ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES
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TRAINING AND THE EMPLOYMENT OPPORTUNITIES OF GRADUATES OF PRIVATE HEALTH TVET COLLEGES IN ADDIS ABABA CITY ADMINISTRATION

BY:
GIZAW ADUGNA

JUNE, 2014
ADDIS ABABA
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OF GRADUATES OF PRIVATE HEALTH TVET
COLLEGES IN ADDIS ABABA CITY ADMINISTRATION

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### Acronyms

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<th>Full Form</th>
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<tr>
<td>CEO</td>
<td>Chief Executive Officer</td>
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<tr>
<td>COC</td>
<td>Competency Occupation Center</td>
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<td>FGD</td>
<td>Focus Group Discussion</td>
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<td>HRM</td>
<td>Human Resource Management</td>
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<td>MDGs</td>
<td>Millennium Development Goals</td>
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<td>MoE</td>
<td>Ministry of Education</td>
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<tr>
<td>MoH</td>
<td>Ministry of Health</td>
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<tr>
<td>NGO</td>
<td>Non Governmental Organization</td>
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<td>TGE</td>
<td>Transitional Government of Ethiopia</td>
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<td>TVET</td>
<td>Technical and Vocational Education and Training</td>
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<tr>
<td>UNESCO</td>
<td>United Nation Education, Social and Cultural Organization</td>
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<td>WHO</td>
<td>World Health Organization</td>
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Abstract

This study was conducted to investigate the training and factors affecting the employment opportunities of graduates of private health TVET colleges in Addis Ababa. To realize the purpose of the study, descriptive survey research design was employed. The study was carried out in five private health TVET colleges, which were selected using stratified random sampling techniques. A total of 128 graduates from selected private health colleges, 20 instructors, 5 deans, two key officials of technical and vocational education and training Agency, two Competency Occupation Center (COC) officials, 15 HRM (Human Resource Managers) of both government and private hospitals, health centers and Non-governemental organization (NGO) health facilities and departments of all selected health facilities were involved in the study. Percentage and mean value were employed to analyze the data. Based on the analyses, it was found out that most of the instructors have less than five years work experience, in adequate materials provision in the laboratory and demonstration, instructors were not well planned and committed, examinations were not given according to schedule, and students faced problems in apparenticips. Accordingly conclusion were showing that the quality of education and practice in both in school and apparenticips were not as it were expected to be implemented, and greatly affected the employment opportunities of graduates from private TVET health colleges, since the health profession needs a great care and have involvement directly to human life. Finally, the study recommended that TVET health institutions in collaboration with Addis Ababa TVET agency need to motivate instructors both in materials and non-materials incentives. TVET agency and Ministry of Health (MoE) should have a devise and develop plan to help the health facilities to work in collaboration with health colleges in apparenticips, so as to bring the desired effect on the quality of graduates. Policies should be revised and there should be controlling mechanisms, where students can get enough knowledge and skill in the teaching-learning activities as well as apparenticips.
CHAPTER ONE

1. INTRODUCTION

1.1 Background of the study

At the heart of each and every health system, the work force is central to advancing health. (WHO. Working together for health, World Health Report. 2006). There should be optimum number and professional mix of human resource for the effective coverage and quality of the intended services. Health services are labor intensive and personal in nature. Health problems in Ethiopia are dominated by communicable and nutrition related diseases. When additional funds become available from various sources, the ability to absorb them will be constrained without appropriate human resources.

The health policy of Ethiopia emphasizes training of community based task-oriented frontline and mid level health workers. As a mechanism to retain health workers the policy supports developing an attractive career structure, remuneration and incentives for all categories of workers within their respective systems of employment. Besides there will be a focus on developing appropriate continuing education for all categories of workers in the health sector. Strengthening administration and management of health systems is one of the areas given priority by the policy. (TGE Health Policy of the Transitional Government of Ethiopia, 1993)

Developing countries including Ethiopia need to improve productivity throughout the economy if they are to compete successfully in an era of rapid economic and technological change. This requires not only capital investment but also a workforce that has the flexibility to acquire and
change occupations. As defined by UNESCO (in Aggarwal, 1997:200), the level of competence of a country’s skilled workers and technicians is very important to the flexibility and productivity of its labor force. Skilled workers and technicians enhance the quality and efficiency of production and maintenance, and they supervise and train workers with lesser skills. The development of a skilled labor force makes an important contribution to national development. It is able to supply science and technology for transformation of materials into goods and services. A knowledgeable and capable skilled workforce is, therefore, the secret to economic success and national development (UNESCO, 1996:14).

Gillie (1973:3) noted that, occupational education has two major people-oriented objectives. It seeks to provide: (1) a sequence of educational and training experiences designed to prepare certain people for initial entry into the world of work; and (2) education and training that will enable other people to continue their employability and to further increase their usefulness in the working society. Occupational education is concerned with new workers and also with the large group of people who are already in the work force.

Technical and vocational education and training is particularly important in ensuring transition from school to the world of work. This requires effective partnerships with schools and with industry and other economic sectors, which embrace shared values, shared curriculum, shared resources and shared outcomes. The Ethiopian government has recognized the importance and the need for establishing a large number of TVET institutions in the effort to promote economic and technological development in the country. Within a short period it has managed to increase the number of TVET centers from 15 in 1994 to 10,388 in 2006/7.
However, according to Atchoarena and Delluc (2002:15), technical and vocational education systems are everywhere facing challenges to prepare sufficient number of people with the right skills to meet labor market demands. Matching skills, knowledge, and attitudes and the needs of employment is increasingly challenging in the current context of globalization and rapid technological change due to the constant transformation of occupations. A critical issue for technical and vocational planners and managers is how to train individuals for further jobs on the basis of information covering past and present labor markets.

A study conducted by Wanna (1998) has come up with the conclusion, among others, that formal vocational/technical training fails to respond to changing labor market situation because of such characteristics as narrow concept/definition of training, trainee coming to the training, off-the-job classroom-based “hands-off” instruction, theory-based learning, reliance on written messages, textbook approach, standard curriculum, trainer-centered, and trainee adapted to learning materials. The process of producing competent citizens who make good contributions for the country’s overall development requires the fulfillment of various requirements.

According to Biazen and Amha (2009) considerable number of the skilled labour force is facing problems of unemployment due to lack of employment opportunity (Biazen and Amha 2009). The authors further noted that apprenticeship is said to be not as effective as desired, industries, production units and offices are not committed in providing apprentice services to trainees (Biazen and Amha 2009). School to work transition is only in conditions where the government trains student for particular job opportunities such as construction and electricity by which they get hired by the government. In other cases it is left for the student to find employment in the labour market. Nevertheless, most
students lack knowledge of where to go and apply. In this regard, the problem could be alleviated by providing counseling services (Biazen and Amha 2009).

1.2 Statement of the Problem

WHO has identified a threshold in workforce density below which high coverage of essential interventions, including those necessary to meet the health-related Millennium Development Goals (MDGs), is very unlikely. The health policy of Ethiopia emphasizes training of community based task-oriented frontline and mid level health workers. As a mechanism to retain health workers the policy supports developing an attractive career structure, remuneration and incentives for all categories of workers within their respective systems of employment. Besides there will be a focus on developing appropriate continuing education for all categories of workers in the health sector. Strengthening administration and management of health systems is one of the areas given priority by the policy. (Health Policy of the Transitional Government of Ethiopia. 1993.)

Shortage of staff in Ethiopia has always been critical. Health worker/population ratios, for example are 3 to 4 times lower than even East African standards (Lindelow 2005). This has been exacerbated by the rapid expansion of facilities in the 1st years of HSDP. Allocation not related to workload has also meant severe shortage in some areas while some health workers in other locations remain idle. Performance at most levels is also considered low (Lindelow 2005). The density of health workers to population is much lower than the average for Sub Sahara Africa while the minimum level of health workforce (doctors, nurses and midwives) density required to achieve MDGs in Africa, for example, has been estimated at 2.5 per 1000 population (JLI 2004).
The overall objective of the National TVET Strategy is to create a competent, motivated, adaptable, and innovative workforce in Ethiopia that contributes 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 (MoE, 2006:10).

Despite the optimistic objective of the sector, TVET institutions are currently producing graduates that fail to fulfill the needs of the labor market particularly the health TVET graduates, Successful employment of technical/vocational training program graduates is influenced by (a) relevance of the curriculum to the labor market and (b) sensitivity of the training institutions to the changing labor market (Wanna, 1998:61). Currently a lot of problems are observed in TVET delivery. Some of them are lack of systematic integration of TVET with the world of work; curricula used in formal TVET not developed based on occupational standards; unemployment of many TVET graduates even in those occupational fields that show a high demand for skilled manpower; substantial resource wastages as a result of underutilization of equipment in public TVET institutions; low quality of TVET teachers/instructors; and as a consequence of budgetary constraints, most urban public TVET programs are under-funded while rural public TVET programs suffer from poor facilities and shortages of training materials (MoE, 2008:). Vocational education, as sub-sector of the education system should be made to play its role in the country’s development. Ethiopia, like many other developing countries, cannot achieve economic and social development without a skilled, productive labor force that can meet the changing requirements of its environment.
With this in mind, the study is intended to investigate factors affecting the contribution of private health colleges delivering TVET level health professionals in terms of number and with required competency to join their hand in ever increasing shortage of human resources for health to address multifaceted health problems in Ethiopia.

1.3 **Objective of the Study**

1.3.1 **General Objective of the Study**

The general objective of this study is to assess contribution of private health TVET College in alleviating of health professionals in Addis Ababa and factors affecting in producing demanded and competent man power of the national human resources for the health sector.

1.3.2 **Specific objective of the study**

1. Analyze the employment status of health TVET graduates in labor market.
2. Identify factors which affect the employment opportunities of TVET health graduates.
3. Assess the teaching-learning processes in private TVET health institution.
4. Suggest possible solution that could help to minimize or alleviate the major challenges.

1.4. **Basic Questions of the Study**

This study attempts to answer the following basic questions.

1. What is the employment status of health TVET graduates in the labor market?
2. What are the major factors which contribute to employment of TVET health graduates?

3. How well the private TVET health institutions organized to provide quality education?

4. What are the possible remedial solutions that can minimize or alleviate the major challenges?

1.5. Significant of the Study

The central purpose of this study was assessing the field of study in TVET level in health sector and the dominant factor affecting the performance of candidates in the teaching learning processes on occupational competency assessment as well as facing problems in employment status. Therefore, this study is promising in terms of resolving the problems associated with the teaching–learning processes, occupational competency assessment and the graduate employment condition.

The study is also promising in terms of filling the gap in knowledge as well as shed some more light about the dominate factors which affect the employment status of graduates’ of private health professionals. More importantly, the finding of this study can also lead to new problems, for further investigation. Practically, the study is meant to signal and motivate the various stakeholders to take appropriate action by incorporating the issue in their policies and strategies.

To put it in short, the researchers feel that, this study is important for the following major reasons:-

1. Help leaders and managers in private TVET health institutions to be aware of the problems associated with teaching–learning
processes, occupational competency and graduate employment status.

2. Assist Addis Ababa strategic planners and policy makers of TVET in health sector to provide information about the strategies of maximizing and scaling up the number of competent health professional for the labor marketing demand, so that, they can find new ways and means of resolving problems in providing the necessary materials.

3. Provide insight for health facilities provider, leaders and health workers to be aware of the importance of apparatiship which helps the health professional to be equipped with skill and good knowledge, so that they can help the student in this regards.

4. Moreover, it is also hoped that the study may serve as a stepping–stone for other investigators who may intend to carry out further study on the area in the future.

1.6. Delimitation of the Study

Conducting a research in all private health TVET colleges found in Addis Ababa and assessing factors affecting the teaching–learning process, occupational assessment, employment status and apprenticeship in health facilities are not only heavy tasks, but also consume more financial and time resource. Therefore, this study has been delimited to an area which can be manageable by the researcher with the available resource and time

1.7. Limitations of the Study

It is clear that the result of the study would have been more valid, reliable and could be generalized for the whole country, if the data had been obtained from a wider population of all health TVET colleges, health centers and hospitals. However, this study was delimited in 30% of
medical colleges and 15 hospitals and health centers because of financial, time and other resource constraints. Moreover quantitative data was not collected from instructors, because of very low full time instructors available at each sample colleges. 

Additionally, statistical significance test was not employed due to lack of sufficient quantitative data from major stakeholders (college, stuff and health facilities), and organizing FGD and interview as needed were difficult, nevertheless, I did my best to overcome the problems encountered in the course of the study. To this end, key respondent were approached through repeated visits and upholding the most convenient time and place.

1.8. Operational Definitions

Candidates: Are individuals who are studying in private health TVET College.

Stakeholders: Are Studentes, instructors, individuals and/or organization that are directly or indirectly engaged in teaching learning processes, and hospitals and health facilities for cooperative training (Apparenticips)

Competences: Knowledge, skills and attitudes which an individual accumulates, develops, and Acquires through education, training and work experiences (World Bank)

Education: Preparing students for the practice of health by equipping them with necessary knowledge and skills, usually within established structures like laboratory, nursing, and pharmacy.
Employment: The condition in which personnel available for work in a labour market employed.

Health labor demand: The amount of services those individuals; organizations or governments would like to purchase from providers at current prices and wages. Health labor demand is conceptually different than the amount of provider services that are actually ‘needed’ to improve population health. (Based on Adams et al., WHO)

Incentives: Rewards and sanctions to improve instructors performance and motivation by providing financial and non-financial benefits such as flexible working schedule and training, education and career development opportunities. (World Bank)

Private health TVET college: is a profit making teaching institution (nongovernmental institution), teaches students in Health stream.

Stakeholders: Are Students, instructors, individuals and/or organization that are directly or indirectly engaged in teaching-learning processes, Hospitals and Health facilities for cooperative training.

Training: maintenance and adaptation of the competencies of existing personnel within the context of their current position.

Unemployment: The conditions in which personnel available for work in a labour market are not employed.

1.9 Organization of the Study

This study is organized into five chapters. The first chapter consists of the background and significance of the problem, objective and significant
of the study, Delimitation and Limitation of the study, Operational
definition and organization of the study. Chapter two presents the review
of related literatures. Chapter three deals with research design and
methodology employed in conducting the research. The fourth chapter
includes the presentation, analysis and interpretation of the data. The
last chapter presents the summary of the major finding of the study,
conclusion and recommendation. Finally, references and appendices are
attached to the last part of the study report.
CHAPTER TWO

2. REVIEW OF LITERATURE

2.1 Overall Understanding of TVET

Vocational education and training are in all probability as old as humanity (Maclean and Wilson 2009). Currently, UNESCO estimates that some 80% of occupations are based on the application of technical and vocational skills to the world of work (UNESCO-UNEVOC & UNESCO-UIS, 2006).

TVET is a comprehensive term referring to the educational process, which involves, in addition to general education, the study of technologies and related sciences and the acquisition of practical skills and knowledge relating to an occupation in various sectors of economic and social life (UNESCO, 1984). It is the major link connecting the school system and the employment market, which means that developments in TVET are intimately linked to general trends in the economy (UNESCO, 1990).

The term TVET has changed all through history, typically in reaction to the demands made by the societies it serves (Maclean and Wilson 2009). The term “TVET” was adopted by UNESCO and ILO at the second International Congress on TVET, held in the Republic of Korea, Seoul in 1999 (Maclean and Wilson 2008). Kingombe (2012) notes that term TVET was adopted by UNESCO and ILO in consultation with their member states and partner agencies to mean:

“Those facets of the educational and training procedures involving the study of technologies and related sciences, and the acquisition of
practical skills, attitudes, understanding and knowledge in various sectors of economic and social life” (UNESCO, 1999 as cited by Kingombe 2012).

Maclean and Wilson (2009) argue that the present term TVET necessitates both explanation and differentiation from other terms (Maclean and Wilson 2009). Over time, a string of terms have been used to elucidate elements of the field that now makes up the term TVET. To mention a few: occupational education (OE), vocational education and training (VET), technical education, TVE career and technical education (CTE), (Maclean and Wilson 2009). A number of these terms are commonly used in specific geographical areas. For instance, in Europe the term vocational education and training (VET) is in common usage, while in the United States the current term is career and technical education (CTE). In addition, many in the field are advocating the use of continuing vocational education and training (CVET). There are also several different dimensions that can be used to define vocational education and training for example: its venue (company-based, apprenticeship, school-based), and character (initial, continuing).

Many Authors argue that, TVET by design is planned to build up skills that can be used in a specific occupation or job. These same authors argue that the objectives and content of TEVT curricula is derived from analysis of the tasks that are to be carried out on the job. The effectiveness of these curricul can be measured by the extent to which trained persons can use their skills in employment. (Middleton, Ziderman, V. Adams 1993). Maclean and Wilson (2009) define TVET as the acquirement of education and skillfulness for the world of work to raise prospects for productive work and personal empowerment and socio-economic development for sustainable livelihoods in the speedily changing work milieu.
2.2 The Human Capital Theory

Economists like Becker (1993) defined the relation between the individuals’ abilities, education, training, and the outcomes obtained in the labour market, in terms of wages and employment (Becker, 1993). Individuals or governments invest resources in education or training up to the point where the profit or gain of the last Birr invested in human capital is greater than the profit or gain that would have been invested in any other markets (Becker 1964). Furthermore, human capital theorists argue extensively that any resources voluntarily committed for enhancement of human capital have a definite productivity aspect (such as McMahon 1999). The view of these theorists has been that schooling or training elevates labour productivity through its function in increasing the abilities of workers. The outlook that elevated labour productivity is a positive function of the amount of schooling or training obtained is the main premise of human capital theory (Colcough 1982).

Nevertheless, economists like Spence (1973), have argued that those who are more able and productive also have a tendency to invest in more education. In other words, education does not inevitably make you more productive it basically is an expensive sorting scheme, to support employers to recognize more able individuals. Wolf (2002) points out that the policy emphasis on education and skills as the main driver of economic growth exaggerates the significance of human capital investments and that a major function of education is as a sorting tool (Wolf 2002). It is clearly vital to understand these potential economic returns to education and training to the individual, firms, and the wider economy. Even so, we must also distinguish that separating out the genuine impact of education on productivity and earnings from its task as a sorting tool is very challenging (Carneiro 2010). According to Worthington and Juntunen (1997), Human capital theory also
emphasizes that human capital is developed differently between different individuals due to distinctiveness of an individual’s characteristics such as:-

1. Inherent cognitive skills;
2. Practical skills and norms and values;
3. Differences in the surroundings;
4. Differences in the capacity to benefit from in the investment in human capital;
5. Parental background and many other reasons.

Impact analysis of the returns to human capital requires common and sometimes complex econometric analysis of education/training–labour market linkages (Fasih 2008). For an all-inclusive representation of human capital–labour outcome linkages, the supply-side analysis needs to be harmonized with demand side analysis (Kingombe 2012). The provision of adequate jobs for the labour force is a vital issue for any policy maker, not simply an adequate number of jobs for the workforce, but also whether these jobs are of good quality and/or whether self-employment is an option in the economy. As to the de-and side, it should include policy issues related to the curriculums and programme structure, other than policy issues that affect the operation of labour outcomes for example the mismatch of skills and trainings in labour markets. Literature on the rate of returns to human capital in developing countries evaluates the returns to vocational in comparison to academic education (Psacharopoulos 1994, Bennell, 1996) or tries to classify the impact of completing heterogeneity in schooling and impact on earnings (Appleton 2001). This permits one to build conclusions regarding the strength, span, and rate of return on post school investments across occupational paths (Freeman and Hirsch 2002).
The Bonn resolution of October 2004 noted that TVET is the “Master Key” for alleviation of poverty, promotion of peace, and conservation of the environment, in order to improve the quality of human life and promote sustainable development. Ethiopia can reorient itself towards sustainable development, using TVET as a vehicle for socio-economic and technological transformation. It is critical that Ethiopia, through TVET meets the challenges of increased unemployment, poverty, food insecurity and environmental degradation.

2.3 Historical Framework of Technical and Vocational Education (TVET)

2.3.1 What is TVET?

TVET refers to technical and vocational education and training which is defined differently by various sources. Here only a few of them are considered. TVET is described as “a comprehensive term referring to those aspects of the educational system involving, in addition to general education, the study of technological and related sciences and the acquisition of practical skills, attitudes understanding and knowledge relating to occupation in various sectors of economic and social life” (UNESCO quoted by ecbp, 2006: 9) TVET is an orientation and exposure to the subject which give the knowledge and skills up on which the students could build for future career. TVET is an integral part of the national educational system. Through TVET technological knowledge and practical skills are transmitted to persons from all sphere of society (ecbp, 2006:9). TVET is broadly defined as “education which is mainly to lead participants to acquire the practical skills, knowhow and understanding, and necessary for employment in a particular occupation, trade or group of occupations (Atchoarena & Delluc 2001).
Such practical skills or knowhow can be provided in a wide range of settings by multiple providers both in the public and private sector. Those definitions in one way or another fundamentally indicate or in sum late that it is a field of human endeavor that develops practical skills and knowledge’s in preparation for work and future studies broadly TVET may be seen both as a vehicle for the development of marketable and Entrepreneurial skills and as an engine for development. Owing to the above fact most countries have developed their own TVET system. There are considerable literatures written about TVET system. International organization such as UNESCO and ILO has been working in the area at global level. Ethiopia also has adopted its own TVET system.

2.3.2 The Role of TVET

The role of TVET in furnishing skills required to improve productivity, raise income levels and improve access to employment opportunities has been widely recognized (Bennell, 1999). Developments in the last three decades have made the role of TVET more decisive; the globalization process, technological change, and increased competition due to trade liberalization necessitates requirements of higher skills and productivity among workers in both modern sector firms and Micro and Small Enterprises (MSE). Skills development encompasses a broad range of core skills (entrepreneurial, communication, financial and leadership) so that individuals are equipped for productive activities and employment opportunities (wage employment, self-employment and income generation activities).
2.3.3 TVET Development of in Africa

The first conference of African States on education was held in Ethiopia in 1961. The conference obviously put the pitch in placing precedence on expanding general secondary and tertiary education (UNESCO, 1961), with a view to rapidly replacing the colonial human resource and additional expatriates in the civil service which in turn made vocational education and training in Africa a ‘Second-rate Priority’ in the education agenda (Wilson, 2005). After about a dozen years from the 1961 education conference, an enormous in-crease in the numbers of youth completing primary education and disentangled demand for secondary education was observed (Oketch 2007). These lead many independent governments in Africa to relapse to supporting TEVT on the basis of the production structure of their respective countries and the dwindling number government jobs (ibid).

Pioneer of TVET researcher in Africa, Philip Foster in 1965 argued that, it might be lucrative to support small-scale vocational training systems strictly linked with the continuing development efforts while very detached from the official educational system to alleviate the problem of youth unemployment (Foster, 1965). Mark Blaug who followed Phillip Foster later in 1973 argued that the expansion of TVET cannot be a cure for educated unemployment. It cannot prepare students for specific occupations and reduce the mismatch between education and the labour market (Blaug 1973). Foster’s argument against government involvement in massive expansion of TVET despite its new found appeal after decades from independence supported by evidence from field re-search did not go with the assumptions about the benefits anticipated of TVET.

On the contrary, authors like Psacharopoulos (1997) believed that TVET would alleviate the mass problems of Africa by bringing about economic
progress and youth employment by heavily inculcating technological knowledge. He based his argument by pointing out that as everyone cannot be academically successful, TVET would offer those students to achieve something who otherwise are cast as academically unsuccessful in the general education system (ibid). Even though authors like Wilson (2005) argued that, TEVT was seen as detrimental in post-independence Africa as it was linked with the colonial educational rule. He argued that Africans viewed TVET as a ‘substandard education’. Oketch (2007) argued that, even where the context might have changed, African countries where the argument over whether to focus investment in general education or in TEVT has continued for over 40 years. Moreover, Blaug (1973) had argued that in general, both students and their parents instinctively knew that academic lines guaranteed a better livelihood than vocational education.

All in all, the current schooling structure in most countries leads to two courses: general education and vocational education (Oketch 2007). The general education enables students who gain access to it, to continue in their schooling to higher levels, while vocational education are for those students going directly to the world of work or to those who, due to limited general educational chances, are crowded out of the general education hierarchy (ibid). In some countries, it’s the choice of the student to choose his/her pathway either to join general education or vocational education. However, for vocational students in most countries crossing the path to higher education is impossible (Atchoarena et al, 2001).

Radwan, Akindeinde et al. (2010) argue that in order for Africa to attain development, the youth need to have access to a learning that will facilitate the enhancement of their standard of living by gaining competitive skills that will be in high demand in the labour market. TVET
is only one of numerous tools for employment creation (de Largentaye 2009). It is a well-known fact that vocational training can expand the attainment of suitable skills and thus raise labour supply and the “employability” of the work force. The demand for labour depends on variety of factors such as incentives for investment, the exchange rate, prices factors, personality traits, government and related entities support system, socio-cultural environment and the production and commerce environment in the country.

Dar and Tzannatos (1999) suggest that given that many countries around the world do put into practice these large scale programmes, a hard-headed approach should be whether the intended goal is met and at what cost, but not whether to just have them. Kingombe (2012) argues that, when setting up for large scale TVET programmes, policy-makers and decision-makers should be able to make knowledgeable and informed decisions that are held up by evidence-based information. However, the same author notes that there is a scar-city of proof-based information about TVET mostly in SSA (ibid).

On different note, TVET globally has a low social acknowledgment (Grollmann and Rauner 2007). The differentiation in perception between TEVT and that of the academic education has more reduced the recognition that TVET deserves (Abebe 2010). Incidentally, Grollmann and Rauner (2007) stated that:

*The empirical importance of vocational learning is overshadowed by the big emphasis society puts on academic education and credits. Despite the fact that there are gradual differences regarding this structural problem, nevertheless this is one of the universal core problems. The “Parity of esteem” between vocational and general*
education is still wishful thinking but could never be established. Still in the international discourse the prevailing orientation is that vocational education is something old and traditional fitting to the needs of the pre-industrial and industrial societies but not to the so called knowledge societies and economies or that it is at best a solution for low-achieving students.

2.4. The Historical Framework of TEVT in Ethiopia

2.4.1 TVET in Ethiopia

TVET in Ethiopia followed the school-based model of training beginning from the establishment of the system. The beginning of TVET in the formal educational scheme dates back to the founding of the 1st TVET School in 1942 in Addis Ababa which had the name Ecole National des Artes Technique (re-named later on as Addis Ababa Technical School). The school offered trainings in many occupational fields such as electricity, economics, wood work, secretarial science, accounting, auto mechanics, building construction, carpentry. Qualified candidates were enrolled into the three-year training programme known as 8+3 program, and upon completion they were awarded diplomas.

Over the years, Addis Ababa technical school underwent a number of changes in terms of the trainings offered and their entry level and duration. The school offered the 8+4, 10+2, and 10+3 programs and applicants from many parts of the country with the best academic achievements competed for admission to the then prestigious school. In 1943, the Addis Ababa School of Business and Administration (later renamed Addis Ababa Commercial College and now currently named Addis Ababa University Commercial College was inaugurated with the aim of supplying trained personnel in the vocational fields of accounting
and secretarial sciences for business and commerce, as well as for civil service. Later, banking and finance training fields were added. It offered trainings at the 8+4, 10+3, 11+3 and 12+2 levels. Currently, it offers Bachelor of Arts and Graduate degree level programs under Addis Ababa University.

In 1962, an educational reform in the country was made which saw secondary schools curriculum transform to a more inclusive education and training. This made TVET more available to students. Even though this reform was not well supported by the resources essential for its success, it was made with the intention that TVET will offer the chance for the secondary school students to join the world of work right after completion of secondary school. In reality, it was an alteration that offered the needed attention and credit for the significance of TVET in the education scheme (Abebe 2010). In 1963 the Bahir Dar Polytechnic Institute was established which further sustained the development of TVET in Ethiopia. This school was later upgraded to a higher education institution level and currently it offers Bachelor and Graduate degree level programs under the name Bahir Dar University. Abebe (2010) argues that no major institutional expansions or development agenda intended at developing TVET took place in the educational scheme between the mid-1960s and the mid-1980s (Abebe 2010).

During the Derg regime (1974-1991), the MoE was cautioning the government of the educational crisis as early as 1980s, not only in terms of achieving Universal Primary Education (UPE), but also about the increasing unemployment of the secondary school graduates (Abebe 2010). The MoE had planned to reduce the pool of unemployment through the introduction of an 8-year universal polytechnic education that could help the student’s transition to the world of work but the plan was not fully realized (Abebe 2010). After the down fall of the socialist
Derg regime in 1991, the command economy was changed by the free market economy and the country was politically constituted as a Federal Democratic Republic country (Negash 2006).

In 1991, the then transitional government of Ethiopia (currently the EFDRE) introduced a new education policy that dramatically changed the education system was introduced in July, 1994. The policy included a major supply-side push on TVET to support the school-to-work transition. It aimed at tackling the educational problems of access, equity, relevance, and quality with the regional governments of the FDRE guaranteeing the rights of their people to be taught in their language and work in the direction of achieving access to education for all age cohorts in their regions (Abebe 2010).

Before 1994, primary school included grades 1–6, junior secondary included grades 7–8, and secondary school included grades 9–12. In grade 12, students took a school-leaving exam that determined their eligibility to pursue higher education. Only a small percentage of students could enroll in higher education. The majority of students left school without any readily marketable professional or technical skills. The new education policy aimed to change this picture by focusing on producing a skilled labour force rather than a large cohort of relatively unskilled secondary school graduates.

The current educational structure consists of eight years of primary education followed by four years of secondary education. The primary education has two cycles, first cycle (grades1-4) and second cycle (grade 5-8). The secondary education has also two cycles. The first cycle is the general secondary education (grade 9-10) which leads to the end of the general education for all students. A national exam is given upon completion of grade 10, with those who score well promoted to the
second cycle of secondary school (grades 11 and 12), which is considered college or university preparatory. Those who do not score well enough to continue in secondary school have the opportunity to pursue formal TVET, which takes one to three years. One- and two-year training programs

According to Yekunoamlak, Available sources show that vocational education in Ethiopia is a recent phenomenon. The first development of vocational and technical education had started when some vocational schools were opened giving training in some vocational and technical training. The development of vocational education is related to the development of general education in Ethiopia. Prior to 20th century, the education system was predominantly religious oriented that used to serve the man power needs of the church and the state (Yekunoamlak, 2000; Wanna, 1998; Mekonnen, 2004). During that time, there was no significant sign of vocational training (Yekunoamlak, 2000). Nevertheless, Emperor Theodros and Emperor Menelik had contacted foreign countries and got some craftsmen and artisans (Yekunoamlk, 2000).

Modern type of education was introduced with establishment of Menlik II School in 1908. Though there was an intention to develop vocational education beginning that year, only academic subjects were provided. This happened, because the primary objective to open a school was to prepare Ethiopians for various clerical administrative purposes (Teklehaimanot, 2002).

After a decade the first technical school, Technical school of Addis Ababa was established in 1942 for the purpose of training junior and middle level technicians (NIGAT, 1996). Since then the technical and vocational education has exhibited various changes and continuities. Recently, (2005) the country has been engaged in reform of its TVET system. The reform is being carried out at federal and regional levels with the goal of
creating a TVET system that is responsible to the development needs of the Ethiopian economy and that can effectively provide the skills needed by those working for wages and self-employed (Ministry of Education, 2007).

The 1994 education and training policy has brought fundamental change in education sector in general and TVET in particular. Number of schools and enrollments has been considerably increased. Moreover, from 2002 onward, many TVET institutions have been opened in the country to cater to those who completed grade 10. In Ethiopia, as in many African countries, TVET suffers from a relatively poor public image. TVET is usually associated with low status job, low salary and lack of personal development opportunities, partly due to the low quality of previous TVET programmers’ that did not allow TVET graduates to successfully compete in the labor market. TVET is generally perceived as a place of last resort for those students who failed to get into higher education. This misconception needs to be rectified (MOE, 2006). Nevertheless, efforts made to investigate students’ attitude towards TVET program is negligible (Teklehaimanot, 2002).

2.4.2 Current Status of TVET in Ethiopia

At a global Symposium on implementation matter of diversified financing strategies for TVET organized by the Ethio-German Engineering Capacity Building Program (ECBP) on November 20-21, 2006 in Addis Ababa, Ethiopia, it was decided amongst the nearly one hundred experts and practitioners from eleven countries and four continents who took part, that the Ethiopian approach to TVET reform and TVET financing are very much in line with international best practice in terms of performance (Kingombe 2012). All stakeholders at the above stated symposium seemed to agree that partnerships among the public sector, the private
sector and civil society will be key in making any TVET reform process succeed (GTZ, 2006 as cited in Kingombe 2012).

Ethiopia has achieved the highest increase of 5,565 % in TVET enrolment from 1999 to 2007 from SSA countries and ranks the second among the countries in Africa in terms of number of training institutions. Further, the same author notes that, the recent growth in TVET enrolment and provision has been achieved by a substantial development of public spending and increased TVET provision by private institutions (ibid).

### 2.5 The TVET Curriculum Development

Every formal government training establishment is responsible for developing their own training materials based on the centralized occupational standards (OS) facilitated, monitored and evaluated by regional TVET agencies. Model training materials is developed and disseminated by the Federal TVET Bureau to the regional TVET agencies in order for them to develop their training material based on their local market needs and surroundings. At the beginning of the TVET programme in 2002, all training materials were prepared centrally and used by all institutions. Those materials were prepared for 10+1, 10+2 and 10+3 but the programme was changed shortly by Occupational Standards (OS) in 2004.

This curriculum reform aimed to ensure quality and relevance of TVET by facilitating the setting of National Occupational Standards which is fairly equivalent to international standards and organizing an occupational assessment and certification system which offers National Occupational Qualification Certificates to those who have proven, in an assessment, that they are competent in accordance with the defined occupational standards. The development of the occupational standards
has been re-categorized into five levels now i.e. Level 1, Level 2, Level 3, Level 4 and Level 5 packages. The Level 1 and Level 2 packages are short term training packages and are developed for those not entitled to enroll in the 10+1, 10+2 and 10+3 program i.e. students who drop out before completing grade 10.

An outcome-based TVET system which is the centerpiece of the TVET reform strives for enhanced quality and relevance of TVET. It plans to make it easier to recognize the wide range of non-formal training and informal learning schemes available, opening access to previously neglected target groups. Responsibility for establishing and facilitating a national occupational assessment and certification system rests with the Federal TVET Agency. It stipulates rules and procedures for assessment item development, for conducting assessments and will facilitate, supervise and regulate the system. Responsibility for implementing the occupational assessment, i.e. ensuring that assessment is properly conducted and certificates issued, rests with the state TVET authorities.

2.6 TEVT Occupational Fields

TVET programs are provided in no less than 20 TEVT occupational fields with more than 170 trades (Abebe, 2010). The Major focus areas of the TVET programs consist of Agriculture, Health, Industrial, Construction, and Business sectors (Abebe 2010). Generally, it is important to examine the types of trades girls are enrolled in, as it is often said girls should not be limited to traditional female stereotype roles. They must similarly participate in all vocational areas as their male counterpart.
2.7 Purpose of Technical and Vocational Education

One of the primary purposes of technical and vocational education and training (TVET) program is to meet the skilled manpower need of the specific area in which the schools have to operate. Another objective of TVET according to Evans (1971) is that it is increasing options to students so that they could join any areas they want. The availability of VE as indicated by Evans gives students an opportunity of having more options in relation to the options that may be possible by attending general education. The main purpose of Technical and Vocational Education (TVE) in Ethiopia is more or less similar with the purpose discussed above. The educational training policy and its implementation state the following as far as the purpose of (TVE) is concerned:

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

2.8 Students’ Attitude towards TVET Program

A review of research reveals a number of factors that influence students’ career choice. Among these factors are job status, employment opportunity and “interest in work”. The other relative influencers are parents, peers, councilors, media and workers (Alloway et al.,2004; Esters and Bown,2004; Adams, Womble, and Jons, 2001;) in addition to the above mentioned variables, Maxwell, cooper, and Biggs,(2000) expressed performance in school subjects has an influence for the choice of technical and vocational education program. The most important reason for enrolling in marketing courses in advanced countries as it was
reported in Adams, Womble, and Jones (2000) was to get out of school early employment. Abdelkerim (1997) contend that among the students surveyed, the majority (94%) was able to enroll in TVET based on their personal interest to attend the program.

Maxwell, Cooper, and Biggs (2000) argued that employment opportunity was a substantial influencing factor for more students/people than any other things in their choice of TVET program. Furthermore, Maxwell, and Biggs noted that parental influence, achievement in subjects, media personal friends and role models (employers) found in that order were important influencing factors to choose TVET program as study fields.

According to Abdelkerim (1997), factors that can influence people’s choice of training and their decisions to join a given field of study include personal factors, such as the social background of the person and the importance given to training versus direct employment in a family, or the choice of training for white collar jobs verses to blue collar jobs. Other factors include the educational qualifications needed for access to vocational training and physical access to training and the perceived quality of training available in vicinity.

In other words, there is no overwhelming single influence for every one, rather a combination of influences, each contributory but not conclusive in it self (Maxwell, Cooper, and Biggs, 2000). Therefore, it can be concluded that there are several social, educational and occupational factors for preferring TVET as a study field (Esters and Bowen, 2004; Maxwell, Cooper, and Biggs, 2000).

Mixed viewing (positive and negative) of vocational education by public was reported (Osborne and Dyer, 2000; Astesano, 1997; Claus, 1990). According to this argument, while some looks TVET as useful that
contributes to development, others perceive it as useless that discriminates and multiply unemployment. The positive viewers of TVET contend that participation in vocational education appears to contribute to the development of greater self-confidence, a more positive view of schools, and an improved ability to work and get along with others, a clear sense of career direction and greater feelings of success and belonging. Contrarily, the negative viewers argue that TVET program inhabit the opportunity of disadvantaged or academically alienated participants by festering compliant work attitudes and an acceptance of low status of employment or no employment (Claus, 1990). Students participating in technical and vocational education program of different levels like (10+1, 10+2, 10+3) at the present like (level1, level 2, ....level 5) showed varied attitudes to their study fields (Boser, Palmer, 1998). There maybe different reasons for having different perceptions on field of study. Some reasons attributed to employment opportunity, job status, easiness of the subject matter, easy accessibility, and availability of facilities and competencies of teachers. It is obvious that students who are participating and not participating in technical and vocational program are expected to vary in their attitude towards the program. To this effect, King (1997) showed that non-vocational participant students exhibited more interest in white-collar jobs as opposed to blue-collar jobs. On the other hand, vocational program participating students became in different for the white and blue-collars jobs, it appears, then, non-vocational students seem to support the believe that white-collar jobs are better than blue-collar jobs. Moreover, King (1997) found that the participant students misunderstanding and mis-conceptualizing TVET as for second-class, low socio-economic status; and as for failures (Teklehaimanot, 2002).
2.8.1 The Perception of Students on the Value of TVET

Unemployment has bad psychological effect on people especially on those trained but could not find employment. Hence, it becomes normal for students tend to enroll in types of education and training that expected to bear them immediate employment after training and reject others that thought to have no employment opportunities. For this matter, it is reasonable to propose that employment would have imperative influence on the development of perceptions about choice of a field as a future profession (Rojewski, 1993). On the other hand, the effectiveness of TVET depends fundamentally on the extent to which trained persons use their skills in employment. Thus, the objective of the training should be geared to enable the young people both for salary employment as well as for self-employment in which they could positively value the program (Jone, 1997).

In short, providing training without job opportunity is nothing more than waste of scarce resources. In addition, students’ perceptions of the value of TVET program, then, might not expected to be positive. Thus, developing countries must facilitate conditions for job opportunities; particularly for self-employment. If not they would not be in a position to positively influence students’ attitude and to get the invaluable benefits of vocational education program.

2.8.2 Prestige and Job Status Related Attitude towards TVET Program

Technical and vocational education has been considered as education designed for low achievers or failures and for second-class citizenship as (Teklehaimanot, 2002) reported. In explaining the misconception,
Wanacott, 2000) wrote as “The most enduring belief about vocational education is that it’s only for non-college bound, the potential dropouts, or other students with special needs and this belief is not confined to students and their parents; it is often shared by other educators and policy makers”. Therefore, one can easily understand the views of the students and the public of our country, where, students who failed to score for preparatory education are by policy made to attend TVET as an educational option (MOE, 1994).

The problem of job status of technical and vocational education is related to miss-conceptualizing the program. In developing countries like Ethiopia, job stereotypes are predominant that render it undesirable for individuals to acquire Vocational qualifications. The prestige factor is often also used to discourage participation in vocational education (dessie, 1996). Poor participation in TVET was observed because; many people preferred white-collar jobs to blue-collar jobs (King, 1997).

(Maxwell and Wanacott, 2000) indicated that high status was attributed to university over TVET and university degrees were perceived to provide the best opportunities for future employment. Some students enroll in TVET program because it is the only program they could get available. Moreover, some students program as a stepping-stone to another program.

In addition to the above explained misconception on TVET, ILO (1997) reported the following:

- Poor background of trainees and inappropriate recruitment procedures;
- Lack of encouragement and support for trainees to start their own business;
Lack of creativity of trainees lack of providing initiation by relevant bodies;

Accreditations not made by concerned organizations, and vocational skill despised by the society.

There for, it may not be difficult to estimate that the misconceptulising TVET generate negative attitude towards the program from the students or their parents or the general people.

2.9 Brief Assessment of Studies Linking Productivity with TVET

The purpose of TVET is to make people self-employed and to be a vehicle of transition from school to the world of work (Hollander and Naing Yee Mar 2009). With regards to this argument, TVET is time and again considered as a device for poverty mitigation as well as towards sustainable development through self-employment endeavours. Whilst this argument appears to be a rational one, for TVET to actually have an impact on poverty other aspects have to be in place. Moreover, for TVET graduates to efficiently be involved in productive self-employment there needs to be a labour market which can absorb the TVET graduates and provide them with productive work and an income that allows them to survive.

According to studies and researches done by international agencies, productivity employment is regarded as the linkage between economic growth and poverty reduction; the quantity and quality of employment determines how growth of an economy translates into higher incomes and hence poverty re-duction. International agencies such as World Bank and the ILO indicated that productive employment might be the main pathway out of poverty and the type of work that individuals can
access is critical. TVET links skill development policies to employment needs and labour market requirements, especially because the majority of new work opportunities are increasingly found in productive self-employment and work in the informal economy rather than in formal employment (UNICEF-WBI, 2008).

The quantity and nature of TVET varies widely across countries, and this is not necessarily linked to a country’s state of economic development (Kang-ombe 2012). For instance, Martínez, Levi et al. (2010) argues that the impact of such training does vary according to the level of economic development. The same author’s claim that the greatest impact of TVET is major in countries which are on early-stage of entrepreneurial activity with favourable institutional contexts. TVET appears to be mainly successful in countries such as Belgium, France, Germany and the UK in western Europe which have low rates of early-stage entrepreneurial activity. But in countries like Republic of Korea and Japan which have institutional barriers, as well as cultural perceptions, may also prevent the gains in awareness and attitudes from interpreting into purpose and action. They further argue that if the basic level of self-employment conditions are not sufficient, factor-driven countries should not invest in large-scale training programmes. An alternative explanation for this argument is that less-developed economies have lower quality forms of training, consequently low level of demand for the resulting limited skills (ibid).

2.10 Pinpointed Challenges and Pitfalls of the TVET System

According to Sandhaas and Winkler (2011) “... the challenges and pitfalls of any TVET system is, the constant presence of mismatch between supply and demand for manpower necessities by which
“unemployment is an indicator”. According to Winkler (2008), who made a multi-country study of TEVT re-forms for ILO, classified countries, from all parts of the world who have made TVET a major developmental approach, into three groups by their labour market characteristics: which is listed below (Winkler 2008, as cited in Sand-haas and Winkler 2011)

1. high labor force growth, low employment growth, and high unemployment rates and underemployment in terms of income level;
2. high labour force and employment growth and low unemployment rates;
3. low labour force growth, low employment growth and high unemployment rates (see ILO (Ed.) 2007).

Sandhaas and Winkler (2011) pointed out that the labour market data in Ethiopia does not fully fit into one of the groups mentioned and is therefore not easy analyse (Sandhaas and Winkler 2011).

Hence, they point out that the critical issues regards the TVET system in Ethiopia have been and still are:

1. The organization of the TVET reform as a continuous national goal;
2. The provision of TVET (in particular by private providers);
3. The financing of the system

Winkler (2008) noted, the lessons learned with regard to the key components of success TVET reforms are still relevant for the future development of the Ethiopian TVET system (Winkler 2008:50-51). Sandhaas and Winkler (2011: 24) argue that supporting elements for a
well-structured, organised, fi-nanced and regulated TVET system are
diverse: Regarding this issues they quoted:

Successful reforms appear to be those which combine public
financing of initial or pre-employment training with rigorous
evaluation of programme impact in design, and ensure
competition between providers in delivery.

Matching instruments e.g. public or private subsidies, to target
groups are as important as choosing the best delivery
mode.”While mechanisms, through which TVET is supplied, are
important, it is critical that these programmes target groups
which will most benefit from them.” The “usefulness of scientific
evaluations” in matching instruments cannot be over
emphasized.

Government’s “role as a facilitator of information on the availability and
effectiveness of vocational programmes” has been relatively neglected and
thus resulted in “lack of reliable information on the effectiveness of
public training programmes and the availability of privately provided
TVET programmes.” The practices of countries in all parts of the world
show “that a strong political will to reform – not socio-economic and
institutional factors – is the common determinant of successfully
restructuring of TVET systems” (Sandhas and Winkler 2011).

On the other hand, taking to account, the socio-economic environment
and the contextual framework in which TVET delivery systems currently
operating in Africa, the African Union in its report, Strategy to Revitalize
Technical and Vocational Education and Training (TVET) in Africa (2007)
summarized and explained the key issues of TVET system as follows:
The public i.e. families, community consider TVET as appropriate for only the academically less able. In many African countries, students entering the vocational education track find it problematic to proceed to higher education. Which shows that there is a necessity to make TVET less dead-end? Some vocational training programmes like hairdressing and secretarial science are linked with girls - very often girls who are less gifted academically. The delivery of quality TVET is reliant on the competence of the instructor; competence measured in terms of theoretical knowledge, technical and pedagogical skills as well as being up-to-date with new technologies in the workplace. In general, TVET forms a separate parallel system within the education system with its own institutions, programmes, and educators. This condition inclines to reinforce the perception of inferiority of the TVET. Consequently, it is found that it is important to create pathways between vocational education and general education. Last but not least, TVET programmes must have to be linked to the job market as the ultimate goal of TVET is employment. In this way, the socio-economic relevance of TVET can be enhanced (AU, 2007, p.6-7).

2.11 Human Resource Development for Health

Developing capable, motivated and supported health workers is essential for overcoming bottle necks to achieve national and global health goals. At the heart of each and every health system, the work force is central to advancing health. There should be optimum number and professional mix of human resource for the effective coverage and quality of the intended services (WHO. Working together for health, World Health Report. 2006.)

Health services are labor intensive and personal in nature. As additional funds become available from various initiatives (e.g. Global Fund against HIV/AIDS, Tuberculosis and Malaria, Highly Indebted Poor Countries
Initiative and other processes), the ability to absorb them will be constrained without appropriate human resources (WHO. Developing Policy options for Change Discussion Paper, HRH. 2002.)

The rapid expansion of training and health service institutions creates a major gap in terms of human resource for health (HRH) as trainers, service providers and managers. There is a large body of literature on HRH. Particular attention was given to documents from Ministries of Health and Education. Different documents were examined for their consistency, feasibility and whether the steps that have been taken with regard to HRH would enable the country to achieve its development goals including the Millennium Development Goals (MDGs).

Review of different documents on human resource for health was undertaken. Particular attention was given to documents from Ethiopia. Generally there is shortage in number of different groups of professionals, mal distribution of professionals between regions, urban and rural setting, and governmental and non governmental/private organizations. There is no policy specific to human resource development (HRD) for health and no proper mechanism to manage the existing health workforce. A number of measures are being taken to alleviate these problems. The enrollment of students has been increased in different categories and new trainings started in professions like dentistry. The process to develop policy and strategy for managing human resource for health has been started. The implications of these for HRD by 2015 are explored briefly. [Ethiop.J.Health Dev. 2007;21(3):216-231]

2.11.1 Policy, Strategy and Human Resources Management:

The health policy of Ethiopia emphasizes training of community based task-oriented frontline and mid level health workers. As a mechanism to retain health workers the policy supports developing an attractive career
structure, remuneration and incentives for all categories of workers within their respective systems of employment. Besides there will be a focus on developing appropriate continuing education for all categories of workers in the health sector. Strengthening administration and management of health systems is one of the areas given priority by the policy. (TGE. Health Policy of the Transitional Government of Ethiopia. 1993.) Overall, there is supportive policy environment (health policy and strategy (TGE. Health Sector Strategy. 1993.), capacity building policy and strategy, civil service reform etc) and a growing recognition at policy level that “Health is not only a byproduct of social changes but an instrument to promote strategy documents on HRH. such changes and health workers are in the vanguard” (Cueto M. The promise of primary health care. Bull World Health Organ 2005;83(5):322). However, most policy and strategy documents are dated (early 1990s) and there are no specific policy and strategy documents on HRH.

2.11.2 Available Human Resource

WHO has identified a threshold in workforce density below which high coverage of essential interventions, including those necessary to meet the health-related Millennium Development Goals (MDGs), is very unlikely. Based on these estimates, there were 57 countries, including Ethiopia, with critical shortages equivalent to a global deficit of 2.4 million doctors, nurses and midwives. (WHO. Working together for health, World Health).

Shortage of staff in Ethiopia has always been critical. Health worker/population ratios, for example are 3 to 4 times lower than even East African standards. This has been exacerbated by the rapid expansion of facilities in the 1st years of HSDP. Allocation not related to workload has also meant severe shortage in some areas while some health workers in other locations remain idle. Performance at most levels
is also considered low (Lindelow et al. The performance of health workforce in Ethiopia. Results from a qualitative research. 2005. The shortage is in all functions: health delivery, management, training and research.

In 2005 in Ethiopia, there were 2453 medical doctors (MD), 776 Health Officers (HO) and 18,809 nurses, all categories. There were still 6363 Health Assistants (HA), a group that is being phased out. There were 4379 frontline health workers (FLHW) in 2001 (low as they were expected to reach 6450 by 2002) (MOH. “Program Action Plan for the Health Sector Development Program”, Federal Democratic Republic of Ethiopia, Ministry of Health, October 1998), but they are being phased out. There are 2737 health extension workers (HEW) and planned to grow rapidly to 30,000 by 2009. Thus there are a total of 34,660 health workers (professional) excluding FLHW (MOH. Health and Health Related Indicators. 2004/2005) [The HRH Framework (MOH: Health Sector Development Plan (HSDP III). 2005/6-2009/10, Addis Ababa.) leaves them out because they ‘cannot strictly be considered professionals”].

There are also a large number of voluntary workers - over 20 different types of community agents (HSDP. Evaluation of The 2nd Ethiopian Health Sector Development Program (HSDP II). 2006 Addis Ababa.)- [CHA and TTBA, in Tigray in particular, CBRHA in almost all regions, malaria agents, and more recently Health Promoters in the four bigger regions (ESHE). All these work for free (or some small stipend). Ethiopian (Meche H et al. The Training of Community Health Agents in Ethiopia. Ethiop. J. Health Devel. 1984; 1: 31-40.) and international (Martineau T, Martínez J. Human resources in the health sector: guidelines for appraisal and strategic developments. “Health and Development Series” Working paper No 1. 1997 January. Available from: http://www.liv.ac.uk/lstm/hsr/hrdcover.html].) Experience shows that unless some reasonable
remuneration is provided, they will eventually cease to carry out their functions. These categories of health workers require a more elaborate analysis as policy and strategic positions seem flux and there are recommendations to strengthen/upscale certain categories such as CBRHA (Ahmed J and G Mengistu. Evaluation of Program Options to Meet Unmet Need for Family Planning in Ethiopia. 2002, ORC Macro Calverton, Maryland USA.).
CHAPTER THREE

3. RESEARCH DESIGN AND METHODOLOGY

3.1 Research Method

The purpose of this study is to investigate the factors affecting the employment of health professional who had attended in private health collage in Addis Ababa. To achieve the objective of the study, descriptive survey design was employed as an appropriate method. The study was a means of discovering new idea, describing what exists, determining the frequency with which something occurs, and categorizing information. Moreover, to get the general picture of the issue under investigation, “mixed methods approach” was used. The central premise of employing this approach was that jointly using both qualitative and quantitative approaches provides a better understanding of the research problems than either research approach alone.

Here, the method primarily emphasize on collecting, analyzing and integrating both quantitative and qualitative data in a single study. Hence, in this study, qualitative data were analyzed and then cross–validated by quantitative result. The results of data analysis from the two methods were merged during discussion phase of this study.

3.2 Source of Data

The major sources of primary information for the study were graduated TVET health professionals, private health college instructors, Hospital, and Health center departments Heads, college department heads and deans, TVET agency officers and COC officials. Besides, as secondary source, government guidelines directives pertinent to national occupational standard, books, reports and occupational standard
mapping were consulted to have better insight about the current situation so as to enrich the finding of the study.

### 3.3 Sample and Sampling Techniques

For the purpose of this study, stratified random sampling, purposive and volunteers sampling techniques were used as a sampling technique. The study subjects were selected based on the knowledge of TVET private medical colleges, who were graduated from one of the private medical colleges, employee of these colleges working as instructors, department heads, and dean. To assess private medical graduate health professionals contributions and to identify the most commonly occurring challenges, chief executive officers (CEO) of public, private and nongovernmental health organization, randomly selected health facilities (clinics and hospitals) were anticipated in the study.

Regarding the institution, all private medical college located in Addis Ababa at 10 sub cites were stratified based on their time of establishment, number of round of TVET students availability of different department, contributing education program, overall COC performance and the like. According to TVET agency, there are 19 medical TVET colleges in Addis Ababa. Three strata were formed due to their similar characteristics, and then 30% of medical colleges were selected in simple random sampling technique.

Purposive sampling techniques was used to select for questioners respondents, those of the study subject were a degree students of sampling college and passed through TVET system, out of them are working at different health facilities some are jobless and some of them are engaged in non professionals duties. A total of 128 respondents were filled a well structured and self administrated questioner.
3.4 Data Gathering Tools (Instruments)

The study employed both quantitative and qualitative data. Both types of data were gathered by using appropriate data collection tools in order to obtain sample information from respondents. Thus, the questionnaire was the major data collection tool in the study, Interview, FGD, document analysis and observation were the other data gathering tools which helped the researcher for enrichment and triangulation of the data obtained from questionnaires and provide in-depth information on the issue under investigation.

3.4.1 Questionnaire

According to Best and Kahn (2003), questionnaire is a highly appropriate data collection tool to get wider information from widely dispersed sample population and make possible an economy of time and expense and provides a high proportion of usable responses. Besides, questionnaires is found to be more advantageous in the sense that participants can respond to questions with assurance that their responses is anonymous, and so they may be more truthful than they would be in a personal interview, particularly when they are talking about sensitive or controversial issues (Leady and Ormrod, 2005). Their relative advantages have prompted the researcher to employ questionnaire the major data gathering tool in this study. The questionnaire in this study was developed based on the research questions and after review of available related literature. The questionnaire included issues that the researchers tried to investigate the factors which affected the quality of education and graduate employment status in health sector.

The questionnaire was developed and administrated to sample candidates (respondents). It included 73 both open and closed ended items. Open ended questions were included in the questionnaire in order
to give opportunity for respondents to express their feeling and perceptions freely (Best and Kahn, 2003). The close–ended items were set on a five point–likert scale measurement which ranges from 1 representing “strongly disagree” and 5 which represents “strongly agree”.

The survey questionnaire of candidates comprises of fix parts, of which, part one dealt with personal information and the remaining five parts comprises of items related to interest, satisfaction, exception in the field of study factor associated with curricula, teaching materials, training condition along trainers activities, policy of TVET and employment status.

From the total of 135 questionnaires distributed to respondent, 128 (94.81%) were properly filled and returned. The remaining 7 (5.18 %) questionnaires were not returned from the candidates.

3.4.2 Interview

Semi structured interview questions were used to collect data, so as to get pertinent information from college instructors, department heads, and dean of sample colleges, TVET officials and CoC officers to assure the compatibility of the data obtained from the questionnaires. The reason for using interview is that they could permit the exploration of issues, which might be too complex to investigate through questionnaires and also justified as it allows better chance to explain more explicitly what he or she knows on the issue (Best and Kahn, 2003).

3.4.3 Focus Group Discussion

The other data gathering tool that was used is FGD. FGD emphasize on the collective rather than individual, the fosters free expression of idea encouraging the members of the group to speak up (Desizn, Frey, and Fontana 1993 as cited in Madriz, 2000). Accordingly, the tool was
designed to seek in-depth information about private health college graduates employment status. The FGD was guided by semi structured questions.

### 3.4.4 Document Analysis

The purpose of document analysis was to assess the involvement of stakeholders in the planning and implementation of the program, student achievement, availability of necessary document related to quality of education in the college. The tool was also used to validate and check the consistency of the data, which was obtained through an interview and questionnaire. Crosschecking the responses was done by employing document review as a data collection tool when the document analysis is used as descriptive research current document and issues are foci (Best and Kahn, 2003)

### 3.4.5 Observation

Observation was the data gathering tool employed in this study, to check the availability of different facilities in the college and teaching and learning materials in the sample health TVET College.

In this, the quality of teaching–learning process implementation with respect to student learning environment were observed and checked using observation check list. Thus, the employment data gathering instrument helped there searcher to obtain information about the context within which teaching and learning activated were taking place.

### 3.5 Pilots Testing

The data gathering tools were revised carefully before undertaking a full scale study to check whether it can generate the expected information or not. After some colleagues and the adviser reviewed the instrument, the
desired questionnaires were tried out and distributed to 10 candidates with random sampling technique that were not included in the main study in Central university college Sholla campus.

Based on the pilot test, the reliability of the instrument was calculated by using Cronbach Alpha as it was appropriate to test the reliability of the instrument and the result was 0.87. Therefore, the instrument was reliable as tactical literatures usually recommended a test result of 0.7 and above is reliable. As a result of the feedback from the pilot test, a few items were modified and some terminologies were simplified. Most of the item remained with minor modification in their working in accordance. With relevant input obtained from the respondents.

### 3.6 Procedure of Data Collection

Together final data, the questionnaires were distributed to the selected respondents with the brief orientation about the purpose of the study and serious follow up was made to collect the questionnaires after filled up from the respondents. Interview with TVET officers and COC officials and the FGD in the hospitals and health center were treated by adjusting the convenient time and place for respondents to obtained from the respondents.

### 3.7 Methods of Data Analysis

In order to achieve the objective of the study the data obtained from different sources through different data gathering instrument were analyzed based on the nature of the data. Therefore, both quantitative and qualitative techniques were used to analyze and interpret the obtained data. However, quantitative data analysis method was employed as the major technique for final work from the descriptive statistics, percentage and frequency counts were used to analyze the
characteristics of respondents the remaining quantitative data gathered through questionnaires were analyzed in percentage, frequency and mean value (i.e. the average 3.00). The qualitative data analysis method was also employed as a supplementary data analysis technique for triangulation and justification purpose to complement the insight drawn from quantitative analysis. As a result, the data collected through FGD, interview observation, open-ended questions and document review were narrated under qualitatively.
CHAPTER FOUR

4. PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

This part of the study deals with the presentation, analysis and interpretation of the data obtained from the sample Health Colleges by using data gathering tools to search for appropriate answers to the basic question listed in chapter one. Data collected via various data gathering instruments are presented and analyzed. The analysis is based on the data collected through survey questionnaires, semi-structured interview and direct observation.

A total of 135 questionnaires were distributed to 5 selected Health Colleges, out of the distributed questionnaires 128 (94.8) were filled-in and returned to the researcher, whereas, 7 of them were incomplete and could not be used for proper analysis. Besides, the researcher, conducted semi-structured interview with 20 instructors, 5 deans, 2 key officials of TVET agency, 2 COC officers, 15 HRM from government and private Hospitals, Health center, private Clinics, NGO Health facilities and also Department Heads from some selected Hospital by purposive sampling technique to get additional information about the employment status, selection and quality of the employment in their career. Quantitative data obtained through closed-ended items are summarized and presented and quantitatively analyzed.

To substantiate the responses obtained via close-ended items, data gathered through interviews and open-ended items were categorized and qualitatively described on the questions posed at the beginning of the study.
On the whole, based on the collected data analysis, interpretations, and discussions of the results are presented under the following major headings as follows.

4.1 General Characteristics of the Participants of the Study

The major characteristics of samples involved in responding to the survey questionnaires have been summarized and presented in table I and table II.
### TABLE 1: BACKGROUND INFORMATION OF RESPONDENTS

<table>
<thead>
<tr>
<th>Description</th>
<th>S</th>
<th>I</th>
<th>D</th>
<th>TVET OFFICER</th>
<th>COC OFFICIAL</th>
<th>HRM</th>
<th>HDH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>67</td>
<td>52.3</td>
<td>16</td>
<td>80</td>
<td>4</td>
<td>80</td>
<td>2</td>
</tr>
<tr>
<td>Female</td>
<td>61</td>
<td>47.7</td>
<td>4</td>
<td>20</td>
<td>1</td>
<td>20</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>128</td>
<td>100</td>
<td>20</td>
<td>100</td>
<td>5</td>
<td>100</td>
<td>2</td>
</tr>
<tr>
<td>Age in years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15—20</td>
<td>5</td>
<td>3.9</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>21—25</td>
<td>95</td>
<td>74.2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>26—30</td>
<td>28</td>
<td>21.9</td>
<td>8</td>
<td>40</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>31—35</td>
<td>-</td>
<td>-</td>
<td>11</td>
<td>55</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>35—40</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>5</td>
<td>1</td>
<td>20</td>
<td>-</td>
</tr>
<tr>
<td>Above 40</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>80</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>128</td>
<td>100</td>
<td>20</td>
<td>100</td>
<td>5</td>
<td>100</td>
<td>2</td>
</tr>
</tbody>
</table>

Regarding the proportion of male and female participant of instructors, TVET agency officer, COC officials, human resource managers, the total percentage of male participants were found to be greater than the total percentage of female participants. That means the proportion of male participants who look part in the study were greater than that of the female participants, however the proportion is closer in the case of candidate respondent and the percentage of female participant (55.6%) is greater than male (44.4%) in case of department heads in the hospital and health facilities. This indicates that participation of females in teaching and top leadership position in the colleges and government offices were low. This indicated that the leadership positions were dominated by male. But the female participation in the leadership position in the hospitals and all health facilities departments were better.
Concerning the age as shown in the same table is that, 55% of the instructors were between 31-35, but most of the Deans (80%), Human resource managers (46.7%) in the health facilities and Head department of hospitals (44.4%) are above 40 years old. This indicates that most of the leadership positions were led by matured and experienced individuals.

Most of the students (74.2%) were age of between 21-25 and (3.9%) of the students were age of between 15-20. This indicate that majority of the students believed that to be matured enough to provide the necessary information for the study.
TABLE 2: Education qualification and work experience of the respondents

<table>
<thead>
<tr>
<th>Description</th>
<th>I</th>
<th></th>
<th>D</th>
<th></th>
<th>TVET OFFICEALS</th>
<th></th>
<th>COC OFFICIALS</th>
<th></th>
<th>HRM</th>
<th></th>
<th>HDH</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Education qualification</td>
<td>Bsc/BA</td>
<td>12</td>
<td>60</td>
<td>2</td>
<td>40</td>
<td>2</td>
<td>100</td>
<td>1</td>
<td>50</td>
<td>13</td>
<td>86.7</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>MSc/MA</td>
<td>8</td>
<td>40</td>
<td>3</td>
<td>60</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>50</td>
<td>2</td>
<td>13.3</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>100</td>
<td>5</td>
<td>100</td>
<td>2</td>
<td>100</td>
<td>2</td>
<td>100</td>
<td>15</td>
<td>100</td>
<td>9</td>
<td>100</td>
</tr>
<tr>
<td>Work experience in years</td>
<td>Less than 5</td>
<td>11</td>
<td>55</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>50</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>5-10</td>
<td>7</td>
<td>35</td>
<td>1</td>
<td>20</td>
<td>1</td>
<td>50</td>
<td>2</td>
<td>100</td>
<td>1</td>
<td>6.7</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>11-15</td>
<td>2</td>
<td>10</td>
<td>1</td>
<td>20</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>5</td>
<td>33.3</td>
</tr>
<tr>
<td></td>
<td>16-20</td>
<td>-</td>
<td>-</td>
<td>3</td>
<td>60</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>9</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>21-25</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<td>-</td>
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<td>-</td>
</tr>
<tr>
<td></td>
<td>Greater than 25</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>100</td>
<td>5</td>
<td>100</td>
<td>2</td>
<td>100</td>
<td>2</td>
<td>100</td>
<td>15</td>
<td>100</td>
<td>9</td>
<td>100</td>
</tr>
</tbody>
</table>

**Key:** I=Instructors, D=Dean, TVET=Technical, Vocational Education and Training, COC=competency Occupational Center, HRM=Human Resource Managers, HDH=Head Department of Health Facilities.

The above table indicate the fact that the participants of the study were from different backgrounds. Qualification of deans, instructors and Health officials

Working in the Health facilities are the important factors to create favorable conditions for the implementation of quality education in the health colleges and would help students in the apprenticeship exposure.
As Table two indicates that a large proportion (i.e 60% of instructor’s and 86.7% of Human resource managers in the Hospital, Clinics and Health facilities were in under graduate level, the rest (40%) of instructors, 60% Dean, 50% COC officials, 13.3% of HRM in the hospitals are on the graduate level.

Regarding the work of experience 55% of instructors have less than 5 years experience and 10% of instructors have experience of 11-15 years. This indicates that majority of the instructors don’t have better experience in the teaching-learning processes, rather 60% of the dean in the sample health TVET College have enough work experience that is, 16-20 years for their position.

To conclude that, most of the Deans who are leading the academic commission have significant experiences and are also in a position of having good academic educational background and help the institute to guide and lead in good manner, but instructors who have direct involvement in the teaching-learning process are not well experienced like that of Deans, and moreover most of them are under graduate level, and this would have affected the teaching–learning process.

4.2 Assessment the Field of Study in TVET Health Sector in Private Health Institution

Here the main intention was to assess the interest, satisfaction and perception of candidates in the field of study.
TABLE 3: Responses on the interest, satisfaction and perception of the candidates.

<table>
<thead>
<tr>
<th>No.</th>
<th>Statement (Items)</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>SA+A</th>
<th>D+SDA</th>
<th>MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I have selected my school before choosing field of study</td>
<td>9</td>
<td>7</td>
<td>59</td>
<td>46.1</td>
<td>28</td>
<td>21.9</td>
<td>29</td>
<td>22.7</td>
</tr>
<tr>
<td>2</td>
<td>I have selected my field of study by my own</td>
<td>26</td>
<td>20.3</td>
<td>65</td>
<td>50.8</td>
<td>17</td>
<td>13.3</td>
<td>20</td>
<td>15.6</td>
</tr>
<tr>
<td>3</td>
<td>I have been influenced by some relatives or friends to select my field</td>
<td>15</td>
<td>11.7</td>
<td>21</td>
<td>16.4</td>
<td>5</td>
<td>3.9</td>
<td>62</td>
<td>48.4</td>
</tr>
<tr>
<td>4</td>
<td>I have selected my field based on opportunity to employment</td>
<td>10</td>
<td>7.8</td>
<td>57</td>
<td>44.5</td>
<td>0</td>
<td>0</td>
<td>42</td>
<td>32.8</td>
</tr>
<tr>
<td>5</td>
<td>I have selected the field to get better income</td>
<td>8</td>
<td>6.3</td>
<td>52</td>
<td>40.6</td>
<td>5</td>
<td>3.9</td>
<td>48</td>
<td>37.5</td>
</tr>
<tr>
<td>6</td>
<td>I have selected my field by considering the status of former graduates of the institute</td>
<td>5</td>
<td>3.9</td>
<td>30</td>
<td>23.4</td>
<td>9</td>
<td>7</td>
<td>57</td>
<td>44.5</td>
</tr>
<tr>
<td>7</td>
<td>I have selected the field due to access to further education</td>
<td>40</td>
<td>31.3</td>
<td>49</td>
<td>38.3</td>
<td>1</td>
<td>8</td>
<td>33</td>
<td>25.8</td>
</tr>
<tr>
<td>8</td>
<td>I have selected my current field due to lack of other alternatives</td>
<td>7</td>
<td>5.5</td>
<td>12</td>
<td>9.4</td>
<td>7</td>
<td>5.5</td>
<td>79</td>
<td>61.7</td>
</tr>
<tr>
<td>9</td>
<td>I have selected the field with the orientation given by the department</td>
<td>4</td>
<td>3.1</td>
<td>17</td>
<td>13.2</td>
<td>2</td>
<td>1.6</td>
<td>71</td>
<td>55</td>
</tr>
<tr>
<td>10</td>
<td>I have selected my field with the help of vocational counselor</td>
<td>5</td>
<td>3.9</td>
<td>10</td>
<td>7.8</td>
<td>0</td>
<td>0</td>
<td>54</td>
<td>42.2</td>
</tr>
<tr>
<td>11</td>
<td>I believe that health profession will make me successful in life</td>
<td>48</td>
<td>37.5</td>
<td>64</td>
<td>50</td>
<td>6</td>
<td>4.7</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>12</td>
<td>I believe that TVET in health Sector will prepare me to be Competitively Work force</td>
<td>59</td>
<td>46.1</td>
<td>58</td>
<td>45.3</td>
<td>4</td>
<td>3.1</td>
<td>7</td>
<td>5.5</td>
</tr>
<tr>
<td>13</td>
<td>In my understanding Health Profession is one of the most Demanding profession</td>
<td>54</td>
<td>42.2</td>
<td>54</td>
<td>42.2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>14</td>
<td>I think it is possible to reduces Unemployment by expanding TVET in heath sector</td>
<td>10</td>
<td>7.8</td>
<td>51</td>
<td>39.8</td>
<td>14</td>
<td>10.9</td>
<td>27</td>
<td>21.1</td>
</tr>
<tr>
<td>15</td>
<td>I expect to make better income When I finish my study</td>
<td>28</td>
<td>22</td>
<td>61</td>
<td>47.6</td>
<td>23</td>
<td>18</td>
<td>11</td>
<td>8.6</td>
</tr>
<tr>
<td>16</td>
<td>It is waste of time for me Studding TVET in health profession</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>5.5</td>
<td>10</td>
<td>7.8</td>
<td>26</td>
<td>20.3</td>
</tr>
<tr>
<td>17</td>
<td>I feel unconfident for studying TVET in health field.</td>
<td>15</td>
<td>11.6</td>
<td>12</td>
<td>9.3</td>
<td>4</td>
<td>3.1</td>
<td>32</td>
<td>24.8</td>
</tr>
<tr>
<td>18</td>
<td>I like my current field of study</td>
<td>71</td>
<td>55.4</td>
<td>49</td>
<td>38.2</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>4.7</td>
</tr>
<tr>
<td>19</td>
<td>I like to advise others to study TVET in health profession</td>
<td>38</td>
<td>29.7</td>
<td>47</td>
<td>36.7</td>
<td>11</td>
<td>8.6</td>
<td>15</td>
<td>11.7</td>
</tr>
</tbody>
</table>

SOURCE:-- Survey Data.

Key: SA + A = Strongly Agree and Agree, D + SD = Disagree and Strongly Disagree, F = Frequency
As it is evident from Table 3, the majority of candidate respondents reported that I like my current field of study, I believe that TVET in health sector will prepare me to be competitively work force, and I believe that health profession will make me successful in life with (SA+ A = 93.6%, mean 4.41), (SA+A = 91.4%, mean = 4.3) and (SA+A = 87.5%, mean = 4.2) respectively. The table also indicates that the mean scores of the candidate respondents about the interest that, the students love their field of study, TVET in health sector prepared them to be competitively a work force and the health profession would make them successful in life accounted greater than the scale mean (mean = 3.00), which may reveal that majority of the candidate respondents rated the items between strongly agree and agree inclusively. This may imply that majority of candidate respondents loved their field of study and wanted to be competent work force in their field of study.

Another observation from table 3 has shown that, candidate respondents tended to assign the lowest three ratings to:- It is a waste of time for me studying TVET in health profession, I have selected my field of study with the help of vocational counselor, I have selected my current field due to lack of other alternatives with total agreement percentage and mean values of 5.5% and 1.76, 11.7% and 1.81 and 14.9% and 2.23 respectively of disagreement on the items. This was a good indication that, majority of the candidate respondents 71 (55.4%) with mean score (mean = 4.41) love their current field of study and selected the item as strongly agree. To emphasize that in item 2 indicate that 71.1% (SA+A) with mean value 3.8 said that, they have been selecting the field of study by their own.

69.6% of the respondents with mean value of 3.67 in item 7 noted that they have selected their field believing that to continue their field further and would be well qualified professional in their field of study.
Moreover, candidate respondents reported that they strongly believe that TVET in health sector would prepare them to be competitively workforce and in their understanding health profession is one of the most demanding profession with percentages of 59(46.1%) and 54(42.2%) as the 2nd and 3rd highest ratings respectively.

To summarize that, candidate respondents knew what to choose and what to do, without the influences of other. They chose their field of study and as they emphasized they love their field of study indeed.
### TABLE 4: Factors Associated with Curriculum and Teaching Materials used for Successful Employment

<table>
<thead>
<tr>
<th>No</th>
<th>Statement (Items)</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>SA + A</th>
<th>D + SD</th>
<th>MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The curriculum for the profession is sufficient to give me required knowledge and skill</td>
<td>0</td>
<td>0</td>
<td>47</td>
<td>36.7</td>
<td>71</td>
<td>55.4</td>
<td>2.3</td>
<td>36.7</td>
</tr>
<tr>
<td>2</td>
<td>During training, I have got enough books, guides and related documents to further read and developed my knowledge</td>
<td>14</td>
<td>10.9</td>
<td>51</td>
<td>39.8</td>
<td>21</td>
<td>16.4</td>
<td>25</td>
<td>19.5</td>
</tr>
<tr>
<td>3</td>
<td>The curriculum that we have been used is similar to other government institute in the field</td>
<td>4</td>
<td>3.1</td>
<td>33</td>
<td>25.6</td>
<td>45</td>
<td>34.9</td>
<td>21</td>
<td>16.3</td>
</tr>
<tr>
<td>4</td>
<td>I know the occupational standard of the country</td>
<td>5</td>
<td>3.9</td>
<td>26</td>
<td>20.3</td>
<td>35</td>
<td>27.3</td>
<td>52</td>
<td>40.6</td>
</tr>
<tr>
<td>5</td>
<td>In my opinion, the curriculum is consistent with occupational standard</td>
<td>1</td>
<td>8</td>
<td>21</td>
<td>16.4</td>
<td>47</td>
<td>36.7</td>
<td>52</td>
<td>40.6</td>
</tr>
<tr>
<td>6</td>
<td>We have got adequate materials supplies in school practice</td>
<td>5</td>
<td>3.9</td>
<td>23</td>
<td>18</td>
<td>11</td>
<td>8.6</td>
<td>61</td>
<td>47.6</td>
</tr>
<tr>
<td>7</td>
<td>The laboratory/demonstration room is suitable to demonstrate the practical work</td>
<td>15</td>
<td>11.7</td>
<td>89</td>
<td>68</td>
<td>5</td>
<td>3.9</td>
<td>17</td>
<td>13.3</td>
</tr>
<tr>
<td>8</td>
<td>The in school practical lab. Can allow all students to accommodate for the practice session</td>
<td>32</td>
<td>25</td>
<td>68</td>
<td>53.1</td>
<td>10</td>
<td>7.8</td>
<td>13</td>
<td>10.2</td>
</tr>
<tr>
<td>9</td>
<td>The materials in the Lab/demonstration are similar with one used during occupational competency examination</td>
<td>24</td>
<td>18.8</td>
<td>78</td>
<td>60.9</td>
<td>10</td>
<td>7.8</td>
<td>12</td>
<td>9.4</td>
</tr>
<tr>
<td>10</td>
<td>The equipments in the school Lab/Demonstration used are similar with one used during occupational competency examination</td>
<td>49</td>
<td>38.2</td>
<td>71</td>
<td>55.4</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>4.7</td>
</tr>
</tbody>
</table>

**SOURCE:** Survey Data.

**Key:** SA + A = Strongly Agree and Agree, D + SD = Disagree and Strongly Disagree, F = Frequency
As indicated in Table 4, the candidate respondents rated that, the equipments in the college lab/Demonstration used are similar with one used during occupation competency examination, the materials in the lab/demonstration are similar with one used during occupational examination and the laboratory/demonstration room is suitable to demonstrate the practical work with (SA+A = 93.6%, mean 4.24); (SA+A = 79.7%, mean = 3.83), (SA+A =79.7%, mean=3.72) respectively.

Moreover, the table reveals that, the mean scores of the candidate respondents about factor associated with curriculum and teaching materials used for successful employment in regarding the equipments used in the college laboratory and demonstration were similar with the one used during occupational competency examination, not only the equipments, but also the materials were used in-school practical session, and the lab/Demonstration room were suitable to demonstrate the practical work, were greater than the scale mean (3.00).

This indicates that equipment and material including reagents were abundantly present in the health college adequately.

The result of analyses in the above table also reveal that, candidate respondents tended to assign the lowest three ratings to:- The opinion of the candidate respondents, regarding consistency of the curriculum with that of occupational standards; adequate materials provision in-side lab or in school practice, and about the knowledge of occupational standard with (SA+A = 17.18%, mean 2.66); (SA+A = 21.9%, mean = 2.84); (SA+A= 24.2% and mean = 2.72) respectively.

In conclusion, therefore, it is possible to infer that, the candidate respondents show the least mean ratings and total agreement percentages, regarding items 5 and 6. That is, they viewed that, the curriculum were inconsistent to that of occupational standard and the
material provision in the practical session were not enough for the students to practice in the school laboratory /Demonstration room.

A final note from the above table, is that on one hand, the materials in the lab/Demonstration are similar with one used during occupational competency examination (item 9) and the second lowest ratings indicated that adequate material supplies in the practical session were not satisfactory (item 6).

To counter check, candidate respondents were also asked in the open ended item regarding provision of adequate materials in the school (college) practical session. Accordingly, majority of the candidate respondents forwarded the following views.

... Even though equipments and materials are available in the colleges, reagents are not available and the equipments without reagents is just like a rifle with out bullet which can not kill the enemy at all. (18/03/2014 GC).

This implies that the result obtained from qualitative summary of the candidate respondents to the open ended item about the issue under consideration also strengthen the data obtained from quantitative analysis. That is, on one hand, the respondents emphasized on the importance of practice in the college laboratory and demonstration but material provision is not adequate.

Moreover, regarding the availabilities of necessary materials and equipments used for laboratory and demonstration, were not as enough as possible and most of the reagents were expired said one of the key informant from TVET agency with the department of evaluation of health colleges during interview (26/03/2014 GC).

In supporting the above idea, responses obtained from FGD held with Department heads of Hospitals (both private and government Hospitals), Health centers and higher clinics and health facilities, Human resource officials in each health facilities shared the same ideas and reported as follows.
Students from private TVET health colleges, during apprenticeship, they consider that they know everything and were difficult to manage them theoretically. During practical session, they lack adequate skill, so that we always afraid to give them full responsibility to work on very expensive automated and semi automated machine. They really don’t have even concept to operate those equipment according to one of the discussant in the FGD (31/03/14 GC).

This implies that the central underpinning notion is that, candidates don’t have enough skill and knowledge to operate those equipments, even though it’s available in lab/Demonstration in the college, which might actually contributes negatively to the occupational competency of candidates during the process of occupational competency assessment.

About 32.8% of candidate respondents have shown a tendency of disagreement and strongly disagreement on the 2nd item (i.e during training, they had got enough book; guides and related documents to further read and developed their knowledge). This indicates that inadequacy of supplies in learning materials at institutional level, that are similar to the one used during occupational competency assessment can be mentioned as one of the factors negatively affecting occupational competency of the candidates. This might be explained by the fact that, TVET health institution and the COC are requested to work in collaboration, so as to bring the desired out come.

To conclude, inadequacy of supplies of learning materials that are the ones using during occupational competency assessment, lack of reagents and necessary chemicals, even though equipments are there in the lab/Demonstration, lack of continuous skill training (low quality of training being offered by most of the health TVET colleges) along lack of competent and experienced trainers were found to be problems associated with teaching materials used for successful employment.
4.3 Factors Associated with Apprenticeships given in Health Centers and Hospitals.

TVET strategy document clearly indicates that the bulk of practical training takes place in an enterprise while theory and initial practical exposure is provided by the TVET institutions (MOE, 2008).

Hence, in this study attempts was made to examine how far cooperative training was implemented in private TVET institutions of Health Colleges in Addis Ababa. The analysis of the data is presented as follows:-

**TABLE 5: Factors Associated with Apprenticeships given in Health Centers and Hospitals.**

<table>
<thead>
<tr>
<th>No.</th>
<th>Items</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>disagree</th>
<th>Strongly disagree</th>
<th>MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I know the reason and benefit of working apprenticeship</td>
<td>70 54.7</td>
<td>57 44.5</td>
<td>0 0 1 8</td>
<td>0 0 99.2 0.8</td>
<td>4.53</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>I have worked in the apprenticeship organizations like, Hospital and Health centers</td>
<td>59 46.1</td>
<td>52 40.6</td>
<td>2 1.6 15 11.7</td>
<td>0 0 86.7 11.7</td>
<td>4.21</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>I have learned new things from apprenticeship</td>
<td>46 35.9</td>
<td>67 52.3</td>
<td>5 3.9 10 7.8</td>
<td>0 0 88.2 7.8</td>
<td>4.16</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>The organization has similar practical tools and equipment with institution of study</td>
<td>14 10.9</td>
<td>46 35.9</td>
<td>0 0 63 49.2</td>
<td>5 3.9 46.8 53.1</td>
<td>3.01</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>I have got good guidance mentorship at apprenticeship organization</td>
<td>20 15.6</td>
<td>59 46.1</td>
<td>10 7.8 39 30.5</td>
<td>0 0 61.7 30.5</td>
<td>3.47</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>The apprenticeship practice gave me good skill to understand the work in the hospital what is going to be done.</td>
<td>98 76.4</td>
<td>30 23.4</td>
<td>0 0 0 0 0 0 0 0</td>
<td>99.8 0 4.77</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SOURCE:-- Survey Data.**

**Key:-- SA + A = Strongly Agree and Agree, D + SD = Disagree and Strongly Disagree, F = Frequency**
As it has been seen in Table 5, 127 (99.2%) of the candidate respondents agreed that, they knew the reason and benefit of working apprenticeship while the rest 0.8% of the candidate respondents have shown a tendency of disagreement. This implies that majority of candidate respondents were aware of the reason and benefit of working in apprenticeship.

Another observation from Table 5 is that 111 (86.7%) of the candidate respondents agreed that, they had worked in the apprenticeship organization, like hospitals and health centers. Nevertheless, the above table reveals that 11.7% of the candidate respondents showed a tendency of disagreement on the issue under discussion (Item2).

This implies that there is a gap in the institution regarding assorting the students who had taken apprenticeship from those who did not. Since the field of study need a great care and dealing with human life directly, those who did not take apprenticeship should not be allowed to continue their study. This showed the researcher, that is a big-big gap seen, in the private health college.

One of the focus group discussant indicated that, there is a huge gap, now a days, regarding the quality of health professional, and as she said:-

*We had a programme to employ professionals for laboratory department; pharmacy department and nursing as well, all together we have been in need of 30 health professionals for all the department at the same time. For the positions, 126 applicants, had been selected and recruited, based on their qualification, COC certification and cumulative GPA. Out of these applicants, who took, the qualification exam prepared by each department in the hospital, only two candidate could get the minimum requirement and mark allocated for employment, that were 50%(50 mark out of 100), And she emphasized that with emotion, government should take measure in this regard, since we, medical professionals, dealing with human life. She also noted that, how dare those graduates could pass with these crucial and important issues that Nurses were supposed to know by "hook or crook", both institutional and National Occupation Competency Assessment Examination”*

(31/03/14 GC)
From these findings, one can further to study about fairness of the examiners both in the institute as well as, especially in COC examination which allow professionals to directly involved in the labor market.

Regarding the item 3, from the above table, that, they have learned new things from apprenticeship 113 (88.2%) of the candidate agreed to this statement while only 10 (7.8%) of them showed disagreement. This indicates that apprenticeships is very much important regarding in medical practices.

Moreover, the item 4 indicated that, regarding the organization which had similar practical tool and equipment with the institution of the study 60(46.8%) of the respondent have a tendency to assign agreement where as 68(53.1%) of them have a tendency to assign disagreement on the issue. This indicates that, it is a strong factor which could affect the quality of education in the health sector. If there is a great variation in practical tool for practice in the college, the moment graduated students tried to employ in the hospital, they obviously face challenge, that also might the cause, for most of the graduated students could not pass, the skill practical examination in both private and public Hospitals and Health facilities.

Moreover, as it is shown on the above table, candidate respondents rated the 5th item (i.e. I have got good guidance mentorship at apprenticeships organization) with total agreement and disagreement percentages of 79(61.7%) and 39(30.5%) respectively. This shows that the extent to which apprenticeship give good guidance mentorship especially in health sectors.

Regarding the 6th item, candidate respondents found that, the apprenticeship practice gave them good skill to understand the work in the hospital and health facilities, what is going to be done with total agreement percentage and mean score of 128 (99.8%) and (mean = 3.55) respectively. This may imply that apprenticeship practice is giving good skills to understand from a most all respondents (i.e 100% selected strongly agree and agree) regarding what the working environment look like, both private and public hospitals, higher clinics, health centers and the like.
### 4.4 Question to Assess the Trainers Condition and Training

**Table 6a: Response to assess the trainers condition and training**
*(Teaching staffs)*

<table>
<thead>
<tr>
<th>No</th>
<th>Items</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>disagree</th>
<th>Strongly disagree</th>
<th>SA+A</th>
<th>D SD</th>
<th>MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The institute has qualified instructor for our theoretical training in the teaching learning processes</td>
<td>20  15.6</td>
<td>61  47.7</td>
<td>30  23.4</td>
<td>17  13.3</td>
<td>0  0</td>
<td>63.3</td>
<td>13.3</td>
<td>3.66</td>
</tr>
<tr>
<td>2</td>
<td>I have had good lecture period to get the required knowledge</td>
<td>6  4.7</td>
<td>53  41.4</td>
<td>5  3.9</td>
<td>59  46.1</td>
<td>5  3.9</td>
<td>46.1</td>
<td>50</td>
<td>2.97</td>
</tr>
<tr>
<td>3</td>
<td>The institutes are evaluated periodically</td>
<td>10  7.8</td>
<td>21  16.4</td>
<td>24  18.8</td>
<td>52  40.6</td>
<td>21  16.4</td>
<td>24.2</td>
<td>57</td>
<td>2.59</td>
</tr>
<tr>
<td>4</td>
<td>The instructors have enabled us to get enough knowledge through course assignment and lecture indeed.</td>
<td>40  31.3</td>
<td>70  54.7</td>
<td>5  3.9</td>
<td>13  10.2</td>
<td>0  0</td>
<td>86</td>
<td>10.2</td>
<td>4.07</td>
</tr>
<tr>
<td>5</td>
<td>The instructors evaluated students continuously with continuous assessment</td>
<td>6  4.7</td>
<td>97  75.8</td>
<td>2  1.6</td>
<td>18  14.1</td>
<td>5  3.9</td>
<td>80.5</td>
<td>18</td>
<td>3.63</td>
</tr>
<tr>
<td>6</td>
<td>The contact hours during lecture period was properly utilized</td>
<td>11  8.6</td>
<td>53  41.4</td>
<td>23  18</td>
<td>26  20.3</td>
<td>15  11.7</td>
<td>50</td>
<td>32</td>
<td>3.15</td>
</tr>
<tr>
<td>7</td>
<td>The course modules were completed with one instructor without change</td>
<td>10  7.8</td>
<td>85  66.4</td>
<td>7  5.5</td>
<td>26  20.3</td>
<td>0  0</td>
<td>74.2</td>
<td>20.3</td>
<td>3.62</td>
</tr>
<tr>
<td>8</td>
<td>Examinations are given according to the schedules</td>
<td>5  3.9</td>
<td>55  43</td>
<td>0  0</td>
<td>32  25</td>
<td>36</td>
<td>28.1</td>
<td>46.9</td>
<td>53.1</td>
</tr>
<tr>
<td>9</td>
<td>The instructors have good experience in teaching learning process</td>
<td>5  3.9</td>
<td>93  72.7</td>
<td>10  7.8</td>
<td>8  6.3</td>
<td>12</td>
<td>9.4</td>
<td>76.6</td>
<td>15.7</td>
</tr>
<tr>
<td>10</td>
<td>The instructors deliver the subject matter with easy way to understand</td>
<td>9  7</td>
<td>87  68</td>
<td>19  14.8</td>
<td>13  10.2</td>
<td>0  0</td>
<td>75</td>
<td>10.2</td>
<td>3.72</td>
</tr>
</tbody>
</table>

**SOURCE:** Survey Data.

**Key:** SA + A = Strongly Agree and Agree, D + SD = Disagree and Strongly Disagree, F = Frequency
As indicated in table 6a, the candidate respondent rated that the instructors give the correct exam paper for the student, to see their result and encourage them for future, The instructors have enabled us to get enough knowledge through course assignment and lecture; Instructors are encouraging the students to ask question with (SA+A = 94.5%, mean 3.95); (SA +A = 86%, mean = 4.07); (SA+A = 82.8’ mean = 3.75) respectively.

The table reveals that the mean scores of the candidate respondent about the teaching staffs and training condition were greater than the scale mean (3.00) and scored X, = 3.95; X2= 4.07 and X3 =3.75 respectively for the items 18th, 4th and 13th respectively.
### Table 6b: Response to assess the trainers condition and training
(Teaching staffs)

| No | Items                                                                 | Strongly Agree | Agree | Undecided | Disagree | Strongly disagree | F | % | F | % | F | % | F | % | F | % | F | % | MEAN |
|----|----------------------------------------------------------------------|----------------|-------|-----------|----------|-------------------|---|---|---|---|---|---|---|---|---|---|---|------|
| 11 | The instructors are well planned and committed based on schedule     | 0              | 0     | 29        | 22.7     | 26                | 20.3| 35 | 27.3| 38 | 29.7| 22.7| 57 | 2.36|
| 12 | The instructors ask questions to follow whether students are following the subject matter or not. | 19             | 14.8 | 67        | 52.3     | 5                 | 3.9 | 37 | 28.9| 0  | 0    | 67.1 | 28.9| 3.53|
| 13 | Instructors are encouraging the students to ask question             | 5              | 3.9  | 101       | 78.9     | 7                 | 5.5 | 15 | 11.1| 0  | 0    | 82.8 | 11.1| 3.75|
| 14 | The instructors are not happy if students ask questions              | 3              | 2.3  | 68        | 53.1     | 13                | 10.2| 36 | 28.1| 8  | 6.3  | 55.4 | 34.4| 3.17|
| 15 | The instructors are committed to help students in teaching learning process | 4              | 3.1  | 90        | 70.3     | 20                | 15.6| 10 | 7.8 | 4  | 3.1  | 73.4 | 10.9| 3.63|
| 16 | The theoretical part will be accompanied by practical for the students to understand | 5              | 3.9  | 61        | 47.7     | 10                | 7.8 | 38 | 29.7| 14 | 10.9 | 51.6 | 40.6| 3.04|
| 17 | Instructors have good way of communication with students even after the class | 0              | 0    | 74        | 57.8     | 14                | 10.9| 26 | 20.3| 14 | 10.9 | 57.8 | 31.2| 3.16|
| 18 | Instructors give the corrected exam paper for the students to see their result and encourage them for future | 3              | 2.4  | 117       | 92.1     | 5                 | 3.9 | 3  | 2.4 | 0  | 0    | 94.5 | 2.4 | 3.95|
| 19 | Instructors are not motivated to teach us in interesting way         | 0              | 0    | 98        | 77.2     | 11                | 8.7 | 17 | 13.4| 2  | 1.6  | 77.2 | 15  | 3.61|
| 20 | Instructors use many ways of teaching skills to provide their knowledge for their students | 5              | 3.9  | 32        | 25       | 10                | 7.8 | 68 | 53.1| 13 | 10.2 | 28.9 | 63.3| 2.59|

**SOURCE:** Survey Data.

**Key:** SA + A = Strongly Agree and Agree, D + SD = Disagree and Strongly Disagree, F = Frequency
In table 6b, 110(86%) of the respondent agreed that the instructors enabled them to get enough knowledge through course assignment and lecture indeed and in the item 11, the respondents rated the very lowest percentage that is 22.7% with the mean value 2.36 for the instructors are well planed and commitment based on schedule. In item 20; the instructors use many ways of teaching skill to provide their knowledge for their students, rated (SA+A = 28.9% with the mean value 2.59) which is the 2\textsuperscript{nd} lowers rating from the candidate respondent.

This implies that the curriculum is not implemented in the given duration of time and instructors are not well planed, what and when to teach, there fore one can conclude that the rating made by the candidate, that in items 11\textsuperscript{th} and 20\textsuperscript{th} to that of items 4\textsuperscript{th} is incongruent.

Beside this, 64(50%) of the candidate respondent disagreed, that they have had good lecture period to get the required knowledge, after all, the frequency who selected disagree in this regard is 59 and as the mean value showed (i.e. $X = 2.97$) is bellow the expected value to be good in the teaching learning processes.

Another observation from table 6 is that, 68(53.1%) of the candidate respondents disagreed that, the examination were given according to the schedules. This indicated that the instructors were not well planned and committed based on schedule (item 11) and the institute also were not using time schedules for examination, hence, obviously it affected the quality of education in the health sector.

In item 19:- 98 (77.2%) candidate respondents rated that instructors are not motivated to teach them in interesting ways. This indicates that there is a low motivation of trainers in the college as well also affect the candidate to be not yet competent in occupational competency assessment. This finding might be explained by the fact that TVET health colleges are not providing different life skill trainings.
This finding might also be explained by lack of capacity of TVET health colleges to provide training at the expected standard. Furthermore, the qualitative data obtained through open-ended item reveals that: shortage of training materials, low motivation of instructors, lack of new reference books based on the occupational standards and lack of medical equipments and the very delay of purchasing of reagents, chemicals and teaching learning materials were found to contribute their own share for the candidates to be not yet competent in the work force demand.

Another qualitative data that was obtained during interview, the head departments of all departments of the TVET health college indicated that there were shortage of training materials, and skilled man power.

One of the sample college Instructor expressed his real feeling that, his and almost all his colleagues are not motivated to provided their expertise at most, since most private health colleges do not have vision on the ground, except in the written form. He also added that, private health colleges owners, are short sited and they only focused to collect money from the candidates, rather than investing for the sake of quality education, in-service training, salary increasement at interval based on instructors performance (out based performance). That is why most of the instructors are part-time and only very few are permanent employees

(18/03/14 GC.)

The other discussant from FGD implies that, since there is no further education opportunities like government provides, instructors in the private health college are not motivated, in such a manner that, it affected the quality of education in the private TVET health college

(02/04/14 GC)
Regarding lack of motivation among trainees, one of the colleges dean said, that trainees *are only motivated to be certified rather than attending the class and to get knowledge and skill*

This might imply that the primary objective of trainees at college level is to get only certificates. As a result, their occupational competency during occupational competence assessment remains to be low. In addition, this might be related to the fact that, TVET health colleges are not working to produce a whole person whose knowledge, attitudes and skills can be manifested in the world of work in general.
4.5 Factors Associated with Policy on TVET and Employment

**TABLE 7:** Factors Associated with Policy on TVET and Employment.

<table>
<thead>
<tr>
<th>No</th>
<th>Items</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>disagree</th>
<th>Strongly disagree</th>
<th>SA +A</th>
<th>D +SD</th>
<th>MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>F %</td>
<td>F</td>
<td>F</td>
<td>F</td>
<td>F</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>I know the policy of the country regarding TVET education and Employment</td>
<td>3 2.4</td>
<td>5 3.9</td>
<td>10 7.8</td>
<td>36 28.1</td>
<td>74 57.8</td>
<td>6.3</td>
<td>85.9</td>
<td>1.89</td>
</tr>
<tr>
<td>2</td>
<td>Policy implementation is checked by relevant authority</td>
<td>0 0</td>
<td>0 0</td>
<td>99 77.3</td>
<td>19 14.8</td>
<td>10 7.8</td>
<td>0</td>
<td>22.6</td>
<td>2.15</td>
</tr>
<tr>
<td>3</td>
<td>The policy is suitable to increase employment opportunity</td>
<td>0 0</td>
<td>0 0</td>
<td>110 86.6</td>
<td>18 14.1</td>
<td>0 0</td>
<td>14.1</td>
<td>1.25</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>The policy is consistent and well communicated to stakeholders and policy beneficiaries</td>
<td>0 0</td>
<td>0 0</td>
<td>11 8.6</td>
<td>115 89.7</td>
<td>2 1.6</td>
<td>91.3</td>
<td>1.65</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>The institute gives enough awareness, information to the students to prepare for assessment</td>
<td>19 14.8</td>
<td>67 52.3</td>
<td>5 3.9</td>
<td>37 28.9</td>
<td>0 0</td>
<td>67.1</td>
<td>28.9</td>
<td>2.60</td>
</tr>
</tbody>
</table>

**SOURCE:** Survey Data.

**Key:** SA + A = Strongly Agree and Agree, D + SD = Disagree and Strongly Disagree, F = Frequency

As it had been seen in table 7: 110(55.9%) of the respondent disagreed that they don’t have any idea about the TVET policy as well as the employment policy as well.
As indicated in the item 2: candidate’s respondents even don’t have and part in the implementation process, even though they are beneficial from the policy indeed.

86(67.1%) of the candidate respondents had enough awareness information about competency occupational assessment give by the college but there is still gap as it had be indicated from mean value (x=2.60) which is below the required mean value (i.e. 3.00), and 28.9 of the respondant indicated that there were not getting enough awareness, information about assessment.

As it is evident from the above table, 91.3 % of candidate respondents have shown a tendency of disagreement and strongly disagreement on the 4th item, (i.e. the policy is consistent and well communicated to stockholder and policy beneficiaries.

Generally regarding TVET and employment policy, stockholders did not give attention to be aware, even though, it was very important and beneficiaries to know about the policies of both TVET and employment.
### 4.6 Factor Associated with Employment status

#### TABLE 8: Factors Associated with Employment status

<table>
<thead>
<tr>
<th>No.</th>
<th>Items</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>disagree</th>
<th>Strongly disagree</th>
<th>SA+A</th>
<th>D+SD</th>
<th>MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>F</td>
<td>%</td>
<td>F</td>
<td>%</td>
<td>F</td>
<td>%</td>
<td>F</td>
<td>%</td>
</tr>
<tr>
<td>1</td>
<td>I know most graduates of this institute have got employed</td>
<td>0</td>
<td>0</td>
<td>40</td>
<td>31.3</td>
<td>24</td>
<td>18.8</td>
<td>61</td>
<td>47.7</td>
</tr>
<tr>
<td>2</td>
<td>Most students are well equipped to get jobs after completing their study</td>
<td>0</td>
<td>0</td>
<td>69</td>
<td>53.9</td>
<td>33</td>
<td>25.8</td>
<td>26</td>
<td>20.3</td>
</tr>
<tr>
<td>3</td>
<td>I will start my own job after graduation</td>
<td>7</td>
<td>5.5</td>
<td>39</td>
<td>30.5</td>
<td>27</td>
<td>21.1</td>
<td>55</td>
<td>43</td>
</tr>
<tr>
<td>4</td>
<td>I have prepared myself for jobs at abroad</td>
<td>13</td>
<td>10.2</td>
<td>23</td>
<td>18</td>
<td>3</td>
<td>2.3</td>
<td>78</td>
<td>60.9</td>
</tr>
<tr>
<td>5</td>
<td>I have prepared myself to work in Addis Ababa only</td>
<td>1</td>
<td>8</td>
<td>18</td>
<td>14.1</td>
<td>3</td>
<td>2.3</td>
<td>103</td>
<td>80.5</td>
</tr>
<tr>
<td>6</td>
<td>I do not have any problem to work other parts of the country</td>
<td>129</td>
<td>95.6</td>
<td>8</td>
<td>6.3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**SOURCE:** Survey Data.

**Key:** SA + A = Strongly Agree and Agree, D + SD = Disagree and Strongly Disagree, F = Frequency

As evident from table 8, the candidate respondent did not have any problem to work in any parts of the country, was rated 100% with the mean value of 4.9, out of the respondents 120 (93.7%) rated strongly agree. This indicated that health professionals after they graduated, don’t have any problems to work any part of the country as well.

Concerning item 5th, 103 (80.5%) of the candidate respondent have shown the tendency to disagree for the employment to work in the capital city of Addis Ababa only. Regarding self employment in health sector 43(36%) with the mean value 2.98 did not show encouragement, even
through the police of TVET encourage TVET students are supposed to create jobs for their benefit as well the country at large.

Item 1 from the above table reveled that, candidates are aware of that, most graduated in the health sector from private health college had got employed, rated 31% with mean value 2.79. This is an indication that, most of the graduated candidates from private health college is suffering to get job easily, and stakeholders should give attention to solve the problem joining hand, with the polices makers, private health college owners, instructors and the candidates which have directly involved in the employment status.

Moreover, there is a high shortage of man power in the health sector all over the country, and yet graduates are not employed to fill the gap that is a big challenge for the developing country like Ethiopia. After a lot of efforts exerted, spent a lot of money during the course of years, energy, man power and the like, but due to negligence from all stakeholders, the country is not benefited from this sector.
5. SUMMARY, CONCLUSIONS AND RECOMMENDATION

5.1 SUMMARY

The main purpose of this study was to investigate the teaching–learning process in private health TVET collage, both theoretical and practical in school training, challenges occurred in apprentices and competency assessment in process. The study also tried to find out the dominant factor which contributed to unemployment of TVET health graduates in the labor market.

- Regarding the work experience, 55% of instructors have less than 5 years experience and 10% of instructors have experience of 11-15 years. This indicate that majority of the instructors don’t have better experience in the teaching-learning processes.

- Concerning instructors motivation, 77.2% candidate respondents rated that instructors are not motivated to teach them in interesting ways. This indicates that there is a low motivation of trainers in the college as well also affects the candidate to be not yet competent in occupational competency assessment. This finding might be explained by the fact that TVET health colleges are not providing different life skill trainings. Acording to qualitative data that was obtained during interview, the head of all departments of the TVET health college indicated that there were shortage of training materials, and skilled man power.

One of the sample college Instructor expressed his real feeling that, his and almost all his colleagues are not motivated to provided their expertise at most, since most private health colleges do not have vision on the ground,
except in the written form. He also added that, private health colleges owners, are short sited and they only focused to collect money from the candidates, rather than investing for the sake of quality education, in-service training, salary increasement at interval based on instructors performance (out based performance). That is why most of the instructors are part-time and only very few are permanent employees.

- This finding might also be explained by lack of capacity of TVET health colleges to provide training at the expected standard. Furthermore, the qualitative data obtained through open-ended item reveals that: shortage of training materials, low motivation of instructors, lack of new reference books based on the occupational standards and lack of medical equipments and the very delay of purchasing of reagents, chemicals and teaching learning materials were found to contribute their own share for the candidates to be not yet competent in the work force demand.

- Majority of the students reported that regarding their interest, the current field of study, preparing them to be competitive work force and successful in life with percentage of 93.6%, 91.4% and 87.5% respectively. As the mean value indicated that 4.41, 4.3 and 4.2 which is above the mean value (3.00) employed that the students loved their field of study to be graduated in health sector.

- Concerning the association with teaching materials: respondents rated that the equipment used in the collage laboratory and nursing demonstration were similar with the one used during occupational competency examination, materials used in the laboratory/demonstration are similar with the one used during COC Examination and materials are suitable to demonstrate the
practical work with the mean value of 4.24, 3.83 and 3.72 respectively.

Regarding adequate material provision, candidate respondents were asked in the open ended item in the school (college) practical session. Accordingly, majority of the candidate respondents, *even though equipments and materials are available in the colleges, reagents are not available and the equipments without reagents is just like a rifle without bullet which can not kill the enemy.* This implies that the result obtained from qualitative summary of the candidate respondents to the open ended item about the issue under consideration also strengthen the data obtained from quantitative analysis. That is, on one hand, the respondents emphasized on the importance of practice in the college laboratory and demonstration but material provision is not adequate. To counter check, one of the key informant from TVET agency said that during interview, regarding the availability of materials and reagents used in the laboratory and demonstration were not as enough as possible and reagents were expired during investigation by the agency.

Regarding the Health facilities provide employment opportunities, which had similar practical tool and equipment with the institution of the study (Health Colleges), 46.8% of the respondent have a tendency to assign agreement where as 53.1% of them have a tendency to assign disagreement on the issue. This indicates that, it is a strong factor which could affect the quality of education in the health sector. If there is a great variation in practical tool for practice in the college to that of Health providing institutes (Health facilities), the moment graduated students tried to employ in the hospital, they obviously face challenge, that also might be the cause, for most of the graduated students could not pass the skill
practical examination in both private and public Hospitals and Health facilities.

- Concerning with the opinion of the respondents regarding consistency of the curriculum with that of occupational standards, adequate materials processions in school lab (in school practice) and knowledge of occupational standards with the mean value of 2.66, 2.84 and 2.72 respectively.

- The respondents knew the reason and benefit of working apprenticeship and working in the hospital and health center with the percentage of 99.2 % and 86.7% respectively. But responses obtained from FGD that students coming from private health colleges were not well skilled and did not have enough knowledge to work on fully automated and semi automated equipments. This implies that the central underpinning notion is that, candidates don’t have enough skill and knowledge to operate those equipments, even though it’s available in lab/Demonstration in the college, which might actually contribute negatively to the occupational competency of candidates during the process of occupational competency assessment.

- The instructors enabled the trainees, to get enough knowledge through course assignment and lecture were mentioned by 86%, however, majority of the respondents indicated that instructor are not well planned and committed based on the schedule rated 22.7 % with the mean value of 2.36 which is bellow the value of required mean (3.00).

- The instructors used many ways of teaching skill to provide their many ways of teaching skill to provide their knowledge for their students rated with 2.59 mean value
The respondents have had good lecture period to get the required knowledge rated the average mean value 2.97 is below the expected value. Moreover, the examination were given according the schedule with mean value 2.7 which is also below 3.00.

The respondents did not have any idea about the TVET and employment policies with the total agreement percentage 85.9% which indicated they are not aware of these policies at all.

Most of the students did not have any problems to work in any part of the country with the mean value of 4.9 and majority of the respondents made agreement strongly with average of 93.7%. However, 80.5% of the respondents wanted to work only in Addis Ababa only.

Even though the Ethiopian TVET policy strongly encourage, that TVET graduate are supposed to create their own job opportunity for themselves as well as for the benefit of the country at large. Here in this regard TVET health professionals did not show encouragement for self employment, as the study indicated with the percentage of 36% and the mean value of 2.98, which is below the average mean value. Regarding lack of motivation among trainees, one of the college’s deans said that Trainees are only motivated to be certified rather than attending the class and to get knowledge and skill. This might imply that the primary objective of trainees at college level is to get only certificates. As a result, their occupational competency during occupational competence assessment remains to be low. In addition, this might be related to the fact that, TVET health colleges are not working to produce a whole person whose knowledge, attitudes and skills can be manifested in the world of work in general.
In general, this finding might also be explained by lack of capacity of TVET health colleges to provide training at the expected standard. Furthermore, the qualitative data obtained through open-ended item reveals that: shortage of training materials, low motivation of instructors, lack of new reference books based on the occupational standards and lack of medical equipments and the very delay of purchasing of reagents, chemicals and teaching learning materials were found to contribute their own share for the candidates to be not yet competent in the work force demand.

5.2 Conclusions

Based on the major finding of the study, the following conclusions are drawn:-

- As the study has shown that, majority of the instructors had work experiences that are below 5 years and most of the instructor’s lack motivation to contribute for the teaching–learning process that is why the quality of education is not as it was experienced. Since the health profession needs a great care and involved directly with human life, the teaching-learning process should be given more attention, along practical skill exposure. But as the study revealed that majority of the instructors are not well experienced and did not have motivation in the teaching–learning process as

- Event though, apprenticeship is a very vital, especially in health professionals to practice ,students were not getting the necessary skill from the hospitals and health facilities ,due to less awareness in the hospitals management and follow up by the school instructors as well.

- The study revealed that stakeholders attributed much more regard to lack of supplies of training materials, chemicals and reagents
which are necessary for the practical session, lack of competent and motivated instructors and absence of collaboration between the training health TVET college to that of the hospitals and health facilities, become the major factor which affected the teaching–learning process as well as skill development of the students. The object of cooperative training is to increase the practical knowledge, skill and experiences of respondents in their respective occupation. But due to lack of co-operation between the hospital facilities and the institute to implement in the program, trainers were not getting appropriate and programmatic training during cooperative training, which in turn may have significant negative impact on the development of trainee’s competencies.

- As the study indicated that graduates from private health TVET colleges could not get job, even though, there is demand of the work force in the hospitals and health facilities, and even could not pass the entrance examination prepared by the hospitals and health facilities. The study also revealed that, those graduates from health sectors, who could not pass the minimum requirement to be employed, have already passed examination given by competency occupational assessment Center. This indicates that, there is also gap needs further investigation in this regard.

- As the study revealed that during practical examination before employment in the health facilities, employee would be confused that the equipment and materials were in the health facilities is different from the equipment and materials used in the practical session in the laboratory or demonstration practical room in the institute. This was the major factor, which had affected the graduated students in the employment status.
In general, there is a high shortage of man power in the health sector all over the country, and yet graduates are not employed to fill the gap that is a big challenge for the developing country like Ethiopia. After a lot of efforts exerted, spent a lot of money during the course of years, energy, man power and the like, but due to negligence from all stakeholders, the country is not benefited from this sector.

5.3 Recommendations

Based on the major finding and conclusion of the study the following recommendations are forwarded:-

- The study revealed that there is low motivation of instructors at private TVET Health Colleges, it is, therefore recommended that, TVET health institution in collaboration with Addis Abeba TVET agency also need to motivate their respective trainers, by arranging various material and non–material incentives.

- TVET health institute were not working together with hospitals and health facilities for cooperative training (apprenticeship) at expected level. Therefore, TVET agency should have to devise and developed short term and long term training along with minister of health, so as to bring TVET health institution and health facilities for cooperative training to the play ground and to work in collaboration in order to bring desired effects on the trainees. Moreover, the practice given at the collage levels is not adequate for the students to be competent enough in the labor market. Therefore TVET health institutes, TVET agency and MOH need to develop and have a system that would enable them to control the quality of the teaching–learning activity with the help of practice at the institute level.
All stakeholders should given attention for the development of the health sector, especially the owners and the management of the institute by allocating significant amount of money and competent man power for the important items to be available, so that, the students practice in the laboratory and demonstration.

This study reveals that, even through students and graduated from the Private Health TVET institution, but majority are not employed and even could not pass a minimum required point from the examination given by both private and government health facilities. Therefore, the policies should be revised and the system should be serious, so as to minimize wastage of time, effort, and money etc.

I believe this study is a glimpse and could not show the whole picture that private TVET health collage graduated problem in employment status and the country is not benefited from the sector in this regard. I personally recommended to be given more attention and by allocating more effort, time and money the study should be studied in the country wide. The study tried to show and pointed out and gives some clue for further study at large.