
 - ❖ Market relevance, and
 - ❖ Administrative support and others.
8. In your opinion, are the graduates of automotive technology employed in the market in the previous years?
9. Is there permanent and continuous follow up and support by your office to the TVET training centers? If there is, please mention -----

Interviews to Employers

1. Do you think the automotive technology trainings provided in the TVET institutions are relevant to the world of work? If not- what are the reasons? How can we improve it?
2. In your opinion, are there sufficient job opportunities for TVET automotive technology graduates?
3. Do you think the TVET institutions have a significant importance in providing the skilled manpower of automotive technology to the labour market?
4. Does your organization helps in giving information up on the existing labour market demand related to the automotive technology programs for the TVET institutions?
5. In your opinion the relationship of your organization and the TVET institution is:
A. Strong B. Average C. Weak
6. Is your organization interested in hiring TVET automotive technology graduates?
A. Yes B. No
If your response is “yes”, how many employees are there in your work place?
If your answer is “no”, why?
7. What do you suggest for the effective implementation of TVET programs regarding automotive technology?
8. What do you think are the major problems facing the automotive technology training being provided in TVET institutions?
9. In your view, in what mechanism can the relevance of automotive technology training to labour market demand be improved?

Appendix 4

Observation check list

1. Facilities in the TVET institutions

	Workshop conditions and facilities	More than satisfactory/adequate	Satisfactory/adequate	Not satisfactory/adequate
1	Enough space			
2	Safety precautions			
3	Space for storage			
4	Equipment			
5	Raw materials			

2. Document registrations and assessments

	Documents	Well organized	Organized	Not organized
1	Market assessment results			
2	Tracer studies of previous years			
3	Minutes of partnerships			
4	Registration of trainees			
5	List of graduates			

3. Companies' or firms' strength

	Condition of the companies	High	Medium	Low
1	Capacity of department			
2	Employment opportunity			
3	Understanding of TVET			