



ADDIS ABABA UNIVERSITY
COLLEGE OF DEVELOPMENT STUDIES
CENTER FOR REGIONAL AND LOCAL DEVELOPMENT STUDIES

**Assessment of Employability of TVET graduates: the case of graduates of two
TVET Colleges in Addis Ababa.**

By

Samuel Atalel

A Thesis Submitted to the School of Graduate Studies of Addis Ababa University
in Partial Fulfillment of the Requirements for the Degree of Master of Arts in
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A THESIS SUBMITTED TO
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FOR PARTIAL FULFILLMENTS OF THE REQUIREMENT FOR THE
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DECLARATION

This is to certify that this thesis is my original work and has not been presented for a degree in any other university, and all sources of material used for the thesis have been properly indicated and acknowledged by means of complete references.

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List of Acronyms

AU – African Union

CES – Continental Education Strategy

KSA – Knowledge, Skill and Attitude

MoE – Ministry of Education

PASDEP – Plan for Accelerated and Sustainable Development to end Poverty

SDG – Sustainable Development Goal

TVET – Technical Vocational Education and Training

UNESCO – United Nations Educational, Scientific and Cultural Organization

UNEVOC - International Centre for Technical and Vocational Education and Training

UN – United Nations

VET – Vocational Education and Training

VGC – Vocational Guidance and Counseling

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Abstract

The objective of this study was to assess the employment status of TVET graduates in Addis Ababa and how the employers see the strengths and weaknesses on the program in terms of Knowledge, Skill and Attitude. Education in general and TVET education specifically, is one of the pathways towards a better urban decent life that encompasses the acquisition of important tools and competencies to demonstrate in the world of work. For many years, the role played by TVET has been overlooked due to mainly attitudinal and design of the system. Nowadays it's becoming more of related with development agenda comprised with employment opportunity, livelihood improvement and source of manufacturing industries. A sample of 257 graduates, 28 employing companies, 15 trainers' and 4 key informants were taken for the study. Primary data was collected by questionnaires and semi-structured interviews. Entoto and Misrak Polytechnic Colleges are the prominent TVET institutes in Addis Ababa and in Ethiopia at large. They have the highest enrollment and graduating centers with frequent work relationships with employers/industries.

Qualitative and quantitative methods of analysis were used in this study. The interview responses obtained from the management bodies and interviews were analyzed qualitatively. Quantitative data collected was analyzed using SPSS expressed in frequencies and percentages and presented using tables and figures. According to the findings of this study 68.5% got employed mainly by private companies (48%). Also 70% of graduates employed in private sector followed by the government (14.8%). With 60% of employers are on the sector of manufacturing sector over 60% of them got knowledge, skill and attitude of graduates above good and very good. Also the research indicated that there are no huge gaps in those areas, the result of the study point out that the skills delivered by the colleges are not essentially and expectation based on the standard of the employers. 46.4% and 28.6% of employers believe that the competency of graduates is satisfactory and very satisfactory. But there are also 21.4% of companies who believe their competency is unsatisfactory. This creates, employers indicated, another resource wastage incurred by the employers to make graduates 'complete'. Also the study indicates that the core competency of trainee's is initially questioned during the cooperative training or internship period by which the trainees get more practical training inside the industries.

Key Words: TVET, Employment, Unemployment, Education, Competency

CHAPTER 1: INTRODUCTION

This chapter gives general insight and background about the education sector in general and Technical Vocational Education and Training (TVET) in particular by linking with the nexus with urban decent wellbeing. The current knowledge about the issue and gaps that need to be filled are included in the problem statement section of this chapter. Based on this backdrop the general and specific objectives are also stated including research questions that shows what this research planned to achieve. The scope of the study and limitations faced are also indicated in this chapter.

1.1 BACKGROUND OF THE STUDY

Education is very crucial by providing skill, knowledge and attitude, and making life easier by equipping with problem solving skills. As the UN and its agencies indicated it is very crucial and central for the attainment of the 2030 Agenda to eradicate poverty in all its forms and dimensions, also included and integrated in one of the goals to be achieved at the end of 2030 (*UNESCO, 2020*). Through the process of aspiration for solving the existing and the forthcoming problems, the improvement of life in all dimensions is imminent and expected. In doing so, education can impact life in various ways and especially TVET education has been praised for its capacity to produce competent and qualified workforce for the industry.

The international center for technical and vocational education and training define TVET, it is a range of learning experiences which are relevant to the world of work and which occur in a variety of training context, including educational institution and world of work place (G/Michael, 2014). When the older TVET strategy of 2002 was replaced by the new one in 2008, the main idea behind was to replace quality as integral part of the design based on the global experience and exposure (*MoE, 2008*).

Employment and dealing with livelihood are the most important and pressing issues of these days. These necessities of life can be brought by various means either formally or non-formally on day-to-day basis, and the main intention of TVET education and this sector in general is to bring the opportunity for the trainees' in both forms: employment and livelihood because the system is delivered in both formal and non-formal ways by taking in to consideration of prior learning as stated in the TVET policy document of Ethiopia (*MoE, 2008*). For the betterment of

the life of graduates' the most important element is that the programs delivered by the institutes are based on the market demand and need of the industry. UNESCO advocates TVET, claiming that technical and vocational education that is driven by market demand is more effective in enhancing employment and income for the disadvantaged (Baraki & Van Kemenade, 2013).

The primary objective and goal of the sector is to make trainees' confident and qualified in their world of work, but the negative attitude towards TVET education and graduates has been a challenge (MoE, 2008). Since TVET education started formally in the Ethiopian education system some question the lack of integration with the mainstream education and training policy and this itself created a gap between the attitude, aspiration and practice of TVET education.

It is based on this idea that the TVET strategy of Ethiopia in ratified in 2008 emphasized on the new way of thinking of education in general and TVET sector in particular. The document stated that the new TVET strategy takes in to account an important paradigm shift of recent years which places quality and relevance of TVET as its priority. Global experience has shown that the mere expansion of TVET does not solve the problems of unemployment and low productivity of the economy. TVET has to respond to the competence needs of the labor market and create a competent, motivated and adaptable workforce capable of driving economic growth and development (MoE, 2008). It takes in to account the involvement of various stakeholders in many aspects of the operation of the sector, especially in job creation and resource mobilization.

With regard to the stakeholder participation the strategy was developed with the involvement of a broad range of stakeholders from the private and public sectors. It defines the major principles of the intended TVET development in the coming years (MoE, 2008). The impact of TVET education is believed to be immense for the employment opportunity and its result on the improvement of livelihood for the graduates. As generally understood, the outcome of education for the life and advancement of human beings is multidimensional and significant. Its impacts for positive change are through many means like employment and improvement of livelihood. By graduating from TVET, it's expected that graduates are nationally competent and can demonstrate any basic assignment they are entitled to do either through employment or creating their own business. This also has an impact on their livelihood based on the opportunity they are presented with.

It's with these understandings that this study focuses on the employment status of graduates from TVET and their employer's judgment on the sector's competency in meeting their requirements in terms of knowledge, skill and attitude. Misrak and Entoto Polytechnic Colleges are the most prominent and well-known TVET Institutions with great number of students, graduates and trusted job-links with various employers. The impact of graduates from these Colleges can be very helpful to understand how much TVET education is playing its role for the improvements of livelihood in Addis Ababa.

1.2 STATEMENT OF THE PROBLEM

Generally youth unemployment is one of the universal problems and can be witnessed in developed and developing countries, with variations in extent and cause. It associates with an urban phenomenon and posed a great challenge despite some progresses made in recent years. This can be an indication that the economy cannot provide adequate jobs to the growing population in both rural and urban areas (Kibru, 2012). In this regard, education in general and TVET specifically plays vital role in minimizing unemployment but some public outlooks and understandings against TVET still pose difficulties in achieving the goals and one of the major things is perception.

TVET is one means for addressing unemployment designed to be a solution especially to the youth who need a way out to join the workforce. Access to employment in Ethiopia has been challenging especially for the youth in urban areas (Statista, 2021). As Mergo (2020) indicated Ethiopia increased the number of TVET institutes from time to time and the graduates from those institutes are more of job seekers than job creators and the gap is witnessed on policy gap and inability of making graduates entrepreneurs (Mergo, 2020). A study by MoE indicate that by taking the sector as a solution for unemployment, TVET can be a means of preparing for different occupations which will lead to effective participation in the world of work (FDRE-MoE, 2018). Another study by Fantaye (2019) indicated that this sector is the best avenue for acquiring readily employable skills for the world of work and due to this the existing problem of unemployment caused by scarcity of trained and skilled man-power to the manufacturing industries can be mitigated by TVET led provision of labor force (Fantaye, 2019).

There are different justifications to apply TVET education across the world; some believe that it helps to solve the problem of unemployment and improve livelihood for their youth and adult population (Bhandari, 2019). Besides, the national TVET strategy of 2008, indicated that main

objective of the training is to create a committed, motivated ,adoptable and innovative work force contributing to poverty reduction ,social and economic development through facilitating demand driven , high quality TVET relevant to all sectors of the economy, at all levels and to all people (G/Michael, 2014). To achieve the objective of the strategy and solve the existing problems of unemployment there are many TVET institutes established in Addis Ababa and elsewhere in the country.

Along with employment opportunity for the graduates, TVET is essential for the development of MSEs with employment and self-employment opportunities (Hizkel, 2019). Also some positive results are also registered in studies done to assess the preference of students towards TVET sector. As Yinesu (2010) studied many students join TVET because their field of study with the prior intention to be employed because their stream has ‘good’ job opportunity (Yinesu, 2010). On the other hand studies are done on the compatibility and effectiveness of training methodologies for the world of work. Like G/Michael (2014) indicated that with the intention for trainees to have a good understanding of the real workplace, they are expected to take part in cooperative training (G/Michael, 2014). Also Catts & Falk (2011) emphasized the effectiveness of TVET modality for ‘perfect fit’ for industries and manufacturing firms.

In the 2009 E.C. Misrak Polytechnic college conducted survey and found out that about 80% of graduates got employed and out of which the majority are from Hotel/Hospitality, Business and ICT sectors respectively (Abebe, *et.al.* 2011). However Hailu (2012) stated that the available data do not allow carrying out any full-fledged impact assessment to analyze the possible effect of TEVT on employment in Ethiopia (Hailu, 2012). The above mentioned few studies are mainly concerned mainly on ‘during the training delivery’ and its challenges. Studies after the graduation and joining of the world of work are hardly done with the assessment of the researcher.

As indicated above studies are done on the relevance of the sector, attitude of the public towards TVET and its significance for employment, studies on the effect of TVET for employment are not enough and needs another input from another perspective. Besides, different studies are habitually focused on the impact and influence of ‘mainstream’ education sectors other than TVET. Therefore, this study will primarily focus on the newly designed TVET education and strategy and its effect on the employment opportunity of the graduates. There is huge gap in

knowing the influence of this sector for the larger workforce and livelihood condition as compared to the mainstream education sector.

1.3 OBJECTIVES OF THE STUDY

1.3.1 General Objective

The main objective of this research is to assess the employability of TVET graduates by taking the case of Misrak and Entoto Polytechnic Colleges in Addis Ababa.

1.3.2 Specific Objectives

- ✓ To assess and analyze the employment status of graduates and effect of TVET for employment.
- ✓ To investigate the extent the TVET system meets the need and requirements of the employers/labor market in the world of work.
- ✓ To identify the gaps (in terms of knowledge, skill and attitude) from both the graduates and employers point of view.

1.4 RESEARCH QUESTIONS

Based on the above stated research objectives, the following research questions are drawn and proposed to be dealt with.

- What is the role played by TVET sector in creating the employment opportunity?
- How do the employers see TVET qualification based on their need and requirement and identify its strengths and weaknesses?
- What are the main gaps of the TVET training as the graduates and employers see in the world of work?

1.5 SIGNIFICANCE OF THE STUDY

As the policy document indicates the mission of the sector is to produce motivated, competent and adaptable workforce that can contribute for the development of the nation (MoE, 2008). The outcome of this research is a great asset to the TVET policy analysts and writers by indicating the gaps and the strengths that need to be scaled-up in meeting and answering the stated objectives of the policy document.

Training institutes and other stakeholders are integral part of the TVET sector in dealing with the practice of vocational education. To them the result will be an indicator by showing shortcomings and strengths in their practice of accomplishing the mission and goal of the sector as expected from them. It also helps to make informed and educated decisions with regard to opening, expanding or closing the programs delivered by the stakeholders. If the result supports the reports released by the government it helps to keep doing the good job and if the results show sideways it makes the concerned body do more on the issue.

As indicated in other sections of this proposal most studies are concerned with non-TVET sector in many ways and this creates another knowledge gap in the researches and is an asset to future studies by showing missed areas in many ways. Since this study can't address all issues in relation to the topic, efforts are other indicators for further studies and academic advancements by showing previously unseen areas.

1.6 SCOPE OF THE STUDY

The issue of the effect of education in general and TVET education in particular is very crucial and can be subject to many academic researchers in different disciplines. Since the introduction of TVET education based on a structured and formal way there were different kinds of issues raised by diverse studies and assessing all the impacts in this study can be unrealistic. This study is conducted and focused on the effect of TVET education in terms of employment opportunity and livelihood condition for the graduates of Misrak and Entoto Polytechnic Colleges. The research is based on qualitative research design (interview) and quantitative design through questionnaires with the consideration of resources, availability of data and time to undertake this task.

1.7 LIMITATION OF THE STUDY

The researcher has faced various challenges while conducting the study including the problem of accessing the respondents both graduates and employers. This created some gap in getting accurate and thorough information on the research objective. It was also a challenge to get compiled and up to date data on the previous graduate's employment status. Accessing training coordinators and KIIs was also another challenge which posed some difficulty in obtaining qualitative data on the general status and system of training.

However, by exerting maximum effort and time the researcher collected available data from the concerned and appropriate respondents.

CHAPTER 2

2. REVIEW OF RELATED LITERATURES

In this section of the thesis literatures related to the studied theme are reviewed to uncover the existing knowledge about the role of TVET for employment and qualities of graduates in terms of knowledge, skill and attitude when they join the world of work. The gaps in TVET on areas of policy, delivery or any institutional capacity are also assessed. This gives to have an overall understanding and background on how to conceptualize and address the issue under study. Also the terms used in this thesis are clarified and given some working definition.

This study is about the effect of TVET on employment status of graduates by considering the acquisition of knowledge, skill and attitude they obtain from institutes. Since TVET is one part of education it plays a critical role in alleviating some of the pressing issues witnessed in urban areas, the major one is unemployment. As UNESCO-UNEVOC (2013) stated, education in general is understood and delivered in various forms like primary, secondary, tertiary or technical and vocational. Education can be defined as a system that prepares for adult life or for a phase of adult life. Specifically Vocational education and training is different from other forms of education in a way that training essentially concerned with the inculcation of routine activities so that they can be carried out with competence and confidence (UNESCO-UNEVOC, 2013).

The term TVET defined by UNESCO as a system that includes apprenticeship training, technical and vocational education, occupational education, career and technical education, workforce education, or workplace education... (Na, 2014). The goal of TVET education as indicated by the MoE (2008) is to contribute on the development aspiration of the country by creating youth with employable skills derived by the market demand and labor market assessment relevant to the world of work (MoE, 2008). Both definitions and roles of the sector have similarity and correlation in a way that TVET is expected to contribute hugely for development and employment by equipping trainees with necessary skills that the labor market requires.

Employment in Ethiopia is planned to be mainly facilitated by the private sector in different forms and systems. In this aspect Micro and small enterprises are the most important employment mechanisms strongly associated with TVET. When we say employment it is understood as an activity that provides income to the beneficiary in various forms and durations (ILO, 2018). Also the national employment strategy of Ethiopia (2016), showed that employment is essential by providing an important linkage between economic growth and poverty reduction by allowing the poor to generate income (FDRE, 2016). Furthermore the government of Ethiopia emphasizes employment creation, both in the context of poverty reduction through creating employment opportunities and using labor resource for growth as one of the most important resources the country is endowed with (ILO, 2009).

2.1 NEXUS BETWEEN TVET AND DEVELOPMENT

The source of development for every country varies due to the models followed by the policy makers and planners but education is key (Zelege, 2018). As a result of its vital nature for development the leading UN agency for the development and expansion of vocational education, UNESCO-UNEVOC (2020) emphasized the TVET sector as a major player in producing competent and qualified workforce that can drive development by creating employment opportunity and technological advancement. Internationally, Vocational education is highly valued for its role that can play in many aspects and literatures indicate its efficiency in different ways. TVET is a problem solving learning experience different from the conventional education system which focuses on theory dissemination or provision of basic knowledge and when effectively taught is expected to stimulate employability, technical competence, innovation and self-reliance (Raimi, L. and Akhuemonkhan, 2014). Moreover FDRE (2016), indicated that TVET is frequently perceived as improving the opportunities of the youth who lack resource, skill or motivation to continue higher education.

The work by Fantaye (2019) point out that TVET has been accepted globally as a strong catalyst to development and sustainable national security and viable strategy for tackling the pervasive youth unemployment because of its potentials in job creation, wealth generation, poverty reduction and technological transformation (Fantaye, 2019). On the other hand Brunello & Rocco (2017) further affirmed the role played by the sector in Europe by helping to reduce early school leavers and to increase the share of 30-40 year olds to complete tertiary education. In Africa TVET has its huge effect on development and advancement of life for the citizens. As

Munishi (2016) indicated TVET played not only for the acquisition of graduate's employable skills but also for economic advancement in various aspects (Munishi, 2016). Also Goel (2011) illustrated that any country can be benefited from TVET based skills and development as engines for economic growth and social development. As OJO (2020) articulated the contributions to growth and development of TVET enhances human capacity to transform technical oriented activities to encourage sustainable development (OJO, 2020).

Development, specifically sustainable development, is a universal agenda coordinated by various development and humanitarian agencies across the world. UNESCO is one of the many organizations that give great emphasis for the idea and its implementation internationally. This institute explained sustainable development as a human-centered response to globalization that is based on the principles of environmental, economic and social responsibility (UNESCO-UNEVOC, 2013). Furthermore sustainable development became the new paradigm for TVET starting from its adoption in the International Conference on TVET in Seoul, Korea in April 1999 (*Ibid*). Osidipe, (2019) also agree on the idea that TVET plays a crucial role in facilitating development but indicated how negative attitudes and perceptions towards the sector constrain it from registering better results. OJO (2020) also indicated that there is wide range of consensus and understanding about the critical role TVET plays for sustainable development and various programs are promulgated to address social, economic, physical or environmental problems (OJO, 2020).

As compared to other parts of the continent and across the world there is rapid urbanization in sub-Saharan Africa (SSA) (AU, 2007). But this situation has different problems as Baraki (2016) indicated it causes a growing labor force and less developed labor market created due to the mismatch between the growth of cities and their corresponding labor market. And in this mismatching of labor and the market, as Zeleke (2018) argue TVET is expected to play its vital role in the acquisition of knowledge and skills relevant to the world of work to increase opportunities for productive work, sustainable livelihoods, personal empowerment and socioeconomic development in knowledge economies (Zeleke, 2018). Anangisye, 2008; Woyo, 2013 cited in Munishi (2016) stated that with its challenges like lack of training material, inadequate learning facilities and absence of industrial synergies vocational education improves the competence needs of employers and is playing its share for development in Zimbabwe, Malawi and Tanzania (Munishi, 2016). Generally, the above literatures and studies done on this area regarding role of TVET agree on its huge impact for development and economic growth.

2.1.1 HUMAN CAPITAL THEORY

The theory of human capital and relationship between education and work has been a major area of study in economics since 1960s. Human capital is defined as the skills the labor force possesses and is regarded as a resource or asset (Goldin, 2016). Tan (2014) also defined human capital as any stock of knowledge or the innate/ acquired characteristics a person has that contributes to his or her economic productivity (Tan, 2014). As further indicated in the paper, it encompasses investments in people in terms of education, training and health that will increase an individual's productivity. Like other forms of investment in terms of capital, this theory postulates that education and training determines marginal productivity of labor and this will determine the return from labor. In addition Merwe (2010) said that the main thesis of this theory is that education renders people more productive, that is, it raises the marginal product of an educated worker relative to one not so educated (Merwe, 2010), and he did it by making comparisons between the educated and those who are not.

The use of the term capital/human capital goes back at least to the time of Adam Smith in 19th century when he define capital as The acquisition of ... talents during ... education, study, or apprenticeship, costs a real expense, which is capital in [a] person. Those talents [are] part of his fortune [and] likewise that of society (Goldin, 2016). Other studies like an article done by Galiakberova (2019) indicate that the term is introduced by J. Minser in the late 1950's that explains wage income as a function of schooling and professional experience (Galiakberova, 2019). This theory is not a mere theory in economics rather it proposes solutions for existing problems and provides ideas for policy input. Education, in this approach, is placed at the center and considered the source of economic development (Tan, 2014).

Biddle (2017) elaborated that starting from the end of 1960s huge emphasis is given to the human capital theory with the idea that (1) policies promoting education could advance goals—first faster economic growth, then poverty reduction—that circumstances pushed to the top of the nation's policy agenda during the period of human capital theory's initial development; and (2) an advocate of the theory who could persuasively explain the logic and the emerging empirical evidence linking education to those goals moved into a position of power and influence (Biddle, 2017). Trainings in TVET education are derived from the actual settings in the real world and in this aspect the sector aspire to produce qualified workforce that can accomplish any given task. This is a huge investment on the youth that have great return in terms of employment and

livelihood improvements. Because as (Merwe, 2010) indicated each work needs certain cognitive skills which can only be acquired by formal schooling.

2.1.2 SUSTAINABLE DEVELOPMENT GOALS AND EDUCATION/TVET

The Sustainable Development Goals or Global Goals are a collection of 17 interlinked global goals designed to be a "blueprint to achieve a better and more sustainable future for all". The SDGs were set up in 2015 by the United Nations General Assembly and are intended to be achieved by the year 2030. 195 nations agreed on those global goals and accepted for their implementation to be achieved in the 2030. As indicated on ILO (2017) The UN sustainable development goals (Agenda 2030) have elements of relationship between education and sustainable development in a way that Limited access to education and training is considered a major obstacle to sustainable development and also With the Agenda 2030 the global community has recognized that decent work is both a means and an end to achieve sustainable development (ILO, 2017).

The fourth goal is directly related with education saying that the goal is to “Ensure inclusive and equitable, quality education and promote lifelong learning opportunities for all’ (THAUNG, 2018). This is based on the motto that no one should be left behind from getting access to education based on universal relevance, rights based, inclusion, equity and gender equality (*Ibid*). By giving access to education the youth can perform tasks based on their competence and contribute to the development of their country by shaping their future.

2.1.3 OUTLOOKS ON EMPLOYMENT AND LIVELIHOODS

TVET design and implementation is one part of poverty reduction strategy and was based on the delivery of knowledge, skill and attitude for the trainees’ in their respective field of study and life-long learning (G/Michael, 2014). In Asia and the Pacific, where TVET is believed to be best practiced, the sector is useful in many regards. Also TVET is taken as an instrument for the advancement of productivity for minimization of poverty in the region. As there is a strong correlation amongst the amount of TVET students at the post-secondary level and income level (Pavlova, 2014). Along with other issues of the sector helping people make their own income is one mission of TVET and this can be upgraded in to livelihood means for the graduates as stated in von Kotze, livelihood see people as subjects rather than simply workers, clients or customers (von Kotze, 2010).

Livelihood can be understood in many ways based on the specific context, but UNDP provides the working definition of the concept as the capabilities, assets (including both material and social resources) and activities required for a means of living. A livelihood is sustainable when it can survive and recover from pressure and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base (Sampieri, 2014). This definition comprises all inclusive concepts and gives integrated outlook towards livelihood and its operation. Also livelihood comprises the capabilities, assets (stores, resources, claims and access) and activities required for a means of living and contributes net benefits to other livelihoods at the local and global levels and in the long and short term (Majale, 2002).

The UN recognizes about five elements of livelihood assets; human capital, social capital, financial capital, natural capital and physical capital (UNDP, 2017). The livelihood approach is an important actor-oriented perspective in development studies, which strongly influenced development oriented research and development practice and it also focus on how people organize their lives, more on how people organized their lives, more on opportunities and more on agency, rather than concentrating on their impoverishment (Haan, 2012). Livelihood approach requires all encompassing integration and cooperation between all stakeholders in a way to make the targets away from vulnerability. The Livelihoods framework encompasses the skills, assets (both material and social) and the approaches which will be used by individuals and communities in order to survive (UNDP, 2017).

The (sustainable) livelihood framework and its focus are mainly based on the assumption that households or other units of analysis possess different resources and capabilities. As Joseph & Mensah (2012) indicated the different applications of the Sustainable Livelihood Framework, considerable emphasis has been placed on the core issue of individual and household endowments (Joseph & Mensah, 2012). It is also about meeting the sustainable consumption need of people in their life and this consumption need can be met by the above mentioned five elements of livelihood.

2.2 REVIEW OF EMPIRICAL STUDIES IN AFRICA AND ETHIOPIA

This section explores studies and literatures conducted that are related to education in general and TVET education in particular and their contribution for employment and livelihood improvement. The issues of TVET practice in Africa and Ethiopia specifically are also presented accordingly.

2.2.1 TVET EXPERIENCE IN AFRICA

The future of Africa as a continent highly depends on the availability and impact of education in various sectors of the economy, social and political spheres, and in the bid to “create” a new African citizen who will be an effective change agent for the continent’s sustainable development as envisioned by the AU and its 2063 Agenda, the African Union Commission has developed an Africa comprehensive ten-year continental education strategy (CES) (AU, 2016). In this part Technical and vocational education is also one part of the tools in developing countries to facilitate their development and enhance the life and future aspiration of their citizens in many aspects.

There is awareness among policy makers in many African countries and the international donor community on the critical role that Technical and Vocational Educational and Training (TVET) can play in national development. The increasing importance that African governments now attach to TVET is reflected in the various Poverty Reduction Strategy Papers that governments have developed in collaboration with The World Bank...one of the most important features of TVET is its orientation towards the world of work and the emphasis of the curriculum on the acquisition of employable skills. TVET delivery systems are therefore well placed to train the skilled and entrepreneurial workforce that Africa needs to create wealth and emerge out of poverty (Pongo, *et.al*, 2014). When rising youth unemployment sparks discussions about the problematic transition from school to work for many young school leavers, vocational education is often mentioned as a solution by policy makers...at the same time, critics argue that vocational education is not compatible with a flexible labor market in which workers adapt easily to changing job content primarily caused by technological innovations (Forster, Bol, & van de Werfhorst, 2016).

In relation to the achievements registered in our continent in terms of enrollment and completion rate good results have been recorded in general education. However, as studies indicate there is high unemployment rate for the youth and for those who make a living informally, they live at the edge and therefore, the need for skills development for socio-economic development and poverty alleviation is not to be ignored (Baraki & Van Kemenade, 2013). The practice of adult education in countries in Africa has a long history, yet activities concerned with adults learning new skills, or youth, women or specially selected people being inducted into cultural and social practices have rarely been framed as adult education. ‘Initiation’, ‘socialization’, ‘health

promotion' and 'agricultural extension services' are part of life-long development processes, offered by elders, local experts, non-governmental organizations, church- leaders or government agents. It's believed that the old perception that adult education means literacy and remedial education persists: 'The concept of adult education remains hazy in most African countries and, consequently, there is very little commitment to the promotion of adult education activities.' They suggest: 'A historical overview of the provision of education in Africa may help explain why most institutional providers of adult education are not aware that they are engaged in adult learning'(von Kotze, 2010).

The development of TVET in Africa started after the independence from colonial powers and before that the sector was either traditional practices or as a source for labor for colonialists. Writings indicate that since independence, they have gone through three main post-independence phases. These broadly reflect wider developmental orthodoxies of modernization, basic needs and neoliberalism (McGrath et al., 2019). The emphasis given to the TVET sector in many countries of Africa has been very low and hindered its significant contribution for the development of countries at large and individuals in their life quests. Due to the low integration and connection between the training institutes and the workplace, the output and contribution of the sector has been mostly insignificant.

Studies and literatures with regard to the TVET development in Africa are related with the literature of Phillip Foster in 1965 entitled 'Vocational School Fallacy' and claim that vocational education in the continent was a myth. Small-scale vocational training systems might be more fruitful if they are separated from the formal education system. He also argued vocational education has to be delivered by the demanding labor market/companies that need skilled labor. The problem to decide where to invest, vocational or general education, existed for some time (IGC, 2021).

The 1960s was a decade which in Africa witnessed the ambitious targets for all sub-sectors of education in the Addis Ababa conference of 1961, the excitement about self-help educational expansion (*harambee*) in Kenya, and then a whole series of innovations designed to deal with the sudden arrival of primary school leaver unemployment - from the Brigades in Botswana, to the Workers Brigades in Ghana, to the Village Polytechnics in Kenya, and, most famously, in 'Education for self-reliance' in Tanzania (King & Martin, 2000). This idea will be the starting point for the advancement of the TVET in the Africa. Given the low stage economic

development of the continent Rostow believes that industrialization required the replacement of highly skilled expatriates and the localization of middle-high skills capacity through investment in public VET in order to achieve industrialization (McGrath *et al.*, 2019). This further facilitates the sector to develop and contribute its share for the economy which can be divided and be beneficial to individuals.

The 2015 sustainable development agenda tried to incorporate and emphasize the important role education in general and vocational education in particular plays and also SDG 2030 in its Goal 4 indicated to make sure that everyone should have an inclusive and just access to education, and also promote life-long learning for all. SDG's emphasis to education gives huge attention to TVET education and development of skills with affordable and quality access. The achievement of TVET skills for employment, decent work and entrepreneurship; the elimination of gender disparity and ensuring access for the vulnerable" (UNESCO, 2021).

McGrath stated that crucially, the SDGs stress that development necessitates concentrated attention to overturning intersectional disadvantage and securing environmental sustainability, and not just only economic growth. In the field of vocational education and training (VET), UNESCO has responded by developing a clear account of how a transformed VET must be part of a transformative approach to development (McGrath *et al.*, 2019). Besides, the huge budget required by the sector and trained man-power are fulfilled with the support of international NGOs.

2.2.2 OVERVIEW OF TVET IN ETHIOPIA

Education and training began in pre-history with the transmission of knowledge and culture from one generation to the next. Culture is defined here as the beliefs, values and technologies shared by a discrete group of people... the teaching of technology as part of man's knowledge began when early cave man taught his son to master the skills needed for survival (Maclean & Wilson, 1933). In most industrialized and developed countries, TVET plays a key and crucial role in providing skilled workforce for their manufacturing industries and propels further development and this impact is manifested in many ways.

The development of the TVET sector in Ethiopia is associated and rooted with the traditional craftsmen and small hand-made businesses historically. As indicated by Fikru (2013) Potters, blacksmiths, weavers and tanners who could have been the base for technological advancement

in the country had been undermined. This state of affairs has adversely affected the indigenous technological development in the country (Fikru, 2016). But with the low attitude and emphasis given by stakeholders it has for long been stayed ‘underdog’ as compared to the other educational sectors until some improvements started to be witnessed during five year Italian occupation.

The trend shows an effort to shift from change the sector from conventionally used supply/command driven towards outcome based system through continuous reforms evidenced from TVET best practices. Hence the TVET sub-sector in Ethiopia is currently reached to the level of enrolling about 80% of the secondary school leavers, sharing with the teachers training colleges (Atchoarena, David; Delluc, 2002). As stated by Shaorshadze and Krishnan, (2013) TVET system in Ethiopia is essentially command driven even though the government recognizes the importance of ensuring the system is sufficiently flexible and responsive to demands of industry (Shaorshadze & Krishnan, 2013).

The 1994 education and training policy of Ethiopia dictated that Parallel to general education, TVET is provided and made accessible for those who left school from any level of education (MoE, 1994). Based on this, diversified fields of study and training are expected to be delivered mostly by specialized colleges and institutes for those who completed grade 10.

The government of Ethiopia generally expects TVET sector to facilitate the growth and development of the country by minimizing unemployment and creating livelihood especially for the urban poor. UNESCO, 2000 cited in Baraki & Van Kemenade (2013) stated that poverty reduction and economic growth are facilitated by TVET by means of preparing for occupational fields by advancing effectiveness and competitiveness in the workplace, and it also in Africa more attention is gained as a result of which TVET is part of the formal education system (Baraki & Van Kemenade 2013). Education is considered as a key to development whereas TVET is a master key because it has the ability to open all doors of the lifelong learning, reduce unemployment and improve the quality of living. These roles can be realized when competency based TVET program is applied (Fikru, 2016).

The recent outlook towards TVET is based on the best practices from the Far East and Europe which is mainly financed by the government. The national TVET strategy of Ethiopia is an older version of the previously implemented one in 2002. This current strategy adopted in 2008 gives

prime emphasis for the quality and relevance of the programs delivered by the institutions in the world of work by conducting consequent labor market studies based on the need of the industry. As stated in the strategy (MoE, 2008), it is developed with the participation of participants from the private and public sectors. The main driver of the TVET strategy is that the sector's development depend on an outcome-based system and devoted and trusting cooperation among participants (MoE, 2008).

Driven by the importance of the sector for the country the government of Ethiopia is expanding the sector very quickly. The government of Ethiopia accepts the low factor productivity is resulted from the skill gap, the industry will provide less training than is socially optimal. Therefore, publicly provided TVET education is taken as an instrument to narrow and close this incompatibility and (Shaorshadze & Krishnan, 2013). The literature further indicated that this expansion is based on the thinking that this action will increase productivity of the industry and enhance their competitiveness in the international market. The government follows more than just mere expansion of institutions but also the enhancement of their fair share in the local and international market.

As some development models suggest following the track record of developed countries can help achieve what is needed by the developing country. In terms of this the Government of Ethiopia follows the track of industrialized nations' development technique and this rests in their education sector and especially in the mid-level skilled man-power generation that can be helped as an input for the manufacturing industries. The continental strategy for TVET aims to bring a paradigm shift in TVET by developing the idea that TVET prepares youth to become more of job creators than job seekers so that the public discard the idea that TVET is a refuge for those who failed in general education (AU, 2016).

The Plan for Accelerated and Sustained Development to End Poverty (PASDEP), on its second strategy, states that in order to achieve the development targets set by the country, TVET will be expected to play its role and provide relevant and market-based education and training for employment and self-employment. In 2008 TVET strategy of Ethiopia, it outlines how the TVET program will achieve the development goals (IGC, 2021). The emphasis for the sector is mainly due to the low labor productivity persisted in the country that can be measured in different ways of economic terms.

In Ethiopia TVET is a multi-sector involvement area and it is an education program which is mainly designed for learners to acquire the practical skills needed in the labor market, and to understand the overall occupations and competencies (Fikru, 2016). The development of industries, especially manufacturing ones, is still at its lowest stage, and the delivery of TVET program depends on the area by which trainees are involved in mainly manufacturing and industrially needed sectors.

The government of Ethiopia believes that the status of low productivity is mainly emanated from the skill gaps witnessed in those manufacturing industries; also the industry is not playing its part in training the workers and filling this skill gap. The government is providing TVET education with the notion to close the skill gaps witnessed and in order to improve the productivity of the MSEs and increasing their competitiveness in the global market (Shaorshadze & Krishnan, 2013). On this issue there are some concerns raised in a way that the sector is command driven and mainly decided by the government as to where and who should join the sector but given the reality and sensitivity of the sector for the development of the country the government tried to justify its cause (MoE, 2008).

Grubb and Ryan cited in Shaorshadze & Krishnan (2013) stated that the TVET programs in Ethiopia are with four types (A) Pre- employment training that prepares trainees for the first access into the employment (Ethiopia's current status). (2) Upgrading training for the employed individuals; (3) Retraining for individuals that have out of their previous jobs or for those wishing to switch professions; (4) Remedial for individuals out of the mainstream labour force (IGC, 2021). Also the overall education of the learner should be rebuilt around four pillars, which are learning to (know, do, live together, be) (UNESCO-UNEVOC, 2020).

The table below shows the completers of TVET education by gender for the year 2019 which shows the general trajectory and effect of the sector.

TABLE 1: TVET EDUCATION BY GENDER FOR THE YEAR 2019/20

No	Region	M	F	Total
1	Tigray	8,698	7,984	16,682
2	Afar	317	232	549
3	Amhara	17,373	24,071	41444
4	Oromiya	8,017	6,046	14,063
5	SNNP	10024	9,265	19,289
6	Benshangul	2,067	1,876	3,943
7	Gambella	122	111	233
8	Harari Region	2,202	2,510	4712
9	Addis Ababa	9,541	10848	20389
10	Dire-Dawa	1,330	1,212	2,542
11	Aggregate	59,691	64155	123846

Source: *Education Statistics Annual Abstract-FDRE* (IGC, 2021).

2.3 THE GUIDING PRINCIPLES OF THE ETHIOPIAN TVET SYSTEM

The 2008 Ethiopian TVET strategy puts guiding principles in order to pursue its stated goals and achieve objectives. Besides, the guiding principles show how the sector plan to deliver the system and further development orientations are indicated in the policy document. The policy itself emanates from the country's aspiration to be developed and industrialized, and this goal needs trained and qualified workforce.

The 1994 education and training policy, started from its beginning, stressed on equipping the students/trainees with technical traits that can help them in their future encounters. Teachers and researchers are also expected to take part in field exercises and coordinated curriculum has been planned to be developed (MoE, 1994). Started from the endorsement of PASDEP the country aspired to produce applicable and market oriented education and training that corresponds to the needs of economic and social sectors (MoE, 2008). When evaluated based on this, the current state of TVET is evaluated as not yet there in meeting the demands of the country and this is the base for the development of the new specific TVET Strategy in 2008.

The TVET Strategy is directed by the guiding principles in meeting its mission and goal, and will define further development and implementation of the TVET sector. From these principles the policy tries to be all-rounded and inclusive in dealing with the issue. TVET is based on the demand of the market, qualities and relevance has to be assured, not rigid, lifelong advancement and education, takes gender in to consideration, equal access to those who need and opportunity (MoE, 2008).

2.4 EMPLOYMENT OF GRADUATES ON THE CONTEXT OF TVET

As the impact of TVET for the general development of a country is understood by the policy makers and the international community is eminent, there are different strategies ratified and tried to be implemented in Ethiopia which is structurally started from introducing the newly revised national TVET strategy in 2008. However, it is clear that the sector has registered progressive and promising success in some and falls short in other areas. This policy is mainly a continuation and upgrade of the previous strategy which was mainly dependent on the certificate based not the quality and relevance of the sector for the contribution of the economy in many ways (MoE, 2008). The policy further indicated that the sector has to be one of the main contributors for youth employment and livelihood improvement in various training schemes.

Vocational education and training (VET) is frequently perceived as improving the opportunities of youths who lack the resources, skills or motivation to continue with higher education. Many have argued that VET provides useful skills to prepare these individuals for labor market entry and improve their chances of a successful professional career also vocational programs, and in particular apprenticeships, increase the chances of an early working life (Brunello & Rocco, 2017). Tackling youth unemployment is one major headache especially for the developing economies because of the huge influx of this segment of the population. In this aspect various literatures indicate that TVET helps a lot if managed and implemented as expected by the policy documents of the nation. Given its expensive nature of the sector in terms of developing inputs, buying machineries, training the staff and installing the infrastructure it is hard to be feasible easily and needed a strong collaboration with other stakeholders.

Quality TVET is also recognized to be key for enhancing economic competitiveness by contributing to the social inclusion, decent employment and income, and poverty reduction (G/Michael, 2014). These benefits can also have multiplier effect in various aspects of life and impact the general livelihood. Some believe that TVET graduates are mostly employed sooner

than later and have smoother transition as compared to general education qualification. They have also less probability to be unemployed at the start of their career. The main explanation for this is that TVET Graduates have specific skills that can be taken as an advantage to enter in to the labor market and make them less flexible (Forster et al., 2016). Employers, especially manufacturing sectors, prefer more specific qualification in relation to the actual work situation.

As clearly indicated on the strategy document, the Ethiopian TVET takes in to account and adopts best practices globally. Following the implementation of the 2008 TVET strategy in Ethiopia, the percentage of regular TVET graduates who were acknowledged as competent by the national assessment and certification system increased from 17.42 %t in 2009/2010 to 40.23 % in 2011/2012. Nevertheless, the variation among regions is witnessed (Baraki & Van Kemenade, 2013). Even if the program is accompanied with great hope for the overall improvement of the country, the system is still at its infancy in measurable terms and in terms of practical results registered as compared to its proposed goal in the strategy. Along with this Subrahamnyam (2016) believed that to help the graduates in their future aspiration for employment the TVET institutes are expected to keep up to date with labor market analyses and skills forecasts to ensure that their services are forward-looking and pertinent; form closer links with the private sector and other key partners to access support for their programs and improve the relevance of their offerings; extend their coverage to a wider pool of beneficiaries (Subrahamnyam, 2016).

Ethiopian economy is predominantly agrarian which comprises 85% of total employment opportunity (global EDGE, 2020). Currently the general unemployment rate in Ethiopia is increasing from time to time due to various reasons, in 2020 the rate increased from 2.04% to 2.78 % (Statista, 2021). However, the youth unemployment rate is slightly decreasing in recent years from 3.36% in 2015 to 3.17% in 2019 (*Ibid*). As indicated above even if the general unemployment is increasing, the youth unemployment shows the reverse. As a global pressing problem, unemployment is also posed some issues in Ethiopia especially in urban areas and the TVET sector is expected to play its crucial role in absorbing the unemployed youth as stated by the TVET sectoral strategy.

Employment and its access are not uniformly distributed across the globe. Similarly ILO (2009) stated that it is becoming very challenging in Ethiopia to create job opportunity for the growing labor force (4.4% per year) due to limited resources (ILO, 2009). Educational sectors, especially

TVET, have their huge share in accommodating employment in different ways. UNESCO clearly recognizes the value of TVET in addressing a host of issues, such as youth unemployment and socio-economic inequalities (UNESCO-UNEVOC, 2013). It also provides a link between growth and poverty reduction only when it is systematically guided through policies and strategies that influence the determinants of labor market characteristics (*Ibid*).

Unemployment, especially youth unemployment is prevalent in Ethiopia's many urban areas and across the wider world. UN report on unemployment indicated that the young people reported three main reasons for failure in school to work transition. Those reasons are lack of relevant skills, lack of information about the labor market and lack of work experience (Subrahmanyam, 2016). Additionally ILO (2009) indicated that the labor force is growing rapidly than the population because of the young dominated demographic profile (ILO, 2009).

Given the role TVET plays for the development, the national employment strategy of Ethiopia put priorities to create jobs as follows of (FDRE, 2016).

- a. Ensuring the harmonization of macro and sectoral policies and strategies for matching the supply of and the demand for labor, thereby promoting decent employment opportunities;
- b. Crating favorable conditions for the promotion of employment opportunities by improving the functioning of labor market information and employment services;
- c. Creating enabling environment that facilitates the transition from the informal to the formal economy in order to unleash the creation and promotion of decent and sustainable employment opportunities;
- d. Enhancing productivity and competitiveness by maintaining industrial peace; and
- e. Focusing on cross-cutting issues for employment creation.

Based on these priorities there are various viewpoints in creating jobs and employment through TVET education. As stated in (Kibru, 2012), these are the demand side and supply side job creation. In Ethiopia, with large endowment of labor relative to other productive factors such as capital, effective utilization of labor can make growth faster and more pro-poor (ILO, 2009).

2.4.1 Demand-side Job creation

Employment in this system is mainly associated with and led by the private sector, still making the government playing its vital role in the case of Ethiopia. There are trends showing that the private sector is taking the matters in hand in terms of training and employing by spending huge amount of budget and resources. Demand side job creation is economy's capacity to generate jobs for different types of skill types based on the requirement of the economy (Kibru, 2012).

2.4.2 Supply-side Job creation

This on the other hand the supply side job creation is done by improving labor productivity and it's about whether or not the skill level of available group of people corresponds with the requirements of the economy by educating and training (Kibru, 2012). TVET is given an emphasis in this area in creating job creation.

2.5 OUTLOOKS ON EMPLOYMENT AND LIVELIHOODS

TVET design and implementation is one part of poverty reduction strategy and was based on the delivery of knowledge, skill and attitude for the trainees' in their respective field of study and life-long learning (G/Michael, 2014). In Asia and the Pacific, where TVET is believed to be best practiced, the sector is useful in many regards. Also TVET is taken as an instrument for the advancement of productivity for minimization of poverty in the region. As there is a strong correlation amongst the amount of TVET students at the post-secondary level and income level (Pavlova, 2014). Along with other issues of the sector helping people make their own income is one mission of TVET and this can be upgraded in to livelihood means for the graduates as stated in von Kotze, livelihood see people as subjects rather than simply workers, clients or customers (von Kotze, 2010).

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claims and access) and activities required for a means of living and contributes net benefits to other livelihoods at the local and global levels and in the long and short term (Majale, 2002).

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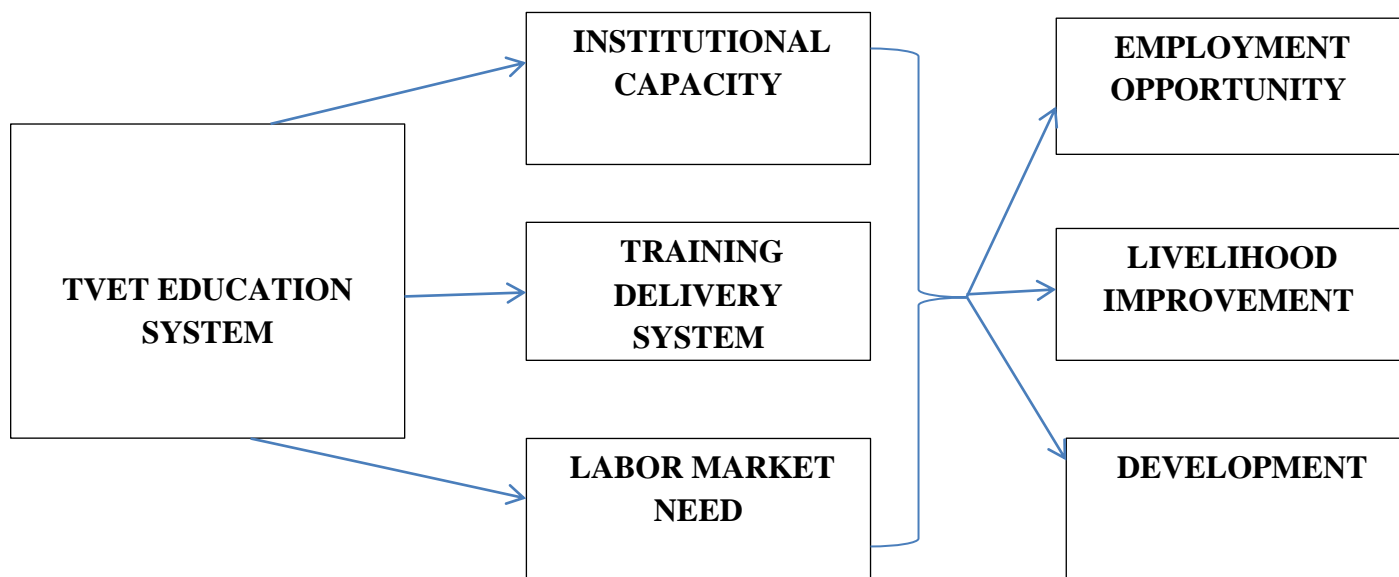
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2.6 CONCEPTUAL FRAMEWORK OF THE STUDY

The initial employment opportunity of TVET graduates is an outcome of the cooperation between the three-way partnerships among stakeholders. The input, the process and the output work closely to make the graduates' life good and promising and failure to work in cooperation may result undesirable consequences. Started from its conception and integration to the Ethiopian education system, TVET is mainly derived towards improving the general livelihood of the participants; the trainees, and facilitating the growth of the manufacturing sector in a way to hugely support the improvement of the national economy.

The following figurative expression indicate how the process and collaboration between the stakeholders can help achieve better results and for the attainment of goals set by the policy document in securing employment and livelihood options for the graduates in their future

endeavors. This achievement and success can be interpreted and associated with the contribution to general development of the country.



Source: Own Construction, 2021

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

This part of the thesis is the third chapter of the paper and discusses the overall research process; the descriptions of study area, research design, approach, sampling procedures and instruments of data collection and analysis. The thesis was conducted in Addis Ababa's two polytechnic colleges, Misrak and Entoto. 257 graduates were taken as subjects for this research and questionnaires distributed in which 216 of them filled and returned. Questionnaires and interviews were also administered for 15 trainers and 4 coordinators.

3.1 DESCRIPTION OF THE STUDY AREA

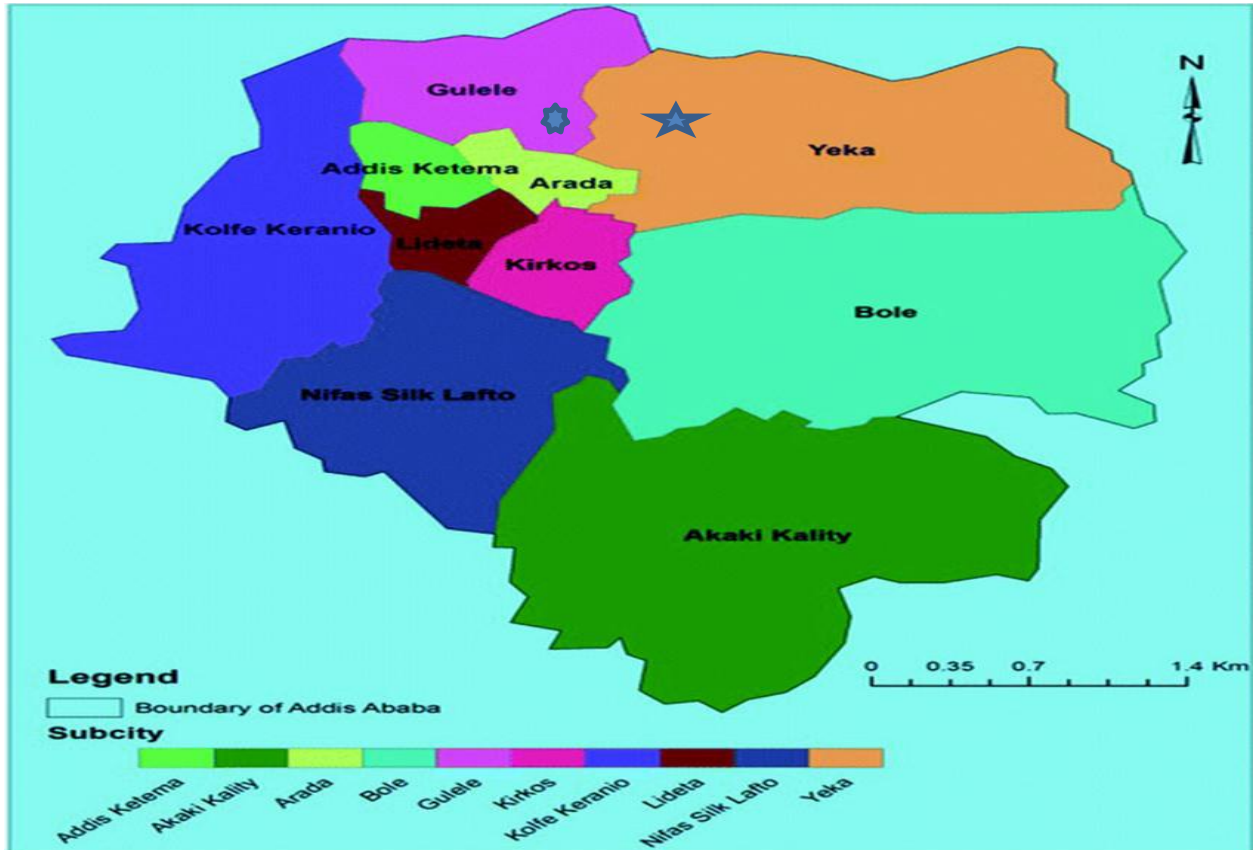
Addis Ababa city administration is one of the thirteen member states of the Federal Democratic Republic of Ethiopia (FDRE). The city's elevation is 2,200 meters (7,200 ft.) and located at 9°1'48"N 38°44'24"E. Addis Ababa lies at the foot of Mount Entoto and forms part of the watershed for the Awash. From its lowest point, around Bole International Airport, at 2,326 meters (7,631 ft.) above sea level in the southern periphery, Addis Ababa rises to over 3,000 meters (9,800 ft.) in the Entoto Mountains to the north (CSA, 2018). The city is divided into 11 administrative districts, called sub cities (Amharic: ክፍለ ከተማ, *kifle ketema*), and 116 *woredas*. The sub cities include *Addis Ketema, Nifas Silk Lafto, Bole, Gulele, Akaki Kaliti, Kolfe Keranyo, Yeka, Arada, Kirkos, Lideta and Lemmi Kura*. Among these Sub cities, this paper focuses on two of the sub cities namely *Yeka* and *Gulele* the two Polytechnic colleges are located.

The city has through recent years seen a robust annual growth rate, and population counts as of 2017 are growing closer to 4 million. Addis Ababa is a chartered city and as such, is considered both a city and a state. It is the largest city in the world located in a landlocked country (CSA, 2018).

This study is conducted at the two most prominent colleges of Addis Ababa, Misrak and Entoto polytechnic Colleges located in Yeka and Gulele sub city respectively. Both colleges were started as a comprehensive secondary school during the imperial regime. Entoto Polytechnic College was founded in 1925 G.C as Teferi Mekonnen Secondary School and Misrak Polytechnic College was established in 1969 G.C as *Leul Asfawossen* Secondary School. Both institutes became TVET Polytechnic Colleges in 2008 G.C. with the introduction of the new

TVET strategy. Now these are two of the leading TVET colleges in the city with in terms of enrollment and year of establishment. Their relative advantage to gather complete and up-to-date data and they are also two of the highest enrollment and centers for the TVET sector in Addis Ababa.

Map of Addis Ababa



Source: Google Map and Kindie (2019)

LEGEND:

- ★ Misrak Polytechnic College
- ✪ Entoto Polytechnic College

3.2 RESEARCH APPROACH AND DESIGN

Research design facilitates the smooth sailing of the various research operations, thereby making research as efficient as possible yielding maximal information with minimal expenditure of effort, time and money (Kothari, 2004). As indicated by Grover (2015) when we find a research

problem which can't be handled by single approach we should use both the qualitative and quantitative approaches in combination as mixed methods approach (Grover, 2015). Research design refers to the overall strategy that one chooses to address the problem that requires integration of different components of the study in a coherent and logical way, thereby, ensuring to solve the problem in efficient way. It constitutes the blueprint for the collection, measurement, analysis of data, interpretation and reporting of conclusions (*ibid*).

This study follows a mixed research approach by combining both qualitative and quantitative methods and descriptive research design. Following this approach benefits the research or researcher in many ways. There are four major types of mixed research approach namely triangulation, embedding, explanatory and exploratory (Rayini, 2017). Among the four types of mixed research approach this thesis followed the triangulation type since it helps to obtain different but complementary data on the same topic. Kothari (2004) explained descriptive research includes surveys and fact-finding inquiries of different kinds and the present data presented as it happened (Kothari, 2004). By this method the existing conditions are described and the interconnection between variables in relation to the stated objectives and helps to describe the perception of graduates, college officials and employers towards TVET. The method of the study is the philosophy or the general principle which will guide the research. As indicated by Dowson (2002), the research methodology is an overall approach to studying the topic and includes issues we need to think about such as the constraints, dilemmas and ethical choices within the research. To get the most efficient information and data on the proposed issue different methods of data collection and analysis methods were implemented. Ayalew (2019) explained that a mixed approach helps to test the consistency of findings obtained through different forms of data collection and it also allows the researcher to use qualitative methods to add detail to the results obtained from the use of quantitative methods.

As (Uwe Flick, 2004) stated, there are some components that play a role in the construction of a research design and must therefore be considered, these are:

- the goals of the study
- the theoretical framework
- its concrete questions
- the selection of empirical material
- the methodological procedures

- the degree of standardization and control
- the generalization goals and
- the temporal, personal and material resources that are available

Qualitative approach to research is concerned with subjective assessment of attitudes, opinions and behavior. Research in such a situation is a function of researcher's insights and impressions. And quantitative research approach involves the generation of data in quantitative form which can be subjected to rigorous quantitative analysis in a formal and rigid fashion (Kothari, 2004).

Following mixed research approach helps to have all-encompassing understanding and idea about the research problem. Qualitative data was collected from the graduates, employers and college deans regarding their perception of TVET education and system of delivery, how they can understand the strengths and weaknesses of the sector. Also qualitative data was collected to get information about the status of employment of graduates from the TVET institutes, how many are employed, and their respective livelihood condition in measurable terms. After the collection of both types of data from the responders, the collected data is triangulated and the interpretation was done accordingly.

The goal for researchers using the mixed methods approach to research is to draw from the strengths and minimize the weaknesses of the quantitative and qualitative research approaches; and while the quantitative method provides an objective measure of reality, the qualitative method allows the researcher to explore and better understand the complexity of a phenomenon (Williams, 2018). Furthermore, the objectives and research questions are expected to address matters and problems dealing with deep analysis in both approaches.

3.3 SAMPLING PROCEDURES AND FRAME

There are about 11 sectors (departments) of training in each college and the maximum effort was exerted to access all sectors' graduates. This study was survey based study by which different data collection instruments were distributed and administered to graduates, trainers, management of the TVET colleges and stakeholders (employers). Also interview and observation were administered based on the convenience and availability of resources. The sampling unit for this study contains graduated trainees, instructors and management bodies from Entoto and Misrak polytechnic colleges in Addis Ababa. The sampling frame consists of close to 720 trainees, 43 instructors and 4 management bodies. The source list for the sampling frame was obtained from

respective college registrars, and HR office; and considering the availability of data the graduates from the colleges are from the year 2020 since education and training in those colleges was halted and there are no recent graduates due to the Covid 19 pandemic.

Both probability and non-probability sampling methods are used in this study. Probability sampling is implemented for the purpose of selecting respondents for the survey and some key informants were contacted in non-probability method. There are 11 departments out of which 10 of them are active and deliver regular training. This study exerted the maximum effort to include all 10 sectors of education. Since the two colleges are located in Addis Ababa, the city and colleges are selected purposively. The sectors of education in both colleges are identical and out of 10 active departments for the purpose of this thesis they are selected randomly. Out of the 43 trainers in 10 departments 15 of them selected with purposive sampling technique from both colleges and census was followed to interview all 4 management/coordinators. In addition Yamane's formula was used to determine the sample population of graduates from the total of 720 graduates.

The sample size is determined by using Yamane's formula with 95% confidence level and 5% margin of error.

The Yamane's formula is calculated as follows:

$$n = \frac{N}{1 + Ne^2}$$

Where:

n= Sample size

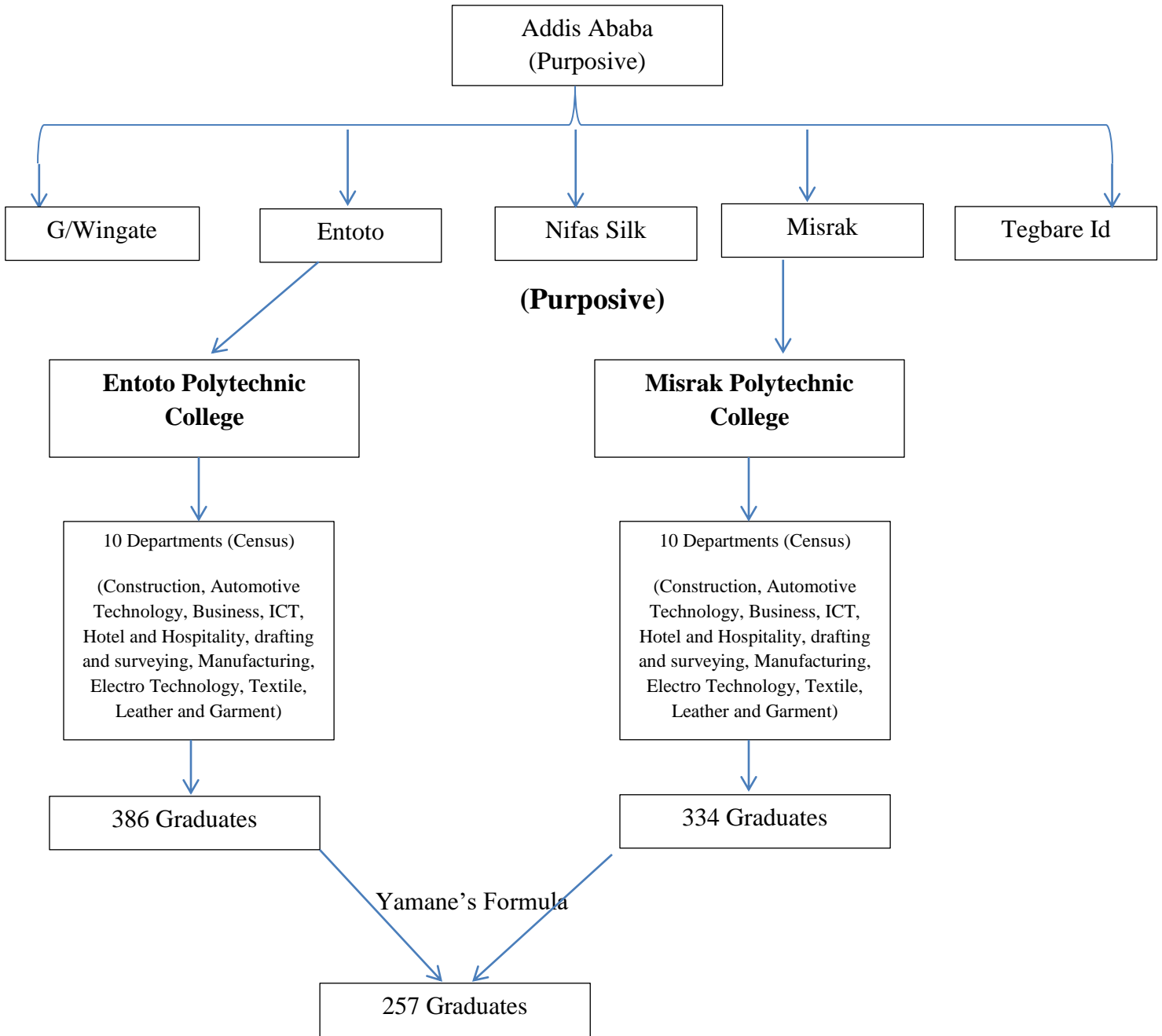
N= Total Population

e= Margin of Error

The target population includes 720 graduates and with the margin of error of .05% the sample size is calculated as follows.

$$\frac{720}{1 + 720 * .05^2}$$

n= **257**



No	Population	Sample	Technique	Remark
1	Graduates (720)	257	Yamane's Formula	
2	Instructors (43)	15	Purposive sampling (department and section heads)	
3	Training Coordinators (4)	4	Census	
4	Departments (10)	10	Census	

The above sample was selected from the total of 720 graduates' selected based on simple random sampling technique. The sample is an indication of the total enrollment capacity of both Entoto and Misrak polytechnic colleges. The combined graduation data of the colleges based on the department is as follows: Construction 100, Automotive Technology 67, Business 98, ICT 91, Hotel and Hospitality 105, drafting and surveying 42, Manufacturing 51, Electro Technology 72, Textile, Leather and Garment 94.

3.4 DATA COLLECTION METHODS

The study followed both qualitative and quantitative data and the primary data was obtained from questionnaires and interviews with the graduates, training coordinators and employers.

Questionnaire: three types of questionnaires are designed for the graduates, instructors/ management bodies of the colleges and employers. Structured questionnaires were administered to all respondents. Graduates were asked about their exposure to the workforce and their experience with the skill, knowledge and attitude obtained from their college to their work environment. Also they reacted on how much their TVET qualification helped them to improve their livelihood and employment opportunities. The trainers were asked about how their training delivery and management help their student's future in employment and improvement of livelihood. The management body also responded on the integration of the TVET system and the outside world and its design with regard to the expected outcome of the sector. Also employers were contacted to get response on the quality and availability of skill, knowledge and attitude of TVET graduates.

Interview: semi structured interviews are designed and asked to the coordinators and management of the colleges on one-on-one basis which increases the insight of the researcher and impact the data gathering process. The subjects for the interview are college four coordinators.

For secondary data the researcher reviewed previous literatures and reports from both colleges that have connection with the research theme.

Secondary data collection: different types of reports, plans, brochures and other secondary documents were reviewed in a way to increase the reliability and availability of data with regard to the objectives of the study.

3.5 DATA ANALYSIS METHODS

Data analysis is a process that is based on the data collection methods and techniques by taking raw data applied in a certain research context. This research follows mixed research approach and because of this the research questions include both qualitative and quantitative based questions. The data analysis process is guided by this different nature of questions. The collected data was coded for the purpose of analysis and inserting to the software.

3.5.1 Quantitative data analysis

The collected quantitative data is coded, organized and analyzed through Statistical Package for Social Scientists (SPSS) IBM Statistics 20 program. It helped to describe frequency and percentages of the responses collected and in this process both quantitative and qualitative data is analyzed simultaneously.

3.5.2 Qualitative data analysis

The qualitative data obtained from respondents particularly from training coordinators is mainly collected by interview and it was then recorded in written format and used to further describe and explain the quantitative data.

3.6 ETHICAL CONSIDERATIONS

An ethical consideration of confidentiality and privacy was addressed by the researcher. A concerted and conscious effort was made at all times to uphold the promise. A guarantee was

given to graduates, trainers and coordinators that their names and sensitive information were not exposed in the research report. The researcher tried to clearly inform to the respondents the purpose of the study is for academic purpose. In addition to this, they informed that their participation in the study was based on their consents and without any confusion. The researcher also not personalizes any of the response of the respondents during data presentations, analysis, and interpretation. Finally, maximum effort was made to acknowledge and give academic credit to the sources, materials and instruments used for this research.

CHAPTER FOUR

4. DATA PRESENTATION AND ANALYSIS

In this chapter the collected data is presented and analyzed in both qualitative and quantitative methods. A total of 254 samples are selected systematically and questionnaires were distributed in-person and on phone basis due to the unavailability of some of the respondents nearby and the prevalence of the Covid-19 pandemic. Out of these about 216 (85%) are returned and administered then prepared for further analysis. The rest 15% are incorrectly filled, unanswered and annulled questionnaires. Along with this 4 key informants were interviewed and 28 employers and companies were also contacted to have an inclusive understanding about the issue. 15 trainers and coordinators were contacted via various means. In addition in this section demographic data, employment status and the attitude of employers towards TVET graduates is presented and analyzed.

4.1 DESCRIPTIVE ANALYSIS OF CHARACTERISTICS OF RESPONDENTS BY EMPLOYMENT STATUS

4.1.1 Field of study and sex

The demographic variables of respondents consist of sex, age and field of study (department). As shown in the table (1) below among the total number participants, 114 of graduates are male and the rest 102 are female. Based on the data, there is an improvement in the number of female graduates from the previous year (34%). Gender equality during enrollment training and operation is one priority followed by the colleges. Based on this the sample shows that the proportionality between male and female is almost equal which is desired result to be met. But there are some fields of study which have larger number of trainees based on their interest.

TABLE 1: RESPONDENTS BY FIELD OF STUDY, SEX AND EMPLOYMENT STATUS

Field of study	M	F	T	%	Employed		Unemployed	
					N	%	N	%
Construction	35	5	40	18.5	27	67.5	13	32.5
Drafting and surveying	4	2	6	2.8	2	33.3	4	66.6
Electro technology	18	2	20	9.3	13	65	7	35
Hotel and hospitality	6	34	40	18.5	28	70	12	30
ICT	16	18	34	15.7	15	44.1	19	55.9
Automotive	23	0	23	10.6	19	82.6	4	17.4
Business	1	22	23	10.6	21	91.3	2	8.7
Manufacturing	9	1	10	4.6	6	60	4	40
Textile, leather and garment	2	18	20	18.5	17	85	3	15
Total	114	102	216	100	148		68	

Source: Survey result, 2021

The above data is the representation of the colleges' enrollment ratio and capacity derived from the labor market and tracer studies conducted by (Abebe et al., 2011) that show the market demand of the graduates in the city. As shown above, there are 10 departments in both Entoto and Misrak Polytechnic Colleges. With the total of 216 sample collected from the total graduates of 2020 G.C. most are Construction (18.5%), Hotel and Hospitality (18.5%), and ICT (15.7 %) departments (see table 2). Based on sexes, there is relatively equal number of enrolled trainees' (graduates) with slight difference. The sample demonstrates 52.8% and 47.2% share for male and female respondents respectively (see table 2). Also there are some departments that have small number of either male or female students enrolled, like Automotive, Construction and Electro Technology departments have less number of female students as compared to others. There are no female students in Automotive department and only 12% and 10% of them in the rest two respectively (table 1). This data shows a gap in creating awareness and empowerment of women to join such fields of study.

Business and Textile graduates constitute the highest amount of employment opportunity for graduates, 91% and 85% respectively, followed by automotive department with 82.6%. The overall/aggregate employment status for the 2020 graduates of Misrak and Entoto Polytechnic colleges is about 66.5% which is lower as compared to the previous year's status which was 68%.

Table 2: PERCENTAGE SHARE OF EACH DEPARTMENT FROM EMPLOYED GRADUATES

Field of study	Employed	
	N	%
Construction	27	18.2
Drafting and surveying	2	1.3
Electro technology	13	8.7
Hotel and hospitality	28	18.9
ICT	15	10.1
Automotive	19	12.8
Business	21	14.1
Manufacturing	6	4
Textile, leather and garment	17	11.4
Total	148	100

As indicated in the above table 2, the result showed here is about the share of each department from the total employment opportunity. Based on this Hotel/Hospitality and Construction constitute 18.9% and 18.2% respectively followed by Business (14.1%) and Automotive (12.8). Also as shown above (table 2), drafting and surveying department has the lowest employment opportunity (1.3%) among the whole.

4.2. EXTENT OF EMPLOYMENT OF GRADUATES

Various reasons can influence the employment status of graduates. The table 3 below indicates that out of 216 graduates 148 got employed, the yearly tracer study by both colleges indicate that the demand for 'hard-skill' occupations like construction and manufacturing sectors, is higher than 'soft-skill' occupations like hotel and hospitality sector. However, the number of students in

manufacturing department is not as expected which created mismatch between demand and supply in those sectors. Also even if there is Urban Agriculture department in both colleges there are no regular trainees enrolled and the reason, as understood from the trainers and college management bodies, is mainly lack of understanding/familiarity and lack of employment opportunity in the labor market.

As the Key Informant interview from Misrak Polytechnic college indicated whether trainees' were familiar with the TVET system in general and fields of trainings in particular, he responded that:

“We facilitate induction program based on labor market study for all trainees who join the college every year but they have prior idea and decision in which types of fields to register and it’s very difficult to make them change their mind. There is also peer-pressure.” KII Interview, (June 2021)

The TVET strategy states that the departments and training delivery method has to be guided by the market demand existed, which is acquired by the regular tracer survey and labor market assessment. Both Misrak and Entoto Polytechnic Colleges conducted both types of studies and claimed that they started enrolling based on the results of those studies. However, there are some departments which are not led by those results as it was supposed to be reflected by the amount of students enrolled there.

TABLE 3: EMPLOYMENT STATUS OF GRADUATES

			field of study								Total	
			construction	drafting and surveying	electro technology	hotel and hospitality	ICT	automotive	business	manufacturing		textile, leather and garment
employment status of graduates	employed	Count	27	2	13	28	15	19	21	6	17	148
		% within employment status of graduates	18.2%	1.4%	8.8%	18.9%	10.1%	12.8%	14.2%	4.1%	11.5%	100.0%
	unemployed	Count	13	4	7	12	19	4	2	4	3	68
		% within employment status of graduates	19.1%	5.9%	10.3%	17.6%	27.9%	5.9%	2.9%	5.9%	4.4%	100.0%
Total	Count	40	6	20	40	34	23	23	10	20	216	
	% within employment status of graduates	18.5%	2.8%	9.3%	18.5%	15.7%	10.6%	10.6%	4.6%	9.3%	100.0%	

Source: Survey result. 2021

Based on the TVET strategy of Ethiopia graduates are encouraged to be entrepreneurs and became self-employed. However, there are no self-employed graduates in both colleges which is

a huge blow to the system as it indicates gaps in delivery, practice and management of the overall process because the emphasis given to encourage graduates on their quest for entrepreneurial aspiration is limited.

4.2.1 Employment status of graduates based on sex and field of study

The table 4 below indicates the employment status of graduates based on sex and field of study. As shown the employment status is about 66.5% in general and out of these employees, females take a share of 46.6% and the rest is for male (table 4). As compared to the previous data acquired from the tracer studies conducted in the previous year employment has declined and the status based on the sexes is becoming closer than the previous years in both colleges. Another contradiction witnessed from the collected data is the situation of Urban Agriculture department, which has gained huge attention from all the stakeholders especially in Addis Ababa but has no single regular trainee enrolled including this academic year. As explained previously the programs in TVET are opened based on the market demand and the resources are mobilized as such, but here the huge workshops and trainers are idle without delivering training which is resource wastage.

Given the above results based on the TVET strategy of Ethiopia, graduates are encouraged to create their own job opportunity provided with various types of assistances with the collaboration between stakeholders in their respective *weredas* and sub cities. But the result shows there are no self-employed graduates, which is a huge drawback for the sector since it diverts from the very nature of TVET education and training and as management bodies indicated it needs great effort to curve this. It's believed by the TVET strategy of Ethiopia self-employment is an indicator that the graduates acquired the necessary qualifications needed by the market and help the plan of the country's transformation towards industry-led economy and TVET colleges will help as a source of this huge contribution. The small number of self-employed graduates is mainly resulted from lack of awareness and collaboration between stakeholders in creating conducive environment for great number of students to participate in different sectors of self-employment.

TABLE 4: EMPLOYMENT STATUS OF GRADUATES BASED ON SEX AND FIELD OF STUDY

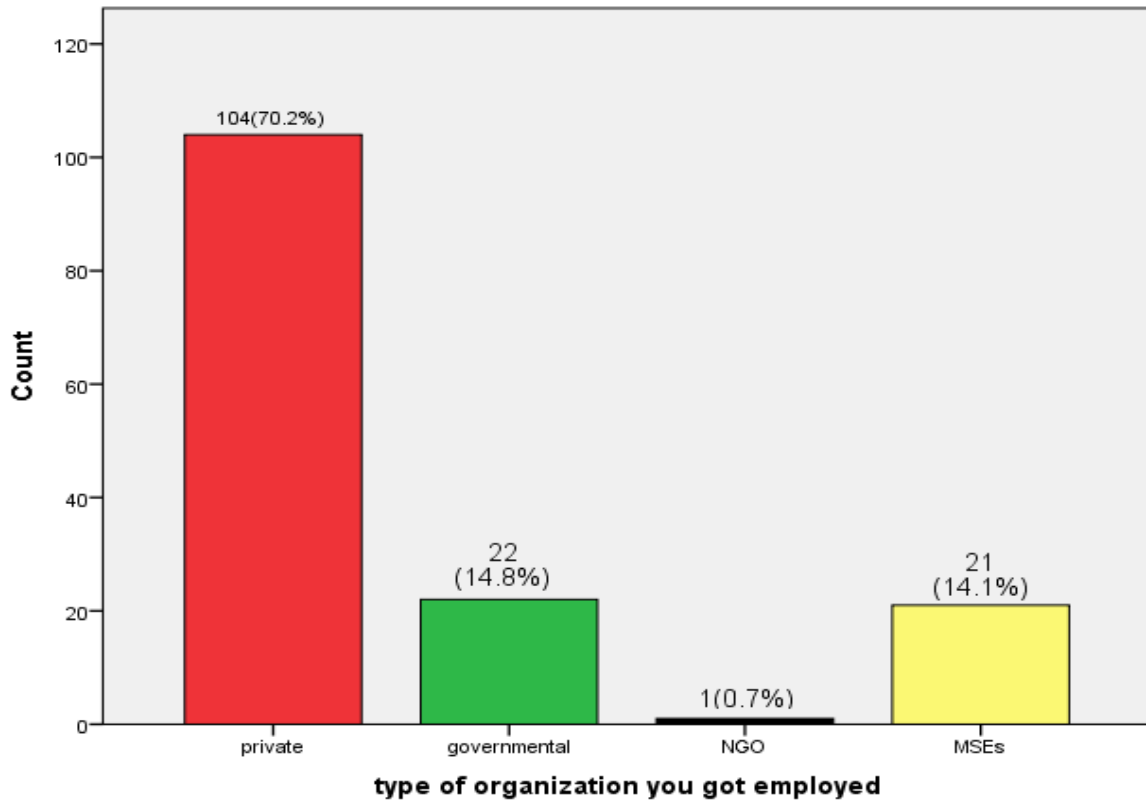
Employment status of graduates			field of study																	
			Constructi on		drafting and surveying		electro technolog y		hotel and hospitalit y		ICT		automoti ve		business		manufactu ring		textile, leather and garment	
			n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Employed	Sex	M	25	16.8	2	1.4	11	7.5	6	4.1	7	4.7	19	12.8	1	.7	6	4.1	2	6.9
		F	2	1.2	0	-	2	1.3	22	14.8	8	5.4	0		20	13.5	0		15	10.1
unemployed	Sex	M	10	14.6	2	2.9	7	10.3	0	-	9	13.3	4	5.9	0	-	3	4.4	0	-
		F	3	4.5	2	2.9	0	-	12	17.6	10	14.6	0	-	2	2.9	1	1.5	3	4.4

Source: Survey data, 2021

4.2.2. Employment and Type of Employers

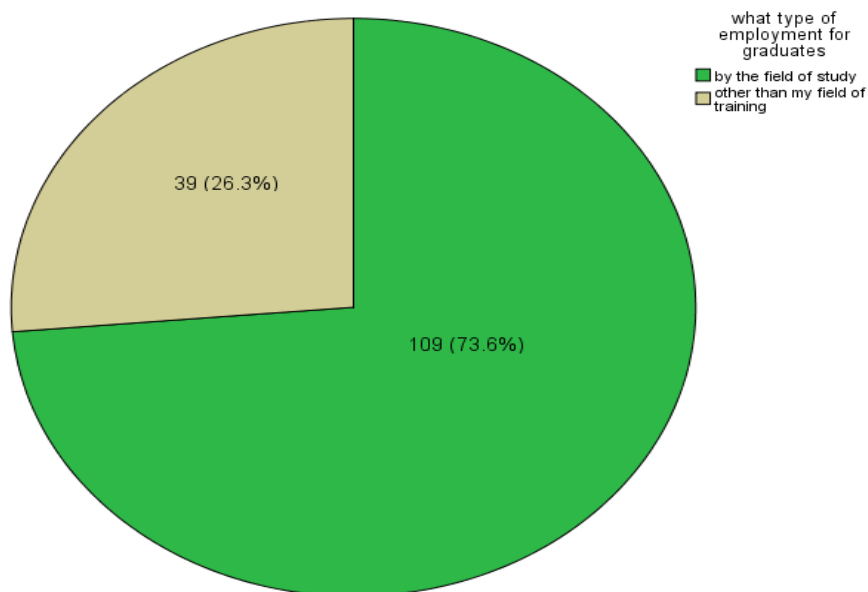
The government has been known to be the highest employer in Ethiopia for long but the figure 1 below indicates that there is a shift towards private and MSEs playing their role. The Figure 1 below indicates the general data collected regarding the types of organizations graduates got employment opportunity. Private employers play a major role in absorbing the majority of TVET graduates in Addis Ababa. As shown on the Figure 1 below, about 70.2% of graduates got employment opportunity in private companies and industries. While 14.8% and 14.1% of the graduates are employed in governmental and Micro and Small Enterprises respectively and finally NGOs play the least role as compared to the other three with 0.7%. On the other hand when we see the number of unemployed graduates it is 68 out of 216 (31.5%) which is still high.

Figure 1: Type of organization for employment



Along with their place of employment, some students are employed without their field of study. The figure 2 below indicate that 109 (73.6) of employed graduates got employed by their respective field of study which is strongly encouraged by the stakeholders and their respective colleges and the rest 39 (26.3%) of them got employed without their field of training. As discussed in this thesis previously trainings delivered by the colleges are designed based on the demand and requirements of the industries and companies, as stated on the TVET strategy of Ethiopia, but some trainers believe that the way trainings delivered and conducted are out of the realm of the strategy and the need of the employers and the result of labor market study in general.

Figure 2: Type of employment



Source: Survey data, 2021

4.2.3. Major Reasons for unemployment of Graduates

The table below (table 5) is about the graduates who are unemployed because of different reasons and as shown below there are various reasons for graduates to be unemployed. It may be because of lack of job opportunity, if graduates didn't look for employment opportunity or another reason.

TABLE 5: REASONS FOR UNEMPLOYMENT BASED ON THEIR FIELD OF STUDY

Why are you unemployed ?	Fields of study																	
	construction		drafting and surveying		electro technology		hotel and hospitality		ICT		automotive		business		manufacturing		textile, leather and garment	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
No job opportunity	11	18	4	6.6	6	9.8	11	18	18	29.5	3	4.9	2	3.3	3	4.9	3	4.9
Didn't look for employment	1	33.3	0	-	0	-	1	33.3	0	-	1	33.3	0	-	0	-	0	-
other	1	25	0	-	1	25	0	-	1	25	0	-	0	-	1	25	0	-

Source: Survey data, 2021

Even if the majority of graduates (66.5%) got employed, the table below indicate that (89.7%) of unemployed graduates believe that there is no job opportunity in the labor market and about 4.4% didn't look for job because of either Covid pandemic or other personal problems, the rest 5.8% responded due to other unspecified situations.

Why are you unemployed? (Aggregate result)		
Question	n	%
No job opportunity	61	89.7
Didn't look for employment	3	4.4
Other	4	5.8
Total	68	100.0

Unemployment is one of the pressing social problems existed in urban areas. TVET colleges like Misrak and Entoto have specialized office mainly working on job placement and industry linkage, and this office is tasked to create good linkage with companies/industries, facilitate cooperative training by which 70% of trainees are taking their main practical training and job creation and placement.

4.3. TVET AND THE REQUIREMENT OF LABOR MARKET

As shown in the Table 6 below the majority of businesses (60.7%) operating and employing Misrak and Entoto Polytechnic College graduates were from manufacturing industries and companies (see Table 6). This sector of business requires huge number of workforce and helps in absorbing the urban youth graduates mainly from TVET. The service sector comprises only 14% of the labor market and others constitute about 25% (Table 6). As discussed above the relationship between industries/companies and TVET colleges is based on two things. The first is cooperative training which is a system by which students take 70% of their practical training in those centers, and the second is for employment. Both linkages and relationships are based on the memorandum of understanding signed between the TVET centers and industries/companies.

TABLE 6: TYPE OF SECTOR IN THE EMPLOYER’S BUSINESS

Employer’s Type	N	%
Service	4	14.3
Manufacturing	17	60.7
Other (Mixed)	7	25.0
Total	28	100.0

Source: survey data, 2021

TVET education is mainly guided by the results of labor market study and its competencies are led by the specific tasks driven from the industry. There are two types of studies conducted to make sure that the need of the industry is addressed in the technical and vocational training. There is labor market study that indicates which fields of study are highly demanded by the market and why, it also shows the competency/training element gaps in each department. Also there is tracer survey/study that shows the whereabouts of graduates whether they are employed, unemployed or self-employed. Both studies are conducted every year and based on their results departments will be opened, closed or the delivery system revised, or even keeps on doing the existing system.

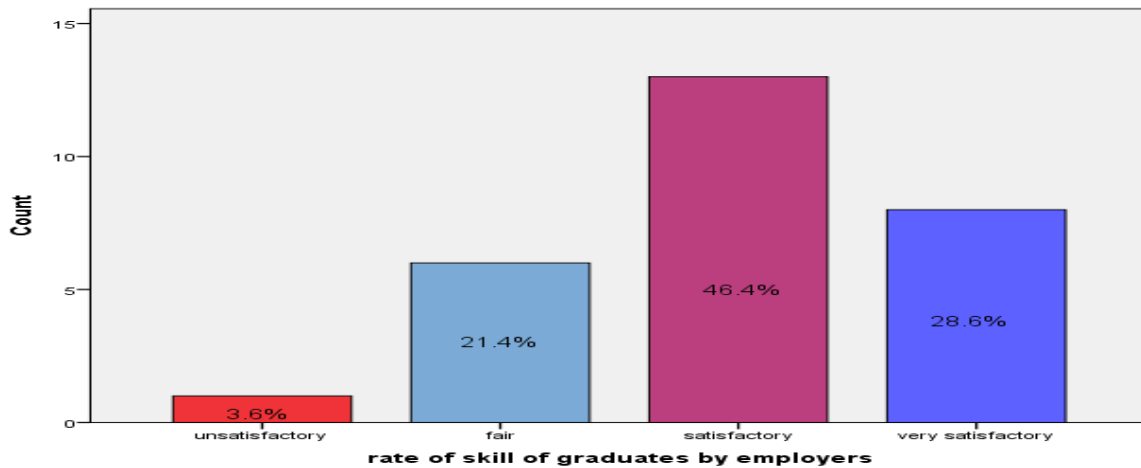
It’s based on these studies that the departments are giving their training and the graduates participated in this research are almost employed in their respective fields of study, being the highest from the last two academic years. Their knowledge, skill and attitude are mainly appreciated by their employers as shown on the graph below and most of them found their quality as satisfactory.

As indicated on the 2002 TVET strategy of Ethiopia, the main purpose of establishing TVET institutes and delivering training is to produce qualifies and competent work force who is efficient while joining the work force in different industries and companies. Based on this questionnaire was delivered to companies and employers on how they can see and evaluate the KSA of their employee’s graduated from Misrak and Entoto Polytechnic Colleges. As shown below on the graph from the employers and companies perspective with regard to the knowledge, skill and attitude (KSA) of graduates who are employed at their companies and work places, the majority of them (46.4%), indicated that the KSA of graduates is satisfactory and about 28.5% of employers believe that the KSA of graduates from those colleges is very

satisfactory. The results above show that the trainings delivered by the colleges are market-driven and relevant to the manufacturing sector in the city.

However, the employers believed that there is a gap in some elements of the competency of graduates from TVET graduates in general and Misrak/Entoto Polytechnic Colleges in particular. They indicated that the communication and language skills, team work and working without constant supervision. These are ‘soft-skill’ competencies indicated by the employers, and missed mainly on the training curriculum of the TVET system.

Figure 3: Evaluating the skill of employees by their employers



Source: Survey data, 2021

As shown on the above figure 3, from the 28 employing companies participated in this survey, the majority of them (46.4%) believe that the competency of graduates is satisfactory and the other 28.6% rate as very satisfactory (see figure 3). The feedback from the employers is good but there has to be additional effort exerted by institutes and the government, and some employers believe that this is resulted from the mismatch between the trainings given in the colleges and the competencies needed in the world of work. In addition one company manager, a Key Informant from one Garment Company reported that:

“The graduates that graduated from Misrak College and employed in our company are not qualified based on our standards and because of this situation we are spending additional resource and money to train them, but after their skill-gap training they become good performers” Source: Key informant interview, June 2021

TABLE 7: SKILL RATE OF GRADUATES BY THE EMPLOYERS

		Skill of graduates by their employers			
		Unsatisfactory	Fair	Satisfactory	Very satisfactory
		N	N	N	N
Type of employer	Service	0	0	2	2
	Manufacturing	1	4	7	5
	Other (Mixed)	0	2	4	1
	Total	1	6	13	8

Source: Survey data, 2021

4.4. GAPS AND CHALLENGES

The gaps and challenges of TVET system from suppliers and trainees point of view is assessed in this section of the report. Thus, competency of trainers and coordinators, availability of infrastructure, TVET program competency and capacity building interventions are explored as major gaps and challenges.

4.4.1 Competency of trainers and coordinators

The qualification of trainers and coordinators is crucial for the advancement of skills and competency of graduates. Based on this the trainers and coordinators located in both colleges were interviewed about their qualification level. As indicated below in table 8, the educational level of trainers and coordinators and the result shows 12 of the total 15 respondents have BA/BSc and only 3 have MA/MSc (Table 8). About 15 trainers/department heads and coordinators responded.

TABLE 8: LEVEL OF EDUCATION OF TRAINERS

		n	%
Level of education of trainers	MA/MSc	3	20.0
	BA/BSc	12	80.0
	Total	15	100.0

Source: Survey data, 2021

4.4.2. Workshop and workspace access (Infrastructure)

Accessibility and use of infrastructure for trainees use is one of the prerequisites for competent graduates that meet the requirement of the labor dynamics. From this perspective, from technical point of view workshops are one of the important drivers for competent staff.

Training workshops are integral part of training delivery and their status hugely affects the trainer's capacity to give what is necessary. Based on this trainers were contacted on the status of their workshops and as shown below the majority of trainers (80%) believe that their workshops and other spaces provided for trainees are well-equipped (see table 9). This believed to be the best feature of TVET system because the government and other stakeholders are investing hugely on the sector in terms of machineries, tools, equipment and trained and qualified staff.

TABLE 9: PERCEPTION ABOUT THE LEVEL OF ADEQUATE AND WELL EQUIPPED WORKSHOPS

How is the status of workshops?	n	%
Well-equipped and adequate	12	80.0
Partially equipped	3	20.0
Total	15	100.0

Source: Survey data, 2021

Workspace is based on the enrollment strategy of the colleges. Based on the strategies followed by both colleges there is fixed ratio on the size of the workshops and the number of trainees in that specific workshop. As shown below on the table about 80% of trainers believe that there is enough workspace for trainees in order for the smooth delivery of training.

TABLE 10: AVAILABILITY OF WORKSPACE FOR TRAINEES

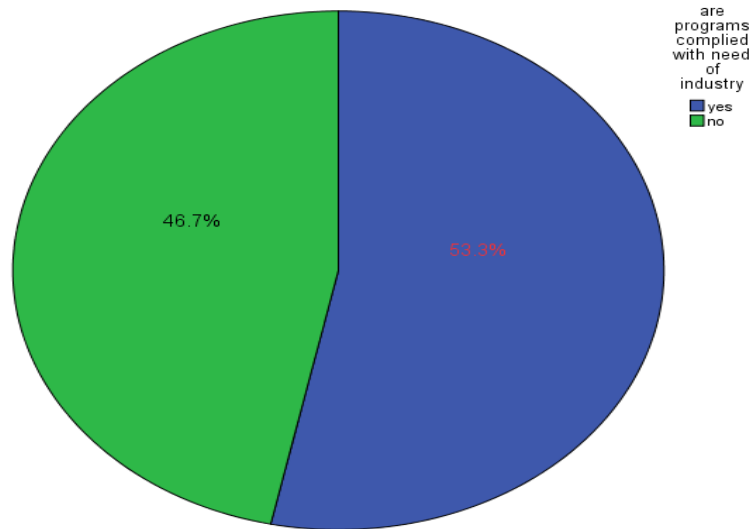
	n	%
Yes	12	80.0
No	3	20.0
Total	15	100.0

Source: Survey data, 2021

4.4.3. Overall TVET program's compliance with the need of industry

The correspondence of TVET programs with the need and requirements of the industry has been discussed before. As shown on the figure 4 below more than half of respondents (53.3%) believed that the programs delivered by the TVET colleges relates with the need of the industry, however 46.7% believe otherwise (see figure 4).

Figure 4: Compliance of TVET program



Source: Survey data, 2021

4.4.4. Capacity building intervention for trainers

Capacity building training gives trainers and coordinators an up-to-date skill and knowledge for the better performance of tasks. As one Key Informant from Entoto College explained:

“We do believe the role of giving capacity building and skill-gap training especially for trainers but there is also resource and budget limitation to do so. Apart from that the institute delivers basic training and teaching methodology training twice a year for newly employed trainers and trainers who took long time ago”. Source: Key informant interview, June 2021.

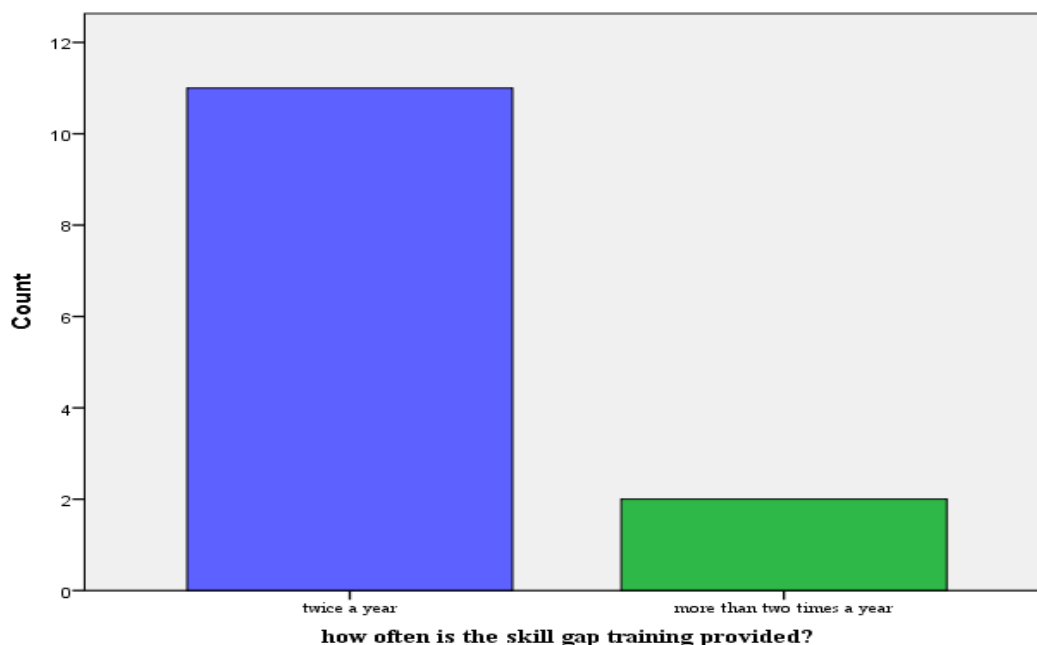
There are also some trainers who do not agree with the above comment from the college administrators. The trainer said that

“...there are some areas/topics that are selected and given to us regularly like ‘how to teach?’ but there is no or limited initiation by the college to make us up-to-date in terms

of technology and machinery and this has affected our competence to be qualified and competent in the way of delivering training.” Source: Key informant interview, June 2021.

As shown in figure 5 below 73.3% of trainers’ received skill gap and capacity building training at least twice a year and 13.3% received more than twice a year (see figure 5). Making trainers up-to-date about the current system of training and status of knowledge is one of the tasks of the specialized section established in both colleges, trainer’s development directorate, whose main task is to deliver regular and research based training that can enhance the performance of trainers.

Figure 5: Status of provision of skill gap training.



Source: Survey data, 2021

Generally, the study indicated that 68% of graduates were employed especially in private sectors which are huge employers of the TVET graduates with 70% of graduates went there. Also 73.6 % of employed graduates got employment opportunity by their respective field of study. The issue of knowledge and practice gap between the TVET production and employer’s need has been a concern and in this regard the majority (above 60%) of employers responded above good and very good.

4.4.4.1 Vocational Guidance and Counseling (VGC) service

One of the major tasks of the TVET education system is to serve trainees in different ways other than classroom delivery of the KSA of each course and there is specialized work process tasked to deliver Vocational Guidance and Counseling (VGC). This service is one type of capacity building training delivered to students and makes their stay in the college healthy and to make students aware about the general reality of the education system and life in the school and at cooperative training centers.

From the collected data 172 (79.6%) graduates received VGC service at least once and the rest 20.4% replied they have never received the service. The objective of this service is supporting students to perform better with regard to the courses they are taking and extra-curricular activities by being familiar with their surroundings. Graduates are prepared psychologically on how to challenge their life encounters and also VGC officers train graduates about on how to present themselves to the employers better.

TABLE 11: VGC SERVICE

Delivering VGC service for students		
	n	%
Yes	172	79.6
No	44	20.4
Total	216	100.0

Source: Survey result. 2021

Generally, the major challenges in the colleges that affect the employability of graduates are mainly institutional that are related to the efficiency of the competencies delivered. The topics of training and capacity development for trainers and coordinators are repeated and done for the purpose of reporting. The emphasis given to upgrading and capacity development, as indicated by the trainers and coordinators, needs to be improved and effective. The machineries in the workshops are also different from the real workplace and this also posed problems.

CHAPTER FIVE

5. SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1. SUMMARY AND CONCLUSION

This chapter is the closure of the thesis by summarizing the key research findings in relation to the research aims and research questions as well as its contribution. It also review key limitations faced during the overall research process of the study and propose recommendations for further investigation and inquiry. The study aimed to assess the effect of TVET education on employment opportunity for the selected college's graduates. The results indicate that graduating from TVET is helpful for employment opportunity and further findings show that the employers showed very good feedback on qualifications delivered by TVET education with some concerns on some soft-skills like communication.

The study indicate that there are significant number of youth who got employment opportunity after completing their studies at TVET colleges which increases the role played by the sector in solving the dire problem of unemployment, especially in urban areas. However, due to the Covid pandemic and other safety problems there are significant number of youth out of employment. This research further point out that the majority of graduates (68.5%) are employed out of which 73.6% are from the manufacturing and hard-skill sectors of training which indicates the effort exerted towards conducting the training delivery based on labor market demand. The gender difference in TVET with regard to enrollment is 47.2% for female and 52.8% for male, which indicate that good result is registered in narrowing the gap. During their stay at the colleges, trainees developed their knowledge, skill and attitude in their respective fields of study and as indicated by human capital theory they increased their possession of valuable assets needed by the labor market. The status of employment they got as soon as graduate can be an indicator in this regard and their employers are using the products from the colleges.

The emphasis given to creating employment opportunity for urban youth by developing TVET institutions is showing its fruit by producing competent and qualified graduates for the world of work. Furthermore, the investment to develop human capital is not limited to trainees' and capacity development of trainers and coordinators is an integral part of production of skilled and competent workforce. In this area 80% of respondents have BA/BSc degree and the rest 20%

have MA/MSc. This shows the effort of the sector to produce the workforce that is competent and qualified. About 60% of employment opportunity is provided by the manufacturing companies and as a sector it plays the crucial role in absorbing the graduates. Some departments like urban agriculture have trainers and workshops but are without trainees which should be worrying for the sector in terms of resource wastage and unplanned opening of programs. This needs improvement and despite that resource, time and skill wastages are solved if graduates are employed on their area of training which still needs work to make this known by the stakeholders and employers.

5.2. RECOMMENDATIONS

Based on the results shown from the above discussed analysis and conclusion so far, the following recommendations listed below can be recommended and implied for the stakeholders.

- The provision of appropriate facilities, machineries and skilled man power in the institutions is very crucial. The city's TVET office and Colleges by their respective capacities has to make available occupational standards and manuals for trainees' also.
- Delivering regular capacity development and skill improvement trainings that are now irregular and insufficient has to be incorporated in the institutional annual plans of each college.
- Federal TVET Agency need to revise the curricula based on the current up-to-date world of work and current skills needed by the labor market. Along with this subsequent relation and contact between the trainers and industries provide the best result and emphasis in this area has to be taken.
- The management bodies need to know the role of Vocational Guidance and Counseling (VGC) service plays and increase investing on this sector so as to achieve the goal of strategy in achieving self-employment.

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APPENDIX

Questionnaire for Graduates
Addis Ababa University
College of Development Studies

Center for Regional and Local Development Studies

Questionnaire to be filled by the Graduates

The aim of this questionnaire is to support a study that focused on the effect of the Ethiopian TVET system on employment by taking two TVET colleges in Addis Ababa. The factual answer that you give will be a great asset for the result of the research and help to find out the situation witnessed in your college and department; and the information you provide will only be used for this study only and kept confidential.

Thank you in advance for your time

Instruction: After reading the questions place \checkmark on the boxes given on the place of your choice; and write on the blank spaces based on the required information.

1. Name of the College:
 - A. Misrak Polytechnic College
 - B. Entoto Polytechnic College
2. Sex: Male: Female:
3. Age: _____
4. Field of study (Department):
 - A. Construction
 - B. Electro technology
 - C. hotel and hospitality
 - D. ICT
 - E. Automotive
 - F. Business
 - G. Manufacturing
 - H. Urban Agriculture
 - I. Arts and Culture
 - J. Textile, Leather and Garment
 - K. Drafting and Surveying

5. Employment Status
 A. Employed B. Unemployed C. Self-Employed
6. What is the type of organization you got employed?
 A. Private B. Governmental C. NGO D. Micro and Small Enterprise
7. If you are unemployed, what do you think is the reason?
 A. No job opportunity with my field of study
 B. Didn't look for job/ employment
 C. Other
8. If you are employed, what is the relationship between your job type?
 A. By the field of study I trained with
 B. Other than my field of training
9. Why do you want to join the TVET? The following possible reasons below are listed and please put \surd mark in the boxes. 1 for strongly disagree, 2 medium, 3 for agree and 4 for strongly agree.

Reasons for joining TVET	1	2	3	4
Inclination				
To create my own work				
There is high job opportunity/demand				
I was unable to attend other types of education				
Other				

10. What were the criteria to be enrolled in your field of study when you first joined your college?
 A. My choice only B. Placed by the College
11. Did you have enough familiarity before joining the TVET?
 A. Yes B. No
12. In your field of training at the college, do you think you are well trained, with good workshops?
 A. Yes B. No
13. Was there vocational guidance and counseling service in the college?

A. Yes B. No C. I don't know

14. Did you take cooperative training/ internship in your field of study at different organizations?

A. Yes B. No

15. How do you express your stay/time at the college (please, include both strengths and weaknesses)?

.....
.....
.....

Thank you very much for your time and genuine answers!

Questionnaire for Trainers

Addis Ababa University

College of Development Studies

Center for Regional and Local Development Studies

Questionnaire to be filled by Teachers/ Training coordinators

The aim of this questionnaire is to support a study that focused on the effect of the Ethiopian TVET system on employment by taking two TVET colleges in Addis Ababa. The factual answer that you give will be a great asset for the result of the research and help to find out the situation witnessed in your college and department; and the information you provide will only be used for this study only and kept confidential.

Thank you in advance for your time

Instruction: After reading the questions place \surd on the boxes given on the place of your choice; and write on the blank spaces based on the required information.

1. Name of the College

A. Misrak TVET Polytechnic College

B. Entoto Polytechnic College

2. Gender A. Male B. Female

3. Age

A. 20-25

B. 26-30

C. 31-35

D. Above 36

4. Level of education

A. A level (MA/ MSc)

B. B level (BA/BSc)

C. C level (level 3 & 4)

5. Trained field of study:

A. Construction

C. hotel and hospitality

B. Electro technology

D. ICT

- E. Automotive
- F. Business
- G. Manufacturing
- H. Urban Agriculture
- I. Arts and Culture
- J. Textile, Leather and Garment
- K. Drafting and Surveying

6. Years of service in TVET
A. below 1 year B. 1-3 years C. 4-8 years D. above 8 years
7. Do you believe that teachers in your college and you are trained well and skilled?
A. Yes B. No
8. Do you believe the training delivered by the college meets the requirement of the industry/ stakeholders?
A. Yes B. No
9. Does your college provide skill gap training for the teachers regularly?
A. Yes B. No
10. If your answer for question 9 is A, how often?
A. Every year B. two times a year C. more than two times a year
11. How equipped are your training workshops?
A. Well-equipped and adequate for training
B. Partially equipped
C. Not equipped for training
12. Do you think the training in the college gives good opportunity in preparing trainees in transiting from school to the word of work?
A. Yes, it does B. No, it doesn't C. I don't know
13. Do you think there is enough workshop space for trainees?
A. Yes C. No

Thank you very much for your time and genuine answers!

Questionnaire for employers

Addis Ababa University
College of Development Studies
Center for Regional and Local Development Studies

Questionnaire to be filled by the Employers

The aim of this questionnaire is to support a study that focused on the effect of the Ethiopian TVET system on employment by taking two TVET colleges in Addis Ababa. The factual answer that you give will be a great asset for the result of the research and help to find out the situation witnessed in your college and department; and the information you provide will only be used for this study only and kept confidential.

Thank you in advance for your time

Instruction: After reading the questions place \surd on the boxes given on the place of your choice; and write on the blank spaces based on the required information.

1. Name of your organization:
2. Type of your organization
 - A. Service delivery
 - B. Manufacturing
 - C. Other (specify):
3. years of operation
 - A. less than 2 years
 - B. 2- 5 years
 - C. Above 5 years
4. Why do you want to employ TVET graduates? (Please rank by putting \surd sign your reasons the highest is 1 and 4 is the lowest).
 - A. They have good technical understanding
 - B. They possess good work habit
 - C. They require less salary
 - D. Easily available in the job market

5. How do you rate the skill of the TVET graduates working in your organization?
- A. Unsatisfactory
 - B. Fair
 - C. Satisfactory
 - D. Very satisfactory
6. Which of the following qualities do you value/rank the most and/or least in your TVET graduated employees? Please tick your ranking from 4 high, 3 medium, 2 low and 1 very low

Qualities	Tick <input type="checkbox"/>				
	1	2	3	4	5
loyalty to the organization					
strong professional skills					
team work					
good work ethics					
honesty					
work attitude					
ability to work without constant supervision					
problem solving skills					
good communication skills					
good technical skill understanding					
willingness to learn new things					
learn from mistakes					

7. What do you think that should be included in TVET education (knowledge, skill and attitude)?

.....

.....

Thank you very much for your time and genuine answers!