

ASSESSING THE FACTORS FOR REBRANDING TECHNICAL AND  
VOCATIONAL EDUCATION FOR NATIONAL DEVELOPMENT IN GHANA

By

Reginald Aboagye

(BBA Accounting)

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## **ABSTRACT**

Despite the persistent request from the International Community and stakeholders of TVET to embrace TVET for sustainable livelihood and development, enrollment in TVET institutions in Ghana is still very low. TVET in Africa is far from achieving the desired goals as there is still declining trend in labour force participation for the youth. Besides, many studies on TVET in Ghana have largely focused on the prospects and challenges of TVET in reaching targets, with limited emphasis on the possibility of stakeholders doing something different in an attempt to rebrand the programme. This study therefore seeks to examine factors for Rebranding of TVET for National Development in Ghana. The quantitative study involved the survey of 156 tutors and 54 administrators of TVET institutions selected through multistage sampling method. Data collected using structured questionnaires were analyzed through descriptive methods, relative importance index and Kendall's rank test. The study revealed enormous lapses in the design of the TVET programme as it exhibits low level of local partnership and poorly funded. The content and curriculum of TVET was also bereft of entrepreneurial skill development and provide low level of linkage between industry and institution in the delivery of TVET education. The main challenges of the TVET programme to national development include inadequate funding, poor condition of service for TVET teachers, derogatory remarks about TVET students and graduates, poor image and status of TVET, unavailability of consumable materials for practicals, poor maintenance culture and others. The governmental strategies perceived to be critical in the rebranding of TVET in Ghana include offering legislative backing to national TVET policy, mainstream vocational education into the general education system, and set up venture capital to support TVET graduates. Parents and guardians could also lobby politicians in favour of TVET.

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## **DEDICATION**

I dedicate this work to the Almighty GOD.

## CHAPTER ONE

### INTRODUCTION

#### 1.1 BACKGROUND TO THE STUDY

The acquisition of skills and knowledge are generally perceived as the driving force of national development (Ayonmike, Okuwele & Okeke, 2013). It is emphasized that knowledge alone is not adequate for economic growth and social development but needs to be complemented by skills (Bewaji, 2013). Several nations, Ghana inclusive have therefore identified Technical and Vocational Education (TVE) as a critical means of providing quality education in the form of technology and related science and practical skills and knowledge to the youth to eradicate poverty and nurture self-reliance and sustainable livelihood (Moss & Liang, 1990; Ogbuanya & Oluwasola, 2015). TVE has been defined as the training of individuals for the implementation of technological development of a nation by providing the citizens with the right skills necessary for employment (Alam, 2008). TVE is also seen as a means of preparing for occupational fields and effective participation in the world of work (Ayonmike, 2016). It is perceived as an educational programme for producing skilled manpower for the various sectors of a nation's economy and hence creating jobs for citizens and improving the economy through wealth generation (Ayonmike, 2016).

TVE in Ghana is rooted from the missionary activities in the 1830s (Amedorme & Fiagbe, 2013). The missionary schools during the colonial era offered children training in crafts like blacksmithing, masonry, and carpentry. The Governor of Gold Coast between 1914 and 1927, Sir Gordon Guggisberg proposed sixteen principles of education that demanded

trade schools to provide literacy and technical education to equip young men with the needed skilled artisanship and citizenship behavior (Mc-William & Kwamena-Poh, 1975). With the desire of improving the socio-economic life of the people, four government trade schools (technical and vocational schools) were established in the Eastern, Ashanti, Central and Greater-Accra regions in 1922; and later in Yendi in the Northern region in 1925 (Kemevor & Kassah, 2015). In an attempt to meet the labour demand of industry, the Government increased the number of schools to eight in 1956 from the five in 1953 to train sufficient skilled labour. The school were renamed 'Technical Institutes' in the course of these developments and later awarded the City and Guilds Certificate (UNESCO, 1984). Subsequent Governments of Ghana after independence have reformed and restructured the educational system with much emphasis on Technical, Vocational Education, and Training (TVET) in an attempt to enhance the relevance of the educational system to industry and general world of work, minimize unemployment and poverty through the boosting of the informal economy (Agbenyo, 2010). The Government of Ghana recognizes the role of TVET in rapid economic growth and hence emphasizes on TVET in the Ghana Poverty Reduction Strategic (GPRS). The basic orientation and philosophy of the Ghana vision 2020 is to realign TVET with national goals and aspirations as well as local and global demands (Ansah & Kissi, 2013).

Notwithstanding these developments, the level of entrepreneurship among the Ghanaian youth is very low as the educational system including TVET primarily trains the youth for white-collar jobs with limited focus on skilled labor and entrepreneurship. TVET is generally marginalized, as it is perceived to lead to blue-collar jobs that are less prestigious

and of low-status (Dzeto, 2014). Many parents including TVET teachers in Ghana are therefore less willing to allow their wards to study TVET programme due to the mystification and stigmatization of the programme (Amedorme & Fiagbe, 2013). At the base of the problem is that Ghana is unable to steer larger share of secondary and higher education students into technical and vocational studies relative to countries in the developed world and even compare to its neighbours in Africa (Maiga, 2013). Ghana's share of entry into TVET is as low as 13.2% compare to the 53.2% of Germany, 55.1% of Finland, 20.9% of Burkina Faso and 22.4% of Cameroon (Maiga, 2013; Dzeto, 2014). Besides the low entry, the quality of the TVET programmes in Ghana is questionable, as it has woefully failed to produce well-equipped graduates to neither meet the human resource needs of industry nor equip them to be self-employable (Gale, 2011; Aryeetey, Bortei-Doku, Doh & Andoh, 2011; Asare-Danso, 2014; Ogbuanya & Oluwasola, 2015). It is therefore evident that the TVET programme in Ghana requires rebranding and restructuring in order to achieve the desired national development.

## **1.2 PROBLEM STATEMENT**

Despite the persistent request from the International Community and stakeholders of TVET to embrace TVET for sustainable livelihood and development, enrollment in TVET institutions in Ghana and Africa at large is still very low (Baah-Boateng & Baffour-Awuah, 2015). TVET enrollment in secondary level of education in Sub-Saharan Africa (SSA) was about 8 percent in 2010 relative to the 12 percent for countries in Asia (African Transformation Report (ATR), 2014). According to the report of the African Centre for Economic Transformation (ACET), the TVET enrollment of Ghana of 13.2 percent in 2009

was extremely low compared to the 53.2 percent of Germany, 55.1 percent of Finland, 72.2 percent of Angola, 59.5 percent of Ethiopia, 20.9 percent of Burkina Faso and 22.4 percent of Cameroon (Maiga, 2013). This phenomenon is largely attributed to the mystification and stigmatization of TVET education in Ghana with many parents and guardians less willing to allow their children pursue TVET programmes due to its limited academic opportunities in academic progression and the characterized low level of prestige (Osuanya, Agyarkoh, Sumaila & Patrique, 2014; Ayonmike & Okeke, 2018). As a result, TVET in Africa is far from achieving the desired goals as there is still declining trend in labour force participation for the youth from 53.8 percent in 1998 to 48.8 percent in 2011 (Kathure & Mbijjiwe, 2014).

In spite of some progress, Technical and Vocational Education and Training Institutions in Africa are still too theoretical and are not providing the real skills needed for the world of work. The participation of the youth in the labour force in Ghana is low (22 percent) and persistently decreasing (Baah-Boateng & Baffour-Awuah, 2015). In Ghana, youth unemployment has risen steadily from 9.53% in 2008 to 13.7% in 2018 reaching a peak of 14.1% in 2015 even in the phase of several reformations in the TVET programme (Plecher, 2019). Many as the missing link in Ghana's industrial development (Nsiah-Gyabaah, 2007; Ansah & Kissi, 2013) perceive the neglect of TVET. Notwithstanding the recognition of TVET as critical educational sub-sector in the industrial development of Ghana, teaching and learning has persistently declined in quality with the associated outdated training content (Ansah & Kissi, 2013). TVET institutions have obsolete and inadequate facilities and equipment, matched by equally obsolete academic curricula that do not keep up with

contemporary labour needs. Ghana's vision 2020 policy encapsulated in the GPRS with industrial development goals is perceived unachievable without TVET at all levels. The vision to produce quality TVET for economic growth, leadership and sustainable development has been counterproductive through the commitment of TVET in Ghana to the Council for Technical and Vocational Education and Training (COTVET). Head-on learning by teachers is generally the form of teaching taking place at present in Ghana. The combining of practical exposure with theoretical training to produce highly skilled and qualified manpower for industry is proving difficulty for many TVET training centres. Evidently, Ghanaians therefore have low level of confidence and faith in TVET as a concrete government policy for national development and poverty reduction. It is therefore evident that the TVET framework requires rebranding in order to attain the desired national development goals.

Besides, many studies on TVET in Ghana have largely focused on the prospects and challenges of TVET in reaching targets (e.g., Amedorme & Fiagbe, 2013; Kemevor & Kassah, 2015; Odoom Payne & Boateng, 2016; Ogbonda & Wobi, 2016), with limited emphasis on the possibility of stakeholders doing something different in an attempt to rebrand the programme to make it more attractive and first career choice among the many youth in Ghana. This study therefore seeks to abridge this research gap by investigating the possibilities and opportunities for rebranding the TVET programme to optimize national development.



### **1.3 AIM OF THE STUDY**

The aim of this study was to investigate the opportunities for rebranding TVET programme in Ghana.

### **1.4 RESEARCH OBJECTIVES**

The specific objectives of the study were to:

1. To identify the role of TVET in national development in Ghana;
2. Identify the challenges hindering the significance of TVET to national development;  
and
3. Identify the strategies key to the rebranding of TVET in Ghana.

### **1.5 RESEARCH QUESTIONS**

The questions the study seeks to investigate are:

1. What is the nature and scope of TVET in Ghana?
2. What is the role of TVET in national development in Ghana?
3. What factors are hindering the significance of TVET to national development in Ghana?
4. What are the key factors to the rebranding of TVET in Ghana?

### **1.6 SIGNIFICANCE OF THE STUDY**

This study would provide information significant to several stakeholders like the Government, industries, TVET Institutions/Providers, Ministry of Education (MoE), Ghana Education Service (GES), the National Vocational Training Institute (NVTI), students, TVET lecturers, and future researchers. This study would provide adequate

information to policy makers and implementers like the MoE, GES and the Technical and Vocational Education Division (TVED) of GES to restructure the TVET framework, adopt strategies to improve TVET quality and rebrand the programme to increase enrollment, minimize stigmatization and marginalization and maximize the significance of the programme to sustainable livelihood and national development. Thus, the findings of the study could guide policy makers in their attempt to meeting the Sustainable Development Goals (SDGs 1, 4, 8, 9, 10, 12) of ending poverty (Goal 1), guaranteeing comprehensive and equitable quality education and stimulate lifelong learning opportunities for all people (Goal 4), promoting sustained and sustainable economic growth and decent work for all (Goal 8), promote inclusive and sustainable industrialization and foster innovation (Goal 9), reduce inequalities within and among countries (Goal 10) and ensure sustainable consumption and production patterns (Goal 12) by 2020. The TVET institutions in Ghana would also be guided by the study to strengthen their position in the educational system of Ghana by providing more quality education in order to turn out more skilled manpower qualified to meet the demands of the job market or even set-up their own businesses. TVET lecturers could also benefit from the study through the strengthening of their capacity to provide quality TVET to make the programme the first choice of the many Ghanaian youth. Thus, any form of improvement in the TVET programme will eventually be to the benefit of students in the form becoming more employable or capable in terms of entrepreneurial skills or capacity.

Furthermore, future researchers would also be provided information on key factors required in the rebranding of the TVET programme in Ghana to make it the first choice

educational programme for the many Ghanaian youth as the many studies on TVET in Ghana have largely focused on the challenges of the programme without exploring the strategies available to stakeholders in the rebranding of TVET.

### **1.7 SCOPE OF THE STUDY**

Conceptually, the study focused on the nature and scope of TVET in Ghana, the role of TVET in national development, factors hindering the significance of TVET to national development and the key factors to the rebranding of TVET in Ghana. On the other hand, the study geographically focused on TVET institutions in Ghana. Participant were also largely TVET professionals like TVET lecturers/tutors and TVET administrators.

### **1.8 METHODOLOGY**

The study was largely defined as descriptive cross-section in terms of design. The survey strategy involving data collection through questionnaire instrument was also employed.

The study was also perceived generally as quantitative in approach as the emphasis of the study was testing theories on TVET quality through the reliance on realistic information and hence positivist philosophical paradigm. The population of the study constituted TVET lecturers/tutors and TVET administrators

.in the TVET institution in Ghana. The proposed sample of the study was 150 TVET professionals in the form of 120 TVET lecturers/tutors and 30 TVET administrators in some Tertiary Institutions. The sample calculation involves the usage of the De Vaus (2002) sample size proportion formular and subsequently the Krecjie and Morgan (1970) formula for sub-sample sizes. The participants were sampled through a multistage

sampling procedure. The first stage involved the stratification or the clustering of the study sample into TVET lecturers/tutors and TVET administrators. In the second stage, simple random by balloting procedure were employed to sample the calculated sub-sample sizes from each stratum. The developed questionnaire was validated in terms of face and content. Face validity will involve consultation with TVET professionals in the selection of measurement items in the design of the questionnaire. Content validity will also involve enormous reliance on previous studies on TVET. Internal validity was also be checked through factor analysis. The descriptive and inferential statistical tool was used in analyzing the data. Descriptive statistics included frequencies, percentages and mean scores while inferential statistics include spearman's correlation and multiple regression

## **1.9 ORGANIZATION OF THE CHAPTERS**

The study constitutes five key chapters. The first chapter, Chapter One encompasses the introductory part of the study. The chapter largely focused on the background to the study, the problem statement of the study, the aim or purpose of the study, the specific research objectives, the significance of the study, scope of the study, and methodology. The Chapter Two reviewed literatures related to TVET. The areas captured in the chapter were the concept of TVET, the historical development of TVET programme in Ghana, the nature and scope of TVET in Ghana, the role of TVET in national development, the factors hindering the significance of TVET and the factors key to the rebranding of TVET. The Chapter Three encompassed the research design, research strategy, research approach, population of the study, sample size calculation, sampling techniques, data collection methods and instruments, method of data analysis and study area. The Chapter Four

presented the data result, analysed and discussed the result. The Chapter Five presented a summary of the key findings of the study, conclusions, managerial and policy recommendations.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 INTRODUCTION**

This chapter provides both theoretical and empirical review on the subject of TVET and national development. The areas captured in the chapter are the concept of TVET, the nature of TVET in Ghana, the role of TVET in national development, effect of TVET on national development, factors hindering the significance of TVET in national development and the factors key to the rebranding or restructuring of the TVET programme. The last part of the chapter largely emphasizes on the theoretical framework of the study linking TVET programme and national development.

#### **2.2 CONCEPT OF TVET**

Several views and opinions have been in the past years argued on the meaning and the place of vocational education both at the levels of primary, secondary and university respectively. These developments have created moves in the inclusion of some vocational subjects and courses in the curriculum of both pre-primary, post-primary and even tertiary institutions all with a view to achieve the needed employable skills in the development of the youths and the society at large. The term vocational and technical education is a comprehensive term referring to the educational process when it involves, in addition to general education, the study of technologies and related sciences and the acquisition of practical skills and knowledge relating to occupations in various sectors of economy and social life. The broad educational goals of vocational and technical education distinguish it from vocational training which is directed to developing the particular skills and related

knowledge required by a specific occupation or group of occupations (Anya & Neukar, 2004). TVET is also described as the training of individuals for the implementation of technological development of a nation by providing the citizens with the right skills necessary for employment (Alam, 2008). vocational and technical education has also been described by Lawal (2010) as that types of education that prepare people who could apply relevant practical skill to make positive changes within their society and afford a self-dependent life. In its broadest definition, TVET includes technical education, vocational education, vocational training, on-the-job training, or apprenticeship training, delivered in a formal and non-formal way (NICHE, 2010).

The term vocational education has also been described by Okoro (1993) as a form of education designed with the primary aim of preparing them for employment in recognized occupations. In this circumstance, vocational education is seen as a precursor of skills, knowledge and attitudes necessary for effective employment in specific occupations. Nevertheless, Okorie (2001) sees vocational education as that type of education, which develops the mental and physical qualities of people thereby increasing their skills, knowledge and attitudes required for utilizing the natural resources needed for economic development of the nation and for their own self-employment. Vocation education is further described to encompass the preparation for employment in any occupation for which specialized education is required, for which there is a societal need, which can be most appropriately done in schools. It is concerned with the whole hierarchy of occupations from those requiring relatively short periods of specialized preparations such as clerks, typists to occupations requiring two or more of specialized such as inhalation therapist,

thus it includes the whole spectrum of labour force from semi-skilled to technicians and paraprofessionals (Enyekit & Enyenili, 2007). These definitions emphasize that vocational education have some peculiar features and characteristics that tend to enable or make a great landmarks in the development of the individual citizens in particular and the economy at large. TVET as a form of education is perceived to provide self-employment, enhance productivity and self-reliance. It seduce the over dependence of school graduates on government own jobs. Vocational and technical education gives individual the skills to live learn and work as productive citizen in a global society.

### **2.3 ROLE OF TVET IN NATIONAL DEVELOPMENT**

In order to enhance productivity, stimulate competitiveness, and bring about sustainable economic development, skills development is vital (Onderi, Ajowi & Malala, 2014). Technical, Vocational Education and Training (TVET) plays an important role in the provision of the skills, knowledge, attitude, and values needed for the development and has emerged as one of the most effective human resource development strategies that African countries need in order to train and modernize their technical workforce for rapid industrialization and national development (Onderi, Ajowi & Malala, 2014). TVET programme is therefore essential for sustainable industrialization and poverty reduction in terms of creating a critical mass of technically and entrepreneurially qualified people, who are able to stimulate investment opportunities, create jobs and increase competitive productivity, which can be ensured by a well trained workforce (ibid, 2014). TVET ensures this through its practical application as opposed to theory, and on acquisition of skills as opposed to acquisition of knowledge. TVET therefore prepares learners for careers based



on blue-collar and practical activities. It is a training opportunity in which the learner participates and directly develops specific skills and expertise.

Government of Ghana recognizes the strengthening of TVET as a means of developing the technical and skilled human resource base which the nation needs urgently as a key strategy for achieving higher national development (Ansah & Kissi, 2013). Vocational and technical education is a vehicle upon which the skills of workforce are built. Technical and vocational education and training (TVET) is generally perceived as a powerful tool for addressing multiple developmental challenges and fostering inclusive growth (OECD, 2018). In their paper, OECD (2018) reported that well-designed formal TVET programmes may be more effective than general (or academic) education for integrating marginalised groups (such as women and youth) into the labour market and improving their earnings. The paper further emphasized that informal and non-formal TVET initiatives can play a role in reducing poverty, inequality and social exclusion by offering disadvantaged and marginalised groups the opportunity to acquire work-relevant skills (OECD, 2018). Nonetheless, the paper indicated that TVET has not had a significant positive impact on the economic outcomes and social well-being of disadvantaged and marginalised groups in the ASEAN region due to low TVET participation rates, low public spending on TVET; poor TVET quality, especially in countries with low national income; and weak TVET relevance, owing to lack of engagement of key stakeholders, especially the private sector, in local TVET planning, design and implementation. Yet, despite these issues, recent evidence suggests that TVET is valued and well-regarded by employers in the region and

that many ASEAN countries have harnessed TVET's potential to promote economic and social inclusion.

There is also evidence that TVET and education in general plays significant role in bridging gender inequality (OECD, 2018). Secondary education produces higher returns for women than for men, so ensuring that girls remain in school until at least secondary education completion can lead to greater gender equality. A study on returns to investment in education across 42 countries found that, while men experience higher returns to primary education than women (20% versus 13%), women realize higher returns to secondary education than men (18% versus 14%) (Psacharopoulos & Patrinos, 2004). Women's secondary completion is also linked to a range of non-economic benefits. For instance, women who have completed secondary education have a lower probability of marrying early, dying during childbirth or contracting diseases (e.g. HIV/AIDS), and have a higher probability of having fewer children, having healthier children and sending their children to school than women with less than secondary education (World Bank, 2012; UNESCO, 2016a). These progressive trends explain why the UN Sustainable Development Goals (SDGs) emphasize the retention of all children in school until completion of secondary education (SDG 4, Target 1) (OECD, 2018). Studies also emphasize that possessing a TVET qualification can offer pathways to employment for women, thereby improving their living conditions. Evidence from Turkey suggests that secondary TVET has a much stronger positive impact than secondary general education on women's labour market participation rates and employment probabilities, although not their wage levels (Tunali, 2003). Nevertheless, women's employment – even at low wages can improve women's

social standing in their households and communities and reduce women's financial dependence on their male partners, making them less susceptible to domestic violence (World Bank, 2012).

TVET is perceived as the form of secondary education that produces the highest benefits for individuals and economies (OECD, 2018). Until recently, general education was considered the more lucrative track, since it teaches transferrable skills that can be applied across a range of occupations and tends to offer greater access to decent, well-paid jobs. However, the recent surge in global youth unemployment has been found to stem from 'skills mismatches' produced by an overly theoretical approach to education that does not supply the specific technical and vocational skills increasingly demanded by employers (Biavaschi et al., 2012; UNESCO-UNEVOC, 2013). Hence, in many countries, there is high youth unemployment at the same time as there are skills shortages in key sectors of the economy due to limited emphasis on TVET (ILO, 2014). In many countries in the ASEAN region, shortage of industry-ready skilled workers is one of the biggest challenges (ManpowerGroup, 2016; Song & Tang, 2016). It is further emphasized that the countries with the quickest education-to-employment transition rates among secondary TVET graduates are those with embedded dual apprenticeship systems, where school-based (vocational) education is combined with structured on-the-job training (Quintini & Manfredi, 2009). Evidence from Germany and France shows that apprenticeship training results in faster and more organised entry into the labour market than purely school-based TVET programmes, because closer links are established with the private sector (Bonnal,

Mendes & Sofer, 2002; Winkelmann, 1996). Thus, TVET graduates tend to have higher employment rates than general education graduates (Hanushek et al., 2017).

In terms of earnings, secondary TVET graduates seem to do as well as or better than secondary general education graduates over the lifecycle of their careers (OECD, 2018). Evidence from the United States shows that TVET graduates spend more time in employment, get better jobs and earn significantly more than their general education counterparts (Bishop & Mane, 2004). In European countries, the wage differential that once existed between the two educational tracks has now closed as a result of a growing demand for TVET skills (Cedefop, 2013b).

Studies comparing employment rates of TVET versus general education graduates at upper secondary school level in the European Union, at upper secondary and tertiary levels in the USA, UK and France, and between skilled vocational versus university graduates in Australia report that TVET tends to result in faster school-to-work transitions than general education (NCVER, 2001; Ryan, 2001; Cedefop, 2013a). However, the study of Ayonmike (2016) emphasized that the case of using TVET to create jobs and as well to generate wealth has largely been a myth as in some cases the TVET graduates lack employable and occupational skills. The study further indicated that some graduates with employable and occupational skills are still unemployed and this is perceived as a threat to the supposed job creation and wealth generation. Nonetheless, the study in conclusion emphasized that TVET is a viable instrument and tool for national development because of its roles in increasing human capital of any nation, as such more emphasis and attention should be

accorded to TVET by stakeholders such as government, TVET associations, industries, international organizations, philanthropists, and TVET professionals by providing the right human and material resources, infrastructures, curriculum, training facilities, and policies that will sustain TVET programmes in the country.

Reliable evidence on TVET's impact is especially scarce for developing countries, since rigorous evaluation exercises are costly to conduct (Kingombe, 2012). Nonetheless, the available evidence in the developing world suggest that informal TVET graduates have faster education-to-employment transitions than either formal TVET or general education graduates, as they are trained by employers in the largest sector of work in developing countries (Biavaschi et al., 2012). However, informal TVET graduates' employability is dependent on not only the relevance but also the quality of the training they receive, which can vary considerably across training providers: some apprentices may be taught by skilled master craftsmen who ensure that they receive high quality training to become master craftsmen themselves, while others may be exploited as cheap labour by trainers who fail to impart their skills to keep apprentices dependent on them (ILO, 2011). In most countries, informal TVET training is not certified or recognised, which limits graduates' labour mobility and access to further (formal) education, which in turn can affect their future employability and wage levels.

### **2.3.1 Effect of TVET on National Development**

TVET as educational programme is seen as bedrock for capacity building and poverty alleviation in developing countries (UNESCO, 2003; Ayo, 2007). Education has a strong

positive impact on individuals' employment prospects and wages, while secondary education is widely regarded as the minimum level required for securing and maintaining productive employment in today's complex globalised environment (OECD, 2018). Human capital theory, the dominant paradigm in the economics of education literature, posits that education and training make individuals more productive, which in turn increases their probabilities of being employed and earning higher wages (Carneiro, Dearden and Vignoles, 2010). Higher levels of education are linked to improved employment probabilities: for example, on average across OECD countries, 84% of tertiary graduates and 74% of upper secondary and post-secondary non-tertiary graduates are employed, compared to 56% of individuals without an upper secondary qualification (OECD, 2011). A strong significant relationship also exists between higher levels of education and earnings, with each additional year of full-time formal education translating into wage returns of around 8-10% (Card, 1999).

In terms of the impact of TVET on inequality, the meta-analysis of 113 impact evaluations representing 107 youth-focused interventions concluded that skills training programmes have had the greatest positive impacts on the most disadvantaged youth – those from low-income households, with low levels of education and/or exhibiting strong disadvantages in the labour market (Kluve, 2016; Kluve et al., 2017). It also found that skills training programmes often lead to an improvement in the quality of jobs (as measured by contract and job type) that participants obtain, especially in low- and middle-income countries. A review of youth training programmes in the Latin America and the Caribbean region found similar results: that the initiatives have had a greater positive impact on the labour market

outcomes of the most disadvantaged groups – such as women, the youngest and the least educated compared to other beneficiary groups (OECD, 2016).

In terms of the impact of TVET on social inclusion, impact evaluations also suggest that second-chance initiatives can promote inclusion and engender healthier and more peaceful attitudes and behaviours. Well-designed skills training interventions have been found to increase young people's economic, social and political engagement in addition to improving their employment outcomes (Offerdahl et al., 2014). Moreover, simply participating in non-formal TVET has been shown to raise the self-esteem and social standing of marginalised youth in fragile and conflict-affected settings (Petersen, 2013). Some of the reported positive impacts of multi-component second-chance initiatives – which combine, for example, TVET, life skills training, mentoring and conflict mediation – include better personal hygiene and protective sexual practices, decreased levels of depression and aggression, greater positivity about the future, less aggressive or violent behaviors, and a higher propensity among participants to contribute to their local community (USAID, 2013).

Studies show that second-chance initiatives with the following features have the greatest positive economic and social impacts. First, comprehensive interventions that combine in class learning with on-the-job training and labour intermediation services have more positive impacts on employability, earnings and especially job quality than programmes offering in-class training only (OECD, 2016; Fares and Puerto, 2009). Second, in terms of course content, programmes that include training in entrepreneurship and emphasise soft

skills as well as technical skills have a more positive impact on employability, especially in low- and middle-income countries, than programmes without these components (Kluve et al., 2017; Kluve, 2016). Holistic programmes combining TVET, literacy and life skills training have the greatest positive impacts on participants' economic and social wellbeing (Jimenez et al, 2007).<sup>14</sup> Third, entrepreneurship initiatives that offer start-up grants to mitigate the capital constraints faced by disadvantaged youth have a more positive impact on employability and business performance (profits and sales) than programmes without this feature (Kluve et al, 2017). Fourth, initial TVET programmes with a duration of four months or more, regardless of the number of training components that they include, have been found to have better labour market effects than shorter programmes (Kluve et al., 2017). Fifth, programmes that target specific groups and provide training stipends have been found to be more cost-effective than programmes with looser targeting and no participation incentives (OECD, 2016). Sixth, programmes that engage the private sector in their design and implementation have more positive impacts on employability, earnings and job quality than programmes with no private sector involvement (Jimenez et al, 2007; OECD, 2016). Finally, improving the articulation of second-chance initiatives with the formal education system by developing uniform standards and related testing and certification processes increase and extend programmes' positive impacts (Jimenez et al., 2007). In Ghana, a study carried out by Kemevor and Kassah (2015) in the Volta region reported that the introduction of TVET has minimized the level of unemployment and accelerated economic and social growth and development of Ghana. The study of Enyekit, Amaehule and Teerah (2011) reported that TVET is critical in building an appropriate



balance and critical mass of human resource base and providing an enabling environment for all individuals to be fully engaged and contribute to goals of an organization or a nation.

## **2.4 FACTORS HINDERING THE SIGNIFICANCE OF TVET**

Technical, Vocational Education and Training in Ghana is confronted by several challenges. The challenges are varying as some are related to teaching methods and materials, funding, national guiding framework, inadequate technical teachers or facilitators and institutional-related factors. For instance, in the qualitative research of Kemevor and Kassah (2015) that involved the survey of stakeholders such as parents, teachers, employers, government and private institutional heads, alumna and, students of second cycle institutions reported large class size in the few existing Technical and Vocational Institutions that is not matched with the supply and provision of training resources and the deplorable state of infrastructure and training facilities of the institutions and outdated training content as some of the critical challenges of TVET in Ghana. The TVET institutions were reported to lack adequate workshops, tools, equipment and materials for their practical works. Another critical challenges facing TVET in Ghana currently is the low prestige it enjoys from the public. Aside inadequate financing and negative perceptions, the socio-economic environment and the contextual framework within which technical and vocational education is delivered in Ghana is characterized in general by other factors such as huge numbers of poorly educated, unskilled and unemployed youth, uncoordinated, unregulated and fragmented delivery systems, low quality gender and economic inequities, weak monitoring and evaluation mechanisms, and poor management and ill-adapted organizational structures (African Union, 2007). These

challenges are perceived to reduce instructor's capacity to attract and sustain the attention of all students during demonstration lessons. The study of Amedorme and Fiagbe (2013) also indicated that challenges of TVET in Ghana ranges from the limited number of technical institutes available in the country through to the lack of facilities and materials for training students, inadequate technical teachers or facilitators, limited number of training institutions for technical teachers and difficulty in career progression to the negative public attitudes and perceptions towards technical and vocational education and training in Ghana. The study of Atchoarena and Delluc (2001) on TVET in Sub-Saharan Africa (SSA) reported several challenges of TVET including mismatch between acquired skills and market needs, widespread concern about poor quality training and training environments, and negative public attitudes and perceptions regarding technical and vocational education and training. The study of Appiah-Kwapong et al. (2017) also reported lack of entrepreneurial skill and start-up capital as the two major challenges facing students in TVET institutions in Ghana.

In terms of curriculum and national framework lapses, the study of Idris and Mbudai (2017) on the challenges of TVET in the Kano state of Nigeria reported that the curriculum of TVET is adequate in terms of content and also covers the skill element needed but it is lacking in terms of implementation towards achieving the desired national goals. The study further indicated that the curriculum favours technical colleges to be operated as training institution for the graduates to further their education but not for employment as designed by the policy because of the fewer number of practical periods allocated for the trade subjects.

The TVET sector is immensely affected inadequacy of funding in developing countries. Compared to JSS and SSS both in Ghana and internationally, TVET programmes are costly due to the higher need for equipment and materials (World Bank, 2009). In Ghana, the TVET programme is allocated about 1.5 percent of MoE's educational budget in the past few years, despite the higher unit cost (World Bank, 2009). This situation is worsened by the fact that Ghana spends only about 2.8% of its GDP on education in general (Haans, 2011). As a result of the insufficient funding, fewer than 30 percent of the TVET institutes are adequately equipped, while other programs suffer from various degrees of insufficiency in infrastructure, equipment, staffing and funding (Baffour-Awuah & Thompson, 2011). There is also a mismatch between the supplied labour and demanded labour as TVET programmes in Ghana tends to more theoretical (Ning & Shunde, 2013). TVET graduates lack the capability to work with modern technology

## **2.5 FACTORS KEY TO THE REBRANDING OF TVET**

The concept of rebranding in Management phraseology implies linking a name or trade mark with a product or service (Abdullahi, Abdullahi & Bello, 2012). A brand of product can only be rebranded if it is already in existence. Thus, the rebranding of the TVET programme involves the repackaging of the TVET programme to make it more attractive to all people and redesign the curricular to ensure achievement of targets.

TVET has failed to meet the target of productivity and national development due to discussed varying challenges of the TVET programme in the developing world. Poor implementation of TVET in many developing countries has been emphasized as major

challenge derailing the impact of the programme on national growth and development (Lawal, 2013). The study of Lawal (2013) therefore emphasized the need for the rebranding of the TVET programme from the basic level of education to the tertiary level of education. The Study of Abdullahi, Abdullahi and Bello (2012) in Nigeria also emphasized on the rebranding of the TVET programme through the re-orientation of the citizenry.

Based on the challenges of the TVET programme in many developing countries, some of the common factors perceived to be essential in the rebranding of the TVET programme are restructuring and adequate funding of the informal apprenticeships, provision of opportunities for TVET students to further their education to highest level, design the training of TVET to match the demand of the labour market, creation of awareness on the role of TVET in individual and national development, less emphasis on theory and more emphasis on practical, bridging the wage differential gap between the graduates of the normal school system and TVET graduates, programmes or courses in the TVET programme should match the labour market, and level of investment in TVET should match the normal educational sector.

Formal school-based TVET is a less prevalent form of skills training than are informal apprenticeships, which take place outside of the formal education system (Almeida, Anazawa, Menezes Filho, & Vasconcellos, 2015). The main reason for this is that in most developing countries a large proportion of young people do not complete lower secondary school, the minimum level for accessing most formal TVET programmes (Global Partnership for Education, 2014; Maclean and Pavlova, 2013). By contrast, informal TVET

which is provided by micro or small enterprises in the informal sector of the economy requires no formal qualifications and avoids the direct and indirect costs of formal schooling, making it the most accessible and cost-effective training route for young people from poor households. To rebrand the TVET sector, the government is recommended to restructure the informal TVET sector and invest sufficiently to make the sector more attractive.

More so, the practical skills and work experience of graduates from the non-formal sector, graduates of dual training programmes tend to have better job matches and attract higher wages at the beginning of their working life than graduates of purely school-based TVET programmes (Ryan, 2001). However, dual training graduates' relative wage advantage tends to decline or vanish over the longer term, resulting in lifetime earnings that are not discernibly different to those of purely school-based TVET graduates (European Commission, 2013). Dual training programmes produce declining returns compared to school-based TVET because of their greater emphasis on occupation-specific versus general skills (Hanushek et al., 2017). Thus, some studies highlight the importance of strengthening the foundations of basic knowledge taught in TVET to increase graduates' employability and wages over a longer lifecycle (OECD, 2006). Also, the redesigning and restructuring of the TVET programme is required to consider the wage differential gap to make all forms of TVET attractive to the youth. The level of focus on and investment in TVET is suggested to increase and prioritized. Targeted investment to improve the quality of TVET, especially when combined with policies to promote TVET's benefits to employers, can have a significant positive impact on graduates' productivity and wage

levels (Cedefop, 2011b). In the Republic of Korea, where the state has invested heavily in TVET to produce skilled workers for the country's manufacturing and construction industries, secondary TVET graduates now earn about 30% more than their general education counterparts (Kim, 2013).

Students of all forms of TVET programme should be provided equal opportunities to pursue higher education to have more progressive career path. In many developing countries, secondary TVET graduates do not have access to further or higher education and are thus forced to exit the education system earlier than secondary general education graduates, resulting in their lower relative wages (Adams, 2007). Where developing countries have taken steps to improve TVET graduates' access to further and higher education, perceptions of TVET as a 'dead end' have changed and relative returns to TVET have increased (ibid.).

There is also the need to enhance the relevance of the training programme of TVET to the labour market. Returns to TVET are higher if training closely matches available employment opportunities. For example, in Israel in 1983, secondary TVET graduates earned 8-10% more than academic high school graduates if they entered an occupation matching their qualifications; however, if TVET graduates worked in occupations unrelated to their training, there was no wage differential between the groups (Neuman & Zideman, 1999). In many developing countries, formal TVET is publicly provided with little private sector involvement, which results in training being delinked from labour market needs and/or curricula being outdated (Glick et al., 2015).

A systematic review by Onderi, Ajowi and Malala (2014) on the restructuring of TVET for sustainable development in Sub-Saharan Africa emphasized on the need for long-life restructuring of TVET in Sub-Saharan Africa to stimulate higher outcome in the form of national and sustainable development. The review emphasized on several strategies in the restructuring including the mobilization of all stakeholders to share responsibilities for all; the mobilization of various stakeholders for strong cooperation, technical and financial support towards the reconstruction process and reforms in TVET; adequate training equipment and tools, adequate training materials such as textbooks and training manuals and qualified instructors with experience in enterprises to enhance quality delivery in TVET; ensuring trainees of their employability after their training by adopting training which ensures acquisition of employable skills that are related to the demands of the current labour market; and establish monitoring agencies with representation from all stakeholders for vocational training under the ministries of education or as autonomous bodies which should coordinate the training activities of TVET. The review also emphasized that the TVET programmes in the SSA region emphasis on TVET programmes such as building and construction, carpentry and joinery, welding, plumbing and production of simple agricultural equipment and tools, crop production and animal husbandry, electrical installation and electronic equipment repair, car repair and maintenance, handicrafts and traditional skills basic ICT skills (word processing, data management, internet, etc.), tourism-related skills (hotel management, tour guides, cooks, waiters), and business entrepreneurial skills and attitudes (including time management, marketing, basic accounting, micro-business management; joint ventures).

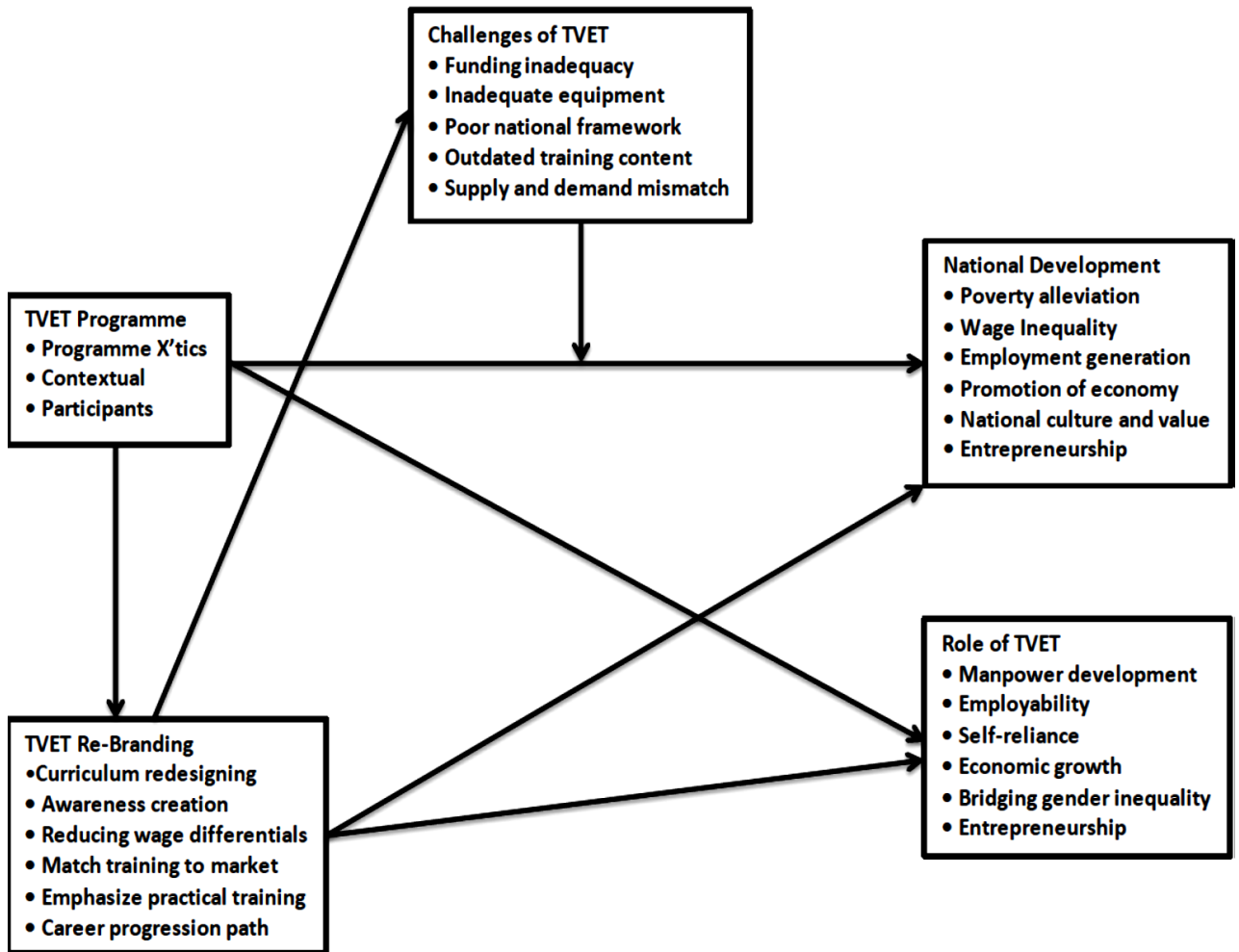
## **2.6 THEORETICAL FRAMEWORK**

TVET is largely conceptualized by the characteristics of the TVET programme enrolled in the defined country, the contextual component and the participants. The programme design encapsulates the design, trainers and delivery mechanism and the content and curriculum. The programme design largely emphasizes on the form of public-private partnership and the main source of funding the programme. Beside the design and finance, the TVET programme is also defined in terms of the experience and qualification of the tutors/lecturers, the delivery mechanism or methods, the class size, the intensity and duration of the course or programme. Another component of the programme characteristic that is essential in yielding the required outcome is the content and curriculum and the wrap-around services delivered. The skill inculcated often depends on the curricula and content of the programme. The contextual factors that influence the outcomes of the TVET programme are economic, political and cultural. The economic factors include prevailing conditions and infrastructure whereas the political factors largely emphasis on stability and entrepreneurship promotion. The cultural environment constitutes entrepreneurship enabling environment and constraints. These components of the TVET programme are expected to yield effective outcomes in the form of mindset, capabilities, status and performance.

Yet, a target outcome of TVET in the form of national development is largely perceived to have become a myth in many developing countries including Ghana. The implementation of the TVET programme with the desire of increasing employing generation, promoting entrepreneurship, promoting national value and culture and reducing poverty is far from



achievement due to several challenges in the form of funding inadequacy, inadequate materials and equipment, poor national policy framework on TVET, outdated training content and labour supply and demand mismatch in the market. It is therefore not surprising that the TVET programme in many developing countries is marginalized and often left in the hands of students that are unable to make in the general educational system. Thus, for the TVET programme to achieve its target goals and ensure maximum role in national development, there is the need for rebranding in the form of curriculum redesigning, awareness creation on the need for TVET, reduction in wage differential, matching training to market demands, emphasizing on practical training relative theoretical and providing effective career progression path for TVET students. The discussed concept between the key constructs of the study is shown in Figure 2.1



**Figure 2.1: Theoretical Framework for TVET Re-branding and National Development**

Source: Author's Construct (2019)

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 INTRODUCTION**

This chapter discusses the methodology of the study. The methodological areas discussed included the research design, research approach, research strategy, research population, sample size, sampling procedure, data collection method and instrument, data processing and analysis, validity and reliability, and ethical considerations in the study.

#### **3.2 RESEARCH DESIGN**

Research designs are plans and the procedures for research that span the decisions from broad assumptions to detailed methods of data collection and analysis (University of Southern California Libraries, 2016). It is the blueprint for conducting a study with maximum control over factors that may interfere with the validity of the findings (Trochim, 2006). The various research designs that researchers rely on conducting effective studies include case study design, cohort design, causal design, cross-sectional design, experimental design, descriptive design, exploratory design, historical design, action research design, meta-analytical design, observational design, longitudinal design, sequential design, mixed-method design, systematic review, and philosophical design (Creswell & Creswell, 2018). The bases for choosing the appropriate research design are primarily the nature of the research problem and the research questions. This study is deemed descriptive in design as the primary motive of the study is to ascertain the current state of the TVET programme in Ghana and the strategies to adopt to rebrand the programme to maximize its role in national development. Descriptive research design is

used to obtain information concerning the current state of a phenomenon and to describe, "what exists" with respect to variables or conditions in a situation. This design is also deemed appropriate as descriptive research is often used as a pre-cursor to more quantitative research designs with the general overview giving some valuable pointers as to what variables are worth testing quantitatively.

### **3.3 RESEARCH APPROACH**

Research can be approached on the basis of the data collection method or the philosophy the researcher brings to the study and methods employed in analyzing the data or reasoning (Creswell, 2015). The forms of research approaches based on data collection methods or the philosophy underpinning studies are quantitative, qualitative and mixed method approaches (Creswell, 2015). Besides the data collection method, these three research approaches more explicitly differentiated comprehensively on the basis of the philosophical assumptions researchers bring to the study, and the used research strategies (Creswell, 2013). Qualitative research approaches are more interpretivism in philosophy and rely on data collection instruments like interview and observation (Bryman & Bell, 2015). Quantitative approaches on the other hand are more positivism and post-positivism in philosophy and depend on data collection instruments like questionnaire (Bryman & Bell, 2015). In the middle of these two approaches is the mixed method that embraces or combines both the characteristics of qualitative and quantitative in an attempt of solving a problem and largely embraces a pragmatic philosophy (ibid, 2015). As this study is perceived more post-positivist in philosophy and relies on questionnaire instrument, the study approach adopted is largely quantitative in nature.

On the basis of reasoning, research approaches are categorized as deductive or inductive. Logically, deductive reasoning embraces the existence of single truth devoid of subjective opinion and the influence of the researcher whereas inductive reasoning embraces subjective opinion and research conclusions influenced by the researcher (Saunders, Lewis & Thornhill, 2012). Thus, deductive research approaches are underpinned by positivist philosophy and involves the evaluation of hypotheses related to an existing theory (Saunders, Lewis & Thornhill, 2012). On other hand, inductive research approaches are underpinned by interpretivism philosophy and involves exploration of phenomenon, identifying themes and patterns in an attempt to creating conceptual framework. As this study is highly positivist in philosophy and seeks to test existing theories on TVET educational programme in national development, the deductive reasoning is adopted.

### **3.4 RESEARCH STRATEGY**

Several research strategies are available for adoption by researchers. These are experimental, case study, survey, observation etc. (Creswell & Creswell, 2018). The strategy employed by researchers depends on the adopted design and the research approach. Quantitative and deductive research approaches often relies on experimental and survey strategies whereas qualitative and inductive research approaches largely rely on case study and observational strategies (Bryman & Bell, 2015). As this study is perceived as more quantitative and deductive in approach, the survey strategy was adopted. Survey strategy is procedures in quantitative research that involves administration of questionnaire instrument to a sample or the entire population in an attempt to describe opinion, attitude, or characteristics of the population (Shuttleworth, 2008). In this study, the attempt is to

describe the role of TVET education in national development, the difficulties of the TVET programme and factors for rebranding the TVET programme and hence the adoption of the survey method in describing these phenomenon.

### **3.5 RESEARCH POPULATION**

A research population is generally a large collection of individuals or objects that is the main focus of a scientific query (Banerjee & Chaudhury, 2010). Two types of population are identified in research. These are target population and accessible population. Target population refers to the entire group of individuals or objects to which researchers are interested in generalizing the conclusions (Asiamah, Mensah & Oteng-Abayie, 2017). The target population usually has varying characteristics and it is also known as the theoretical population. On the other hand, the accessible population is the population in research to which the researchers can apply their conclusions (Asiamah, Mensah & Oteng-Abayie, 2017). This population is a subset of the target population and is also known as the study population. It is from the accessible population that researchers draw their samples. In this study, the target population constituted all TVET tutors and administrators in second cycle TVET institutions in the Ashanti region. Nonetheless, the accessible or study population constitutes all TVET tutors and administrators in three selected second cycle technical institutions and three selected second cycle vocational institutions in the Ashanti region.

**Table 3.1: Study Population Distribution by Institutions**

<b>TVET Institutions</b>	<b>Tutors</b>	<b>Administrators</b>	<b>Total</b>
<b>Technical Institutes</b>			
Kumasi Technical Institute (KTI)	58	16	74
Kofi Adjei Secondary Technical	48	10	58
Simms Secondary Technical	52	14	66
<b>Sub-Total</b>	<b>158</b>	<b>40</b>	<b>198</b>
<b>Vocational Institutes</b>			
Opoku Ware Girls	46	8	54
St Peter's Girls Vocational Institute	28	6	34
St Mary's Girls Vocational Institute	24	8	32
<b>Sub-Total</b>	<b>98</b>	<b>22</b>	<b>120</b>
<b>Grand Total</b>	<b>256</b>	<b>62</b>	<b>318</b>

Source: Field Survey, 2019

### **3.6 SAMPLE SIZE**

A two-stage sample size calculation method was employed. From the study population of 318, a total of sample size of 210 TVET professionals was obtained through the De Vaus (2002) sample size proportion formula in the first stage. The formula produced a total sample size of 156 TVET tutors and 54 TVET administrators. The considered standard in the De Vaus (2002) formula was an error margin of 0.05 or significance level of 5%. In the calculation of the sample sizes of the sub-groups or institutions, the Krecjie and Morgan (1970) formula was employed in the second stage of the sample size calculation process. The procedures employed in the calculation of the minimum efficient sample size for the study for the two clusters or groups are shown below.

$$n = \frac{N}{1 + N(\alpha^2)}, n_1 = \frac{256}{1 + 256(0.05^2)} = \frac{256}{1 + 0.64} = \frac{256}{1.64} = 156 \text{ TVET Tutors}$$

$$n_2 = \frac{62}{1 + 62(0.05^2)} = \frac{62}{1 + 0.155} = \frac{62}{1.155} = 54 \text{ Administrators}$$

$$n = n_1 + n_2 = 156 + 54 = 210$$

where;

$n$  = Sample Size

$N$  = Target Population

$\alpha$  = Margin of error

In the second phase, Krecjie and Morgan (1970) was used in the calculation of the sample size for TVET. This is shown on Table 3.2

**Table 3.2: Sample Size Distribution by Institutions**

TVET Institutions	Tutors	XS/P	n <sub>1</sub>	Adm.	XS/P	n <sub>2</sub>	n
<b>Technical</b>							
KTI	58	58(156)/256	35	16	16(54)/62	14	49
Kofi Adjei Secondary	48	48(156)/256	29	10	46(54)/62	9	38
Simms Secondary	52	52(156)/256	32	14	54(54)/62	12	44
<b>Sub-Total</b>	<b>158</b>	158(156)/256	<b>96</b>	<b>40</b>	28(54)/62	<b>35</b>	<b>131</b>
<b>Vocational</b>							
Opoku Ware Girls	46	46(156)/256	28	8	8(54)/62	7	35
St Peter's Girls	28	28(156)/256	17	6	6(54)/62	5	22
St Mary's Girls	24	24(156)/256	15	8	8(54)/62	7	22
<b>Sub-Total</b>	<b>98</b>	98(156)/256	<b>60</b>	<b>22</b>	22(54)/62	<b>19</b>	<b>79</b>
<b>Grand Total</b>	<b>256</b>	256(156)/256	<b>156</b>	<b>62</b>	62(54)/62	<b>54</b>	<b>210</b>



Table 3.2 shows that out of the total sample size of 210 to be surveyed, 156 were tutors and 54 were administrators. From the 156 sample of TVET tutors, 96 were from the selected technical institutions and 60 were from the selected vocational institutions. Also, from the total sub-sample size of 54 administrators, 35 were selected from technical institution whereas 19 were selected from vocational institutions. Thus, the total calculated sub-sample size from the technical institutions was 131 whereas the sub-sample size from the vocational institutions was 79.

### **3.7 SAMPLING PROCEDURE**

Due to the high level of heterogeneity of the participants within the study population, a multistage random sampling method was employed in the study. In the first stage of the multistage random sampling procedure, the participants were initially clustered into technical and vocational institutions. The clustering is essential at this stage as participants were highly heterogeneous in terms of the type of TVET institution. In the subsequent stage, three vocational institutions were selected and three technical institutions selected from the clusters through simple random by balloting or lottery. The total number of the vocational institutions under the National Vocational Technical Institutions (NVTI) programme in the Ashanti region are fifty-three (53) and the technical institutions in the region at the second cycle are nineteen (19).

In the third stage of the multistage sampling procedure, sample units in selected institutions were stratified into TVET tutors and administrators through stratified sampling method. In the subsequent stage, simple random by balloting or lottery procedure was employed to

select the calculated proportion of sample units from each selected institution. The simple random procedure involved the representation of sampling units with unique numbers or codes written on pieces of paper and shuffled in a bowl and the required number of sample units selected for the institution for the study.

### **3.8 DATA COLLECTION METHOD**

Data collection is described as the process of gathering and measuring data on interested variables, in an established systematic manner that allows one to answer to defined research questions, test hypotheses, and evaluate outcomes (Ranney et al., 2015). The type of data collection method employed in a study is largely depended on the study design and the study approach. The most common data collection methods employed in qualitative studies are face-to-face personal interview, qualitative surveys, focus groups, documental revision, observation, case studies and longitudinal studies (Green & Thorogood, 2010). The common quantitative data collection methods employed by researchers include quantitative surveys, interviews, quantitative observations, and experiments (Ranney et al., 2015). On the basis of the defined research questions, this study largely employs quantitative data collection method in the form of quantitative survey.

#### **3.8.1 Questionnaire Development**

Quantitative surveys are often carried out using quantitative questionnaires. This form of questionnaire employed in this study are largely structured and hence composed of closed-ended questions. In this study, question formats employed in designing the questionnaire was largely categorical. The categorical formats included multiple choice questions and

Likert Scale in the form of five pointers. The questionnaire was designed on the basis of the research objectives.

The questionnaire was in five parts. The first part of the questionnaire (Section A) employed measurement items in looking at the socio-demographic characteristics of the respondents. The variables or measurement items considered in this part are the sex of the respondent, age of the respondent, the highest educational qualification of the respondent, experience of the respondent in the TVET profession, profession of the respondent and the type of institution. The second part of the questionnaire (Section B) employed measurement items or statement in examining the state of the TVET educational programme. The main areas of the TVET educational programme examined were the design, trainers and delivery channel, content and curriculum, participants and contextual factors. The third part of the questionnaire (Section C) constituted statements or items measuring the role of TVET in national development. The part four of the questionnaire (Section D) also constituted statements examining the challenges of the TVET programme in national development. The last part of the questionnaire (Section E) employed statements or items in determining the potential factors key to the rebranding of the TVET programme in Ghana to maximize its role in national development. The five pointer Likert Scale format employed in seeking for participants respondents was largely in the form of strongly disagree (1) to strongly agree (5).

### **3.8.2 Measurement of Variables/Constructs**

The developed questionnaire constituted 75 measurement items or statements. The Section B employed 19 items or statement in examining the state of the TVET educational programme. The design characteristics of the programme was measured using 2 items or statement, the trainers and delivery mechanism was measured using 2 items, the content and curriculum characteristics of the programme was measured using 10 items, the participating characteristic was measured using 2 items and the contextual factors were also measured using 3 items or statements. The items or variables employed in examining the TVET educational programme were largely adopted from a framework developed by Valerio, Parton and Robb (2014) in their article that examined the entrepreneurship education and training programs around the world.

The role of TVET in national development in the Section C of the questionnaire was measured using 8 items or statements. Among the statements in this part of the questionnaire were provision of skills, building knowledge capacity, training and modernizing the workforce, creating a mass of technically and entrepreneurially qualified people etc. These measurement items were mainly validated items adopted from previous studies (e.g., Ansah & Kissi, 2013; Onderi, Ajowi & Malala, 2014; Song & Tang, 2016; Hanushek et al., 2017). The challenges of the TVET in national development in the Section D of the questionnaire as measured using 10 items or statements. Among the items employed in employed in this part of the questionnaire were inadequate funding of TVET programmes, poor image and status of TVET, inadequate machine, tools and materials, high teacher student ratio, unavailability of consumable materials for practicals, poor

maintenance culture etc. The items employed in the Section D were primarily adopted from several previous studies in the reviewed literature (e.g., Amedorme & Fiagbe, 2013; Ning & Shunde, 2013; Kemevor & Kassah, 2015; Appiah-Kwapong et al., 2017). The last part of the questionnaire employed 33 items or statements to examine the factors key to the rebranding of the TVET programme in Ghana. The rebranding strategies looked several stakeholders and their potential contribution in the rebranding process. The items employed in the Section E were also largely employed from previous studies in the reviewed literature (e.g., Abdullahi, Abdullahi & Bello, 2012; Lawal, 2013; Maclean & Pavlova, 2013; Onderi, Ajowi & Malala, 2014; Almeida, Anazawa, Menezes Filho, & Vasconcellos, 2015; Hanushek et al., 2017).

### **3.9 DATA PROCESSING AND ANALYSIS**

The collected data was processed and analysed to come to plausible conclusions. The data was processed through data editing, data coding, data classification and data tabulation. The refined data was fed to the statistical programme for social sciences (SPSS) for the appropriate statistical analysis. The data was analysed using both descriptive and inferential statistical methods. The descriptive statistical tools employed were proportion and measures of central tendency. The measures of central tendencies employed were mean and standard deviation. The study also employed the Relative Importance Index (RII) in ranking some of the key factors in the study. The challenges of the TVET programme were ranked using Kendall's Coefficient of Concordance.

### **3.10 VALIDITY AND RELIABILITY**

In every research, producing valid and reliable measurement items are essential in producing more informed result. Reliability is the degree to which an assessment tool produces stable and consistent results (Cozby, 2001). To ensure high internal consistency of the measurement instrument, a pilot survey was conducted with the tutors and administrators selected vocational and technical institutions in the Central region of Ghana. All wording challenges and inconsistencies in the statements of the questionnaire were corrected before the main survey. Nonetheless, high reliability of measurement instrument does not necessarily imply validity.

Validity is the extent to which the scores from a measure represent the variable and construct they intend to measure (Petty, Briñol, Loersch & McCaslin, 2009). Face validity of measurement instrument was ensured through consultation with TVET professionals, policy makers in the educational sector and learners. The many constructs of interest in the study were measured using items adopted from previous studies (e.g., Onderi, Ajowi & Malala, 2014; Almeida, Anazawa, Menezes Filho, & Vasconcellos, 2015; Hanushek et al., 2017) and existing framework (Valerio, Parton & Robb, 2014) in order to ensure high level of construct validity. Convergent validity was measured through factor analysis.

### **3.11 ETHICAL CONSIDERATION**

Research ethics addresses the application of ethical principles or values to the various issues and fields of research (Resnik, 2015). This is composed of the treatment meted out to participants, the misuse of research result for criminal purposes, aspect of scientific misconduct and ethics in the design and performance of research. All institutions have

standards required of all researchers. The standard are upheld and monitored by the Institutional Review Board. In the context of this study, a proposal was sent to the IRB to be reviewed before starting the survey. An introductory letter was taken from the Department of Construction Technology and Management of KNUST and presented to the selected vocational and technical institutions to inform them of the intentions of the researcher. After the confirmation of their inclusion, a consent form was also presented to all selected participants to confirm their willingness to participate in the study. During the research, the researcher adhered to all standards required in scientific studies. The privacy of the participants was ensured through the exclusion of their names and any form of information they perceived too confidential. The researcher ensured high level of honesty, objectivity and integrity in the data collection process, analysis and reporting of result. The researcher avoided any form of fabrication and falsification of data and plagiarism. The data was shared with all stakeholders that requested for copies.

## **CHAPTER FOUR**

### **DATA PRESENTATION, ANALYSIS AND DISCUSSION**

#### **4.1 INTRODUCTION**

The chapter emphasized on data presentation, analysis and discussion. The key areas examined in this chapter included the socio-demographic characteristics of respondent, the TVET educational programme in Ghana, the role of TVET in national development in Ghana, and the critical strategies essential to the rebranding of the TVET educational system in Ghana. The last part of the chapter also emphasized on the factors obstructing or hindering the significance of the TVET programme to national development in Ghana.

#### **4.2 SOCIO-DEMOGRAPHIC PROFILE OF RESPONDENT**

Socio-demographic characteristic distribution of the respondent are discussed in this part of the study. The discussed socio-demographic characteristics were the sex of the respondent, the age of the respondent, the highest educational qualification of the respondent, the experience of the respondent in TVET education, the profession of the respondent and the type of institution the respondent work with. The result of the socio-demographic distribution of the respondent is presented in Table 4.2.



**Table 4.2: Socio-Demographic Data**

Variables	Category	Frequency (N=200)	Percent (%)
Sex/Gender			
	Male	70	35.0
	Female	130	65.0
Age of Respondent			
	Below 25 years	10	5.0
	26-30 years	40	20.0
	31-35 years	50	25.0
	36-40 years	70	35.0
	41-45 years	10	5.0
	46-50 years	10	5.0
	51-55 years	10	5.0
Highest Educational Qualification			
	HND	60	30.0
	First Degree	140	70.0
Experience in TVET Education			
	1-3 Years	40	20.0
	4-6 Years	60	30.0
	7-9 Years	30	15.0
	10 or more years	70	35.0
Profession of Respondent			
	TVET Tutor	180	90.0
	Administrator	20	10.0
Type of Institution			
	Vocational	140	70.0
	Technical	60	30.0

Source: Field Survey, 2019

From Table 4.2, majority of the respondents were females forming 65% while the rest were males.

Table 4.2 shows that the majority (70.0%) of the surveyed respondent were selected from vocational institutions whereas 30.0% were from technical institutions. From these institutions, the majority (90.0%) of the surveyed respondent were TVET tutors whereas 10.0% were administrators of the TVET institutions. The respondent has enormous experience in TVET education as 20.0% have 1 to 3 years of TVET educational experience, 30.0% have 4 to 6 years of TVET education experience, 15.0% have 7 to 9 years of experience in TVET education whereas 35.0% have 10 or more years of experience in TVET education. Evidently, the respondent were well versed with knowledge and adequate experience in TVET education in Ghana to provide the required data for the study.

### **4.3 TVET EDUCATION IN GHANA**

This part of the study examined the TVET education in Ghana. The areas of the programme discussed were the programme design, trainers and delivery system of TVET, content and curriculum of the TVET programme, participants and the contextual factors of the TVET programme. The result is presented in Table 4.3.

**Table 4.3: TVET Education in Ghana**

<b>TVET Education</b>	<b>Mean</b>	<b>SD</b>	<b>Rank</b>
<b>Programme Design</b>	1.10	.30	17 <sup>th</sup>
There is adequate local partnership in the design of TVET education in Ghana	1.10	.30	17 <sup>th</sup>
There is adequate funding of the TVET education in Ghana	1.10	.301	17 <sup>th</sup>
<b>Trainers and delivery</b>	2.02	.65	8 <sup>th</sup>
There is effective system for producing teachers or educators for the TVET programme	1.45	.74	15 <sup>th</sup>
Practitioners and consultants are involved in the design of TVET programme in Ghana	1.40	.80	16 <sup>th</sup>
The TVET programme delivery system is mainly face to face	3.20	1.17	3 <sup>rd</sup>
<b>Content and curriculum</b>	1.97	.71	9 <sup>th</sup>
The curriculum content is largely vocational and technical	3.50	1.03	2 <sup>nd</sup>
The curriculum content of the TVET programme in Ghana constitute financial literacy/accounting	2.40	1.28	6 <sup>th</sup>
Marketing sales is part of the curriculum content of the TVET programme in Ghana	1.65	.91	14 <sup>th</sup>
Leadership and teamwork is part of the curriculum content of the TVET programme in Ghana	1.70	.90	13 <sup>th</sup>
Strategic planning is part of the curriculum content of the TVET programme in Ghana	1.65	.91	14 <sup>th</sup>

Socio-emotional skills is part of the curriculum content of the TVET programme in Ghana	1.65	.91	14 <sup>th</sup>
Mixed methods are employed in the teaching of the TVET programme in Ghana	1.65	.79	14 <sup>th</sup>
The TVET programme involves mentoring and coaching	1.85	.91	11 <sup>th</sup>
For individuals, the TVET programme involves networking and job counseling	1.70	.78	13 <sup>th</sup>
There is adequate linkage between industry and institutions in the delivery of TVET programme	1.95	1.03	10 <sup>th</sup>
<b>Participants</b>	2.43	.73	5 <sup>th</sup>
Tutors of the TVET programme have skills in entrepreneurship	2.45	.98	4 <sup>th</sup>
Participants of the TVET programme have high level of interest in entrepreneurship	2.40	1.07	6 <sup>th</sup>
<b>Contextual Factors</b>	2.25	.40	7 <sup>th</sup>
The economic conditions in Ghana does not promote TVET in Ghana	1.75	.89	13 <sup>th</sup>
There is minimal political support for the TVET programme in Ghana	4.35	1.07	1 <sup>st</sup>
The culture of the populace inhibits entrepreneurship	1.85	.91	11 <sup>th</sup>

Scale: [Strongly Agree-5, Agree-4, Undecided-3, Disagree-2, Strongly Disagree-1]

Source: Field Survey (2019)

Table 4.3 shows that there is limited local partnership in the design of TVET education in Ghana ( $\bar{x}=1.10$ ,  $SD=.30$ ). The TVET educational programme in Ghana is also inadequately funded ( $\bar{x}=1.10$ ,  $SD=.30$ ) and offered limited attention by the Government of Ghana. It is therefore evident that there are enormous lapses in the design of the TVET educational programme in Ghana that really requires immediate attention. The inadequacies in the funding of the TVET programme is corroborated by the study of the World Bank (2009) that reported inadequacy of TVET funding as a major challenge in developing countries like Ghana. In terms of training and delivery of TVET education, there is ineffective system for producing teachers or educators for the TVET programme in Ghana ( $\bar{x}=1.45$ ,  $SD=.74$ ). There is less involvement of practitioners and consultants in the design of TVET educational programme in Ghana ( $\bar{x}=1.40$ ,  $SD=.80$ ).

Table 4.3 shows that curriculum content of the TVET educational programme is largely vocational and technical ( $\bar{x}=1.10$ ,  $SD=.30$ ). The content of the curriculum lacks any form of financial or accounting literacy to help trainees in entrepreneurial development ( $\bar{x}=2.40$ ,  $SD=1.28$ ). Furthermore, the content and curriculum of the TVET programme lacks all form of marketing skills that is highly need to develop the entrepreneurial skills of TVET trainees ( $\bar{x}=1.65$ ,  $SD=.91$ ). Besides, the designed TVET programme is bereft of leadership and teamwork ( $\bar{x}=1.70$ ,  $SD=.90$ ), strategic planning skills ( $\bar{x}=1.65$ ,  $SD=.91$ ), and Socio-emotional skills ( $\bar{x}=1.65$ ,  $SD=.91$ ) required the development of the entrepreneurial skills of TVET trainees in Ghana. It is evidently not surprising that the entrepreneurial skills of the many TVET trainees in Ghana is extremely low as most of them are often in search for non-existing white color jobs. The content and curriculum of the TVET programme is also

limited of coaching and mentoring, networking and counseling and also lacks adequate linkage with industry. These findings are corroborated by the study of Idris and Mbudai (2017) that emphasized on curriculum and national framework lapses obstructing the TVET programme in Nigeria. The study of Idris and Mbudai (2017) emphasized that TVET education in the Kano State of Nigeria the curriculum of TVET is adequate in terms of content and also covers the skill element needed but it is lacking in terms of implementation towards achieving the desired national goals.

Table 4.3 shows that the tutors of the TVET programme lack adequate skills in entrepreneurship ( $\bar{x}=2.45$ ,  $SD=.96$ ). Evidently, the participants of the TVET programme in Ghana have less interest in entrepreneurship ( $\bar{x}=2.40$ ,  $SD=1.07$ ) and hence the limited interest in inculcating entrepreneurial skills into the content and curriculum of the TVET programme. Moreover, contextually, the TVET programme is affected by the bad economic conditions in Ghana ( $\bar{x}=1.75$ ,  $SD=.89$ ), the minimal political support ( $\bar{x}=4.35$ ,  $SD=1.07$ ) and the existing culture that inhibits entrepreneurship development ( $\bar{x}=1.85$ ,  $SD=.91$ ).

#### **4.4 ROLE OF TVET IN NATIONAL DEVELOPMENT IN GHANA**

The role of TVET in national development is discussed in this part of the study. Eight roles of technical and vocational education in national development identified the existing literature were examined and ranked using descriptive statistical method and relative importance index (RII). The result is presented in Table 4.4.

**Table 4.4: The Role of TVET in National Development in Ghana**

Role of TVET	Descriptive			
	RII	Ran k	Mean	SD
Building the knowledge capacity of TVET students	0.93	1st	4.65	.47
Building attitude and values needed for the development	0.93	1st	4.65	.47
Creating jobs and increase competitive productivity	0.88	3rd	4.40	.80
Preparing learners for careers based on blue-collar and practical activities	0.88	3rd	4.40	.73
Integrating marginalised groups (women & youth) into the labour market	0.88	3rd	4.40	.73
Training and modernizing the technical workforce for rapid industrialization	0.86	6th	4.30	1.10
Creating a mass of technically and entrepreneurially qualified people	0.85	7th	4.25	.94
Provision of the skills	0.71	8th	4.55	.92

Scale: [Strongly Agree-5, Agree-4, Undecided-3, Disagree-2, Strongly Disagree-1]

Source: Field Survey (2019)

Table 4.4 shows that the TVET educational programme has the capacity to build the knowledge capacity of TVET students ( $\bar{x}$ =4.65, SD=.47) and the attitude and value needed for national development ( $\bar{x}$ =4.65, SD=.47). The role of TVET in building the knowledge capacity of TVET students and equipping them with the attitude and values needed for national development with RII of 0.93 respectively were ranked the highest role played by

the TVET programme in national development in Ghana. The TVET programme also plays a major role in creating jobs and increase competitive productivity ( $\bar{x}=4.40$ ,  $SD=.80$ ) and also prepare learners for careers based on blue-collar and practical activities ( $\bar{x}=4.40$ ,  $SD=.73$ ). The role of TVET in creating jobs and increase competitive productivity and preparing learners for careers based on blue-collar and practical activities with the RII of 0.88 respectively were ranked as the third highest roles played by the TVET educational programme in national development in Ghana. These findings are consistent with previous studies that emphasized on the role of TVET in building knowledge capacity and job creation (e.g., Onderi, Ajowi & Malala, 2014; Kluve et al., 2017; Kluve, 2016).

Table 4.4 shows that the TVET educational programme is critical to the integration of marginalized groups like women and the youth into the labour market ( $\bar{x}=4.40$ ,  $SD=.73$ ). The role of TVET in integrating marginalised groups (women & youth) into the labour market with RII of 0.88 was also ranked as the third highest role of TVET in national development in Ghana. The TVET educational programme also has the capacity to train and modernize the technical workforce for rapid industrialization ( $\bar{x}=4.30$ ,  $SD=1.10$ ) and create a mass of technically and entrepreneurially qualified people ( $\bar{x}=4.25$ ,  $SD=.94$ ). Thus, training and modernizing the technical workforce for rapid industrialization and creating a mass of technically and entrepreneurially qualified people as major role of TVET in national development in Ghana with RII values of 0.86 and 0.85 were ranked sixth and seventh respectively. The respondent also perceived the provision of skills as critical role of TVET in national development in Ghana ( $\bar{x}=4.55$ ,  $SD=.92$ ). However, the role of TVET in the development of the skills of trainees was ranked as the eighth and the least in the



inventory of roles played by TVET in national development in Ghana. These findings are consistent with previous studies that emphasized on the role of TVET in integrating marginalized groups in the labour market, training and modernizing the technical workforce for rapid industrialization and creating a mass of technically and entrepreneurially qualified people (e.g., Onderi, Ajowi & Malala, 2014; Kluve et al., 2017; Kluve, 2016; OECD, 2018).

#### **4.5 FACTORS HINDERING THE SIGNIFICANCE OF TVET TO NATIONAL DEVELOPMENT**

This part of the study employs both descriptive and non-parametric statistical method in identifying the critical factors hindering or obstructing the significance of the TVET programme to national development. The non-parametric statistical method employed in the ranking of the challenges of the TVET programme in national development was the Kendall's rank test. The result of the descriptive statistics and the associated mean ranks of the Kendall's rank test are presented in Table 4.5.

Table 4.5 shows that the inadequate funding of the TVET programme is perceived as a pressing factor hindering or obstructing the significance of the TVET programme to national development in Ghana ( $\bar{x}=4.95$ ,  $SD=.21$ ). The inadequate funding of the TVET programme as a factor obstructing TVET significance in national development with the highest mean rank of 9.38 is deemed as the most challenging factor in the role of TVET in national development in Ghana. This finding is consistent with the report of the World Bank (2009) that emphasized on inadequacy of funding as a major challenge of the TVET

programme in developing countries. In Ghana, the TVET programme is allocated about 1.5 percent of MoE’s educational budget in the past few years, despite the higher unit cost (World Bank, 2009). This situation is worsened by the fact that Ghana spends only about 2.8% of its GDP on education in general (Haans, 2011). As a result of the insufficient funding, fewer than 30 percent of the TVET institutes are adequately equipped, while other programs suffer from various degrees of insufficiency in infrastructure, equipment, staffing and funding (Baffour-Awuah & Thompson, 2011).

**Table 4.5: Challenges of TVET in National Development**

<b>Challenges</b>	<b>Mean</b>	<b>SD</b>	<b>Mean Rank</b>
Inadequate funding of TVET programmes	4.95	.21	9.38
Poor condition of service for TVET teachers	4.90	.30	9.02
Derogatory remarks about TVET students/graduates	4.90	.30	9.02
Poor image and status of TVET	4.85	.35	8.70
Inadequate machine, tools and materials	4.85	.35	8.70
High teacher student ratio	4.85	.35	8.68
Unavailability of consumable materials for practicals	4.85	.35	8.68
Poor maintenance culture	4.80	.40	8.35
Inadequate workshops/laboratories	4.80	.40	8.35
Supply and demand mismatch in the labour market	4.70	.72	8.22
Lack of relevant and up-to-date text books	4.75	.54	8.15
No loan facilities for TVET graduates to establish	4.75	.43	8.02
Inadequate number of TVET schools/skills acquisition centres	4.65	.73	7.88
Poor teachers’ skills in ICT	4.65	.48	7.32
Constant power outages	2.10	.89	1.52

Scale: [Strongly Agree-5, Agree-4, Undecided-3, Disagree-2, Strongly Disagree-1]

Source: Field Survey (2019)

The poor condition of service for TVET teachers is also perceived as a pressing factor hindering or obstructing the significance of the TVET programme to national development in Ghana ( $\bar{x}$ =4.90,  $SD$ =.30). The poor condition of service for TVET teachers as a factor obstructing TVET significance in national development with the second highest mean rank of 9.02 is deemed as the second most challenging factor in the role of TVET in national development in Ghana. The derogatory remarks about TVET students/graduates is also perceived as a pressing factor hindering or obstructing the significance of the TVET programme to national development in Ghana ( $\bar{x}$ =4.90,  $SD$ =.30). The derogatory remarks about TVET students/graduates as a factor obstructing TVET significance in national development with the second highest mean rank of 9.02 is deemed as the second most challenging factor in the role of TVET in national development in Ghana. This finding is corroborated by many previous studies that also reported poor attitude and perception towards TVET education as a challenge to TVET education (e.g., Amedorme & Fiagbe, 2013; Kemevor & Kassah, 2015).

Table 4.5 shows that the poor image and status of TVET is perceived as a pressing factor hindering or obstructing the significance of the TVET programme to national development in Ghana ( $\bar{x}$ =4.85,  $SD$ =.35). The poor image and status of TVET as a factor obstructing TVET significance in national development with the fourth highest mean rank of 8.70 is deemed as the fourth most challenging factor in the role of TVET in national development in Ghana. This finding is corroborated by many previous studies that also reported poor attitude and perception towards TVET education as a challenge to TVET education (e.g., Amedorme & Fiagbe, 2013; Kemevor & Kassah, 2015). The inadequacy of machine, tools

and materials is also perceived as a pressing factor hindering or obstructing the significance of the TVET programme to national development in Ghana ( $\bar{x}=4.85$ ,  $SD=.35$ ). The inadequacy of machine, tools and materials as a factor obstructing TVET significance in national development with the fourth highest mean rank of 8.70 is deemed as the fourth most challenging factor in the role of TVET in national development in Ghana. This finding is consistent with the studies of Amedorme and Fiagbe (2013) and Kemevor and Kassah (2015) that emphasized on lack adequate workshops, tools, equipment and materials for their practical works as a major challenge of TVET education in Ghana.

The high teacher student ratio is also perceived as a pressing factor hindering or obstructing the significance of the TVET programme to national development in Ghana ( $\bar{x}=4.85$ ,  $SD=.35$ ). The high teacher student ratio as a factor obstructing TVET significance in national development with the sixth highest mean rank of 8.68 is deemed as the sixth most challenging factor in the role of TVET in national development in Ghana. The unavailability of consumable materials for practicals is also perceived as a pressing factor hindering or obstructing the significance of the TVET programme to national development in Ghana ( $\bar{x}=4.85$ ,  $SD=.35$ ). The unavailability of consumable materials for practicals as a factor obstructing TVET significance in national development with the sixth highest mean rank of 8.68 is deemed as the sixth most challenging factor in the role of TVET in national development in Ghana. The high tutor-student ratio and the unavailability of consumable materials for practicals as challenges of the TVET programme is corroborated by the studies of Amedorme and Fiagbe (2013) and Kemevor and Kassah (2015) in Ghana.

Table 4.5 shows that the poor maintenance culture is perceived as a pressing factor hindering or obstructing the significance of the TVET programme to national development in Ghana ( $\bar{x}$ =4.80,  $SD$ =.40). The poor maintenance culture as a factor obstructing TVET significance in national development with the eighth highest mean rank of 8.35 is deemed as the eighth most challenging factor in the role of TVET in national development in Ghana. The inadequate workshops or/and laboratories is also perceived as a pressing factor hindering or obstructing the significance of the TVET programme to national development in Ghana ( $\bar{x}$ =4.80,  $SD$ =.40). The inadequate workshops or/and laboratories as a factor obstructing TVET significance in national development with the eighth highest mean rank of 8.35 is deemed as the eighth most challenging factor in the role of TVET in national development in Ghana. The supply and demand mismatch in the labour market is also perceived as a pressing factor hindering or obstructing the significance of the TVET programme to national development in Ghana ( $\bar{x}$ =4.70,  $SD$ =.72). The supply and demand mismatch in the labour market as a factor obstructing TVET significance in national development with the tenth highest mean rank of 8.22 is deemed as the tenth most challenging factor in the role of TVET in national development in Ghana. The lack of relevant and up-to-date text books is also perceived as a pressing factor hindering or obstructing the significance of the TVET programme to national development in Ghana ( $\bar{x}$ =4.75,  $SD$ =.54). The lack of relevant and up-to-date text books as a factor obstructing TVET significance in national development with the eleventh highest mean rank of 8.15 is deemed as the eleventh most challenging factor in the role of TVET in national development in Ghana. These findings are corroborated by many past studies that also emphasized on poor maintenance culture, inadequate workshops or/and laboratories, and

supply and demand mismatch in the labour market as critical challenges of the TVET programme (e.g., Atchoarena & Delluc, 2001; Amedorme & Fiagbe, 2013; Ning & Shunde, 2013; Kemevor & Kassah, 2015).

Table 4.5 shows that the absence of loan facilities for TVET graduates to establish their own businesses is perceived as a pressing factor hindering or obstructing the significance of the TVET programme to national development in Ghana ( $\bar{x}=4.75$ ,  $SD=.43$ ). The absence of loan facilities for TVET graduates to establish their own businesses as a factor obstructing TVET significance in national development with the twelfth highest mean rank of 8.02 is deemed as the twelfth most challenging factor in the role of TVET in national development in Ghana. The inadequate number of TVET schools/skills acquisition centres is also perceived as a pressing factor hindering or obstructing the significance of the TVET programme to national development in Ghana ( $\bar{x}=4.65$ ,  $SD=.73$ ). The inadequate number of TVET schools/skills acquisition centres as a factor obstructing TVET significance in national development with the thirteenth highest mean rank of 7.88 is deemed as the thirteenth most challenging factor in the role of TVET in national development in Ghana. The poor teachers' skills in ICT is also perceived as a pressing factor hindering or obstructing the significance of the TVET programme to national development in Ghana ( $\bar{x}=4.65$ ,  $SD=.48$ ). The poor teachers' skills in ICT as a factor obstructing TVET significance in national development with the fourteenth highest mean rank of 7.32 is deemed as the fourteenth most challenging factor in the role of TVET in national development in Ghana. However, the constant power outages is not perceived as a pressing factor hindering or obstructing the significance of the TVET programme to national

development in Ghana ( $\bar{x}=2.10$ ,  $SD=.89$ ). Thus, the constant power outages as a factor obstructing TVET significance in national development with the last and lowest mean rank of 1.52 is not deemed as a challenging factor in the role of TVET in national development in Ghana. These findings are corroborated by many past studies that also emphasized on absence of loan facilities for TVET graduates, inadequate number of TVET schools, and poor teachers' skills in ICT as critical challenges of the TVET programme (e.g., Atchoarena & Delluc, 2001; Amedorme & Fiagbe, 2013; Kemevor & Kassah, 2015).

**Table 4.5: Kendall's Coefficient of Concordance Statistics**

<b>Test Statistics</b>	
N	200
Kendall's W <sup>a</sup>	.581
Chi-Square	1.626E3
Df	14
Asymp. Sig.	.000
a. Kendall's Coefficient of Concordance	

Source: Field Survey (2019)

Table 4.5 provides information on the level of agreement among the respondent in terms of the order of ranking of the inventory of factors hindering or obstructing the significance of the TVET programme to national development in Ghana. To begin with, the respondent agreed to the order of ranking of the factors as indicated by the rejection of the null hypotheses of no agreement among the respondents ( $\chi=1.626E3$ ,  $P<.01$ ). The level of

agreement as indicated by the Kendall's  $W^a$  (Kendall's Coefficient of Concordance) of 0.581 shows that the level of agreement was about 58%.

#### **4.6 FACTORS KEY TO THE REBRANDING OF TVET IN GHANA**

The factors key to the rebranding of TVET in Ghana are discussed in this section of the study. The possible strategies related to the various stakeholders of the TVET programme in the quest of rebranding the TVET programme in Ghana. The considered stakeholders were the government, parents and guardians, training providers, donor and development partners and employers.

##### **4.6.1 Governmental Strategies**

The governmental strategies key to the rebranding of TVET in Ghana are discussed in this section of the study. The inventory of governmental strategies perceived essential to the rebranding of the TVET programme in Ghana are discussed and identified through descriptive statistical analysis and relative importance index (RII) method. The result is presented in Table 4.6.



**Table 4.6: Governmental Strategies in the Rebranding of TVET in Ghana**

<b>Governments</b>	<b>RII</b>	<b>Mean</b>	<b>SD</b>
Give legislative backing to national TVET policies	0.980	4.90	.30
Mainstream vocational education into the general education system, so that the vocational track is less dead-end	0.970	4.85	.35
Invest in TVET instructor training and enhance status of instructors	0.960	4.80	.40
Set up venture capital to support TVET graduates	0.960	4.80	.40
Build leadership and management capacity to drive TVET system	0.960	4.80	.40
Introduce ICT into TVET	0.960	4.80	.40
Introduce policies and incentives to support increased private sector participation in TVET delivery	0.950	4.75	.43
Introduce sustainable financing schemes for TVET	0.950	4.75	.53
Improve coherence of governance and management of TVET	0.949	4.65	.57
Partner informal TVET trainers to incorporate literacy and numeracy skills into their training programmes	0.940	4.70	.45
Invest in training materials and equipment	0.940	4.70	.45
Institute measures to reduce gender, economic, and geographical inequities in TVET provision	0.940	4.70	.55
Increase funding support to the sector	0.940	4.70	.55
Constantly monitor and periodically evaluate the performance of the system and apply corrective measures accordingly	0.930	4.65	.57

Scale: [Strongly Agree-5, Agree-4, Undecided-3, Disagree-2, Strongly Disagree-1]

Source: Field Survey (2019)

Table 4.6 shows that the respondent perceived the offering of legislative backing to national TVET policies as a critical governmental strategy in the rebranding of TVET in Ghana ( $\bar{x}$ =4.90,  $SD$ =.30). Thus, the offering of the needed legislative backing to national TVET policies as a governmental strategy necessary in the rebranding of TVET in Ghana with RII of 0.980 is deemed as the most important governmental strategy in the quest to rebranding TVET in Ghana. The respondent also perceived mainstream vocational education into the general education system, so that the vocational track is less dead-end as a critical governmental strategy in the rebranding of TVET in Ghana ( $\bar{x}$ =4.85,  $SD$ =.35). Thus, the mainstream vocational education into the general education system, so that the vocational track is less dead-end as a governmental strategy necessary in the rebranding of TVET in Ghana with RII of 0.970 is deemed as the second most important governmental strategy in the quest to rebranding TVET in Ghana. The respondent also perceived investment in TVET instructor training and enhancing the status of instructors as a critical governmental strategy in the rebranding of TVET in Ghana ( $\bar{x}$ =4.80,  $SD$ =.40). Thus, the perceived investment in TVET instructor training and enhancing the status of instructors as a governmental strategy necessary in the rebranding of TVET in Ghana with RII of 0.960 is deemed as the third most important governmental strategy in the quest to rebranding TVET in Ghana. These findings are consistent with previous studies that also emphasized on legislative backing to national TVET policy, mainstream vocational education into the general education system and investment in TVET instructor training as governmental strategies in the rebranding of the TVET programme (e.g., Adams, 2007; Abdullahi, Abdullahi & Bello, 2012; Lawal, 2013; Almeida, Anazawa, Menezes Filho, & Vasconcellos, 2015).

Table 4.6 shows that the respondent also perceived the setting up of venture capital to support TVET graduates as a critical governmental strategy in the rebranding of TVET in Ghana ( $\bar{x}$ =4.80, SD=.40). Thus, the perceived setting up of venture capital to support TVET graduates as a governmental strategy necessary in the rebranding of TVET in Ghana with RII of 0.960 is deemed as the third most important governmental strategy in the quest to rebranding TVET in Ghana. The respondent also perceived the building of leadership and management capacity to drive TVET system as a critical governmental strategy in the rebranding of TVET in Ghana ( $\bar{x}$ =4.80, SD=.40). Thus, the perceived building of leadership and management capacity to drive TVET system as a governmental strategy necessary in the rebranding of TVET in Ghana with RII of 0.960 is deemed as the third most important governmental strategy in the quest to rebranding TVET in Ghana. The respondent also perceived the introduction of ICT into TVET as a critical governmental strategy in the rebranding of TVET in Ghana ( $\bar{x}$ =4.80, SD=.40). Thus, the perceived introduction of ICT into TVET as a governmental strategy necessary in the rebranding of TVET in Ghana with RII of 0.960 is deemed as the third most important governmental strategy in the quest to rebranding TVET in Ghana. These findings are consistent with previous studies that also emphasized on setting up of venture capital to support TVET graduates, building of leadership and management capacity and introduction of ICT into TVET as governmental strategies in the rebranding of the TVET programme (e.g., Adams, 2007; Abdullahi, Abdullahi & Bello, 2012; Lawal, 2013; Almeida, Anazawa, Menezes Filho, & Vasconcellos, 2015).

Table 4.6 shows that the respondent also perceived the introduction of policies and incentives to support increased private sector participation in TVET delivery as a critical governmental strategy in the rebranding of TVET in Ghana ( $\bar{x}=4.75$ ,  $SD=.43$ ). Thus, the perceived introduction of policies and incentives to support increased private sector participation in TVET delivery as a governmental strategy necessary in the rebranding of TVET in Ghana with RII of 0.950 is deemed as the seventh most important governmental strategy in the quest to rebranding TVET in Ghana. The respondent also perceived the introduction of sustainable financing schemes for TVET as a critical governmental strategy in the rebranding of TVET in Ghana ( $\bar{x}=4.75$ ,  $SD=.57$ ). Thus, the perceived introduction of sustainable financing schemes for TVET as a governmental strategy necessary in the rebranding of TVET in Ghana with RII of 0.950 is deemed as the seventh most important governmental strategy in the quest to rebranding TVET in Ghana. The respondent also perceived the need for the improvement of coherence of governance and management of TVET as a critical governmental strategy in the rebranding of TVET in Ghana ( $\bar{x}=4.65$ ,  $SD=.57$ ). Thus, the perceived need for the improvement of coherence of governance and management of TVET with RII of 0.949 is deemed as the ninth most important governmental strategy in the quest to rebranding TVET in Ghana. These findings are consistent with previous studies that also emphasized on the introduction of policies and incentives to support increased private sector participation in TVET delivery, introduction of sustainable financing schemes for TVET and need for the improvement of coherence of governance and management of TVET as governmental strategies in the rebranding of the TVET programme (e.g., Adams, 2007; Abdullahi, Abdullahi & Bello, 2012; Lawal, 2013; Almeida, Anazawa, Menezes Filho, & Vasconcellos, 2015).

Table 4.6 shows that the respondent also perceived the need for partner informal TVET trainers to incorporate literacy and numeracy skills into their training programmes as a critical governmental strategy in the rebranding of TVET in Ghana ( $\bar{x}=4.70$ ,  $SD=.45$ ). Thus, the perceived need for partner informal TVET trainers to incorporate literacy and numeracy skills into their training programmes as a governmental strategy necessary in the rebranding of TVET in Ghana with RII of 0.940 is deemed as the tenth most important governmental strategy in the quest to rebranding TVET in Ghana. The respondent also perceived the need for investment in training materials and equipment as a critical governmental strategy in the rebranding of TVET in Ghana ( $\bar{x}=4.70$ ,  $SD=.45$ ). Thus, the perceived need for investment in training materials and equipment as a governmental strategy necessary in the rebranding of TVET in Ghana with RII of 0.940 is deemed as the tenth most important governmental strategy in the quest to rebranding TVET in Ghana. The respondent also perceived the need for institution of measures to reduce gender, economic, and geographical inequities in TVET provision as a critical governmental strategy in the rebranding of TVET in Ghana ( $\bar{x}=4.70$ ,  $SD=.55$ ). Thus, the perceived need for institution of measures to reduce gender, economic, and geographical inequities in TVET provision as a governmental strategy necessary in the rebranding of TVET in Ghana with RII of 0.940 is deemed as the tenth most important governmental strategy in the quest to rebranding TVET in Ghana. The respondent also perceived the need for increase funding support to the sector as a critical governmental strategy in the rebranding of TVET in Ghana ( $\bar{x}=4.70$ ,  $SD=.55$ ). Thus, the perceived need for increase funding support to the sector with RII of 0.940 is deemed as the tenth most important governmental strategy in the quest to rebranding TVET in Ghana. These findings are consistent with previous studies

that also emphasized on the need for partner informal TVET trainers to incorporate literacy and numeracy skills into their training programmes, need for investment in training materials and equipment and need for institution of measures to reduce gender, economic, and geographical inequities as governmental strategies in the rebranding of the TVET programme (e.g., Adams, 2007; Abdullahi, Abdullahi & Bello, 2012; Lawal, 2013; Almeida, Anazawa, Menezes Filho, & Vasconcellos, 2015).

However, the respondent also perceived the need for constant monitoring and periodically evaluating the performance of the TVET system and apply corrective measures accordingly as a critical governmental strategy in the rebranding of TVET in Ghana ( $\bar{x}=4.65$ ,  $SD=.57$ ). Thus, the perceived the need for constant monitoring and periodically evaluating the performance of the TVET system and apply corrective measures accordingly with RII of 0.930 is deemed as the fourteenth and the least important governmental strategy in the quest to rebranding TVET in Ghana.

#### **4.6.2 Rebranding Strategies Related to Training Providers**

The training provider strategies key to the rebranding of TVET in Ghana are discussed in this section of the study. The inventory of training provider strategies perceived essential to the rebranding of the TVET programme in Ghana are discussed and identified through descriptive statistical analysis and relative importance index (RII) method. The result is presented in Table 4.7.

**Table 4.7: Rebranding Strategies Related to Training Providers**

<b>Training providers</b>	<b>Mean</b>	<b>SD</b>
Develop business plans to support training activities	4.65	.47
Network and bench-mark with other providers	4.65	.47
Establish strong linkages and collaboration with employers and industry	4.60	.49
Mainstream gender into training activities and programmes	4.60	.49
Institute bursary schemes for poor trainees	4.60	.49
Strengthen guidance and counselling services to trainees	4.60	.49
Provide training within national policy framework;	4.55	.74

Scale: [Strongly Agree-5, Agree-4, Undecided-3, Disagree-2, Strongly Disagree-1]

Source: Field Survey (2019)

Table 4.7 shows that the respondent perceived the development of business plans to support training activities as a critical training provider-related strategy in the rebranding of TVET in Ghana ( $\bar{x}$ =4.65,  $SD$ =.47). Thus, the development of business plans to support training activities as a training provider-related strategy necessary in the rebranding of TVET in Ghana with RII of 0.930 is deemed as the most important training provider-related strategy in the quest to rebranding TVET in Ghana. The respondent also perceived networking and bench-marking with other providers as a critical training provider-related strategy in the rebranding of TVET in Ghana ( $\bar{x}$ =4.65,  $SD$ =.47). Thus, the networking and bench-marking with other providers as a training provider-related strategy necessary in the rebranding of

TVET in Ghana with RII of 0.930 is deemed as the most important training provider-related strategy in the quest to rebranding TVET in Ghana.

Table 4.7 shows that the respondent also perceived the establishment of strong linkages and collaboration with employers and industry as a critical training provider-related strategy in the rebranding of TVET in Ghana ( $\bar{x}=4.60$ ,  $SD=.49$ ). Thus, the establishment of strong linkages and collaboration with employers and industry as a training provider-related strategy necessary in the rebranding of TVET in Ghana with RII of 0.920 is deemed as the third most important training provider-related strategy in the quest to rebranding TVET in Ghana. The respondent also perceived the mainstream gender into training activities and programmes as a critical training provider-related strategy in the rebranding of TVET in Ghana ( $\bar{x}=4.60$ ,  $SD=.49$ ). Thus, the mainstream gender into training activities and programmes as a training provider-related strategy necessary in the rebranding of TVET in Ghana with RII of 0.920 is deemed as the third most important training provider-related strategy in the quest to rebranding TVET in Ghana. The respondent also perceived the institution of bursary schemes for poor trainees as a critical training provider-related strategy in the rebranding of TVET in Ghana ( $\bar{x}=4.60$ ,  $SD=.49$ ). Thus, the institution of bursary schemes for poor trainees as a training provider-related strategy necessary in the rebranding of TVET in Ghana with RII of 0.920 is deemed as the third most important training provider-related strategy in the quest to rebranding TVET in Ghana.

Table 4.7 also shows that the respondent also perceived the strengthening of the guidance and counselling services to trainees as a critical training provider-related strategy in the



rebranding of TVET in Ghana ( $\bar{x}$ =4.60,  $SD$ =.49). Thus, the strengthening of the guidance and counselling services to trainees as a training provider-related strategy necessary in the rebranding of TVET in Ghana with RII of 0.920 is deemed as the third most important training provider-related strategy in the quest to rebranding TVET in Ghana. However, the respondent also perceived the provision of training within national policy framework as a critical training provider-related strategy in the rebranding of TVET in Ghana ( $\bar{x}$ =4.44,  $SD$ =.74). Thus, the provision of training within national policy framework as a training provider-related strategy necessary in the rebranding of TVET in Ghana with RII of 0.910 is deemed as the seventh and the least important training provider-related strategy in the quest to rebranding TVET in Ghana.

#### **4.6.3 Rebranding Strategies Related to Parents and Guardians**

The parents and guardians strategies key to the rebranding of TVET in Ghana are discussed in this section of the study. The inventory of parents and guardians strategies perceived essential to the rebranding of the TVET programme in Ghana are discussed and identified through descriptive statistical analysis and relative importance index (RII) method. The result is presented in Table 4.8.

**Table 4.8: Rebranding Strategies Related to Parents and Guardians**

<b>Parents and Guardians</b>	<b>RII</b>	<b>Mean</b>	<b>SD</b>
Lobby politicians in favour of TVET	0.94	4.70	.45
Support activities of training providers	0.93	4.65	.47
Support children and wards to choose the vocational education stream	0.86	3.55	.97
Reject perception that TVET is for the less academically endowed	0.65	2.40	1.07

Scale: [Strongly Agree-5, Agree-4, Undecided-3, Disagree-2, Strongly Disagree-1]

Source: Field Survey (2019)

Table 4.8 shows that the respondent perceived the lobbying of politicians in favour of TVET as a critical parent and guardian related strategy in the rebranding of TVET in Ghana ( $\bar{x}$ =4.70,  $SD$ =.45). Thus, the lobbying of politicians in favour of TVET as a parent and guardian related strategy necessary in the rebranding of TVET in Ghana with RII of 0.940 is deemed as the first and most important parent and guardian related strategy in the quest to rebranding TVET in Ghana. The respondent also perceived support activities of training providers as a critical parent and guardian related strategy in the rebranding of TVET in Ghana ( $\bar{x}$ =4.65,  $SD$ =.47). Thus, the support activities of training providers as a parent and

guardian related strategy necessary in the rebranding of TVET in Ghana with RII of 0.930 is deemed as the second most important parent and guardian related strategy in the quest to rebranding TVET in Ghana. The respondent also perceived the need to support children and wards to choose the vocational education stream as a critical parent and guardian related strategy in the rebranding of TVET in Ghana ( $\bar{x}$ =3.55, SD=.97). Thus, the need to support children and wards to choose the vocational education stream as a parent and guardian related strategy necessary in the rebranding of TVET in Ghana with RII of 0.860 is deemed as the third most important parent and guardian related strategy in the quest to rebranding TVET in Ghana. However, the respondent perceived the need to reject perception that TVET is for the less academically endowed as ineffective parent and guardian related strategy in the rebranding of TVET in Ghana ( $\bar{x}$ =2.40, SD=1.07). Thus, the need to reject perception that TVET is for the less academically endowed as a parent and guardian related strategy necessary in the rebranding of TVET in Ghana with RII of 0.650 is deemed as the fourth and the least important parent and guardian related strategy in the quest to rebranding TVET in Ghana.

#### **4.6.4 Rebranding Strategies Related to Donors and Development Partners**

The donors and development partner's strategies key to the rebranding of TVET in Ghana are discussed in this section of the study. The inventory of donors and development partners strategies perceived essential to the rebranding of the TVET programme in Ghana are discussed and identified through descriptive statistical analysis and relative importance index (RII) method. The result is presented in Table 4.9.

**Table 4.9: Rebranding Strategies Related to Donors and Development Partners**

<b>Donors and Development Partners</b>	<b>RII</b>	<b>Mea n</b>	<b>SD</b>
Fund TVET research and advocacy	0.94	4.70	.45
Support capacity building in TVET sector	0.94	4.70	.45
Help in identifying and disseminating best practices in TVET	0.93	4.65	.47
Support TVET advocacy initiatives	0.93	4.65	.49
Support development of national TVET policies and strategies	0.91	4.55	.59

Scale: [Strongly Agree-5, Agree-4, Undecided-3, Disagree-2, Strongly Disagree-1]

Source: Field Survey (2019)

Table 4.9 shows that the respondent perceived the funding of TVET research and advocacy as a critical donor and development partner related strategy in the rebranding of TVET in Ghana ( $\bar{x}$ =4.70,  $SD$ =.43). Thus, the funding of TVET research and advocacy as a donor and development partner related strategy necessary in the rebranding of TVET in Ghana with RII of 0.940 is deemed as the first and most important donor and development partner related strategy in the quest to rebranding TVET in Ghana. The respondent perceived the supporting of capacity building in TVET sector as a critical donor and development partner related strategy in the rebranding of TVET in Ghana ( $\bar{x}$ =4.70,  $SD$ =.45). Thus, the supporting of capacity building in TVET sector as a donor and development partner related strategy necessary in the rebranding of TVET in Ghana with RII of 0.940 is deemed as the first and most important donor and development partner related strategy in the quest to rebranding TVET in Ghana.

Table 4.9 also shows that the respondent perceived helping in identifying and disseminating best practices in TVET as a critical parent and guardian related strategy in the rebranding of TVET in Ghana ( $\bar{x}$ =4.65,  $SD$ =.47). Thus, the helping in identifying and disseminating best practices in TVET as a donor and development partner related strategy necessary in the rebranding of TVET in Ghana with RII of 0.930 is deemed as the third most important donor and development partner related strategy in the quest to rebranding TVET in Ghana. The respondent perceived supporting TVET advocacy initiatives as a critical parent and guardian related strategy in the rebranding of TVET in Ghana ( $\bar{x}$ =4.65,  $SD$ =.49). Thus, the supporting TVET advocacy initiatives as a donor and development partner related strategy necessary in the rebranding of TVET in Ghana with RII of 0.930 is deemed as the third most important donor and development partner related strategy in the quest to rebranding TVET in Ghana. The respondent perceived the supporting of development of national TVET policies and strategies as a critical parent and guardian related strategy in the rebranding of TVET in Ghana ( $\bar{x}$ =4.55,  $SD$ =.59). Thus, the supporting of development of national TVET policies and strategies as a donor and development partner related strategy necessary in the rebranding of TVET in Ghana with RII of 0.910 is deemed as the fifth and the least important donor and development partner related strategy in the quest to rebranding TVET in Ghana.

#### **4.6.5 Rebranding Strategies Related to Employers**

The employer strategies key to the rebranding of TVET in Ghana are discussed in this section of the study. The inventory of employer related strategies perceived essential to the

rebranding of the TVET programme in Ghana are discussed and identified through descriptive statistical analysis and relative importance index (RII) method. The result is presented in Table 4.10.

**Table 4.10: Rebranding Strategies Related to Employers**

<b>Employers should:</b>	<b>RII</b>	<b>Mean</b>	<b>SD</b>
Provide opportunities for industrial attachment for trainees	0.94	4.70	.45
Contribute financially to national training fund	0.93	4.65	.47
Provide opportunities for TVET teachers to regularly update their workplace experience	0.92	4.60	.49
Deliver workplace training to employees	0.91	4.55	.59
Contribute to the development of national skills standards	0.91	4.55	.59

Scale: [Strongly Agree-5, Agree-4, Undecided-3, Disagree-2, Strongly Disagree-1]

Source: Field Survey (2019)

Table 4.10 shows that the respondent perceived the provision of opportunities for industrial attachment for trainees as a critical employer related strategy in the rebranding of TVET in Ghana ( $\bar{x}$ =4.70,  $SD$ =.43). Thus, the provision of opportunities for industrial attachment for trainees as an employer related strategy necessary in the rebranding of TVET in Ghana with RII of 0.940 is deemed as the first and most important employer related strategy in the quest to rebranding TVET in Ghana. The respondent perceived contribution financially

to national training fund as a critical employer related strategy in the rebranding of TVET in Ghana ( $\bar{x}=4.65$ ,  $SD=.47$ ). Thus, the contribution financially to national training fund as an employer related strategy necessary in the rebranding of TVET in Ghana with RII of 0.930 is deemed as the second most important employer related strategy in the quest to rebranding TVET in Ghana.

Table 4.10 shows that the respondent perceived the provision of opportunities for TVET teachers to regularly update their workplace experience as a critical employer related strategy in the rebranding of TVET in Ghana ( $\bar{x}=4.60$ ,  $SD=.49$ ). Thus, the provision of opportunities for TVET teachers to regularly update their workplace experience as an employer related strategy necessary in the rebranding of TVET in Ghana with RII of 0.920 is deemed as the third most important employer related strategy in the quest to rebranding TVET in Ghana. The respondent perceived the delivering of workplace training to employees as a critical employer related strategy in the rebranding of TVET in Ghana ( $\bar{x}=4.55$ ,  $SD=.59$ ). Thus, the delivering of workplace training to employees as an employer related strategy necessary in the rebranding of TVET in Ghana with RII of 0.910 is deemed as the fourth most important employer related strategy in the quest to rebranding TVET in Ghana. The respondent perceived the need to contribute to the development of national skills standards as a critical employer related strategy in the rebranding of TVET in Ghana ( $\bar{x}=4.55$ ,  $SD=.59$ ). Thus, the need to contribute to the development of national skills standards as an employer related strategy necessary in the rebranding of TVET in Ghana with RII of 0.910 is deemed as the fourth most important employer related strategy in the quest to rebranding TVET in Ghana.

## **CHAPTER FIVE**

### **SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 INTRODUCTION**

Summary of the main study findings are provided in this chapter. The chapter also concludes and suggests possible policy and managerial measures to enhancing the role of TVET education in national development.

#### **5.2. SUMMARY OF FINDINGS**

Main findings are summarized in this part of the study based on the specific objectives. The summarized key findings are provided in sub-sections below.

##### **5.2.1 TVET Education in Ghana**

The study revealed enormous lapses in the design of the TVET programme. The design of the programme exhibits low level of local partnership and it is inadequately funded. In terms of training delivery system, the programme possesses ineffective system of producing teachers or educators, and practitioners and consultants are less involved the design of the programme. In terms of the content and curriculum of the TVET programme, the curriculum content is largely vocational and technical with low level of financial and accounting literacy. The content and curriculum of TVET is also bereft of entrepreneurial skill development in the form of marketing skills, leadership and teamwork skills, strategic planning and socio-emotional skills. The content and the curriculum of the programme also provide limited or low level of linkage between industry and institution in the delivery of TVET education.



In terms of participation, tutors have low level of entrepreneurial skills due to their limited interest in entrepreneurship. The contextual factors that are currently perceived to be inhibiting the TVET programme are the prevailing economic conditions of Ghana, minimal political support and the poor Ghanaian entrepreneurship culture.

### **5.2.2 Role of TVET in National Development in Ghana**

The TVET programme is perceived to possess the capacity to play enormous critical role in national development. The role perceived to be played by TVET education in national development include building the knowledge capacity of TVET students, building the attitude and values needed for the development, creating jobs and increase competitive productivity, preparing learners for careers based on blue-collar and practical activities, integrating marginalised groups into the labour market, training and modernizing the technical workforce for rapid industrialization and creating a mass of technically and entrepreneurially qualified people.

### **5.2.3 Factors Hindering the Significance of TVET to National Development**

The main identified challenges or obstructers of the TVET programme to national development include inadequate funding, poor condition of service for TVET teachers, derogatory remarks about TVET students and graduates, poor image and status of TVET, inadequate machine, tools and materials, high teacher student ratio, unavailability of consumable materials for practicals, poor maintenance culture, inadequate workshops and/or laboratories, supply and demand mismatch in the labour market, lack of relevant

and up-to-date text books, the absence of loan facilities for TVET graduates to establish their own businesses, inadequate number of TVET schools or skills acquisition centres and poor teachers' skills in ICT in that order of their rank or magnitude.

#### **5.2.4 Factors Key to the Rebranding of TVET in Ghana**

The governmental and policy strategies perceived to be critical in the rebranding of TVET in Ghana include offer legislative backing to National TVET policy, vocational education incorporated in the education system, invest in TVET instructor training, increase funding support to sector among others.

### **5.3 CONCLUSION**

TVET education in Ghana was designed and implemented as part of the educational system of Ghana to reduce the high rate of unemployment in Ghana. Yet, this goal of TVET education is far from been achieved to partly due to poor nature of the programme design, ineffectiveness of the trainer and delivery system, poor content and curriculum and poor entrepreneurial knowledge and interest of educators. There is adequate local partnership in the design of TVET education in Ghana. The system for producing educators or tutors for the TVET programme is ineffective as practitioners and consultants are less involved in the design of the TVET programme. The course content and curriculum is also bereft of entrepreneurial skills development as it lacks the development of trainee's marketing, leadership and teamwork, strategic planning and socio-emotional skills. Thus, the level of contribution of the TVET educational programme to national development in Ghana is extremely minimal.

The perceived challenges hindering or obstructing the contributions of the TVET educational programme in national development in Ghana include inadequate funding of programme, poor condition of service for teachers, derogatory remarks about TVET students/graduates, poor image and status of TVET, inadequate materials and logistics, high teacher student ratio, unavailability of consumable materials for practicals, poor maintenance culture, inadequate workshops/laboratories and supply and demand mismatch in the labour market. Thus, the challenges of the TVET programme are more related to funding, tutor motivation and reward, poor TVET perception, inadequacy of infrastructure and logistics and supply-demand mismatch in the labour market. In conclusion, the role of TVET in national development can be optimized through effective rebranding strategies at all stakeholder level.

## **5.4 RECOMMENDATIONS**

Institutional and policy measures to enhance the role of TVET in national development are recommended in this part of the study.

### **5.4.1 Give Legislative Backing to National TVET Policy**

Generally, the TVET educational programme is perceived to lack adequate legislative backing. This evidently obstructs adequate funding as political interest is extremely minimized. Thus, this study recommends that the Government of Ghana should offer adequate legislative backing to national TVET policy in order to ensure adequate interest of politicians.

#### **5.4.2 Mainstream Vocational Education into the General Education System**

Vocational educational is seemingly isolated from the mainstream formal educational system of Ghana and hence perceived as dead-end for trainees interested in climbing to the highest TVET educational ladder. It is therefore recommended for the Government of Ghana to inculcate TVET education into the general educational system. Thus, opportunities should be provided for students to offer master and PhD programmes in TVET.

#### **5.4.3 Invest in TVET Instructor Training**

The study revealed low level of investment in the training of TVET tutors. More so, there is ineffective system for producing teachers or educators for the TVET programme in Ghana. Besides, the tutors lack adequate entrepreneurship knowledge. The study therefore recommends higher governmental investment in training TVET instructors. The Government of Ghana can periodically offer scholarships to TVET tutors to offer further courses abroad. Thus, the Government of Ghana under the auspices of the Ministry of Education and the Ghana Education Service should develop an effective systematic programme for producing TVET tutors in Ghana.

#### **5.4.4 Set up venture capital to support TVET graduates**

The absence of loan facilities to set up TVET graduates with economically efficient business plans is also perceived as a major challenge to the contribution of the TVET programme to national development. This study therefore recommends the need for the Government of Ghana to set up venture capital to support TVET graduates in Ghana.

Venture capital could be set up at the district level for the purpose of supporting TVET graduates and monitored by the district assemblies.

#### **5.4.5 Provide Adequate Funding of TVET Education**

The study reported inadequate funding of the TVET education in Ghana as one of the key obstructers of the programme to national development. The inadequacy of funding of the programme is also evident in low investment in training materials and equipment and research and advocacy. The study therefore recommends adequate governmental funding for the TVET programme in Ghana. Adequate budget should be annually allocated to the funding of TVET education in order to enhance its role in national development.

#### **5.4.6 Entrepreneurship Development Programme for Trainees**

The study revealed lapses in the curriculum and course content of the TVET educational programme in terms of entrepreneurial development of trainees. The TVET educational course content in Ghana is perceived to lack the capacity to develop the entrepreneurial skills of trainees as it is bereft of marketing, leadership and teamwork, strategic planning and socio-emotional skills. It is therefore essential for the Government of Ghana under the auspices of the Ghana Education Service and the Ministry of Education redesign the curriculum and content of the TVET programme by making entrepreneurial skill development as one of the key areas of the programme.

#### **5.4.7 Establish strong linkages and collaboration with employers and industry**

The study revealed low level of linkage between TVET institutions and industry in the course content. It also reported inadequate local partnership in the design of TVET

education in Ghana. The Government of Ghana under the auspices of the Ministry of Education and the Ghana Education Service should therefore redesign the TVET programme through the strengthening of the linkage between institutions and industry. The government can possibly institute tax rebate programme for all firms willing to participate in the TVET educational programme.

### **5.5 SUGGESTED AREAS FOR FURTHER STUDIES**

Methodologically and thematically, the study did not cover the relationship between TVET education and national development through inferential methods like multiple regression or correlational analysis. Therefore, future studies are recommended to look at the possible causal relationship between TVET education and national development. Future studies can also look at the possible moderators in the nexus between TVET education and national development.

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## APPENDIX

**Kwame Nkrumah University of Science and Technology**

**School of Graduate Studies**

**Department of Construction Technology and Management**

**TVET Professionals (Lecturers & Administrators)**

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### **Survey Instrument@2019**

#### **Brief background of the study**

This study focuses on the Strategies for Improving the Technical and Vocational Education through Rebranding. The study aims at identifying Factors for Rebranding of Technical and Vocational Education for National Development in Ghana. Not only is the study aimed at contributing to knowledge but also, it seeks to come out with strategies to help improve the TVET programme in terms of the national development.

The study is purely academic-oriented, as such we would like to assure you that your responses would not be used for any other purpose other than those stated before. For the purposes of improving the quality of the study, I humbly request you to take your time to read and understand the items on this instrument before you respond to them. Objective responses offered will be highly appreciated.

Please read the instruction(s) under each section of the instrument to assist you in your responses.

Thank you so much for your willingness to participate in this study.

**Questionnaire ID:**

## **SECTION A: BIO-DATA**

1. Sex of the Respondent:

Male  Female

2. Age of the Respondent:

Below 25 years  26-30 years  31-35 years  36-40 years  41-45 years  46-50 years

51-55 years  56-60 years  61-65 years

3. Highest educational qualification

HND  First Degree  Master Degree  PhD

Others (Please Specify)\_\_\_\_\_

4. Experience in the TVET profession:

Less 1 year  1-3  4-6  7-9

10 or more years

5. Profession of respondent;

Lecturer  Administrator

6. Type of Institution

Vocational  Technical

## SECTION B: TVET EDUCATION IN GHANA

7. Please indicate your level of agreement to the under-listed statements in an attempt to provide insight into the nature of the TVET Programme in Ghana by choosing from strongly disagree (1) to strongly agree (5) [Strongly Agree-5, Agree-4, Undecided-3, Disagree-2, Strongly Disagree-1]

	<b>TVET Education</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
	<b>Programme Design</b>					
Pd1	There is adequate local partnership in the design of TVET education in Ghana					
Pd2	There is adequate funding of the TVET education in Ghana					
	<b>Trainers and delivery</b>					
Tr1	There is effective system for producing teachers or educators for the TVET programme					
Tr2	Practitioners and consultants are involved in the design of TVET programme in Ghana					
	The TVET programme delivery system is mainly face to face					
	<b>Content and curriculum</b>					
Cu1	The curriculum content is largely vocational and technical					
Cu2	The curriculum content of the TVET programme in Ghana constitute financial literacy/accounting					
Cu3	Marketing sales is part of the curriculum content of the TVET programme in Ghana					

Cu4	Leadership and teamwork is part of the curriculum content of the TVET programme in Ghana					
Cu5	Strategic planning is part of the curriculum content of the TVET programme in Ghana					
Cu6	Socio-emotional skills is part of the curriculum content of the TVET programme in Ghana					
Cu7	Mixed methods are employed in the teaching of the TVET programme in Ghana					
Cu8	The TVET programme involves mentoring and coaching					
Cu9	For individuals, the TVET programme involves networking and job counseling					
Cu10	There is adequate linkage between industry and institutions in the delivery of TVET programme					
	<b>Participants</b>					
Pa1	Tutors of the TVET programme have skills in entrepreneurship					
Pa2	Participants of the TVET programme have high level of interest in entrepreneurship					
	<b>Contextual Factors</b>					
Cx1	The economic conditions in Ghana does not promote TVET in Ghana					
Cx2	There is minimal political support for the TVET programme in Ghana					
Cx3	The culture of the populace inhibits entrepreneurship					



## SECTION C: ROLE OF TVET IN NATIONAL DEVELOPMENT

8. Please indicate your level of agreement to the under-listed statements or measurement items as key roles played by the TVET educational programme of Ghana in national development by choosing from strongly disagree (1) to strongly agree (5) [Strongly Agree-5, Agree-4, Undecided-3, Disagree-2, Strongly Disagree-1]

	Statements/Items	1	2	3	4	5
	<b>TVET plays the role of:</b>					
R11	Provision of the skills					
R12	Building the knowledge capacity of TVET students					
R13	Building attitude and values needed for the development					
R14	Training and modernizing the technical workforce for rapid industrialization					
R15	Creating a mass of technically and entrepreneurially qualified people					
R16	Creating jobs and increase competitive productivity					
R17	Preparing learners for careers based on blue-collar and practical activities					
R18	Integrating marginalised groups (women & youth) into the labour market					
Please, If any suggestion just state						

## SECTION D: CHALLENGES OF TVET IN NATIONAL DEVELOPMENT

9. Please indicate your level of agreement to the under-listed factors as challenges to development of the entrepreneurial skills of TVET students in Ghana by choosing from strongly disagree (1) to strongly agree (5) [Strongly Agree-5, Agree-4, Undecided-3, Disagree-2, Strongly Disagree-1]

	<b>Challenges</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Ch1	Inadequate funding of TVET programmes					
Ch2	Poor image and status of TVET					
Ch3	Inadequate machine, tools and materials					
Ch4	High teacher student ratio					
Ch5	Unavailability of consumable materials for practicals					
Ch6	Poor maintenance culture					
Ch7	Poor condition of service for TVET teachers					
Ch8	Lack of relevant and up-to-date text books					
Ch9	Inadequate workshops/laboratories					
Ch10	Inadequate number of TVET schools/skills acquisition centres					
Ch11	Constant power outages					
Ch12	Poor teachers' skills in ICT					
Ch13	No loan facilities for TVET graduates to establish					
Ch14	Derogatory remarks about TVET students/graduates					
Ch15	Supply and demand mismatch in the labour market					
Please, If any suggestion just state						

## SECTION E: FACTORS KEY TO TVET REBRANDING

10. Please indicate your level of agreement to the under-listed statements or measurement items as key strategies or factors necessary to rebrand the TVET educational programme of Ghana by choosing from strongly disagree (1) to strongly agree (5) [Strongly Agree-5, Agree-4, Undecided-3, Disagree-2, Strongly Disagree-1]

	<b>Rebranding Strategies</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
	<b>Governments</b>					
Go1	Give legislative backing to national TVET policies					
Go2	Improve coherence of governance and management of TVET					
Go3	Introduce policies and incentives to support increased private sector participation in TVET delivery					
Go4	Partner informal TVET trainers to incorporate literacy and numeracy skills into their training programmes					
Go5	Invest in training materials and equipment;					
Go6	Invest in TVET instructor training and enhance status of instructors;					
Go7	Institute measures to reduce gender, economic, and geographical inequities in TVET provision;					
Go8	Introduce sustainable financing schemes for TVET;					
Go9	Increase funding support to the sector;					
Go10	Set up venture capital to support TVET graduates;					
Go11	Build leadership and management capacity to drive TVET system;					

Go12	Mainstream vocational education into the general education system, so that the vocational track is less dead-end					
Go13	Introduce ICT into TVET					
Go14	Constantly monitor and periodically evaluate the performance of the system and apply corrective measures accordingly.					
	<b>Training providers</b>					
Tr1	Provide training within national policy framework;					
Tr2	Develop business plans to support training activities;					
Tr3	Establish strong linkages and collaboration with employers and industry					
Tr4	Mainstream gender into training activities and programmes					
Tr5	Institute bursary schemes for poor trainees					
Tr6	Strengthen guidance and counselling services to trainees					
Tr7	Network and bench-mark with other providers					
	<b>Parents and Guardians</b>					
Pa1	Support children and wards to choose the vocational education stream					
Pa2	Reject perception that TVET is for the less academically endowed					
Pa3	Lobby politicians in favour of TVET					
Pa4	Support activities of training providers					
	<b>Donors and Development Partners</b>					
Do1	Support development of national TVET policies and strategies					
D02	Fund TVET research and advocacy					

D03	Support capacity building in TVET sector						
Do4	Help in identifying and disseminating best practices in TVET						
Do5	Support TVET advocacy initiatives						
	<b>Employers should:</b>						
Em1	Deliver workplace training to employees						
Em2	Contribute financially to national training fund						
Em3	Provide opportunities for TVET teachers to regularly update their workplace experience						
Em4	Provide opportunities for industrial attachment for trainees						
Em5	Contribute to the development of national skills standards						
Please, If any suggestion just state							