

UNIVERSITY OF EDUCATION, WINNEBA

**ASSESSING THE IMPACT OF TECHNICAL AND VOCATIONAL
EDUCATION TRAINING (TVET) ON UNEMPLOYMENT IN GREATER
ACCRA REGION OF GHANA: A CASE STUDY OF COMPANIES IN
MADINA MUNICIPALITY**



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POST GRADUATE DIPLOMA

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UNIVERSITY OF EDUCATION, WINNEBA

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**A dissertation in the Department of Educational Foundations
Faculty of Educational Studies, submitted to the School of
Graduate Studies, in partial fulfilment of the
requirements for the award of the degree of
Post Graduate Diploma
(Education)
in the University of Education, Winneba**

JULY, 2022

DECLARATION

Student's Declaration

I, Frederica Quarcoo, declare that this thesis, with the exception of quotations and references contained in published works which have all been identified and duly acknowledged, is entirely my own original work, and it has not been submitted, either in part or whole, for another degree elsewhere.

Signature.....

Date.....

Supervisor's Declaration

I hereby declare that the preparation and presentation of this work was supervised in accordance with the guidelines for supervision of thesis/dissertation/project as laid down by the University of Education, Winneba.

Paul Kobina Effrim, PhD (Supervisor)

Signature.....

Date.....



DEDICATION

To my husband and children



ACKNOWLEDGEMENT

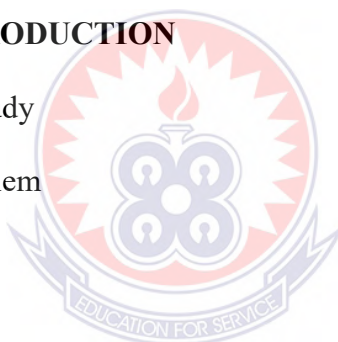
Praise unto the Lord Almighty for His enablement. I am also grateful to my supervisor, Dr. Paul Kobina Effrim, who guided me through this difficult dissertation period. My gratitude also goes to all lecturers of UEW who are on the PGDE Sandwich Programme who through various capacities brought me up to such a meritorious academic level.

Finally, I am highly indebted to the effort to all my friends and colleagues who in multifarious ways contributed to the success of my dissertation.

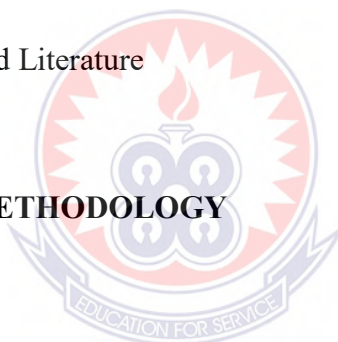


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ABSTRACT

The study examined the impact of technical and vocational educational education (TVET) on youth unemployment in Ghana within the La Nkwantanang-Madina municipality, of the Greater Accra Region. The target population for the study were graduates of any Technical and Vocational Education Training (TVET) institute in the country, who were working with industries, institutions and Small and Medium Enterprises (SMEs) within the municipality. A total of one hundred and thirty-five respondents were used for the study analysis. The study findings indicated that, TVET plays a significant role in the reduction of youth unemployment rates in Ghana as well as improving their standard of living. The study recommends that the government especially should encourage industrial development. As part of the efforts to create demand for technical and vocational skills, it is important for COTVET to address gaps between the supply and demand of skills. To develop the necessary links between industry and training, to improved labour market information is essential.



CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

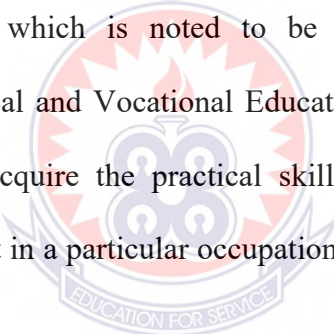
Over the last decade, Africa's robust growth outperformed the global growth rate. Between 2004 and 2013, Africa's high growth was largely driven by Sub-Saharan Africa and its emerging and frontier economies. The region has shown resilience after the financial and economic crises of 2008, returning to growth of about 5% in 2013 (World Economic Outlook, 2013). But high poverty, inequality and unemployment rates, particularly among the youth, persist among Sub-Saharan countries (The African Capacity Building Foundation, 2017).

The young people in Africa are confronted with multiple challenges ranging from economies that grew but could not create sufficient jobs prior to the global financial and economic crisis. Just over one in five youth were not in employment, education or training (NEET) in 2019; this state of joblessness has been steadily growing since 2012 mirroring the trends in the global rate. The NEET rate is projected to increase slightly by 0.3 percentage points to 20.8 in 2021. Young women are particularly more affected by the NEET (ILO, 2020).

According to the Organisation for Economic Co-operation and Development (OECD) for which Ghana is a member state, the number of unemployed across the OECD area, rose by 2.1 million to 37 million in March, 2020. The rise was particularly marked among women and young people aged 15 to 24 years. Female unemployment increased by 0.5 percent points (to 5.8%) compared with an increase of 0.3 percent points for men (to 5.3%), while youth unemployment picked up by 1.0 percentage point, to 12.2% (OECD, 2020).

Education is widely recognized as a key factor in the unemployment, poverty reduction and development discourse. Modern development theories have increasingly placed greater importance on the need for human development and investment as an exit path or way out from unemployment and poverty at large. The ideology that education and human capital are essential for economic growth and subsequently contributing to unemployment and poverty reduction gained much importance in the mid-1990s when it was discovered that the economic progress of East Asian countries; Singapore, Hong Kong, Korea and Taiwan in 1970s and 1980s was largely due to their investment in education and human capital formation (Sarel, 1996).

A branch of education which is noted to be seamlessly inversely related to unemployment is Technical and Vocational Education and Training (TVET). TVET enables its students to acquire the practical skills, know-how and understanding necessary for employment in a particular occupation, trade or group of occupations or trades” (UNESCO, 2009).

The logo of the University of Education, Winneba, is a circular emblem. It features a central shield with a sunburst at the top and a banner at the bottom that reads "EDUCATION FOR SERVICE". The shield is surrounded by a decorative border.

Technical and vocational education has been in existence in Ghana for over three centuries now. By 1992, four technical/vocational schools were established in the Ashanti, Eastern, Greater-Accra and Central region, which were considered essential for improving the quality-of-life people (Duodu, 2004). There are currently 181 technical and vocational institutes in Ghana operated by both public and private bodies (GES, 2013). According to the Education Management Information System (EMIS) census in 2012/13 there were 61,496 students enrolled in technical and vocational institutes (TVIs), of which 79% were enrolled in public TVIs. The table below shows a breakdown of the figures.

Table 1: Number of TVIs and Enrolment

		2012/13	2013/14	2014/15	2015/16	2016/17
Public institutions	GES	45	45	45	45	47
	Others	62	73	75	64	73
Private institutions		74	68	65	55	58
Total institutions		181	186	185	164	178
Public enrolment	GES	36,830	27,166	32,230	38,459	45,215
	Other	12,015	8,183	6,596	9,897	9,217
Private enrolment		12,651	5,716	3,687	4,815	4,678
Total enrolment		61,496	41,065	42,513	53,171	59,110

Data Source: MOE ESPR, 2017

However, TVET is a segment of education in Ghana that not much attention has been given to over the past years as compared to general education. The number of TVIs actually reduced from 252 to 181 institutions in less than 3 years (GES, 2013) due to poor management. Knowing the importance TVET plays in economic development of Ghana in terms of employment, self-employment and productivity in 2006, an apex body known as the Council for Technical and Vocational Education and Training (COTVET) was established by an Act of Parliament under the Ministry of Education to oversee all TVET activities (African Union, 2007).

1.2 Statement of the Problem

Unemployment and productivity are serious problems that the young generation of Ghana faces today. According to Ghana Statistical Service statistics gathered in 2000 and published in 2012, the youth (of between the ages of 15-24) unemployment rate in Ghana is 25.6%, twice that of the age 25-44 age group and three times that of the 45-64 age group. In Africa, 60% of youth are unemployed, and the situation is mainly due to demographic change and lack of skills (Mantar, 2013). One of the reasons why young Africans lack the skills is due to the fact that the government is not looking at all the edges to tackle this problem effectively, and one of the areas where the leaders

has failed to invest in to resolve the problem of youth unemployment and low productivity is technical and vocational institutions. TVET is important especially in our African context because it gives youths the opportunity to gain employable skills at an early age. Low Unemployment rate and high productivity are indispensable in the economic development of a nation.

For the past decades, the government of Ghana (the ministry in charge of technical and vocational education) especially has shown little or no interest in this sector for one reason or the other. The nation lacks skilled middle level human capital to boost development of the country. Due to this problem, attention needs then to be given to technical and vocational institutes which are to a large extent responsible in developing these human skills needed for national development. In Ghana, 70% of the population is made up of young people; that is about 35.1% between 15-35 years and about 35.3% below 15 years, many of which are unemployed (Mantar, 2013). These unemployed Ghanaian youths and school dropouts roam the streets of Accra thereby increasing crime rate while they could easily develop basic working skills in TVET institutes that would reduce unemployment rate. Thus, this study seeks to elucidate the need for TVET to be enhanced to address these gaps.

1.3 Purpose of Study

The purpose of the study is assessing the influence of TVET on unemployment within the Greater Accra region of Ghana, by focusing on the Nkwantanang-Madina municipality.

1.4 Research Objectives

The main objective of the study is to investigate the impact of technical and vocational educational education (TVET) on youth unemployment in Ghana. Specific objectives of the studies are to:

- i. investigate whether TVET has reduced the unemployment rate in Adentan, Ghana.
- ii. find out whether TVET has promoted an increase in productivity among the youth in Adentan, Ghana.
- iii. assess impact of TVET on standard of living of the youth in Adentan, Ghana.

1.5 Research Questions

The study shall seek to answer the following questions:

1. To what extent has Technical and Vocational Education reduced unemployment rate among youth in Adentan, Ghana?
2. To what extent has the introduction of TVET promoted increase productivity among the youth in Adentan, Ghana?
3. What is the impact of TVET on the standard of living among youth in Adentan, Ghana?

1.6 Significance of Study

The study will provide relevant material for the ministry of education the COTVET to look at and consider while making decisions on how and why to restructure technical and vocational education in modern day Ghana.

Should the study findings reveal that TVET reduces unemployment rate within the municipality by providing readily employable skills to students for the world of work, will further equip and motivate the principals of the various TVET institutions across

the country and other stakeholders to liaise with technical and technology companies to upgrade their curriculum and introduce new programs which will be beneficial in the 21st century to make the students globally competitive.

Some students or parents do not even want to consider this type of education as an option. Such students or ex-students and parents could gain more insights on Training and Vocational Education and consider it in the future. This research will also contribute to other research that has already been done on Technical and Vocational education and training.

1.7 Scope/Delimitation of the Study

The study specifically concentrated on the influence of Technical and Vocational Education and Training (TVET) on unemployment rates in Ghana, specifically, the Madina – Adenta municipalities. The target population for the study are the school administration staffs, current students and alumni of National Community Development Vocational Technical Institute at Madina.

1.8 Operational Definition of terms

Unemployment

In this study, it is defined as people who do not have a job, have actively looked for work, and are currently available for work (ILO-Bureau of Statistics, 2008). It describes the state of a worker who is able and willing to work but cannot find a job. For ILO's Bureau of Statistics (2008), unemployment describes an economically active population without work but currently available for work (paid employment or self-employment) and thus are seeking work.

Youth

In this study, youth is defined as young people (boys and girls) between the ages of 15 and 24 years (ILO, 2010a, p. 40; ILO, 2010b).

Productivity

Agreeing with that Schermerhorn (2010) and Robbins and Judge (2013), productivity is the quantity and quality of work performance, with resource utilization considered, by transferring inputs to outputs at the lowest cost.

Standard of Living

According to Chappelow (2019), standard of living refers to the amount and quality of material goods and services available to a given population.

1.9 Limitations of the Study

The study's evaluation and its findings are limited to National Community Development Vocational and Technical Institute (NCDVTI) at Madina and hence the study's findings cannot be generalised to be the case for the entire country.

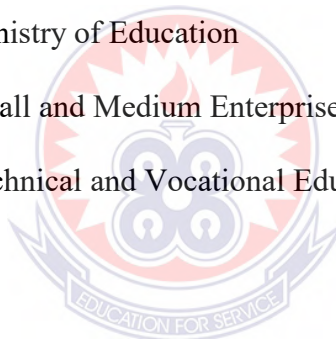
This research was conducted with the use of a cross-sectional design, meaning that data were gathered at one specific point in time. Consequently, the results cannot be interpreted as evidence of possible causality (Warner, 2012). However, the use of retrospective scales in the present study has limited the disadvantage of the cross-sectional data collection. In future studies is recommended the use of longitudinal designs to inspect whether the relationships between the concepts of this study change over time.

1.10 Organisation of Study

This study is arranged in chapters of five. The first chapter contains the introduction, which comprises of the background of the study, statement of problem, objectives of the study, research questions and organization of the study. The second chapter contains the literature review, which comprises of empirical review of works concerning the study. Chapter three contains the research methodology of the study. Chapter four contains the results and analysis of the study. Chapter five contains the summary of findings, conclusion and recommendation of the study.

1.11 Glossary

COTVET	Council for Technical Education and Training and Vocational
MOE	Ministry of Education
SMEs	Small and Medium Enterprises
TVET	Technical and Vocational Education and Training



CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.0 Introduction

The chapter presents a theoretical framework, an overview of technical and vocational education and training (TVET) in Ghana, TVET and employability.

2.1 Theoretical Framework

There are two main strands in the literature on TVET. The first considers TVET as an unproductive policy (Abrokwa, 1995; Foster, 1966; Oketch, 2009; Psacharopoulos, 1997), and the second is optimistic about its developmental potential (Ajufu, 2013; Hughes, 2005; McGrath, 2012; Nilsson, 2010; Powell, 2012; Tripney et al., 2013).

The academic dispute about the positive effects of TVET on economic development dates back to the sixties. During May 1961 in Addis Ababa one of the resolutions adopted by the ministers of education from across Africa was the incorporation of vocational education into the school curriculum to improve the productivity of the agricultural sector (Abrokwa, 1995). Advocates of this decision claimed that providing students with basic occupational skills would have enabled them to enter the job market and help to mitigate the unemployment issue (Abrokwa, 1995). Nowadays proponents of TVET consider it as an effective measure for fostering economic growth and reducing poverty. The skills acquired during the training are seen as easily applicable in a related work setting which increases the productivity and promotes long-term economic advancement (Comyn & Barnaart, 2010; McGrath, 2012; Nilsson, 2010; World Bank, 2008).

Backing these critics, research evidence produced by the World Bank and other institutions in developing countries found vocational education has been unable to

reach its goals. Those who graduated with a TVET curriculum stayed unemployed longer compared to those who graduated with an academic curriculum and on average their wages were lower (Oketch, 2009). In his review of the current situation of TVET in Africa, Oketch (2009) criticizes governments that still fund TVET curriculums “even when there is compelling evidence that it can be a wasteful public investment” (p. 533).

To cast new light on the debate, McGrath (2012) remarks that TVET is grounded in an outmoded model of development, and the critique of TVET in developing countries is outdated. This is supported by insufficient TVET research and theoretical exploration. This author considers TVET as a means for human development. He encourages shifting the focus of TVET research away from technical aspects (e.g. economic productivity) towards a more humanistic approach with individuals at the center (e.g. empowerment and equity).

However, several researchers have challenged these assumptions. After conducting a research in Ghana, Foster (1966) argued that unemployment among the educated was the result of increased education level against a rather stagnant economy. The sudden increase in education rates was not followed by an equally rapid growth of the labour market. In fact, the tertiary sector has been unable to provide occupation for most of the new graduates. Integrating TVET into the school curriculum would have contributed very little to the unemployment issue (Abrokwa, 1995; Oketch, 2009). Psacharopoulos (1997) argues that TVET has failed because it has been used as the only policy instrument to solve a complex set of issues with too much emphasis on intuitive logic rather than empirical evidence. In fact, research on TVET is limited and the findings are inconsistent and not always promising (Oketch, 2009).

2.2 Overview of Technical, Vocational Education and Training

The need to introduce Technical and Vocational Education into the school system in Ghana has been felt throughout the periods since formal education was introduced in the 16th century. During the period 1800 - 1850, some attempts were made to include agriculture and trade training into the then existing schools set up by the Christian missionaries. The Basel missionary promoted technical training. Some of these trade schools were opened at Christiansburg in 1857 as well as Abokobi, Aburi and Akropong in 1860. Notwithstanding the efforts made by the Basel missionary at promoting technical education, the Catholic missionary also promoted technical education. They set up an agricultural and bookbinding centre at Saltpond, printing and carpentry centre at Cape Coast and Navrongo as well as a woodwork centre at Elmina (Bening, 1990; Annoh, 1992).

Education was placed at the centre of Ghana's economic and social development policies following its independence in 1957 and the 1961 Education Act (Akyeampong, 2010). Technical education, through the development of technical schools and polytechnics, was a key element of Ghana's education plans. Rapid expansion of the education system, however, was later criticized for compromising on quality. In 1909, a government technical school was opened in Accra to offer 3-year training for Standard VII leavers or higher certificates in engineering, motor mechanics, building construction and other subjects (Bening, 1990; Annoh, 1992). The period from 1920-1942 also showed that there were four junior trade schools. By 1932, the junior trade schools were re-organized with slightly vocational bias especially in masonry, carpentry, woodwork and metalwork in four government middle boarding schools at Yendi, Kibi, Asuantsi, and Mampong-Ashanti. By this period, part-time courses in Technical Drawing, Designing, Building Construction

and others were introduced-mainly for the employees of various government departments (Graham, 1976).

In 1967, continuation schools were established for learners who were not selected for secondary education. Continuation schools emphasized pre-vocational education; this contributed to the erosion of TVET's credibility, as it was viewed as a route for those who had failed to progress to academic education (Yangben & Seniwoliba, 2014). The National Vocational Training Institute was established in 1970 to provide national co-ordination of TVET (Preddey, 2005). Its remit included apprenticeships, standards and certification, and labour market monitoring.

In 1987, the Government of the led by Ft. Lt. J. J. Rawlings proposed a reform of the entire educational structure based upon the Dzobo Committee's report on education. The objectives of the 1987 educational reform inter alia were to pre-dispose and expose every Ghanaian child at an early age to the acquisition of a range of knowledge, language and life-readiness skills -to encourage the child to be self-reliant, resourceful, creative and productive in the ever-developing world of science and technology (Annoh, 1992: 37-42). It was particularly based on this report that technical subjects like Technical Drawing, Pre-Technical Skills and Pre-Vocational Skills were introduced in the curriculum of the Basic Education Schools, precisely at the J.S.S level to expose pupils (students) to technical and vocational education.

In 2004, the Government of Ghana published a white paper on education reform. The white paper saw an ambition to develop TVET as a 'credible alternative' to general education (Palmer, 2005). Successive Governments have attempted to coordinate TVET in Ghana through the establishment of the National Vocational Training Institute (NVTI) in 1970 which was initially mandated to be responsible for the

nationwide coordination of all aspects of vocational training (GoG, 1970). NVTI's failure as a coordination body can largely be traced to it being diverted from coordination functions to becoming another provider of training through a network of NVTI institutes. Also, the National Coordinating Committee on Technical and Vocational Education and Training (NACVET) established in 1990 to coordinate a national skills development system, formal and informal largely failed due the fact that it never had an Act of Parliament to back up its actions.

Government in desiring to reform the education sector as a whole set a committee in 2002 headed by one Professor Anamuah-Mensah to study the education sector and make recommendations for Government's attention and implementation. One of the key recommendations of that Committee is to set a Council for Technical and Vocational Education and Training to oversee all aspects of TVET in the country. Government followed this recommendation up with a passage of Parliamentary Bill to establish COTVET which led in September to the COTVET ACT (718).

However, reforms since 1987 included a little aspect of Technical and Vocational Skills Development (TVSD), as this is evident in the study undertaken by the Japanese International Cooperation Agency (JICA), siting that the TVET system in Ghana is so fragmented and spread across so many different ministries and agencies that 'not even the government has a full-clear picture of the situation' (GoG, 2004). Consequently, the TVET system in Ghana is governed by the Ministry of Education (MoE). Other ministries involved in the provision of TVET include the: Ministry of Employment and Labour Relations; Ministry of Youth and Sports; Ministry of Local Government and Rural Development; and the Ministry of Health and Environment. Within the MoE, the Ghana Education Service (GES) is responsible for implementing

pre-tertiary education policies formulated by the Ministry. Other actors involved in the governance of TVET includes the Council for Technical and Vocational Education and Training (COTVET) - under the Ministry of Education, which coordinates and oversees TVET developments in Ghana and the National Vocational Training Institute (NVTI) under the Ministry of Employment and Labour Relations which provides non-formal and informal sector apprenticeships.

2.3 TVET and Employability

TVET definitely benefits a country as a whole and therefore it should be given special attention under the country's own specific conditions. For instance, Mustafa et al., (2005) tried to find out the importance of Human Resource Development (HRD) in general and vocational training in particular for economic growth in Pakistan. They used data from the Labour Force Survey published by Federal Bureau of Statistics, Statistical Division of the Government of Pakistan and concluded in their article that 'vocational education and training are indispensable instruments for improving labour mobility, adaptability and productivity', 'Thus it contributes to enhancing firms, competitiveness and redressing labour market imbalances'.

For TVET to significantly translate into economic growth, the government and private sectors should pursue policies that promote growth in HRD investment and improved social infrastructure. They claim that 'the demand for vocationally trained and technically educated human resource rises with every step towards industrialization and modernization of production units and work premises' (Mustafa et al., 2005). Moreover, with the emergence of globalization, there is an increase of capital inflow from developed to developing countries implying that even without technology imports, capital output ratios in developing countries would rise and the

complementarities between capital and skills; this would raise the relative demand for skilled labour (Mustafa et al., 2005, p.569). Hence there is the need for a HRD fixated TVET.

According to Witte and Kalleberg, (1995), "a vocational education might aim to achieve a variety of goals including: developing specific occupational skills; transmitting general work skills and employee socialization; building the self-esteem of the least advantaged; and providing structured activities for young people who might otherwise be engaged in undesirable or illegal activities". The main claim of the paper is that an individual's training should be done in ways that fits the labour market. The authors in their study consider whether or not if the returns to vocational education depends on individuals working in the occupations in which they were trained for. The authors describe the relationship between employment tenure and fit (personality and skills) as complicated. If one were to simply look at whether or not there is a relationship between vocational education and employment, in a cross-section of population, one is likely to find a positive relationship between employment tenure and fit (personality and skills). The example the authors used is that, if a person has found a job that used his or her training and provides reasonable return to one's human capital, then there is little incentive to change jobs (Witte and Kalleberg, 1995). Individuals with relatively long employment tenures should thus have good fit (personality and skills), but it is likely to be a consequence and not a cause of a good match between training and employment.

On the other hand, employment tenure maybe negatively associated with fit. The longer a person stays in a job that does not fit, the greater will be the contributions to his or her skills of accumulated on-the-job training and experience. Over time, the

importance of these forms of human capital may come to outweigh the possible benefits to be realized by moving to a job that better fits his or her vocational education. The Study measured fit objectively as well as subjectively. Objective measures were those that compared apprenticeship program designations to occupational titles or skill requirements. While subjective measures of fit represented respondents' assessment of whether or not their current occupation was the one for which they received training (Witte & Kalleberg, 1995).

In a paper written by Schmidtke and Chen (2012) titled "philosophy of Vocational Education in china: A Historical Overview" Huang Yanpei, one of the proponents of pragmatism in china was convinced that there were three purposes to vocational education: preparing individuals to earn a living, inculcating in people the desire to serve the society and promoting productivity. Vocational education was seen as an avenue for individuals to explore and discover their talents and perfect them to be able to serve society most effectively (Schmidtke & Chen, 2012). In 1951, the official purpose of secondary vocational education in china was to develop large numbers of lower-level and middle-level technical personnel while continuing an emphasis on culture and science modern technology, and physical fitness as well as a desire to serve the society wholeheartedly (See-Fang, Liu & Fu, 2009) cited in (Schmidtke & Chen, 2012).

Again, Schmidtke

& Chen (2012) stated that the decision on Educational System Reform issued by the Communist Party's central committee in 1985 declared that 'vocational education had to be developed to create a technical workforce whose production capacity would help strengthen social development'. In 1991, the minister of education, Li Tieying,

stressed that vocational education should be taken as the ‘means of educating qualified labourers’ for the purpose of national economic construction but at the same time vocational education also has a relationship with people’s welfare and happiness in life.

According the report by The European Centre for the Development of Vocational training (Cedefop) published in 2011 claims that, "the benefits of TVET occur in two dimensions, the economic dimension and the social dimension". Both can be analysed in three different levels: the micro level (the benefits for individuals), the macro level (benefits for enterprises and groups), and the meso level (benefits for society as whole). The table below briefly describes the different levels of benefits of TVET.

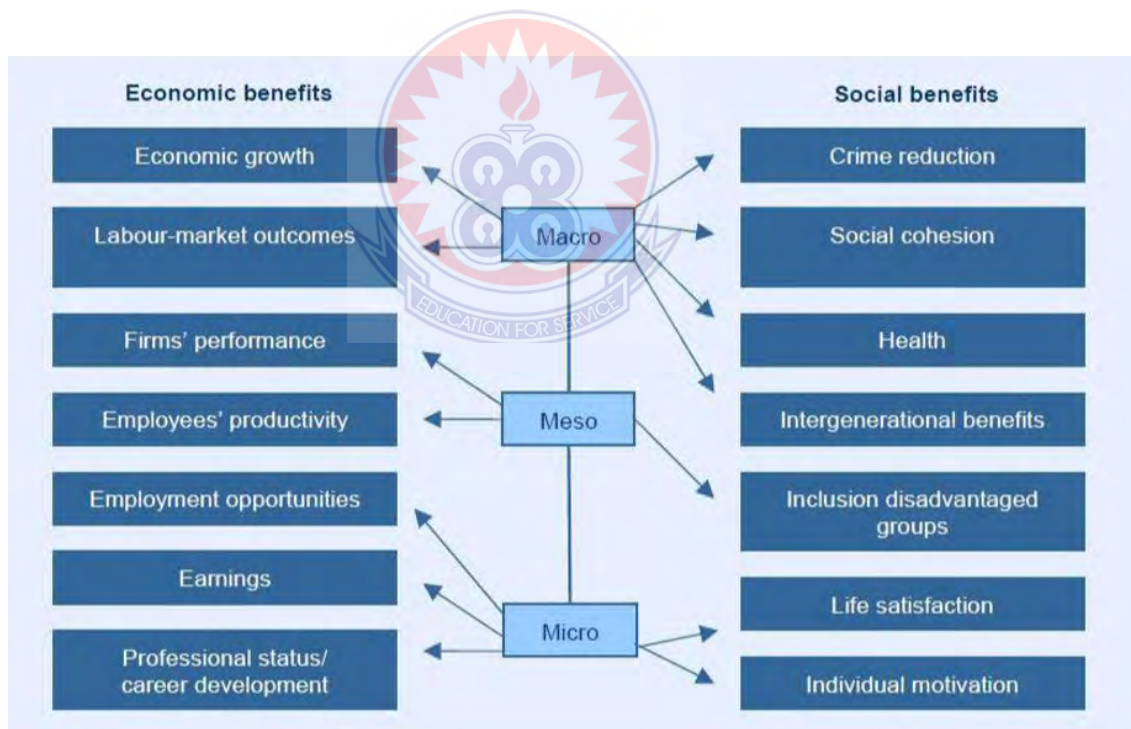


Figure 1: Benefits of TVET

Source: CEDEFOP

As aforementioned, employability is one of the guiding principles and main drivers of a TVET strategy for Africa (African Union, 2007). Guilbert, Bernaud, Gouvernet, and

Rossier (2015) argue that employability can be represented along two axes. The first axes address a macro vision perspective (society, labour market) and the second axes addresses a micro vision perspective (centered on the individual). The level of interest in the present study is the individual. At this level, employability concerns three main abilities related to the world of work. These include the ability to gain initial employment, the ability to maintain employment, and the ability to obtain a new employment (Hillage & Pollard, 1998). Harvey (2001) summarizes the several definitions of employability implicit in the literature concluding that the core notion relates to the propensity of students to obtain a job. According to Van der Heijden, de Lange, Demerouti, and Van der Heijde (2009), employability facilitates the individuals' career results (current and long term).

One of the strategic objectives of TVET is to assure and enhance the employability of trainees through the acquisition of employable skills related to the demands of the labour market (African Union, 2007). Maclean (2011) advocates that TVET has the potential to improve skills of learners thereby putting them at vantage position for employment.

Scholars often use the human capital theory as a theoretical framework to explain this relationship (Fleischhauer, 2007) which considers training as one of the most important investments in human capital. Participation in training programs leads to an increase in skills (human capital) making the worker more productive. Positive returns might be also the result of non-monetary factors such as higher motivation and empowerment (De Grip & Sauermann, 2013). Furthermore, the human capital theory clarifies that the formation and implementation of soft skills or employability skills during high school leave a strong impact on students who will soon enter in the labour

market (Kazilan, Hamzah, & Bakar, 2009). In his earlier work on investment in human capital analysis, Becker (1962) found out that among other things individual earnings were positively correlated with the level of skills possessed, and that unemployment was negatively correlated with the level of skills acquired.

Despite these theoretical assumptions, there has been relatively little analysis to confirm a positive causal relationship between TVET and employability in developing countries.

Dale (2014) argues that the perceived employability of individuals is determined by two factors. These factors include the conditions of the labour market and the individual possession of resources. The human capital theory deals with the resources option, namely individual efforts to invest in education and training. According to the author “the return to training investment in developing countries is poor due to primarily the slow growth of the skilled labour demand in poor economy”. The empirical evidence is in line with this statement, in fact, the effects of TVET on employability are weak on the economical side, but there is evidence of increased individual perception of employability after a training program (Thiessen & Looker, 1999).

Tripney et al. (2013) conducted a noteworthy meta-analysis of 26 studies. The review aimed at examining the potential of TVET to improve the employment and employability of young people in developing countries. The study found weak evidence that TVET interventions are effective at increasing the probability of having paid employment for young people in low- or middle-income countries (LMICs). However, they found that TVET interventions are effective at increasing the probability of having a job in the formal sector and at increasing the monthly earnings

for young people in LMICs. The authors point out an overall scarcity of robust evidence. In fact, only a small number of the TVET interventions in LMICs have been rigorously evaluated. Despite this limitation, Tripney and colleagues conclude that:

“Existing evidence shows that TVET interventions have some promise, overall, the findings from this review suggest that young people in LMICs gain some benefit from TVET interventions. Statistically, the effect size may be small, or even negligible, but even a small increase in the rate of paid employment can translate into thousands, if not tens or hundreds of thousands, of young people entering the labour market, where the programme is delivered on a large scale” (Tripney et al., 2013).

Raimi and Akhuemonkhan (2014) conducted a qualitative study to analyse the impact of TVET on employability and the national development of Nigeria. They concluded that TVET has a limited impact on employability and national development. The authors recommend a commitment of policymakers to improve the levels of funding, promoting campaigns to sensitize the public for a better attitude towards TVET, and organizing internships designed to enrich the practical skills of lecturers and students to meet the needs of industry and society.

Unlike Raimi and Akhuemonkhan (2014), Betcherman, Godfrey, Puerto, Rother, and Stavreska (2007) found an association between vocational training and employability. In Latin America several vocational trainings were implemented to help disadvantaged youths to entry in the formal labour market. The authors found that these new programs increased the employability and the earnings of the participants. Likewise, Thiessen and Looker (1999) found a positive association between the two variables. They examined high school students’ assessments of their employability skills before and after participating in a school-to-work transition program. The

results indicated an overall moderate positive effect of the program in fostering participant's self-assessed skills in some areas with the major effect on problem-solving skills.

Based on human capital theory and on the findings reported in this paragraph, it is assumed that TVET might enhance the perception of employability of its participants through the development of work-related knowledge and skills, thus it has a positive direct relation with employability.

2.4 Justifications for Government Intervention in TVET Education and

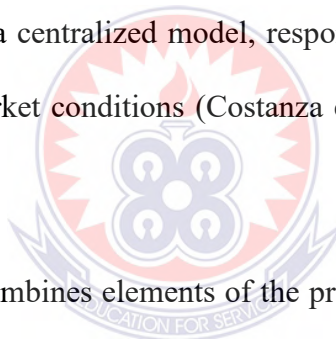
Financing in a Mixed Market

Models for the arrangement of instruction and TVET administrations vary widely, but in theory, three main types can be conceived: firstly, a completely centralized model in which the state both finances and provides TVET; secondly, a totally market based model, where the state involvement is negligible and the market-based model in which individuals and firms completely determine the supply and demand for formal and non-formal TVET in the marketplace; and thirdly, a blended model where both the State and the market are associated with the financing and the supply of TVET. These disparities in models are based on how the state is viewed to play a role in the provision of education and TVET: should the state improve supply or create demand, or both, or neither? (Costanza et al., 2012; Dike, 2013; Ouandji, 2014; Hanni, 2019).

The state determines the supply of TVET and its finance in a centralized paradigm. This paradigm is most closely linked to the delivery of TVET through the formal education system, where state institutions play a significant role, and non-formal TVET through national training institutes. The majority of financing decisions for TVET are made at the aggregate level. This model emphasizes outputs above

outcomes, as seen by statistics in countries' results-based budgeting reports that frequently emphasize the absolute number of program participants, regardless of the impact of that education on labour market outcomes (Costanza et al., 2012; Dike, 2013; Ouandji, 2014; Hanni, 2019).

A totally market-based paradigm, on the other hand, allows market forces to decide TVET supply and demand. Individuals and other private entities enter the market to purchase educational services from private or perhaps public suppliers, using their own resources and possibly with minimal public sector support. Private TVET providers, on the other hand, might be for-profit or non-profit organizations that tailor their training to meet market demand. The market for TVET could be more dynamic in this paradigm than in a centralized model, responding more quickly to changes in economic and labour market conditions (Costanza et al., 2012; Dike, 2013; Ouandji, 2014; Hanni, 2019).



A mixed TVET model combines elements of the preceding two approaches, resulting in a market that includes both public and private participants. While the TVET market is governed by Ministries of Education or special TVET councils that might include public and private sector participants. In this approach, the public sector is crucial in mobilizing resources and providing formal and non-formal educational services, particularly in nations where free public education is a constitutionally protected right. In turn, private providers respond to the demand for their services, which are purchased by individuals or businesses, with some assistance from the government (Costanza et al., 2012; Dike, 2013; Ouandji, 2014; Hanni, 2019). Ghana can be said to practice the mixed model, in where both the government and private firms such as

Non – Governmental Organisation (NGOs) offer educational training to prospective students.

As previously stated, the current mixed model market is characterized by a high level of complexity, making it vulnerable to a variety of market failures. Individuals and businesses may be unable to invest in education and TVET as a result of market failures. Given the compelling reasons for TVET, there is a compelling justification for the government to play a prominent role in providing initial funding, which can then be used to ensure that the market settles at an optimal equilibrium (Marcel et. al, 2014; Jimenez, 2009).

One of the main grounds for government intervention in the economy, according to the literature, is to remedy market failures, such as the existence of externalities, information asymmetries, and economies of scale, among others, in order to ensure that resources are distributed efficiently. According to this hypothesis, enacting a certain public policy can result in a Pareto improvement, bringing the economy closer to its optimal resource allocation and so achieving the greatest social benefit. Negative effects on equity and fairness can also be found in the education and TVET markets. Potential students may face significant obstacles to entering TVET markets, not just in terms of raising the requisite funds, but also due to other issues such as gender, color, and ethnicity. As a result, limited access reinforces the socioeconomic conditions that TVET aims to change. Government involvement can help to break down these barriers and encourage more investment (Marcel et. al, 2014; Jimenez, 2009).

While government involvement reduces market failures and moves the TVET market to a more optimal equilibrium, it does so at a cost.

2.4.1 TVET Financing Modalities

The diverse character of the educational ambits involved formal and non-formal as well as the various parties who interact in the TVET market, makes developing TVET finance policies a multifaceted exercise. To grasp this complication, it's helpful to distinguish between initial TVET funding (who pays) and final financing (who spends). This distinction is critical because initial financing refers to the education funding that each player allocates from their own resources (that is net of transfers received by others). Final funding, on the other hand, refers to each actor's final expenditure, including whatever transfers they get from other companies.

Figure 2, shows TVET funding and expenditure.

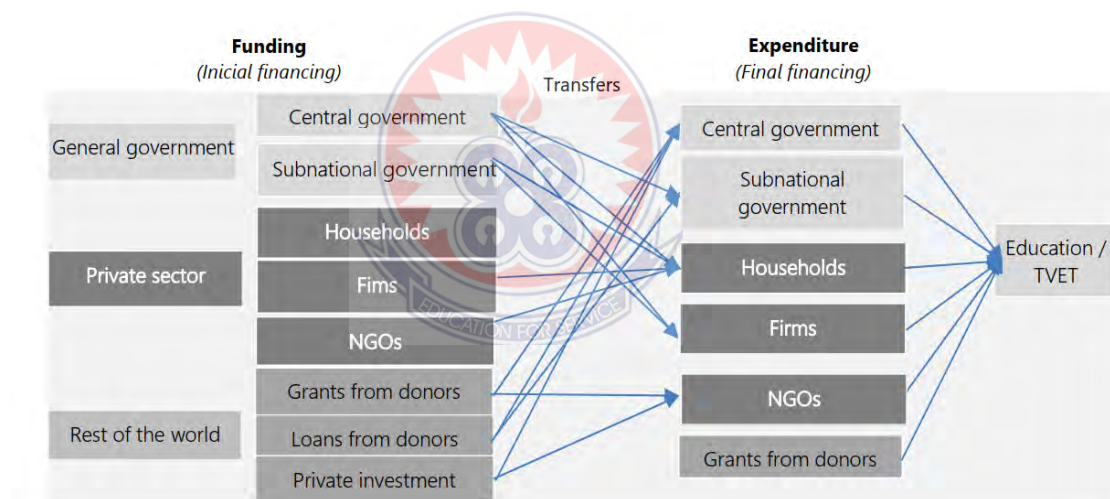


Figure 2: TVET Funding and Expenditure

Source: Hanni, 2019

As shown in Figure 2, there is a complex web of possible relationships between those who contribute financing for TVET and those who ultimately spend those funds. While the parties engaged in some circumstances may be the same - for example, the central government supplies both initial money and ultimate expenditures. Government budgets, on the other hand, can provide some insight into the scale of

total spending for more aggregate categories of education, but they don't go into enough detail to identify TVET-specific funding (UNESCO Institute for Statistics, 2016).

Resource mobilization initiatives in the public sector are generally based on domestic resources or lending from international or domestic financial institutions. Although some nations pay specific taxes whose proceeds are earmarked for education and/or TVET, general tax receipts are the primary source of domestic resources. Lending, particularly from multilateral institutions like the World Bank, can be a source of funds, particularly for essential investments (Rothschild, 2013). The proceeds of resource mobilization initiatives may or may not equate to public sector initial education and TVET finance. Payroll taxes are a popular resource mobilization tool in the context of non-formal TVET. Some nations have established national training funds, into which monies from payroll taxes, among other sources, are placed and utilized to fund TVET expenses outside of the regular budgetary process (Johanson, 2009). The funds' financing can be used to provide core funding to mostly public institutions in order to provide pre-employment training or to incentivise enterprise-based training.

2.5 Challenges of TVET

In spite of the claim by Mustafa, et al (2005) that 'technical and vocational education remains relevant in the economies of developing countries', TVET still faces a lot of challenges in the developing countries context. The nature and characteristics of TVET itself presents unique challenges to institutions and administrators (Boateng, 2012). In Boateng's view, Vocational and technical institutions require more intensive use of workshops, tools, equipment, and materials (but such amenities are

expensive). Vocational and technical subjects require more instruction and practical time than arts and science education, they need to be allotted sufficient time to satisfy their practical goal. All these make TVET more expensive than any other type of education.

In the final draft “Strategy to Revitalize Technical and Vocational Education and Training (TVET) in Africa” by the African Union (2007), they outlined that ‘one of the key issues that TVET faces is poor perception whereby, the public and even parents consider that the vocational education track as fit only for the academically less endowed’. In many countries, students entering the vocational education stream find it difficult, if not impossible, to proceed to higher education. Boating (2012) and Tan et al., (2013) all concur that TVET has a poor public perception in developing countries.

A research done by Dzigbede (2009) to find out the challenges of the administration of TVET in Ghana acknowledged that most of the challenges emanate from internal and external factors. However, the challenges could be resolved through good practices such as contributions of various stakeholders. Respondents from the Ghana education service (GES) pointed out that TVET has been starved for long by the absence of career Guidance and Counselling service, lack of good number of trained or professional teachers, logistics stationery, equitable funding, among others. The research was conducted on 204 sample population using questionnaire, and semi structured interview to generate opinion and findings. The sample size of this research consisted of students, scholars and educational workers.

The TVET sector is bedevilled with a list of problems. Some of the problems discussed are, limited number of technical institutions, lack of facilities and materials

for training students, inadequate technical teachers and facilitators, limited number of training institutions for technical teachers, and a difficulty in career progression. Amedorme & Fiagbe (2013) and Boateng (2007) discuss the same challenges faced by TVET. They both mention the fact that vocational and technical institutions require workshops, tools, equipment, and materials; vocational and technical subjects require more instruction and practical time than arts and science education, and the need to be allotted sufficient time to satisfy their practical goals. Methods of assessing vocational technical subjects, especially the form of assessment require the training of assessors who can assess students' competence in the classroom and in the workplace.

The TVET sector has often been marginalized in the allocation of resources in national education and training budgets. Financial allocations to the TVET subsector, as a percentage of the national education budget, varies across countries, but rarely exceeds about 11% in Mali. In Togo, the allocation is as low as 1%. In Ghana, the TVET subsector was allocated only 3.7% of the education budget in 2014, compared with 22% for the senior secondary education subsector. Such low levels of funding for TVET are not enough to train learners to the desired quality of competence (Afeti, 2016).

2.6 TVET and National Development

In the view of Fagerlind and Saha (2009), the concept human capital suggests that education and training raise the productivity of workers and increase their earnings over their lifetime. Accordingly, the relationship between TVET policy-making and an economy is reciprocal. From the perspective of traditional economic theory, the objective of TVET is to teach new skills or to upgrade existing skills in order to raise trainees' productive capacity and hence meet the required manpower needs of the

economy (Tsang, 1997). Thus, arguably TVET has a more direct relationship with economic growth (Mouzakitis, 2010; Nilsson, 2010). It promotes the national economy through foreign exchange by exporting our products. The knowledge of technical and vocational education helps in the conversion of local raw materials, this reduces the importation of foreign goods which lessen a country's import dependency and encourage exportation of our local products (Lawal, 2013).

Hallak (1990) further posited that TVET education contributes to individual creativity, improved participation in the economic, social and cultural roles in society. He further stated that education improves understanding of an individual and their respect for others, thus promoting social cohesion and mutual understanding among others. It makes an individual to become an asset to himself and the nation and also prevent him from being a liability to the society. Technical and vocational education helps to reduce the rate of drop outs or unemployment in the society. Technical/vocational education is used to developed marketable skills in students/youths so that they can become easily employable (Lawal, 2013).

2.7 Empirical Reviews

Cusumano (2017) carried out a study to know if Technical and Vocational Education and Training (TVET) Enhance Employability through Motivation for Lifelong Learning (LLL) in Uganda. The results are based on a sample of 249 Ugandan youth, 153 of which participated in TVET while the remaining part did not participate and for this reason was used as a control group. The results of this study show that TVET does not significantly influence employability and motivation for LLL. However, motivation for LLL was found to be significantly and positively correlated with employability.

Hirshleifer et al., (2014) examined the impact of vocational training for the unemployed in Turkey. The study employed a randomized experiment to evaluate Turkey's TVET. The study findings showed that impact of training on employment is positive, but close to zero and statistically insignificant, which is much lower than either program officials or applicants expected. Over the first year after training the study results did find training to have had statistically significant effects on the quality of employment, and that the positive impacts are stronger when training is offered by private providers. However, longer-term administrative data shows that after three years these effects have also dissipated.

Mangoche (2014) examined the impact of Technical and Vocational Education and Training (TVET) on Youth vulnerability in Malawi. Using secondary data, the study findings indicated that TVET programmes present possible opportunities for the youth to attain skills and knowledge for various trades.

Taweel (2018) carried out a study on Technical and Vocational Education and Training to Address Skills Mismatch and Unemployment in Saudi Arabia. A qualitative approach, utilising the theoretical lens of critical realism, was adopted by the study. Semi-structured interviews were conducted and analysed using thematic analysis approach. The study findings revealed that six key areas notably; Saudi cultural barriers, Saudi career choices and awareness, understating the labour market and need for skills, wider education system and employment pathways, TVET provision and quality and cooperation between TVET institutions and organisations, should be critically looked at in order to address the problem of unemployment among the indigenous Saudis.

Dike (2013) examined the Nigeria's experience of TVET. A triangulation of both quantitative and qualitative methods was utilized for the study's data collection. Questionnaire and 100 individuals were used as the tool for collecting data and sample size for the study. The findings show the local TVET institutions lack adequate funding, modern teaching and learning technologies, and functional workshops for practical application of the lessons learned in the classroom. They also lack well trained and properly motivated teachers and instructors. This study emphasized that TVET teachers in Nigeria are poorly paid and, more often than not, the government is months behind in the payment of their salaries and benefits. The major consequences of these problems are low morale of the teachers, low productivity, a shortage of highly skilled technical manpower, poor infrastructure and institutions, and a lack of employability and entrepreneurial skills among youths. All these consequences have negative implications for the Nigerian economy and the people's living conditions. The study recommends adequate funding for TVET education.

Pongo et al., (2014) investigated the impact of TVET on Ghana's socio-economic development: a case study of integrated community centre for employable skills training in two regions of Ghana. Questionnaire, interview and observation were employed in gathering data. A sample size of 296 was used. The results indicated that, the provision of technical and vocational education and training (TVET) is a necessary intervention in attempts to empower people and reduce poverty. The study did recommend that; the donor community has a role to play in helping to harmonize the TVET system. The current practice whereby each donor works separately and leaves when specific projects ends does not help the country very much in terms of vocational training.

2.8 Summary of Reviewed Literature

The introduction and incorporation of Technical and Vocational Education and Training (TVET) into formal education curriculum has on a large-scale equipped participant with skills needed to be self-reliant, thereby reducing unemployment and improve productivity across the various sectors of Ghana's economy and that of Africa as well. It is further noted that, for TVET to significantly translate into economic growth, the government and private sectors should pursue policies that promote growth in HRD investment and improved social infrastructure. Accordingly, the relationship between TVET policy-making and an economy is seen to be reciprocal.

In Ghana, through the various reforms that the country's education system has undergone over the decades, the Council for Technical and Vocational Education and Training (COTVET) under the Ministry of Education (MoE) and the National Vocational Training Institute (NVTI) which provides non-formal and formal sector apprenticeships under the Ministry of Employment and Labour Relations collectively collaborates and coordinates the development of technical and vocational skills acquisition in the country.

In spite of the technical and vocational education remains relevant in the economies of developing countries', TVET still faces a lot of challenges in Ghana and in other developing countries. One of the major challenges facing TVET in Ghana, is finances. In Ghana, the TVET subsector was allocated only 3.7% of the education budget in 2014, compared with 22% for the senior secondary education subsector.

With several research study conducted on TVET within developing countries and a few been investigated in Ghana such as that by Pongo et al. (2014), they did not take

into account in accessing the extent to which TVET has on productivity and the standard of living among the youths. Hence, this set the tone for this study to be carried out in order to fill the aforementioned research gap.



CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter presents the various methodologies employed for the conduct of this study. Precisely under this chapter, the study discusses the study design, target population, sampling technique, data collection and data analysis method.

3.1 Research Approach

Research approaches are plans and the procedures for research that span the steps from broad assumptions to detailed methods of data collection, analysis, and interpretation. Cresswell (2007) asserted the importance of illustrating the research approach as an effective strategy to increase the validity of social research. According to Grover (2015), there are three research approaches, namely: (a) qualitative, (b) quantitative, and (c) mixed methods. This study employs the quantitative research approach. Quantitative research is an approach for collecting and analyzing numerical data. It can be used to find patterns and averages, make predictions, test causal relationships and generalize results to wider populations.

3.2 Study Design

This section focuses on the general technique used in a coherent and logical way in the collection of data, measurement and data analysis in ensuring the accomplishment of the study objectives. The study uses the descriptive research design which is purposefully meant to observe and describe how TVET translate into reducing unemployment rates among youths in Ghana. This type of study design is used to observe natural behaviours without affecting them in any way. The subject is being observed in a completely natural and unchanged natural environment. According to

Fox and Bayat (2007), descriptive research is aimed at casting light on current issues or problems through a process of data collection that enables the situation (the subject matter) to be analysed more completely analytically.

3.3 Description of Study Area

The case study area of this study is the LA Nkwantanang-Madina municipality and it forms part of the 216 administrative Metropolitan, Municipal and Districts Assemblies (MMDAs) in Ghana and also among 16 MMDAs in the Greater Accra Region. The Accra Metropolis was created and established in the year 2012 with Legislative Instrument (L.I.) 2131 as part of the newly created Assemblies aimed at deepening decentralization and bringing development to the door step of citizens. The La Nkwantanang -Madina Municipality is located at the northern part of the Greater Accra Region. It covers a total land surface area of 70.887 square kilometres. It is bordered on the West by the Ga East Municipal, on the East by the Adentan Municipal, the South by Accra Metropolitan Area and the North by the Akwapim South District. La Nkwantanang-Madina Municipality is generally urban about 84% (PHC, 2010).

From the 2010 Population and Housing Census (PHC), been conducted by the Ghana Statistical Service, the population of La Nkwantanang-Madina Municipality was estimated to be 111,926 representing 2.8% of the region's entire population. Of which 48.5% represents males and 51.5% represents females.

About 70% of the population 15 years and older are economically active while 31.1% are economically not active. Of the economically active population, 92.3% are employed while 7.7% are unemployed. For those who are economically not active, more than half (56.7%) are students, while almost a quarter (24.9%) performing

household duties and 3.7% are disabled or too sick to work. About six out of ten unemployed are seeking work for the first time. Of the employed population, about 35.5% are engaged as service and sales, 22.0% in craft and related trade, 10.5% in Professional technicians, and 8.4% are engaged as elementary occupation. Of the population 15 years and older 43.4% are self-employed without employees, 8.5% are self-employed with employees, 2.5% are contributing family workers, and 3.9% are apprentices. The private informal sector is the largest employer in the Municipality, employing 69.7% of the population, with females having relatively higher proportion (78.8%). The reverse is the case for private formal sector which engages 17.6% of working population; the proportion of male working population is higher relative to their female counterpart; 23.7% against 11.6% (PHC, 2010). This justified the selection of the metropolis as the study area. Figure 3 shows the map of the district.

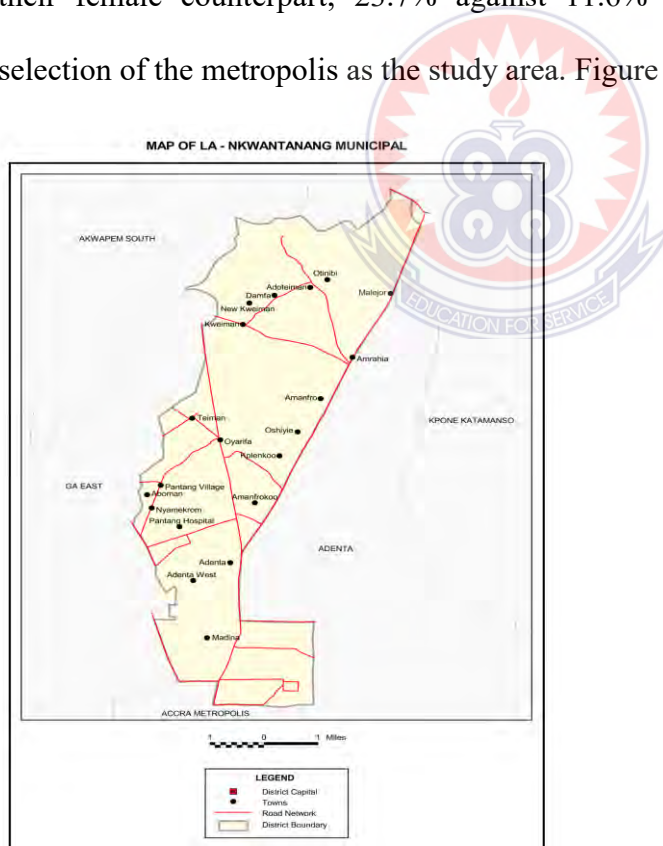


Figure 3: Map of La Nkwantanang-Madina Municipal

Source: PHC, 2010

3.4 Population

The target population for this study are graduates of any Technical and Vocational Education Training (TVET) institute in the country, who are working with industries, institutions and Small and Medium Enterprises (SMEs) within the La Nkwantanang-Madina municipality, of the Greater Accra. The total number of the population was 3,716. This according to the 2010 PHC were the people identified to be those in the plant and machine operators and assemblers' occupation.

3.5 Sample and Sampling Techniques

According to Israel (1992) and Sarantakos (2005), a sample size should be a carefully a selected unit, which is a true representation of an entire population. Therefore, in estimating the appropriate sample size to be used for the primary data collection for the study, the research adopted the formula by Cochran (1977) which according to Stephanie (2013) allows the sample of a population to be done with a desired degree of accuracy. To mention a few, Kothari (2005), and Daisy (2018) and many others used the Cochran's (1977) formula and it is stated as follows:

$$n = (Z - score)^2 * \frac{Std. Dev * (1 - Std. Dev)}{(e)^2}$$

Where n is the sample size, the Z-score representing the confidence level at 99% thus representing (2.326), Std. Dev is standard deviation; 50% and 'e' representing the error of margin estimated at 10% (0.1).

$$n = (2.326)^2 * \frac{0.50 * (1 - 0.50)}{(0.1)^2}$$

$$n = 5.410276 * \frac{0.25}{0.01}$$

$$n = 135$$

The sample of this study is thus one hundred and thirty-five (135) respondents.

In administering the questionnaire to the respondents, both probability and non – probability sampling procedure was used in collecting the study’s primary data. Under the probability sampling, the cluster sampling technique was used to divide the La Nkwantanang-Madina municipality into four clusters. Specifically, the study used a two-stage cluster sampling, as this made selection of individuals from each cluster to be randomly selected for inclusion. For fair representation, approximately at least thirty-three (33) respondents were identified in each cluster. The cluster sampling is thus convenient for this study, as it covers a wide geographical area. Since the researcher is not preview to know all workers who are alumni of TVET institutions working in the La Nkwantanang-Madina municipality, within each cluster, the snow-ball sampling which as a non-probability sampling technique, was used to select respondents based upon referral from prior respondents.

3.6 Research Instrument

The instrument that was used in eliciting information from the respondents was questionnaire. The reason for using a questionnaire is that, it provides a relatively cost-effective, quick and efficient way of obtaining large amounts of information from a large sample of people. Also, it helps obtain both quantitative and qualitative data.

The questionnaire contained ten questions and it’s divided into two sections. The first section contains the bio-data questions of the respondents. Questions in this section were close-ended. Questions such as sex, period graduated from a TVET school, employment status, category of employee and among others were asked in this section. The second section was developed with the aim of enquiring from respondents the possibility of identifying whether TVET has reduced unemployment

and has helped increased productivity and standard of living among youths. Questions under this section were either open-ended or close ended. Questions such as name of TVET schools attended, longevity it took to get employed and others were asked in this section. A five likert scale question with the options; strongly always, agree, uncertain, disagree and strongly disagree was presented to respondents to choose from identifying the difficulty of acquiring a job after school and has their program of study been beneficial in reducing unemployment rates.

3.7 Validity and Reliability

Reliability test were carried out using Cronbach's Alpha to check for the reliability of the questionnaire before administration. The questionnaire designed for the study was subjected to a validation process. In the validation process of this study a copy of the questionnaire was given to our supervisor. Expert opinions from our supervisor were sought to determine the face, content and construct validity of the instrument. He went through the questionnaire, carefully to ascertain the appropriateness and adequacy of the instrument. However, the other useful observations and suggestions by our supervisor were modified and the corrections were made.

3.8 Data Collection Procedure

The questionnaires were administered to the target sample of staff of companies at Madina Municipal Assembly. The questionnaire was presented to the respondents stating clearly its purpose and guidelines. Some of the questionnaires were gotten on the day of administration. Also, a trained staff of one company of Madina Municipal Assembly was assigned to take care of the collection of the rest of the questionnaires after they have been completed by the respondents. In all, a total of 135 number of questionnaires were secured. A period of 21 days was used in data collection. The

questionnaire administrations were done directly to the respondents in their various companies and were permitted ample time for them to complete it for the researcher to revert them for assembling the completed questionnaires.

3.9 Data Analysis

Data was analysed using percentages/frequencies and charts/graphs.

3.10 Ethical Consideration

According to Berg & Lune (2016), ethical issues are concerned with “issues of harm, consent privacy and data confidentiality”. It is therefore imperative for a researcher to have an ethical consideration for the study population. Permission letters is sought from the department gain to access respondents has clearly defined that the purpose of the study would be purely academic, that the privacy of the participants would be protected, and that the study would not in any manner disrupt regular activities at the workspace. In order to prevent respondents’ rights from being infringed upon as well as giving out respondents’ personal information to a third party, the study did not ask of respondents’ personal information’s on the questionnaire such as their names, house numbers, any means of contact, and location of their business among others. The dignity and wellbeing of respondents was protected at all times. Respondents were assured of confidentiality with surety statement which was indicated on the questionnaire. Consents of the respondents were also sought to ensure that the study’s questions will not be imposed on them against their will. To minimize any suspicions on the part of the participants, the letters clearly indicated that the findings would not be used for political purposes. The findings would be beneficial to technical and vocational education and training (TVET) schools and programs and, by extension, the growth and development of the Ghanaian economy.

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION OF RESULTS

4.0 Introduction

In this chapter, the empirical results and discussions on the contextual interpretation of the impact of TVET in reducing unemployment among the Ghanaian youths as a stimulant of productivity is juxtaposed with the data collected.

4.1 Data Analysis of Alumni

Within this section, statistics data analysis of graduates from TVET institute are considered and discussed in line with the scope of the study.

Table 1: *Number of TVIs and Enrolment*

		2012/13	2013/14	2014/15	2015/16	2016/17
Public institutions	GES	45	45	45	45	47
	Others	62	73	75	64	73
Private institutions		74	68	65	55	58
Total institutions		181	186	185	164	178
Public enrolment	GES	36,830	27,166	32,230	38,459	45,215
	Other	12,015	8,183	6,596	9,897	9,217
Private enrolment		12,651	5,716	3,687	4,815	4,678
Total enrolment		61,496	41,065	42,513	53,171	59,110

Data Source: MOE ESPR, 2017

From Table 1, it can be seen that, while the total number of TVET public institutions has increased rapidly since 2012/13, there was a short dip in 2015/16, which accounted for entirely by a decline in ‘other’, non-GES TVET institutions. However, 2016/17 recorded an increase again, restoring the total public TVET institutions to the same level as 2014/15, at 120. The number of private TVET institutions, on the other hand, has declined from 2012/13 to 2015/16, with a small increase in 2016/17. While public GES TVET institutions have barely increased, the number of SHS institutions has risen rapidly, thus since 2013 public SHS have outnumbered GES technical

institutions by 12:1. Nonetheless, total enrolment in TVET institutions has increased unsteadily since 2013/14, from just over 40,000 to just under 60,000 (Education Sector Analysis, 2018)

4.2 Sex of Alumni

In carrying out the study on the sex of alumni of TVET institutes with a sample size ratio of one hundred and thirty-five, the sexes of the respondents are summarised in Table 2.

Table 2: *Sex of Alumni*

Sex	Frequency	Percentage
Males	54	40
Females	81	60
Total	135	100.0

Source: Field Data, 2021

From the Table 2, out of the 135 questionnaires administered, 81 of the participants were females representing 60% and 54 of the participants were males representing 40%. The reason for the high figure of females than males is attributed to the ministry of Children and gender as well as other women activists advocating for women empowerment and the need for parents to send their girl child to school to be educated and earn a living to support their families.

The study probed into how long graduates have graduated from their institute. The summary of the findings is presented in Table 3.

Table 3: *Year of Graduation*

How long graduates graduated	Number of Respondents	Percentages
A year ago	43	32
2 years ago	28	21
3 years ago	54	40
4 years ago	10	7
More than 4 years ago	0	0

Source: Field Data, 2021

From the Table 3, students who graduated three years ago had the largest share of how long students graduated from their school with 54 respondents representing 40%. This is followed by graduates who graduated the previous academic a year ago, with 43 respondents representing 32%. The reason is that those who graduated a year ago and those who graduated three years ago, were still students of the institute, with the former being in their first year and the latter being their final year. Consequently, within the Ghanaian schooling context, the relationship/bond between first and final year students of any institution is established for life. Hence by means of the snowball sampling technique, graduates who graduated a year ago were able to locate those who graduated three years ago before them, since majority were in contact with each other. Graduates who graduated two years ago and four years ago, had 28 and 10 respondents, representing 21% and 7% respectively.

4.3 Employment status of graduates

With regards to the work situation of the graduates, respondents of this category were asked if they were currently employed or not. Their responses are summarised and presented in Figure 4.

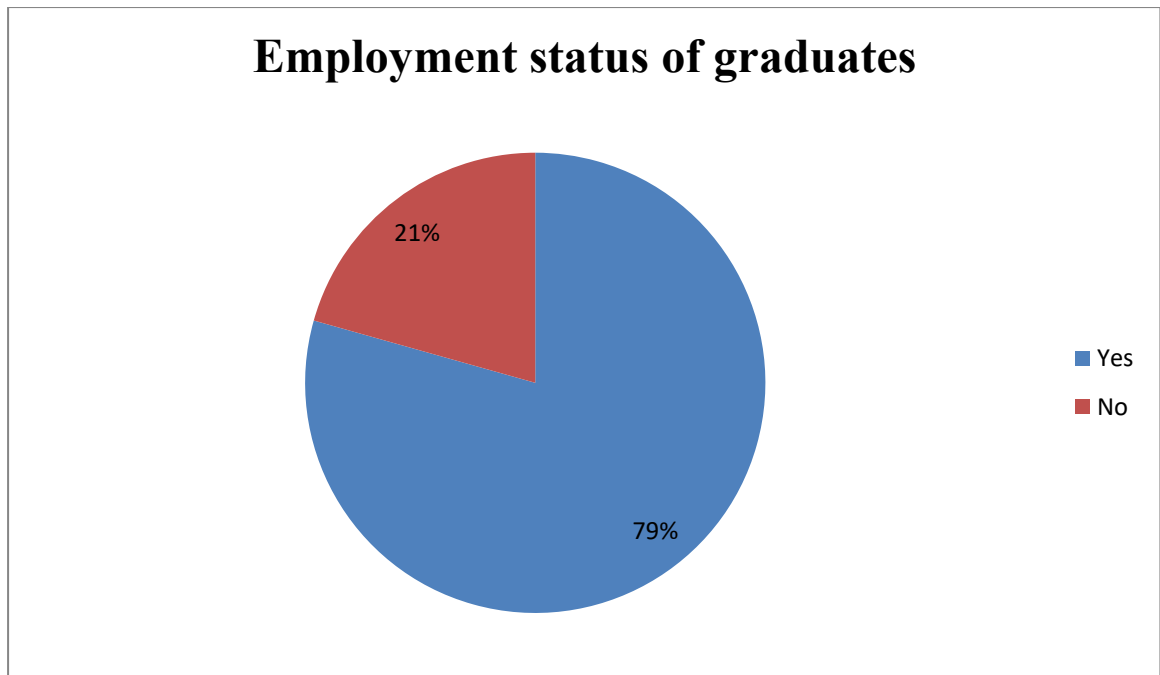


Figure 4: Employment status of graduates

Source: Field Data, 2021

Out of 135 respondents, 107 representing 79% of the respondents attested to the fact that they were currently employed, while 15 of the respondents, representing 21% indicated they are still looking for a new job but they were once employed yet decided to resign due to some personal reasons. Out of those who were employed, fifty-nine of them, thus representing 55% were self-employed, twenty-seven, thus representing 25% were permanently employed as employees and twenty-one thus representing 20% were temporary employed in the form of apprenticeship.

By answering the study's research question on to what extent has TVET reduced employment within the municipality, the research results without any reason of doubt does proof that, TVET has reduced unemployment rate by 79%. The conforms to the findings of Saleh (2017) whose results indicated that vocational and technical training contributed to the likelihood of unemployment rate decline in the USA. The higher the percentage of people who completed vocational and technical training, the lower

the unemployment rate. The study also does agree with the statement made by UNESCO's former director-general Irina Bokova (2013) that, "*We are witnessing a young generation frustrated by the chronic mismatch between skills and work. The best answer to the economic downturn and youth unemployment is to ensure that young people acquire the basic skills and relevant training they need to enter the world of work with confidence.*" Similarly, the result is in line with that of Yoonseon (2021) findings, which revealed that TVET programs alone had a positive effect on individuals' income and employability.

With 79% of the respondents indicated been employed also did respond that, they are more productivity at their respective workplace and duties given to them by either their employers or supervisors' than their fellow employees' who did attend any vocation and technical training or those on the 'traditional apprenticeship' pathway. This thus indicates that, productivity is thus increased by employees who have TVET education answering the study's second research question. The result finding is in line with the work of Das (2019) who indicated that TVET appears to be a key lever in tipping a workforce towards high productivity hikes between 17.6% - 36.9%. This thus confirms that, an improved quality and availability of vocational and technical education and training can engender a "virtuous circle" in which skills development fuels innovation, productivity, investment and enterprise development, diversification of the economy and competitiveness that sustain and accelerate the creation of more and better jobs.

Table 4: *How long it took to be employed*

Duration	Responses	Percentages
Less than 6 months	22	20.5%
Between 6 months to 1 year	51	48%
Between 1 year to 1 and half year	22	20.5%
Between 1 and half year to 2 years	12	11%
More than 2 years	0	0%

Source: Field Data, 2021

With the 107 graduates' respondents who indicated that, they were employed. The study investigated how long it took them to become employable. Their responses are summarised and presented in Table 4.

From the Table, majority of the currently employed graduates who got their job between six months to a year after graduating from school were fifty-one representing 48%. Those who got employed after graduating within less than 6 months and between a year to one and half year were both tied at 22 respondents representing 20.5% respectively. 12 respondents representing 11% got employed between one and half year to two years after graduating from school.

4.4 Monthly Income

With the 107 graduates' respondents who indicated that, they were employed. The study estimated on the average their monthly income. Their responses are summarised and presented in Figure 5.

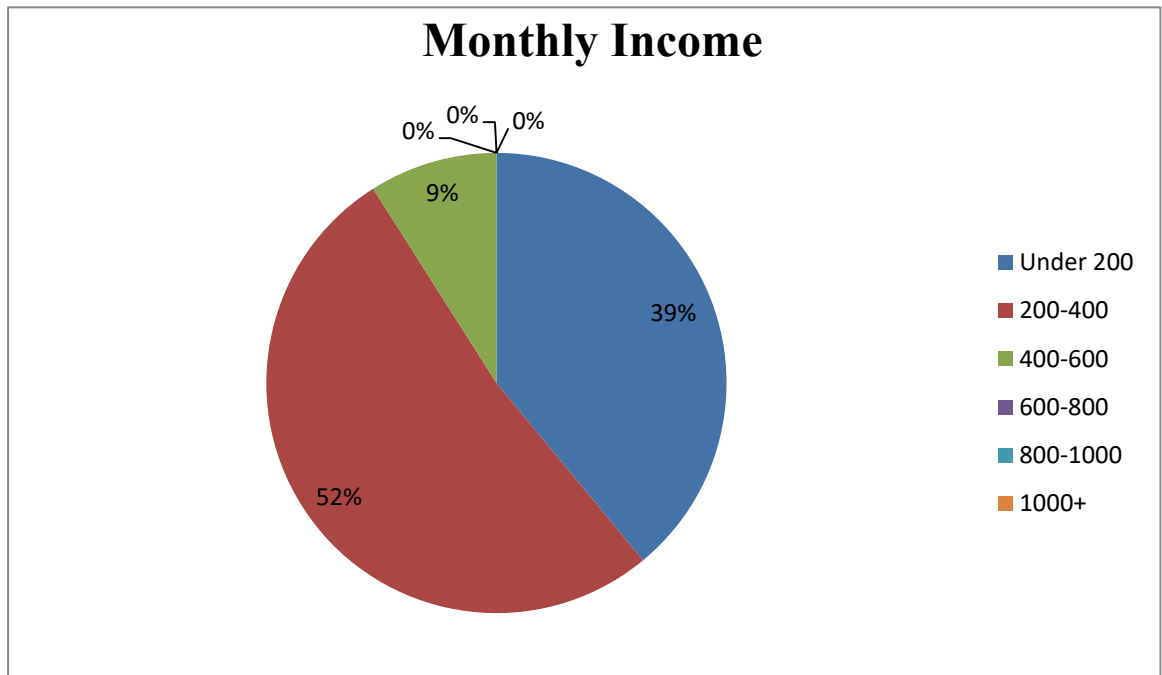


Figure 5: Monthly Income

Source: Field Data, 2020

Respondents were asked to tick a range that best suits their monthly income. More than half of the respondents representing 52% indicated that they earn a monthly income between the range of GhC200 been the minimum and GhC400 been the maximum. By dividing the number of days in a month (31 days) on the minimum and maximum wages that majority of the graduates indicated to earn, gives a daily minimum wage of GhC6.45 and a maximum wage of GhC12.90. Currently, Ghana's minimum wage rate is estimated at GhC5.24, which is below the study's estimated minimum wage for graduates earning GhC200 as their minimum monthly salary when compared. Therefore, majority of the graduates earn a decent salary.

Respondent who indicated that they earn a monthly salary below GhC200 were 39%. Respondents further indicated that, they are classified as apprentice, hence these monies given to them as incentives to be used for their transportation to work. Therefore, after their apprenticeship training, they will earn much more. 9% of the

respondents had a monthly income between the ranges of GhC400 to GhC 600. None of the respondent indicated that they earn more than the GhC600.

From the above, with 61% out of the 100 respondents who are actively employed, earning a minimum of GhC200 and a maximum of GhC600, the study does conclude that TVET does improve the standard of living of the youths who have acquired vocational or technical training. This thus indicate the importance of TVET for promoting increase of productivity and sustainable development among the youth. Reflecting from the study findings, it does indicate that TVET has gained momentum at the municipal level and for that also on the regional, national and global levels (Paryono, 2017).



CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

The chapter provides the conclusion to the study and consist of the summary of findings and recommendations based on the findings.

5.1 Summary of Findings

The study examined the impact of technical and vocational educational education (TVET) on youth unemployment in Ghana within the La Nkwantanang-Madina municipality, of the Greater Accra Region. The target population for the study were graduates of any Technical and Vocational Education Training (TVET) institute in the country, who were working with industries, institutions and Small and Medium Enterprises (SMEs) within the municipality. A total of one hundred and thirty-five respondents were used for the study analysis. Both probability sampling technique (cluster sampling) and non – probability sampling procedure (snow-ball sampling) were used in collecting the study's primary data. The instrument that was used in eliciting information from the respondents was questionnaire.

The study findings indicated that, out of one-hundred and thirty-five graduates, one hundred and seven of them representing 79% of the respondents attested to the fact that they were currently employed. Furthermore, sixty-one out of the one hundred respondents who are actively employed earn a minimum of GhC200 and a maximum of GhC600, which gives a daily minimum wage estimated at GhC6.45 which is above the country's' accepted and approved daily minimum wage rate of GhC5.24. This thus indicates that, TVET does reduce unemployment rate in Ghana and increases

productivity among the youth in the country as well as improving their standard of living.

5.2 Conclusion

From the results of the analysis, it becomes obvious that, TVET plays a significant role in the reduction of youth unemployment rates in Ghana as well as improving their standard of living. If the sector is made more attractive in terms of improving infrastructure and the resource the facilitators by providing them the needed teaching and learning materials, this sector of education will not only be accessed by low-middle income to low-income families. With the cost of tertiary education been on the high and the possibility of been unemployed after tertiary education, this educational system (TVET) will be more appealing not just for low-income families but also middle to high income families who have a passion for some of these trades that TVET offer; hence there is a need for enhancement.

5.3 Recommendation

The study recommends that the government especially should encourage industrial development. As part of the efforts to create demand for technical and vocational skills, it is important for COTVET to address gaps between the supply and demand of skills. To develop the necessary links between industry and training, improved labour market information is essential.

The COTVET and the Ministry of Education should work together in creating the awareness of the benefits of technical and vocational education. The campaign should focus on sectors where the financial and career benefits of pursuing a TVET-related career are clear. It should also target those trades that are socially stigmatized, such as hairdressing and beauty therapy.

The issue of credit for start-up capital for graduates is important to enhance self-employment opportunities. The Government could consider integrating the skills development fund with credit provision to micro and small enterprise establishment.



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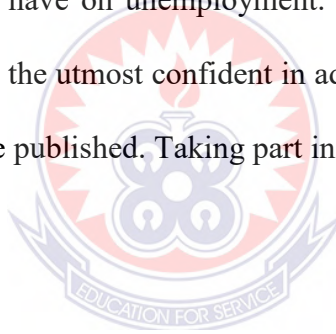
APPENDIX

QUESTIONNAIRE

Dear Head,

This questionnaire is meant to collect data for a study being conducted by Frederica Quarcoo a student from University of Education, Winneba in connection with a Postgraduate Diploma dissertation title ‘the impact of technical and vocational education (TVET) on unemployment in Greater Accra region of Ghana: a case study of Companies in Madina Municipality’. The information provide will help the researcher, the government and other stakeholders to understand the impact technical and vocational education have on unemployment. You are assured that information you provide will be given the utmost confident in addition to non – disclosure of your identity should the data be published. Taking part in this study is however voluntary.

Thank You.



INSTRUCTIONS: Kindly tick (✓) the appropriate boxes and write in the spaces provided below in response to the questions.

Section A: Bio data

1. Sex:

Male [] Female []

2. Name of TVET institution graduated from

3. Year of graduation:

A year ago [] 2 years ago [] 3 years ago [] 4 years ago [] More than 4 years ago []

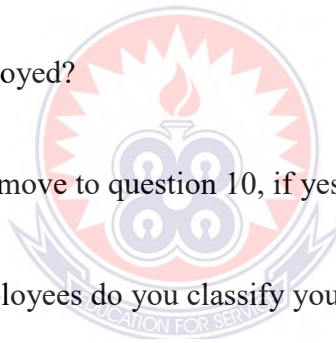
4. Are you currently employed?

Yes [] No [] If No move to question 10, if yes move to question 5

5. Which category of employees do you classify yourself in?

Self-employed [] Permanently employed [] Temporarily employed []

Apprenticeship []



Section B: Has TVET reduced unemployment and helped increased productivity and standard of living among the youths.

6. How long did it take you to find a job after graduating?

Less than 6 months [] Between 6 months to 1 year [] Between 1 year to one and half year [] Between one and half year to 2 years [] More than 2 years []

7. Was it difficult in getting employed?

Strongly agree [] Agree [] Uncertain [] Disagree [] Strongly disagree []

8. Your current job is it related to what you studied at school:

Yes [] No []

9. On the average how much do you earn monthly :(in Ghana cedis)

Less than 200 [] 200-400 [] 400-600 [] 600-800 [] 800-1000 []

10. What are your views on TVET in Ghana?

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