

**EFFECT OF RESOURCE MANAGEMENT ON PERFORMANCE OF TECHNICAL
VOCATIONAL EDUCATION AND TRAINING, A CASE OF VOCATIONAL
TRAINING CENTRES IN BUSIA COUNTY, KENYA**

BY

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DECLARATION

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DEDICATION

The thesis is dedicated to my loving wife **Caroline Kechula Ndwale** and our children for love, support and patience and to my lovely uncle the late Mr. **Clement Pekesia Odongo** for laying my academic foundation.

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ABSTRACT

Governments are renewing efforts to promote Technical and Vocational Education and Training (TVET) with the belief that skill acquisition enhances productivity and sustains competitiveness in the global economy. The fact that TVET is a tool for productivity enhancement and poverty reduction underscores the essence of their effective management. Despite the numerous interventions made by the various governments to improve TVET, it has not yielded the required results. This study was designed to assess the effect of resource management on performance of Technical Vocational Education and Training, a case of Vocational Training Centres in Busia County, Kenya. The study was guided by the following specific objectives; to find out the effect of physical resources management on performance of vocational training centers in Busia County, to determine the effect of trainers competence management on performance of vocational training centers in Busia County, to establish the effect of training program quality assurance management on performance of vocational training centers in Busia County and to find out the effect of funds management on performance of vocational training centers in Busia County. In a bid to answer to the research questions the study adopted a quantitative research design based on a sample drawn from across the Busia County vocational training centers. The study targeted 197 employees from the 19 vocational training centres. A two-stage sampling technique was adopted where cluster random sampling was used to select the vocational training centres. The study used Taro Yamanes formular to calculate the sample size which yielded 132 respondents. Data was collected by use of questionnaires. Reliability was achieved by Pre-testing of the instrument. Cronbach's alpha coefficient was used to ascertain whether the instrument meets the threshold of 0.7 or above. Based on the R square, Physical resources management, trainers' competence management, training program quality assurance management and fund management explained 35.4 %, 29.6%, 58.6 %, 49 % change on the VTCs in Busia County respectively. Physical resources management trainers' competence management, training program quality assurance management and fund management jointly explained 76.4% ($R^2=0.764$) change on VTCs in Busia County. The correlations between Physical resources management, Trainers competence management, Training program quality assurance management and fund management was $r=.595^{**}$, $r=.544^{**}$, $r=.766^{**}$ and $.700^{**}$ respectively which were positively and significantly related to VTCs at $P<0.01$. In conclusion all the management challenges significantly affect building and construction technology offered in VTCs in Busia County. Based on the joint effects of the management challenges training program quality assurance had the greatest effect on building and construction technology in VTCs in Busia County but this doesn't devalue the effect of other management challenges. In this regard the current study recommends that the central and county governments should address the management challenges of VTCs to achieve their required standards in building and construction technology and other courses. The study also recommended that similar research should be conducted in other counties considering other technical areas like automotive and electrical.

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LIST OF ACRONYMS

CBOs	Community based organizations
CPSC	Colombo plan Staff College
DESD	Decade of education for sustainable development
ERP	Economic Recovery Program
ESR	Education sector report.
EU	European Union
GDP	Gross domestic product
ILO	International labour organization
KESSP	Kenya education sector support program
MDGs	Millennium Development Goals.
MOEST	Ministry of Education Science and Technology
MOYAS	Ministry of youth affairs and sports
NGOs	Non-Governmental organization
PRSP	Poverty Reduction Strategy Program
PTA	Parent Teachers Association.
SD	Standard Deviation
SDG	Sustainable Development Goals
SPSS	Statistical Package of Social Sciences
SVTT	Subsidized Vocational Training Tuition.
TIVET	Technical and Industrial Vocational Education and Training.
TVET	Technical and Vocational Education and Training.
TVETA	Technical vocational Education and Training Authority.
TVSD	Technical and Vocational Skills Development.
UN	United Nations
VET	Vocational Education and Training.
VTCs	Vocational Training Centers.
NACOST	National Commission of Science and Technology.

CHAPTER ONE

INTRODUCTION

1.1 Introduction

This chapter presents a background related to the research problem, statement of the problem, purpose, specific objectives, research questions, significance of the study, scope of the study, limitations, assumptions, and theoretical framework.

1.2 Background to the study

Globally, governments are renewing efforts to promote technical and vocational education and training (TVET) with the belief that skill development enhances productivity and sustains competitiveness in the global economy (Adam, 2011). There is no country that can achieve sustainable development without TVET. Therefore, TVET investment in human development is a form of investment for a country's development. The essence of effective management of technical and vocational education and training (TVET) is further underscored by the fact that it is a tool for productivity enhancement and poverty reduction (Margarita, 2014). In spite of this there has been an outcry in terms of the quality of training offered in vocational training centres as a result of declining number of quality trainers and a lack of modern and efficient machine and equipment, lack of relevance in skills taught that match with occupational and social realities present in today's economy (Ombaba., 2012).

However according to Audu, Abdulkadir and Abdul (2013), TVET institutions continue to attract a great deal of criticism in terms of performance. This is underpinned by Nelius, (2015) that the World Bank had argued that the cost of technical and vocational education programs was too high compared with the returns to the economy, that the quality of training was poor and that there was considerable mismatch between training and the needs of industry. Therefore the provision of adequate and relevant technical skills that are responsive to the labour market by these institutions remains a pipe dream and an index of poor performance. Courtesy of modern efficiency measurement theory TVET institutions have a mandate of ensuring they produce competent employees to the market (Khanal & Lamichhane, 2014).

These altogether calls into question on the management of TVET which remains the fulcrum of achieving sustainable development goals upon which the required knowledge, skills and attitudes are hinged.

There is a strong correlation between the proportion of TVET students at the post-secondary level and per capita income, thus many countries have taken steps to strengthen policy guidance and regulatory frameworks for technical and vocational education and training and to improve partnerships with private sector and employers (ADB., 2009). This gives credence to the declaration by the United Nations that 2005-2014 as the Decade of Education for Sustainable Development (DESD) and recommended that all countries take progressive steps to integrate sustainable development into their educational policies and plans at all levels and in all education sectors (CPSC.,2009). Technical and vocational education and training (TVET) is critical in addressing knowledge and skills challenges to achieving the SDGs. However, there is a difference between developed and less developed

countries in terms of their first priorities regarding TVET. The developed countries emphasize quality improvement, monitoring and evaluation of TVET, the availability of national development plans, but the developing countries focus on the cost of enrolment and implementation of TVET (CPSC., 2010). The World Bank is financing the Regional TVET initiative, which aims to create highly specialized regional flagship institutes (ADB., 2009).

In India provision of TVET is largely a shared responsibility between Central and State governments similar to Australia, however Private sector delivery of TVET has increased markedly in recent years, responding to both student demand and industry needs (Perya, 2008). In India lack of qualified instructors, inadequate spending on material inputs, lack of incentives for good performance are a binding constraint on TVET and limit quality and expansion at all levels (World Bank, 2010). The aforementioned inadequacies besides mismatch of skills and industry requirement, policies and plans seem largely quantitative, focused on expanding the current system for greater access with much less emphasis placed on improvements to current provision (Perya, 2008). The African Union in her Plan of Action for the Second Decade of Education for the period 2006 – 2015 recognizes the importance of TVET as a means of empowering individuals to take control of their lives and recommends the integration of vocational training into the general education system (Kinara, 2014).

According to Walther, (2006) despite the fact that TVET in Africa consumes between 67% to 267% of GDP per capita it only accounts to about 5% of the annual injection into the labor market. Namibia Over the past decade the VET system has experienced difficulties in responding to changing economic conditions due to factors such as isolation from the

private sector, centralized management systems and limited institutional autonomy (Namibia Vocational Education Training Policy., 2005).According to Umar and Ma'aji (2010), most of the technical colleges in Nigeria have been forced to perform below standard due to purported non availability, poor management or utter neglect of the required facilities in the workshops for effective training.

A study conducted by Onyejemezi(2001) on quality, quantity, production and distribution of teaching resources in Nigeria revealed that tertiary institutions are hardly supported with educational resources, even in the face of 'Accreditation fever'. A study conducted in South Africa by Prew (2009) revealed that the community should be involved in determining the development priorities in the school, supplying voluntary and paid services to the school, help the school raise and manage funds and sitting on and running some committees. In the same vein Umar, Audu,and Idris, (2009) suggested that Non-Government Organizations (NGOs), Community Based Organizations (CBOs) and Parent Teacher Associations (PTA) should be made to play a vibrant role in moving technical education forward.

Many countries have started devolving the management of Technical and Vocational Skills Development (TVSD), with the delegation of numerous responsibilities to regional authorities. Devolution of the management of TVET institutions is premised on the rationale that institutions closest to the citizens are the most likely to meet and properly articulate needs of the citizen. In Ethiopia, the government is considering reforms of the governance and management structures of TVET, by establishing autonomous TVET Authorities at federal and state levels, which are governed by the TVET Council (Kingombe, 2008). In Tunisia, the decentralisation process is based on the devolution of

responsibilities to the training centres which operate almost as private entities (Patrinos et al., 2009).

Kenya is reorienting itself towards sustainable development, using TVET as a vehicle for socioeconomic and technological transformation. UNESCO (2012) reported that according to the Sessional Paper No. 5 on Education and Training in Kenya, TVET includes Technical universities, national polytechnics, Institutes of Technology, Technical Teachers' Training College, Technical Training Institutes and Vocational training centers distributed throughout the country. The focus of this study is the Vocational Training Centres whose management has been devolved to the county Governments (Constitution of Kenya, 2010). In addition, ILO supports skills development to improve the employability of workers, the productivity of enterprises and the inclusiveness of economic growth.

In spite of the emphasis placed on vocational training by conferences and commissions, an International Labor Organization (ILO) Report of 2012 observed that young people coming out of the technical institutions lacked employable skills (Brewer, 2013). This is ascribed to challenges that they face ranging from an inflexible and antiquated curriculum, a mismatch between skills taught and those demanded by industries, low participation of the private sector in bridging the school-work gap, low teacher motivation and inadequate resources compromising on the performance of majority village polytechnics (Yungungu et al., 2014; Kigwilua & Githinji, 2015). Busia county is not an exception to the aforementioned challenges though the county is involved in expansion and promotion of tertiary learning opportunities in the county (Busia County Strategic Plan, 2013). However there are no known studies which have focused on effect of Resource management in

vocational training centres with regard to building and construction technology. The need for such a study is underpinned by the fact that there is a significant relationship between the construction industry and economic growth of a country (Dang & Low, 2011). In this regard the current study was designed to fill in the gap in literature by assessing the effect of resource management on performance of TVET with a focus on vocational training centers under devolution with regard to building and construction technology in Busia County.

1.2 Statement of the problem

The need for training which complements the established formal school system in Kenya is indicated by the growth of the vocational training centres. In this regard enrolment in vocational training centres grew by 15.7 per cent from 77,465 in 2018 to 89,598 in 2019 which is attributed to the expansion of the vocational training centres and infrastructure development by the County Governments, development and introduction of vocational training curriculum, in-servicing of trainers, government's effort to rehabilitate, modernize and expand the vocational training centres and the introduction of the Subsidized vocational training tuition (SVTT) Scheme (ESR., 2019). This is motivated by the fact that TVET as the leading engine that the economy must essentially be relied upon to produce adequate levels of manpower that will be needed to drive the economy towards the attainment of sustainable development goals and Vision 2030. This is underpinned by Education Sector Report 2017/18 – 2019/20 which notes that the success of the Vision 2030 and sustainable development goals is hinged on the total numbers, skills and quality of its manpower (ESR., 2019).

Numerous interventions made by the various governments including Kenya to improve performance of TVET, though required results has not been yielded yet in terms of improved performance(Badu, 2011). This is ascribed to challenges ranging from an inflexible and antiquated curriculum, a mismatch between skills taught and those demanded by industries, low participation of the private sector in bridging the school-work gap, low teacher motivation and inadequate resources compromising on the performance of majority vocational training centres(Yungungu et al., 2014; Kigwilu & Githinji, 2015). These challenges are meant to be addressed by devolving vocational training centres to counties (Constitution of Kenya, 2010). This hinges on the presumption that a coordinated effort by TVET institutions to develop and offer training tailored toward ensuring that county governments meet their constitutionally delegated mandate provides immense opportunities for youth training and subsequent youth employment in Kenya (Muli & Musyoka, 2013).Policies, budget allocations and Human resource focus of county governments appears that VTCs functions are somewhere at the bottom of the list of many priorities Omondi, (2015).

Besides the State Department of Technical Education and Training in liaison with the TVET county directorate has not been able to achieve its mandate on monitoring and evaluation of the delivery of TVET (KIPPRA., 2018).These altogether aggravates resource management challenges for vocational training centres which compromises their performance. Busia county is not an exception to the aforementioned challenges though the county is involved in expansion and promotion of tertiary learning opportunities in the county (Busia County Strategic Plan, 2013). However there are no known studies which have focused on effect of Resource management in vocational training centres and their

performance with regard to building and construction technology. The study was designed to provide an insight on the effect of resource management on performance of TVET with a focus on vocational training centers under devolution with regard to building and construction technology in Busia County.

1.3 Purpose of the study

The purpose of this study was to find out the effect of resource management on performance of Technical Vocational Education and Training, a case of Vocational Training Centres in Busia County, Kenya.

1.4 Specific Objectives

The current study was guided by the following objectives

- a) To find out the effect of physical resources management on performance of vocational training centers in Busia County.
- b) To determine the effect of trainer's competence management on performance of vocational training centers in Busia County.
- c) To establish the effect of training program quality assurance on performance of vocational training centers in Busia County.
- d) To find out the effect of funds management on performance of vocational training centers in Busia County.

1.5 Research questions.

The following questions formed the core of the study:

- e) What is the effect of physical resources management on performance of vocational training centers in Busia County?
- f) How does the trainer's competence management affect the on performance of vocational training centers in Busia County?
- g) What is the effect of training program quality assurance on performance of vocational training centers in Busia County?
- a) What is the effect of funds management on the performance of vocational training centers in Busia County?

1.6 Significance of the study

Vocational training centres remain important avenues for skill development and reduction of unemployment in an economy (Margarita, 2014). The study is significant as it helped identify whether there are still loopholes in the provision of building and construction skills in vocational training centres as there aren't known studies in this area within the country that the county can rely on. The study findings can be used by county government in terms of expansion and quality enhancement which can give contribution to the growth of vocational training centres in terms of innovation in building skills. The study findings can be used by county governments in formulating policies geared towards strengthening service delivery in the vocational training centres. The study can also serve as reference document to policy makers and scholars who would require information with respect to management of vocational training centres under devolution with regard to building and construction technology in Busia County and any other counties in Kenya.

1.7 Scope of the study

The study focused on the effect of resource management on performance of vocational training centres in Busia County, Kenya in building and construction technology. In pursuance to this, the study assessed how management of resources in vocational training centres such as physical resources, competence of instructors, training program quality assurance and fund management affect vocational training centres offering building and construction technology. In terms of context the study focused on the 17 vocational training centres in Busia County, Kenya from which the respondents were drawn. The respondents of study included instructors and principals. The study adopted a quantitative design and census survey of all the Government owned vocational training centres within Busia County. The study was conducted between November 2017 and March 2019.

1.9 Limitations of study

Data collection instruments were limited to questionnaires. The data to be collected was based on subjective perspectives measurement; to this, the researcher assured the respondents of confidentiality and as well emphasized on the purpose of the study which boosted their confidence to give objective responses. The respondents' inability to give comprehensive facts in so far as devolution and management of VTCs was minimized by explaining the core issues to the respondents before they start filling the questionnaires. These were mitigated by use of a well-coordinated work plan and budget. Access to the respondents was limited. In this regard the researcher booked appointments with them and adopted drop and pick of the questionnaires. The data of this study was collected from public vocational training centres in Busia County. Institutional environments might differ across

the country. Hence, the ability to generalize the findings of this study depends on the limitations of comparable environmental backgrounds of Busia County. A replication of this study within different environments will help to shed more light on challenges of management of vocational training centres offering building technology in Busia County, Kenya.

1.10 Assumptions of the study

The study assumes that despite the low knowledge level of some of some trainers on the resource management challenges they were able to respond to the questionnaires correctly. The VTCs share common environment, thus have the same management challenges affecting their performance. The factors studied are the key variables that affect VTCs.

1.11 Theoretical Framework

This section highlights the theory which informs this study. According to Denzin, (2017), a theory is a set of concepts or constructs and the interrelations that are assumed to exist among those concepts and provides the basis for answering the research questions in a study and hence setting the ground for empirical generalizations. This study was guided by the Human capital theory.

1.11.1 Human Capital Theory

Human Capital theory as proposed by Schultz, (1961). The theory assume that formal education and training increases the productivity of workers by imparting useful, relevant, sustainable knowledge, skills, competencies and social values. This theory relates directly to TVET because of its orientation towards the world of work plus its emphasis on

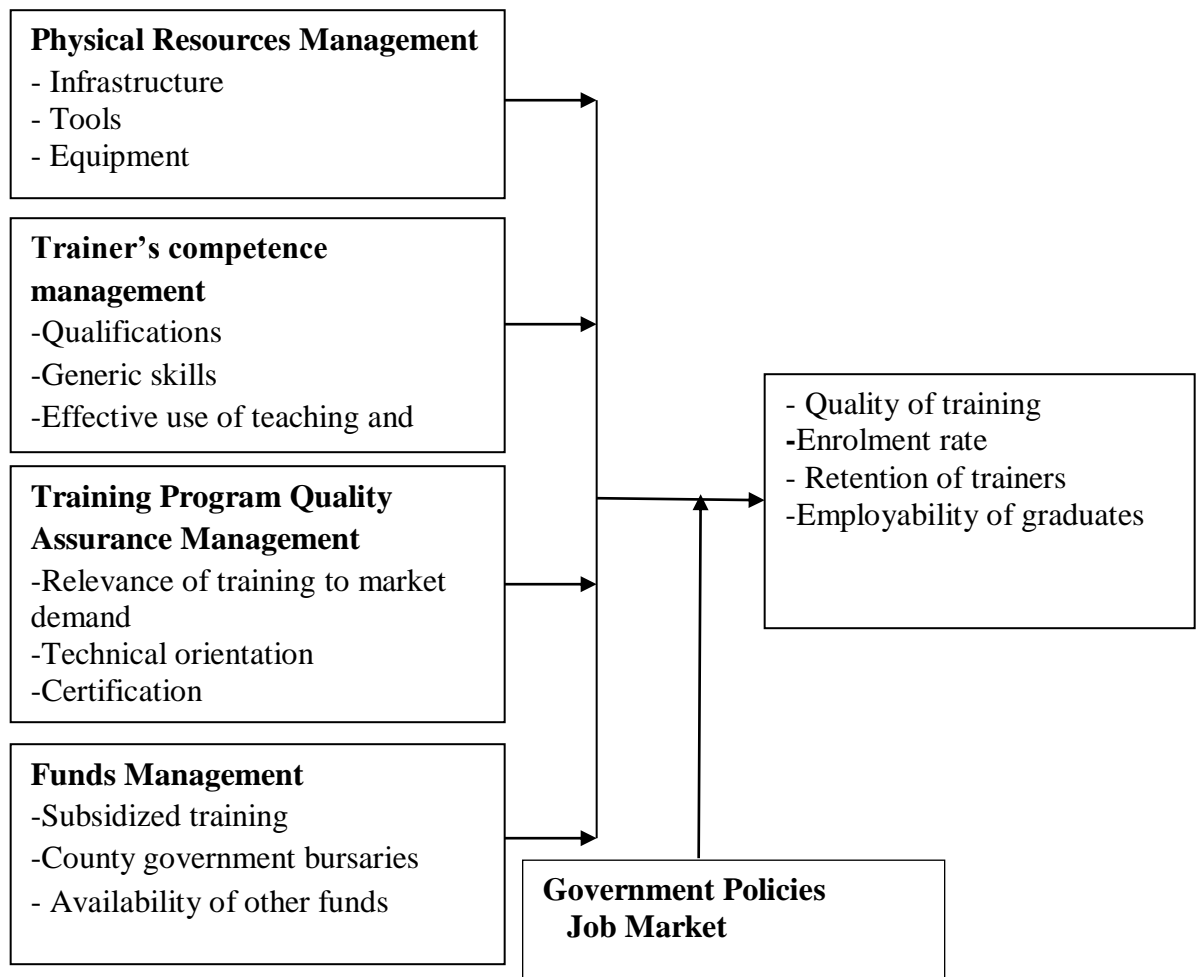
acquisition of employable skills. Moreover, TVET train skilled and entrepreneurial workforce that nation may require to create wealth and emerge out of poverty. To this end, it increases the productivity of workers just the same way machines increase productivity in entrepreneurship. This is why education is considered as a capital good responsible for developing human skills required for production of goods and services in the economy. Empirical studies (WB, 1993), show that there is a strong connection between access to TVET and rapid economic growth.

However, Human Capital Theory had been criticized on several grounds for example at the individual level, it had become controversial whether or to what extent education and other forms of human investments are directly related to improvement in occupation and income. Moreover, the theory fails to account for a growing gap between increased expansion of education and the diminishing number of commensurate jobs especially in developing countries. The increasing learning efforts have not led to substantial economic gains due to declining educational standards and at the same time, the theory fails to account for the widening gap between increased access to education and lack of appropriate skills to fast track economic growth and development mostly in developing nations

1.12 Conceptual framework

According to Antonenko (2015) a conceptual framework is a visual or written product that explains, either graphically or in narrative form, the main concepts, or variables to be studied and their presumed relationships. This study conceptualizes the relationship between management challenges and vocational centers in building construction.

Management Challenges of VTCs Performance of VTCs



Independent variables Intervening Variable Dependent variable

Fig I Conceptual Frame Work

1.13 Operational definition of Key terms

Management Challenges of VTCs: are issues, problems and inefficiencies that make it difficult to accomplish management objectives of VTCs

Performance of VTCs: is the ability of the VTCs to reach their goals and optimize results.

Funds Management: ability to effectively oversee and handle the VTCs cash flow to meet its objective.

Trainer's : a person employed by the county government to guide or instruct students in a specialized fields in VTCs

Training Program Quality Assurance Management: a systematic process of determining whether a training program in VTCs meets specified requirements

Trainer's competence management: the practice of identifying the key skills necessary for a trainer to reach target performance in their trainers role

Physical Resources Management: coordinating facilities, equipment, land, and other assets in VTCs to support student learning programs and services and improve institutional effectiveness

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter assesses the resource management and performance of vocational training centres. This chapter presents literature reviewed on related studies. Literature review was done according to themes generated from the objectives as follows. It explains the concept of TVET, management of TVET. The chapter also explores literature on physical resources, competence of instructors, training program quality assurance and funding on performance of vocational training centres. The chapter identifies gaps in knowledge which this study sought to fill.

2.2 The Concept of TVET

Technical, Vocational, Education and Training (TVET) was defined at the second International Congress on Technical and Vocational Education, held in the Republic of Korea in 1999, as: “Those aspects of the educational process involving, in addition to general education, the study of technologies and related sciences, and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupants in various sectors of economic and social life” (UNESCO, 2006). The Bonn resolution of October 2004 emphasized on the importance of technical and vocational education and training by noting that TVET is the “master key” for alleviation of poverty, promotion of peace and conservation of environment in order to improve the quality of human life and promotion of sustainable development (UNESCO, Education for All by 2015, Will we make it. , 2007).

Country's workforce with technical skills enhances quality and efficiency of production in various sectors of the economy, and they train and supervise other workers with lesser skills. According to Nyerere, (2009) supervisors can only be trained through technical and vocational education since mainstream education system produces managers. Ngerechi, (2000) indicates that public technical education requires a lot of financial support and can only be successful with government support. Countries like Italy, Brazil, China, Sweden, Australia and Japan have given more recognition to TVET through adequate funding and centralized management.

For example in Australia all TVET training is regulated by the National Skills Framework (NSF), a body that sets out the national training requirements to ensure quality and national consistency in terms of qualifications and the delivery of training (UNESCO, 2007).

In America vocational and academic education are integrated and the education system leads to both academic and occupational competencies (US department of education, 1992), and early this year the US President proposed new spending on education with a big proportion to improve vocation and technical education (Simon, 2012). Most countries in the Southeast of Asia like the Philippines, Brunei, Malaysia, and Thailand, are positioning TVET in the mainstream education system and setting it as a priority in their education agenda (Paryno, 2005). Countries including Germany, Spain, and Italy among others, signed a memorandum in Berlin on 11 December 2012 on concrete measures for introducing a vocational education system based on Germany's model whose goal is to have 80 per cent of all young people in the EU employed by 2020 (Schavan, 2012) TVET systems differ from country to country in Africa and are delivered at different levels in different types of institutions (African union, Ethiopia, 2007).

In Kenya however, from 1960s through to 1990s TVET in public institutions has been delivered through vocational training centres, technical secondary schools, district technical training institutes and national polytechnics. However according to (Mureithi, 2009), the image of TVET in Kenya has been changing over years for the worst and in 2000s it is viewed negatively by both parents and students as an education system for those who have failed in regular academic education. She also indicates that the management of government TVET institutions is also wanting with various TVET trainings scattered in various ministries with no central authority to spear head TVET activities.

Strategies for TVET are reflected in policy documents developed by the Government of Kenya over the last ten (10) years which include; Poverty Reduction Strategy Plan (PRSP) of September 2002; which advocated for measures through resource allocation to be taken to facilitate the training of young people in technical, vocational and entrepreneurial skills to equip them with relevant skills to participate fully in productive activities. It further avers that Vocational training centres will also be revitalized and expanded.

Economic Recovery Strategy Program (ERS) of 2003; envisaged the reviewing the education curriculum to make it relevant to the changing socio-economic environment so that the students can more easily fit in the labour market. Conducting in service training for teachers annually. The 2003-2007 Kenya Education Sector Support Program (KESSP) advocating for Capacity building for 45,000 education managers by the end of 2005; Construction/renovation of physical facilities/equipment in public learning institutions in

disadvantaged areas, particularly in Arid and Semi-Arid Lands (ASALs) and urban slums by 2008; Development of a national training strategy for TVET in 2005, and ensure that TVET institutions are appropriately funded and equipped by 2008, registration of all eligible learners for national examinations and provision of training opportunities to instructors.

The Vision 2030 of 2008 of ministry of education science and technology which called for TVET institutions be strengthened in terms of infrastructure with clear guidelines on their staff development and a revision of education and training policy within the New Constitutional framework, maintaining and strengthening the current decentralized service provision system. Expansion of TVET through infrastructure and equipment, including ICT. Harmonization and rationalization of TVET curricula, examinations, testing and certification. There is need to review and develop the curriculum that addresses the emerging needs of our society in order to enable the learners to acquire and develop the desired knowledge, skills, values and attitudes for life in the emerging knowledge society. In addition, TVET has been identified as critical in enabling the government realize its economic, social and political pillars in attaining the Millennium Development Goals (MDGs), industrialization by the year 2020 and the Kenya Vision 2030.

All these documents emphasize the importance of technical education in development. The TVET strategies are also entrenched in the 2010 constitution of Kenya (Republic of Kenya 2010) to support intention by the government to improve performance in public TVET institutions specifically by: The establishment of a National Training Authority to oversee

TVET development and coordination, the development of a National Skills and Training Strategy, giving incentives to strengthen involvement of industry in financing skills training, promotion of centers of excellence to nurture creativity and innovation, setting up Technical, Vocational, Education and Training Authority (TVETA) to coordinate the TVET sector, financing institutions to achieve maximum impact and to have strategic leadership in TVET sector provided by the TVETA. A developing country like Kenya needs to improve productivity throughout the economy if they are to grow economically in this era of rapid economic and technological changes. This requires a high level of competence of a country's skilled workforce, which is very important to the attainment of millennium development goals.

2.3 Management of Public TVET Institutions

Top management of any organization is concerned with defining of the mission, statement and goals of that organization. It establishes an organization's long term direction, specific performance objectives and oversees execution of all strategic plans (Arthur & Strickland, 1987). In Kenya, top management body has been missing for TVET institutions and management for these institutions have always been scattered in various government ministries without any central authority to spearhead operations (Mwinzi, 2009). Sessional paper No. 6 of 1988 highlighted the need for a national legalized TVET umbrella body to oversee the management and leadership of TVET institutions, but records indicate that this recommendation was not implemented (Ngerechi, 2000). Again a national symposium held in November 2003 reviewed the then TVET status and recommended establishment of a national training authority to oversee TVET development and coordination. This was to be done within the 2003-2007, 5-year strategic plan (Nyerere, 2009). But yet, even this

strategy was never implemented until September 2012 when the TVET bill was passed in parliament, and technical, vocational, education and training Authority (TVETA) was formed (Kenya gazette supplement No. 44).

Since the promulgation of the new Kenyan Constitution 2010, TVET including VTCs Training was decentralized and some TVET training functions devolved to the counties. The national government remained with running this TVET training Institutions; Technical Universities, National Polytechnics, Technical Institutes and Institutes of Technology all under the Directorate of TVET in the Ministry of Education under state department of Vocational and Technical Training .The counties were charged with managing Vocational Training Centres (VTCs) or Village polytechnics and home craft centres as indicated in Schedule 4 of the constitution of Kenya. All these institutions are all required to be accredited by the TVET Authority (TVETA) an Authority established by the TVET Act of 2013 which has the core mandate of accrediting all TVET institutions and trainers including public and private institutions. Counties are charged with running VTCs these includes hiring of trainers, provision of physical infrastructure like classrooms, offices, workshops and equipment etc. However most counties don't have a policy on TVET training in VTCs which is a key component in developing development plans besides leadership and management challenges of VTCs to oversee implementation of strategies has negatively impacted on the performance of TVET institutions(Kirui, 2019).

2.4 Empirical Review

The empirical review covered the conceptualized relationship of variables under study which includes management of vocational training centers in terms of physical resource

management, trainers competence management, training program quality assurance management and funds management on performance of vocational training centres.

2.4.1 Relationship between physical resources management and performance of VTCs

Sufficient and quality teaching and learning resources are crucial for a successful learning outcome since they enhance teaching and learning activities. A study conducted by Pianta, Hamre and Allen, (2012), concluded that teaching and learning resources create a positive classroom environment in terms of resource use. This improves both teacher- learner and learner- learner interactions which in turn prepare well learners to become future knowledge workers. According to Lyons, (2012) learning is a complex activity that involves interplay of students' motivation, physical facilities, teaching resources, and skills of teaching and curriculum demands. Availability of physical resources are key to effective learning as they bring about good academic performance in the students. The necessary physical resources incumbent for performance of VTCs remains physical facilities such as infrastructure which includes laboratories and workshops, libraries and classrooms besides tools and equipment.

Few studies have examined the availability and adequacy of facilities needed for effective implementation of the curriculum in TVET institutions in Kenya. One of such studies was space and machines were adequate for the number of students in the institution. Other studies have shown that inadequacy of infrastructure and equipment affects curriculum implementation in TVET institutions (Hooker, 2011). Thus, these studies seem to suggest that the challenge of facilities cannot be divorced from the inadequacy of finances in the affected institutions. For instance, in their study on the role of technical and vocational

education and training in human resource development in Rwanda, Ayuba (2010) established that high cost of construction of facilities, equipment, maintenance and the provision of consumable training materials did hinder implementation of TVET in Rwanda. Given this mixed implications of adequacy of facilities on curriculum implementation, it became necessary in the current study to investigate the issue in order to establish the nature of the influence the adequacy of facilities had on curriculum implementation in community colleges. The same challenge of facilities is echoed in other studies that show that limited school budgets for up to date tools and equipment, infrequent repair of old equipment; high costs of practical training materials and equipment constrained the curriculum implementation efforts in TVET institutions (Sharma, 2008).

Moreover, anecdotal evidence suggests that obsolete equipment existing in technical colleges in Kenya compromises effective training of youth for a modern economy (UNESCO, 2007). In Zambia, UNESCO (2006) established that physical facilities like classrooms, workshops, libraries, furniture and textbooks were inadequate in all institutions studied. However, to overcome the inadequacy, some institutions had signed agreements with some workshops and public institutions where they took their students for practical lessons. Thus, part of the motivation for the current study was not only to establish the adequacy of physical facilities in community colleges but also to determine if and how the community colleges addressed the inadequacies. The facility finance debate continues to emerge in several other studies such as (Mwinzi, 2009). The foregoing literature seems to allude to the notion of existence of a relationship between adequacy of finances and provision of physical facilities in learning institutions. Indeed, evidence shows that

inadequate investment in instructional equipment could hinder learning outcomes among students as they would have fewer opportunities to practice with these tools and machines (Hooker, 2011).

The Ministry of Education Science and Technology noted in its report that adequate and modern facilities were essential features of a sound and vibrant TVET system (MoEST., 2014). Availability of adequate and modern training facilities to cope with rapid technological changes has been an issue even with the richest nations according to the ministry report. In assessing YPs role in Kenya Owano, (1998) noted that provision of better equipped workshops, supply of training materials and greater emphasis on practical skills would improve the program and lead to increased access.

According to National Development Plan 2002-2008, there was more theoretical teaching in VTCs overrides the provision of practical skills due to inadequate tools, equipment and materials for practical oriented training. It further noted that most of the facilities were dilapidated due to lack of funds for maintenance (RoK., 2002). From GoK (2002) study, it was further observed that there existed a wide demand for infrastructural diversity to equilibrate enrolment and physical facilities among Technical Vocational Institutions. Enrolment in business oriented courses and applied sciences supersede technical disciplines, thus compromising on the original mandate of Technical Vocational Educations and Training Institutions. A study done in Nigeria on quality educational output revealed that availability of infrastructure other facilities and their integrity are quintessential in effective teaching and learning (Adeyemi, 2008). The absence or

inadequacy of infrastructure and learning material is at the bane of quality teaching which affects enrolment in educational institutions. According to Ngunzo (2011) institutions with modern facilities like adequately equipped laboratories significantly attract high enrollment rates of more students, perform better and have large transition rates to University and other colleges than those without. Gurney (2007) opines that in London learning is successful in school buildings that were safe, clean, quiet, comfortable and healthy. The study lamented that lack of such facilities affects the teachers morale while poorly maintained physical facilities affects the learning outcomes because they impact on learners attitude towards the school, self-esteem, security, comfort and social behavior.

Ayoo (2002) carried out study on the effects of school physical facilities on academic performance and established that availability of facilities had direct link with the performance of learners in exams. Alvedi(1999)notes that all technical schools in Kenya on conversion to technical institutions in 1986 ended up inheriting the same facilities that had been used for training the secondary school students. The studies therefore affirms that the old and outdated physical facilities inherited are still being used for training. Mutua noted that most vocational centers in Mtito Andei Division were poorly equipped and that they lacked essential physical facilities, which are necessary for learning. Kathur (1986)notes that better facilities in vocational centers lead to better performance in exams. This study was therefore focused on establishing the extent to which availability of physical resources e.g workshops affects academic performance in youth vocational centers. Poplin and Joseph (1992)says that in many cases the lack and inadequate infrastructural materials seriously hampers the effectiveness of non-

formal training. Sustainability of programs has frequently proved difficult using available resources. Frazier(1993) asserts that education sector has ignored vocational institutions in terms of financial and resource allocation. It is finances that enable the head of vocational institutions to purchase learning resources that are adequate in supporting academic performance.

In their current state, the Vocational Training Centres across Bungoma County are ill-equipped and under-resourced to sufficiently contribute towards building a bank of technical skills like carpentry, tailoring, masonry and electrical installation (info@bungoma.go.ke., 2018). Many centres lack appropriate land ownership documents and in most cases, teaching is done using manual, old and outdated machines. “As it is right now, most of mechanics, carpenters and other technicians, in Bungoma town are drawn from other parts of this country because our youths are lacking in these important skills,” (Wangamati, 2018).

According to Hicks et.al (2011) various trades in the public training institutions use outdated tools and equipment. A survey by MOYAS, 2012 revealed that the public VTCs are constrained with inadequate modern equipment which is very critical in skill development. Their counterparts in the private institutions use modern tools and equipment, and are exposed to an apprenticeship style where the trainees work on real projects that provide them with a better understanding of the current market demand. Study findings by Mureithi, 2008 revealed that YPs fail to offer hands on skills due to inadequate training facilities.

In Kenya today there are over 600 VTCs MOEST, (2005) and are widely spread that they become inaccessible. Study findings by Western Kenya Vocational Training Project indicated that on average there are two public institutions within 10km of the homes of individual student (Hicks et.al 2011). In Bungoma county vocational training centres in their current state across the County are ill-equipped and under-resourced to sufficiently contribute towards building a bank of technical skills like carpentry, tailoring, masonry and electrical installation. Many centres lack appropriate land ownership documents and in most cases, teaching is done using manual, old and outdated machines (Japhrednamunane., 2018). In Busia County there were 18 public VTCs (Busia County Strategic Paper, 2013). In Samia two VTCs Nangina and Namasali have so far been funded by the government. The government also provides greenhouses, fish pond and incubators to the YPs for income generation as a way of ensuring their sustainability. The VTCs also train the students on agribusiness and use these facilities for their practical lessons. Kenya being a dual economy with agriculture as its back borne, it aims at training the energetic youth on agriculture. Each VTC has at least one income generating activity.

From the reviewed studies, it showed that inadequacy of infrastructure and equipment, teaching and learning resources hindered curriculum implementation in TVET institutions translating into their poor performance (Ayuba & Gatabazi, 2010; Farstad, 2002; Hooker, et al., 2011; Indoshi, et al., 2010; Mupinga, et. al., 2006; Sharma, 2008; UNESCO, 2010). However, the studies barely interrogated the levels of inadequacy of specific facilities and resources in the institutions but not in Busia County with respect to building and

technology. This study will provide knowledge in terms of the level of provision of physical resources by the county government and how this impacts on the performance of vocational training centres.

2.4.2 Relationship between the trainer's competence management and performance of vocational training centers.

A globally competitive quality education system needs competent teachers inside classrooms. Therefore the desire for quality of education in tertiary institutions would certainly demand for competent lecturers and trainers. Competence, as defined by Daelmans, et al. (2005) is the ability of a professional to handle complex situations or problems using professional knowledge, skills and attitudes in an integrative way. Generic skills are conceptualized as being skills applicable to different situations after initial teaching/learning and capable of slight adaptation to suit the varying needs of the new situation (Cornford, 2005). Generic competences is aimed more at identifying the common abilities that explain variations in performance that can be applied to different professional groups and which they could take depending on the workplace context (Mulder et al., 2007). However from the onset it is essential to bear in mind that each individual teacher is unique in many ways and thus there will be need for flexibility to allow each teacher to choose the teaching style(s) that are most in keeping with their individuality. In fact, most teachers vary their styles depending on a range of factors including what they are teaching and when (Beverton et al., 2005).

An important lens that is often employed when looking at the quality of teachers and teacher education is that of the professionalism of teachers. There are two major obstacles to the professionalization of teachers in vocational education: the low status of vocational education and the problem of increasing the status of the teaching profession in general. While vocational self-identity and trainers are essential to supporting skills development in the workforce, they are not granted high status in this role. In most industrialized countries, some two-thirds of the workforce that constitutes the backbone of the economy are intermediate-level workers and employees, who have learned a substantial part of their occupational skills and knowledge through the support of teachers, trainers and instructors in the domains of nonacademic technical vocational education and human resources development (European Centre for the Development of Vocational Training, 1998; UNESCO-UNEVOC International Centre for Technical and Vocational Education and Training & UNESCO Institute for Statistics, 2007). Given the basic importance of vocational learning for economic success, it is remarkable that its practitioners so lack the level of social recognition needed to establish it as a well-regarded profession that attracts societal affirmation as well as attracting appropriate individuals to practice as vocational educators.

In many societies, vocational education and training is merely associated with conditioning for specialized jobs for the non-academic population instead of a process that almost any member of society goes through and in which he or she develops attitudes, skills and knowledge that are substantial and necessary resources for the individual to take part in economic and social life (Schavan, 2012). The low status of vocational teachers is

reinforced by a second fact: vocational teaching in many late-industrial polities has had ongoing problems gaining professional recognition, and has even been referred to as a 'semi-profession' (Golinelli, 2010). Yet, given the increasing emphasis on lifelong learning, teachers and trainers as learning facilitators could now be regarded as core professions in the knowledge society.

Improving the standing of teachers is, therefore, a significant lever for increasing the quality of vocational education, as acknowledged by many international and national organizations. This includes the recent monitoring activities of the Organization for Economic Co-operation and Development (OECD) with regard to attracting, developing and retaining teachers, the working group of the European Union on the qualifications of teachers within the process of Education 2010, activities in the Asian context and the work of UNEVOC, the International Centre for Technical and Vocational Education and Training (Akplu, 2008). UNESCO Section for Technical and Vocational Education, 1997; Organization for Economic Co-operation and Development et al, 2002; Frimodt et al, 2006). Despite such activities, empirically, the significance of vocational learning is often overshadowed by the greater emphasis societies place on academic education and credentials. As regards teachers, this is embodied in the fact that many of these international studies do not make particular reference to the peculiar problems of teachers in vocational education. The last comprehensive international studies on vocational teachers occurred more than 30 years ago (UNESCO, 2006). The low professional status of teachers in vocational education as described in the preceding paragraphs is accompanied

by a fragmentation of the profession seen in the variety of existing profiles and multiple methods of teacher training and recruitment.

The professional skills and competences of teachers constitute a crucial factor in determining the success of the teaching processes that they enact (Bandeled, 2012). One of the levers to improve the quality of vocational teachers is to raise the level of the qualifications needed and the education received leading to those qualifications. On a very general level, two models of vocational teacher recruitment and training can be distinguished: a model that is based on the recruitment and preparation patterns of academic teachers and a model that is often referred to as 'alternative recruitment'. Given the fact that vocational teachers are expected to bring work experience and specific occupational knowledge into their educational institutions, different ways of recruitment are established that deviate from those used for academic teachers (Lynch, 1998). Often the formal credentials acquired through this route are lower than those of academic teachers.

The human resources within the YPs include training officers, managers, instructors and contracted persons. The government employs training officers, managers and instructors and deploys them to YPs all over the country. It also provides funds for paying contracted persons within the YPs. Since 2007 the government through the department of youth training and public service has been staffing the YPs to supplement those employed by the YP BOG. (Busia Strategic Plan, 2013). For trainees to acquire market relevant skills, the instructors must have sufficient industry experience (Johanson & Adams, 2004). However, such qualified

instructors are not easily available since they are also on high demand in the labour market. Nieto, (2006) posits that teachers must be trained, prepared for public service and provided with opportunities for professional development. MOEST (2003) report recommended that the government should provide YP instructors with skill upgrading, in service training and attachment schemes. Their wages were also recommended for review. The VTC trainers have to meet certain minimum qualifications which are stipulated by the training department.

Effective teaching means that there are certain things which the trainees must do and other things which the trainers must also do to increase the chances of learning taking place (Mukwa & Too, 2002). Instructors need to have formal classroom and workshop instruction skills as well as non-formal skills (Yungungu, Maleche, Ndurumo & Ogolla, 2014). They further added that they should offer a continued service and culture of hard work and create an in-depth understanding and a rapport with the trainees for effective training to take place. In other words, there should be enough, qualified and committed instructors for effective training (Bamford, 1986). Most instructors in vocational training centers lack pedagogical skills to effectively deliver the technical curriculum and to keep abreast with the changes in the technical field globally (Gakio, 2012). This lack of professionally trained instructors could explain the poor implementation of the curriculum and performance of the vocational training centers. In this regard Kerre (1987) made the case for the need in Kenya to develop a high number of new teachers with a vocational and technical education background. Trainers at public youth polytechnics enjoy low status as they are employed by a different employer on contract unlike the main stream teachers who

are employed by the TSC (Yungungu, et al., 2014). Sifuna (1992)note that most teachers handling prevocational subjects in school were generalists and were therefore ill equipped intellectually to pass on technical knowledge and skills to their pupils. Teaching and learning strategies employed in TVE and training has found not been able to equip students with adequate competences to enter the job market (Yusof, 2004;Mustapha &Greenan, 2002).

According to Section 13 of the TVET Regulations, the management of every institution shall ensure that trainers are qualified in their area of specialization as per the TVET Act, they have the relevant technical and vocational competencies at least to the level being delivered or assessed, persons recruited as technicians possess appropriate qualifications in the specific technical fields and that persons recruited or hired for all training support services are professionally trained (Oduoret al., 2017). They further opined that The Government should recruit adequate qualified staff and also ensure that all staff receive continuous training and development including on course delivery using modern methods, teaching methodologies and practical knowledge. Availability of competent trainers was an important aspect when students decide to join Vocational training institute (Agufana & Ndavula, 2011).

According to Abuel-Ealer, (2012), competent teachers are critical in the provision of quality education because they impart literacy and numeracy skills in addition to providing a set of complex, analytical, social and emotional skills. He went further to note that how they are prepared for teaching is a critical indicator of education quality given that good teacher training should deal with aspects like academic qualifications, pedagogical training,

experience, in-service training and professional development. Therefore, he concluded that educational institutions should have sufficient and highly qualified teachers. In Kenya, research done by Khatete noted that teacher characteristics after pre-service training can be improved through in-service program whose aim should be to enable a practicing teacher improve on instructional and professional knowledge, interests and skills (Khatete, 2010). Therefore, to him improvement in quality of learning depends on improvement of teacher competency since they are at the center of teaching and learning process and moreover, the quality of technical vocational education and training to a great extent depends on the competence of the trainer. Ijaiya (1998) investigated the problems of teacher staffing in Kwara district vocational training centers in Uganda and found that acute shortage of qualified staff contributed to massive failures as well as poor quality teaching.

Ismail (2010) avers that vocational education and training instructors be trained in pedagogy and their terms and conditions of service be improved. Improvement in the quality of learning depends on the improvement of teacher competency since they are at the center of teaching and learning process and moreover, the quality of Technical Vocational Education and Training to a great extent depends on the competence of the trainer (Khatete, 2010). The relationship between a competent workforce and the degree of competitiveness and productivity of an enterprise is widely accepted and accordingly structuring of high standard training programmes remains very essential making the demand for lecturers competence inordinate. In this regard, competent trainers guarantees the realization of labor competency from vocational training centres which is the essence of restructuring the training systems. In fine the competence of trainers cannot be gainsaid as

it breeds the much needed operational and technical experiences in ensuring that the required standards of training are being maintained for improving the performance of vocational training centres.

At the policy level, there is a challenge integrating the specialized requirements of TVET staff in the teacher training policies to attract, develop, and motivate all TVET staff (UNESCO-UNEVOC., 2014). At the institutional level, inadequate empowerment and capacitation of TVET teachers and trainers to deliver program responsive to emerging demands poses a problem. However at the system level, there is a need for clear regulatory frameworks that define the quality and performance standards confront the challenge of TVET staff development for competence which persist (UNESCO-UNEVOC., 2014). Besides the State Department of Technical Education and Training in liaison with the TVET county directors has not been able to achieve its mandate on monitoring and evaluation of the delivery of TVET. This calls to question the effect of competence of trainers on the performance of vocational training institutions.

2.4.3 Relationship between training program quality assurance management and performance of vocational training centres in Busia County

Education is undergoing significant structural, organizational and funding changes in order to be more responsive to the emerging demands for skills (Jongbloed et al., 2008). Thus skills provided during training and those require in the job market must compatible. These demands have created new expectations of and new tasks for vocational education. In this regard seeking quality in training programs is the way to achieve excellence and

performance of vocational training. Thus, quality of vocational education is the sum of quality of course design, quality of learning, quality of graduates, quality of services, quality of teaching and quality of management (Sayeda et al., 2010). TVET, a quality assurance is imperative in the learning environment (school setting) to provide policy-makers with deeper understanding of vocational education, its functions, set goals and key characteristics (Majumdar, 2009). Quality in vocational education and training is an issue that tops the agenda in government conferences and in school meetings (ETF., 2014). The need for training program quality assurance is invoked by the fact that if learning doesn't lead to satisfactory outcomes, everyone loses: learners, employers and society at large.

Most of the students who complete primary and secondary schools do not have accurate information about occupational opportunities to help them make appropriate career choice. According to Hewitt, most students are influenced by careers that their parents favor or others follow careers that their educational choices have opened for them while some choose careers that give high income (Hewitt, 2010). This was why access to vocational education in Japan was low because youths felt that taking vocational courses would narrow their employment and educational options open to them while parents lacked the confidence to advise their children on vocational career opportunities because it did not guarantee them good jobs that earns high income (Batter ham, 2011).

Ayuba(2010) researching in America on factors influencing Career Choice of African American and Hispanic students in the College of Agriculture found out that limited job opportunities in agriculture led students to choose other careers (Jones &Larke, 2001).

However, Needham and Papier established that in South Africa some students in the urban areas felt that vocational qualification would result in low salaries and learning pathways that excluded them from further studies (Needham & Papier, 2011). Myburgh also researching in South Africa on empirical analysis of factors that influence career choice of accounting students at the University of Pretoria found out that availability of employment, level of income and employment security influenced the student's choice of the course (Myburgh, 2005).

In Kenya, most families struggle to meet basic human wants hence, monetary and material reward was an important determinant of career choice (Ngunjiri, 2013). He further noted that those careers that offer high living standards in terms of monetary and material rewards are attractive to many students. Research done by Mursoi on assessment of factors that influence secondary school students perception towards TVET in Eldoret West district noted that student perception to TVET institutions was shaped largely by people's views for example parents, teachers / counselors, peers and their academic achievements (Mursoi, 2013). Additionally, Edwards and Quinter observed that Factors Influencing Students Career Choices among Secondary School students in Kisumu Municipality includes availability of employment and opportunities for advancement (Edwards & Quinter, 2011). Despite the fact that much had been written about the individual variables influencing career choice, the literature review however, revealed that there was no empirical studies on this subject matter especially regarding to how career opportunities influence access to VTCs in Bungoma East sub-county, Kenya.

In fact, human resource is considered as the most important productivity factor and investment item. There is, therefore, the need to occasionally review the VTC curriculum in order to produce employable graduates with relevant knowledge, skills and attitude to the world of work (Yungungu et al., 2014). Vocational education and training is frequently perceived as the solution for improving the opportunities of youths to acquire skills that are valuable in the labor market and can help them begin a sustainable employment trajectory (Werner, 2015). Bwisa (2012) notes that parents want their children to be teachers, nurses, doctors and very few encourage their children to enter blue collar jobs. The results of negative attitude is lack of skills for the labour market. Datton (1998) citing African Economic outlook (2011), points that the African youth face high rates of unemployment despite having a vast reservoir of talents, skills and opportunities that smart intervention can be transformed into productive workforce. This information is brought out in the study done on west and East African countries. The study shows that the worst hit are Kenya and Madagascar in East Africa and Cameroon, Nigeria and Cote d'ivoire (Adam, 2011). A skill mismatch makes the situation worse where for example the youth insist on getting a course in information Technology (IT) while the demand is on the plumbers or even farmers.

The close link to work tasks and hands-on practical experience is expected to motivate more practically-oriented youths to continue training and remain in school longer (Werner, 2015). However, because the share of students who enter academic education after vocational schooling is very low, the vocational schooling option is often seen as a dead-end track and a second-choice education (Werner, 2015). The skills provided by vocational

schools are often transferable between employers, although the degree of transferability across occupations can vary (Eichhorst & Rodríguez-Planas, 2012). Vocational education and training must be complementary to structural reform policies to revive the economy and reduce such entry barriers to employment as too stringent dismissal protection and minimum wage regulations (Werner, 2015).

The root of the shortage of skilled labor can be traced to persistence of antiquated and unresponsive training mechanisms in vocational and technical systems which are not providing new entrants with appropriate skills (Lopez-Acevedo & Tan, 2003). A study by Taylor (2005) focused on school vocational education and training and found that youths undertook was explicitly focused on the acquisition of ‘hard’ skills and acquisition ‘soft skills’, was presumably incidental and their acquisition was assumed to occur largely by osmosis. Youths demonstrated a high awareness of the role that personal attributes and demeanors would play in obtaining and maintaining employment in the trades. According to Wheelahan et al., (2010) TVET qualifications should not only equip students with the knowledge and skills they need for work, but also ensure that they have adequate language, literacy and numeracy skills and foundation skills, green skills needed for a sustainable economy and society, technological skills, and the knowledge and skills they need for further learning as the basis for changes to their existing work and for occupational progression.

Reddan and Harrison (2010) argued that TVET institutions need to restructure their programs to be responsive to the needs of the job market, especially the industry. To

achieve this goal, TVET curricula must focus on outcomes in terms of the skills, knowledge and attitudes required industry. That is, TVET provision should be responsive to the demands of industry. Despite the continued efforts of government on TVET, the pace of technological progress, employment and industrialization is still slow and unimpressive as evidenced by rising unemployment rate and level of poverty in the countries is still high (Ladipo et al., 2013). This is in contrary of the object of TVET which is a specialized education designed to empower learners through the development of their technical skills, human abilities, cognitive understanding, attitudes and work habits in order to prepare learners adequately for the world of work or positioned them practically for self-employment after graduation (Oni, 2007). Besides few studies if any have been conducted in Kenya and Busia County in specific to ascertain the effect of training programme quality assurance on performance of vocational training centres. However studies have been done in others countries but many countries have separate education systems and training systems that for generations have operated in relative isolation from one another. There are wide variations between the two sectors in terms of a) their different cultures, governance, finance and accountability; and b) their standards, expectations and ways of measuring learner progress. In addition Majority of studies above focused on main stream academy education in secondary school and universities but not TVET institutions. This study will, therefore, seek to fill up this gap by assessing the Vocational Training Centres.

2.4.4 Relationship between Funds management and performance of Vocational Training Centres

Successful strategy implementation enhances organizations to produce excellent performance (Hooker, 2011). This process requires finances to support strategic goals and objectives by turning strategies and plans into actions (Ngerechi, 2000). The strategy by the government of Kenya to finance TVET institutions was passed in sessional paper No. 1 of 2005. This strategy was to ensure that all public technical training institutions were funded and equipped by 2008 to improve performance of TVET system. However this strategy was never implemented until January 2013 when TVET funding board was established (Kenya Gazette supplement No. 44). Due to lack of implementation of this strategy public TVET institutions continue to operate with little funds mostly from school fees collections, and therefore they underperform due to lack of good facilities (buildings, equipment and learning material) which are expected to lead to better performance of these institutions (UNESCO, 2006). In Kenya, funding towards public TVET institutions is ad hoc and arbitral with minimal budgetary allocations. One major constraint that TVET is facing in Kenya is limited budget and this has lowered the performance of the TVET institutions (Batter ham, 2011).

MOEST (2003) report on education and training indicated that the main goal of education financing is to ensure that no single student is denied access to education or training because of inability to afford. It recommended provision of an annual budget to be set aside for tuition subsidy, expanding and rehabilitating physical facilities and replacing equipment. SYPT was introduced in the polytechnics in 2009 with the sole aim of

increasing the access to training for the out of school youth so that they can acquire employable skills. This was due to the realization that the youth form the largest population in the country yet they are the most unemployed, about 60% (2009 census), and as a result forms a drain on the national budget. It can be a great resource to the country if harnessed (MOYA strategic plan). The government ever since has initiated various programs to empower the youth among them vocational skill training.

According to Sessional paper no 14 of 2012 enrolment in TVET institutions rose from 71,167 in 2006 to 82,843 in 2010. It is during this period that the government continuously allocated substantial amount of money, from 92.6 Billion in 2005/2006 to 160 Billion in 2009/2010 F/Y, which is about 27% of total government spending in education and training sector. A study done in Pakistan on factors influencing enrolment in higher education institutions indicated that financial aid and training facilities have a major influence on enrolment decisions. The move by the government to introduce tuition subsidy in all public VTCs across the country was because of a number of reasons; most of the VTCs trainees were school drop outs from poor backgrounds who could not afford fees in formal school systems, the level of retention was very low compared to enrolment level and the quality of training was poor. Okoro (2007) study findings revealed that lack of funds among other factors affect quality training. The government allocates a uniform subsidy of Kes.15, 000 per trainee per year. The total amount allocated to YPs will therefore depend on the total number of trainees in that institution and its use is also dependent on stipulated rules and regulation by the government.

Akplu (2008) reveal that uniform tuition subsidy does not simultaneously increase enrolment and reduce dropout. While the subsidy enables some students from poor backgrounds to enroll in education and training institutions, it also encourages less prepared students' to enroll. As a result the enrolment rate increases but the completion rate is compromised. The study also states that the tuition subsidy is inadequate to prevent dropping out of the training institution. There are ancillary costs such as transport costs, lunch, uniform purchasing and examination fees that the trainees are supposed to take care of, that the poor trainees are unable to raise thus increasing the dropout rate. These ancillary costs account for about 15 percent of average per capita household expenditure (KIHBS, 2005). Most countries receive an inadequate budget towards vocational training thus the vocational institutions introduce these cost sharing measures (DFID, 2006).

Ayuba(2010) suggest a merit based subsidy to curb dropout and improve completion rate. This involves screening and providing the financial aid to only those in need and not just everybody, although this does not lead to a significant increase in enrolment. If the objective of the education policy is to increase enrolment then a flat rate subsidy is the way to go but if the policy is to ensure a rise in both enrolment and completion rates then both the flat rate tuition and merit based tuition subsidy should be applied. Subsidy improves the composition of labour force and wage inequality.

Direct funding from churches and NGOs is relatively insignificant for the majority of providers, except for private TVET providers in Samoa, and the church TVET providers in Tonga (Palmer, 2015). However, this understates the essential role that churches have

played in establishing TVET providers in many of the countries studied, that now operate as non-profit nongovernmental providers, drawing funding from government grants, tuition fees, the sale of goods/services, as well as direct grants from churches (Palmer, 2015). It also understates their actual resource inputs since an important part of their contribution is through staff salary subsidies and volunteers, for example in Samoa (Maglen et al., 2013).

According to Klein, (2001) Indiana recently adopted a new vocational funding formula that is intended to promote state economic competitiveness. Under the new formula, local agencies are funded based on student participation in specific vocational program areas, particularly those in which there is above average labor market demand. Responding to legislative pressure, Florida recently instituted a postsecondary performance incentive system that rewards local agencies based on the number of students who complete programs and enter the workforce. State funding methods for vocational education fall into four broad categories: foundation grant programs, unit cost funding, weighted adjustments, and performance-based outcomes.

As budget allocations from government sources for education get tighter, the squeeze on availability of funds for Vocational Education and Training (VET) is apparent in so far as VET is dependent on public funds (Bolina, 1996). It is then imperative to search for alternative means of financing. The challenge before policy makers is to introduce new and different ways of financing as well as to ensure that the resources which are available for VET are used more effectively (Bolina, 1996). King and McGrath, (2004) They point out that lack of resources have led to cuts in the volume of training provided in public

institutions. These cuts are a hindrance to pursuing the critical objectives of providing training and raising production. Considering the expensive nature of TVET as a form of education, it is imperative that an expanded system with necessary and adequate facilities and equipment will lead to the effectiveness of the system.

In Kenya the Shortage of funds has also meant that the canters can hardly attract and retain qualified staff in core areas like electrical installation and automotive engineering (Wangamati, 2018). For years, the vocational centers have also suffered wanton mismanagement and poor infrastructure with most of them remaining idle or only catering to a handful of trainees. Most of the institutions also lacked basic amenities like water, electricity and access to roads (Wangamati, 2018).According to IFAD, (2008) Fees are a barrier to vocational training. Although the provision of subsidies in the vocational sector has reduced the financial burden, the fees are still at least 10,000 Kshs a year accounting for over 15 percent of average per capita household expenditures from the 2005 KIHBS (adjusted to 2009 prices). This is reinforced by evidence from a recent randomized project in Western Kenya where close to 75 percent of students who were randomly awarded a voucher for vocational training (a scholarship) enrolled in a training program, while less than 5 percent of individuals who were not awarded a voucher, but were equally interested in pursuing vocational training, enrolled in a program. Preliminary evidence from an on going randomized vocational training project suggests that reductions in fees through scholarships (or vouchers) can significantly increase vocational training enrolments (MOYAs., 2009). Given the apparent misperceptions, providing more accurate information can enable individuals to make better informed decisions about vocational training.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction,

This chapter focuses on research design, study area, target population, validity and reliability, sampling techniques, data collection instruments and procedure data analysis and presentation, data presentation and Ethical consideration.

3.2 Research Methodology

Research methodology is essentially the "how" a certain piece of research is conducted in practice (Brooks & Normore, 2015). Methodology is the framework which is associated with a particular set of paradigmatic assumptions that are used in conducting research. More specifically, it deals with the methods a researcher employs when designing a study to guarantee accurate outcomes that meet the goals and objectives of the investigation (Dawadi & Giri, 2021). The study adopted a quantitative methodology. A quantitative research methodology gathers a range of numeric data to generate knowledge and create understanding about the social world (Creswell & Clark, 2018). Quantitative research deals with quantifying and analyzing variables in order to get results. A major benefit of using quantitative data is its objectivity. It relies on concrete numbers and fewer variables. This can help to remove biases from the research and make the findings more accurate (Dawson, 2019)

3.2 Research Design

A research design is a framework or blueprint for conducting a research. It details the procedures necessary for obtaining the information needed to structure or solve the research problems (Tashakkori & Teddlie, 2010). According to Kothari and Garg, (2014) research design is a plan outlining collection, measurement and analysis that effectively and efficiently enables research operations to be done with ease. Research design anchors a study on a framework of adequate test of variable relationships and structures the enquiry logically (Bryman & Buchanan, 2018; Bhattacharjee, 2012).

The current study adopted a quantitative research design based on a sample drawn from VTCs in Busia County. This design enabled the researcher to get a larger population hence a reasonable sample size. According to Kothari and Garg, (2014) Creswell and Clark (2018) Quantitative research is an inquiry into a sociable problem; describe phenomena by gathering numerical data that are analyzed using mathematically structured methods. Often, questionnaires are used and the data collected is standardized, easily understood and easy to compare. This method helps to gain a deeper understanding for the problems investigated through different sources of information, as well as to be able to describe a general picture of the reliability in which the problem is involved(Tashakkori & Teddlie, 2010). It is often characterized by the selection of random samples from large populations to obtain empirical knowledge of a contemporary nature (Saunders, et al., 2009).

3.3 Study Area

Busia is a [county](#) in the former [Western Province](#) of [Kenya](#) located 0°26'N34°9'E. It borders [Kakamega County](#) to the east, [Bungoma County](#) to the north, [Lake Victoria](#) and [Siaya County](#) to the south and [Busia District, Uganda](#) to the west. Busia County has seven electoral constituencies [Nambale](#), [Butula](#), [Funyula](#), [Budalangi](#), [Matayos](#), [Teso North](#), [Teso South](#). The main economic activity is trade with neighboring [Uganda](#), with [Busia town](#) - the county headquarters and largest town - being a cross-border Centre. The county had a total population of 743,946 (2009 census). The county has 19 VTCs namely Amagoro, Katakwa, Apokor, Amase, Onyunyur, Khayo, Asidende, Nambale, Busia, Matayos, Butunyi, Butula, Namasari, Busibi, Nangina, Buburi, Ganga, Busagwa and Bukoma.

3.4 Target Population

Target population is also referred to as the universe. Target population is an aggregation of study elements and refers to all members of a real or hypothetical set of people, events, or objects to which we wish to generalize the findings (Kothari, 2009). Mugenda and Mugenda, (2008) define a target population as a complete set of individuals, cases or objects with some common observable characteristics. In this study the target population consisted of trainers of vocational training centres. The accessible population is a subset of the target population. It is the part of the target population the researcher can actually access. For purposes of this study the accessible population was 19 building and construction technology trainers from the 19 institutions as shown in the Table 3.1. The trainers were targeted because they are in contact with the youth polytechnics and could understand the management of youth polytechnics for purposes of generalization.

Table 3.1 Target Population

Vocational Training Centre	Number of Trainers
Amagoro	15
Katakwa	12
Apokor	11
Amase	11
Onyunyur	9
Khayo	9
Asidende	11
Namable	13
Busia Township	15
Matayos	11
Butunyi	12
Butula	9
Namasari	10
Busibi	8
Nangina	11
Buburi	7
Ganga	7
Busagwa	9
Bukoma	7
Total	197

Source of information, Busia County, 2018

3.4 Sampling Techniques and Sample Size

3.4.1 Sample Size

Sample size determination involved a decision on the elements in each sampling frame which will participate in the study while the sample size selection involved strategies used in selecting individual elements from the population. Sample size determination is about establishing the right sample size which is a function of purpose of the study, population size, level of precision, the level of confidence or risk, and the degree of variability in the attributes being measured (Cohen, 2018; Denscombe, 2014). In this study selection of vocational training centres in Busia County, Kenya was done purposively.

A sample size of 132 was drawn from a total population of 197 trainers to represent the whole population. From the target population Taro Yamane (1967), sample size formula modified by Kent and Myers (2008) as cited in Etuk and Akpabio (2014) was used to select a sample size:

Staff

$$n = \frac{N}{1 + Ne^2} \dots \dots \dots \text{Eq (i)}$$

Where:

n = Sample size

N = Population size

e = the error of Sampling

This study allowed the error of sampling of 0.05. Thus, sample size was as follows:

$$n = \frac{197}{1 + 197 \times 0.05^2}$$

= 132

The sample size was distributed proportionally according to Neyman's allocation formula (Carfagna & Arti, 2007). The purpose of the method was to maximize survey precision, given a fixed sample size. With Neyman's allocation, the best sample size for cluster h would be:

$$n_h = \left(\frac{N_h}{N}\right)n \dots \dots \dots \text{Eq(ii)}$$

Where,

n_h - The sample size for cluster h ,

n - Total sample size,

N_h -The population size for cluster h ,

N - The total population

Hence, distribution was as follows; the respondents were selected using simple random sampling. A simple random sample was created by use of lottery method. In lottery method of creating a simple random sample a researcher randomly picks numbers, with each number corresponding to a subject or item, in order to create the sample by ensuring that the numbers are well mixed before selecting the sample population (Crossman, 2018). In lottery method each of the N population members is assigned a unique number. The numbers are placed in a bowl and thoroughly mixed (Meng, 2013). Then, a blind-folded researcher selects n numbers. Population members having the selected numbers are included in the sample (Singh & Solanki, 2013).

3.4.1 Sampling Techniques

Sampling is a process or technique of choosing a sub-group from a population to participate in the study; it is the process of selecting a number of individuals for a study in such a way that the individuals selected represent the large group from which they were selected (Alvi, 2016). A systematic sample of clusters of 19 youth polytechnics in Busia County, namely; Katakwa, Apokor, Amase, Onyunyur, Namable, Busia, Matayos, Butunyi, Butula, Namasari, Busibi, Nangina, Buburi, Ganga, Busagwa and Bukomawas chosen for this survey. Simple random sampling was utilized to choose individuals trainers that participated in the study. This technique allowed for selection of a small number out of every section without bias.

Table 3.2 Sampling Size

Vocational Training Centre	Number of Trainers	Sample Size	Sample Percentage
Amagoro	15	10	7.57
Katakwa	12	8	6.06
Apokor	11	7	5.30
Amase	11	7	5.30
Onyunyur	9	6	4.54
Khayo	9	6	4.54
Asidende	11	7	5.30
Namable	13	9	6.82
Busia Township	15	10	7.57
Matayos	11	7	5.30
Butunyi	12	8	6.06
Butula	9	6	4.54
Namasari	10	7	5.30
Busibi	8	5	3.78
Nangina	11	7	5.30
Buburi	7	5	3.78
Ganga	7	5	3.78
Busagwa	9	6	4.54
Bukoma	7	5	3.78
Total	197	132	100

3.5 Data Collection Instruments

Both quantitative and qualitative primary data was collected. The data was gathered by semi structured questionnaire on sampled trainers of building and construction technology (key informants), respectively. The questionnaire had close-ended questions and items will use 5 point likert scale commonly used in social sciences to measure perceptions, attitudes, values and behavior (Mugenda & Mugenda, 2008). The items adopted a 5 point Likert Scale of: (1-Strongly disagree, 2-Disagree, 3-Undecided 4-Agree 5-Strongly Agree). Structured questionnaire was used to elicit specific information regarding respondents'

attitudes towards the management of youth polytechnics. The researcher prepared questionnaires based on the objectives of the study.

3.6 Data Collection Procedure

Upon getting the consent of the Moi University, consent of the supervisors and research permit from National commission for science technology and innovation then the researcher embarked on data collection. Data Collection Procedure shows the outline followed when administering the research instrument, which in this case are questionnaire and interview schedules. The questionnaire was introduced to the respondents to explain the researcher purpose of the survey. There were instructions on how to respond to the questionnaire. The instructions required the respondents to indicate the extent to which they agree, disagree, or undecided about the statements of constructs that was used to describe research variables. Neutral was the midpoint. Part A of the questionnaire contained demographic information which measured categorical data relating to gender, age, and education level. Part B solicited for data on specific to the objectives. The respondents were assured of strict confidentiality. The questionnaires was administered through drop and pick later method. Follow ups and reminders was done through telephone calls and personal visits by research assistants. This improved the response rate and increased reliability. The study used both primary and secondary data.

Primary data are original in nature and directly related to the issue or problem and current data. Primary data are the data which the researcher collects through various methods like interviews, surveys and questionnaires (O'Leary, 2014). In other words, primary data are

information that a study must gather because no one has compiled and published the information in a forum accessible to the public. A researcher generally takes time and allocates resources required to gather primary data (Salkind, 2010). This occurs when a question, issue or problem that is sufficiently important or unique presents itself. In this study the researcher used a close-ended questionnaire to collect primary data.

Secondary data are the data collected by a party not related to the research study but collected these data for some other purpose and at different time in the past available in written, typed or in electronic forms (Ramesh, 2016). If the researcher uses these data then these become secondary data for the current users. A variety of secondary information sources is available to the researcher gathering data on a given phenomenon (Collis & Hussey, 2014). Secondary data is also used to gain initial insight into the research problem. Secondary data is classified in terms of its source either internal or external (Ramesh, 2016). Internal, or in-house data, is secondary information acquired within the organization where research is being carried out. External secondary data was obtained from outside sources. The researcher used books, published journals and other written materials to gather secondary data and information

3.7 Pilot Study

A pilot study is a strategy used to test the [questionnaire](#) using a smaller sample compared to the planned [sample size](#) (Sincero, 2012). A pilot survey is a replica and rehearsal of the main survey. In this study piloting was done to pre-test the data gathering tool which, in this case was the questionnaire. This was done to ensure the goodness of the study design. Pilot study helped plan for the major study, test the instruments and check

statistical and analytical procedures, likely risks and research economy will be addressed (Schwab, 2013). In this regard piloting was done 13 questionnaires which was 10% of the sample size in Kakamega County. After piloting corrections were made on wording, layout, sequencing and validity of the questions, the final draft of the questionnaire was developed and disseminated to the respondents.

3.8 Validity and Reliability

3.8.1 Validity of the Research Instrument

Validity is described as the extent to which the research findings accurately reflect the phenomena under study (Cohen, 2018; Hannes, Lockwood & Pearson, 2010). According to Nuzzo (2014) validity is quality attributed to proposition or measures of the degree to which they conform to established knowledge or truth. It refers to how accurate the data obtained in the study represents the variables of the study. An attitude scale is considered valid, for example, to the degree to which its results conform to other measures of possession of the attitude (Rahman & Uddin, 2009). The research ensured validity of research instruments by using simple language free from jargon to make it easily understood by the respondents. To test validity, the questionnaire to be used in the study was availed to the supervisors and other specialized lecturers in this field of study in the School to review the test items to ensure that they are based on the content area before commencing data collection. The researcher also sought for the opinion of individuals who can render intelligent judgment about their adequacy (Mugenda & Mugenda , 1999). The internal validity was used to show the extent to which collection, analysis and interpretation of data related to the research variables. The content validity was achieved by

ensuring relevance of the research results with theoretical approaches and literature reviews (Saunders, et al., 2007).

3.8.2 Reliability of the research instrument

According to Orodho et al, (2014), the reliability of an instrument is the measure of the degree to which a research instrument yields consistent results or data after repeated trials. In order to test the reliability of the instrument, the Cronbach's alpha test, which is a measure of internal consistency, was used in which closely related sets of items were taken as a group. Unlike test-retest method which frustrates respondents by a repeat test, Cronbach's Alpha does not require subjecting the respondents to the same questionnaire twice or having two forms of the test (Diener, et al., 2010). Cronbach's alpha addresses itself to internal consistency, that is; the degree of interrelatedness among the items and where multiple summated scales are used like in this study, it is advised that Cronbach's alpha is the best tool for assessing the reliability of scales (Dunnet al, 2014).

The formula for Cronbach's alpha is:

$$\alpha = \frac{K\bar{r}}{(1 + (K - 1)\bar{r})}$$

Where K = numbers of indicators or number of items

\bar{r} = mean inter – indicator correlation.

The value one gets for α usually indicates the percentage of the reliable variance. For instance, if one gets a value of 0.7, it means that 70% of the variance in the scores is reliable variance, which means that 30% is error variance (Tavakol & Derrick, 2011; Cronbach, 1951). A "high" value of alpha will be used as evidence that the items measure

an underlying (or latent) construct, which will be used. Reliability was determined through piloting, whereby 37 questionnaires was issued and the responses of the subjects were checked against the research objectives. A Cronbach's alpha value of $\alpha > 0.7$ was considered reliable for the study. A Cronbach's Alpha that is closer to 1 is preferred because it indicates a good internal consistency of items in the scale (Matkar, 2012; Maniu & Maniu, 2015). The results obtained from the pilot study was to assist the researcher in revising the questionnaire to make sure that it covered the objectives of the study Fraenkel and Wallen cited in (Seka, 2012).

3.9 Data presentation and analysis

3.9.1 Data Analysis

The questionnaires was coded entered into spreadsheets and edited, in SPSS software and cleaned before being analyzed, and tabulated to improve on the quality of data (Kothari., 2004). Data coding is assigning numerals and symbols, while data cleaning is the examining the collected unrefined data to identify errors and omissions and correct if possible. Data was analyzed by use of descriptive techniques. The descriptive statistics included frequency and percentages. The study used simple linear regression, multiple linear regressions and Karl Pearson's coefficient of correlation. The study performed Karl Pearson's coefficient of correlation to check whether there is linear relationship between the variables by means of the Statistical Package for Social Sciences (SPSS) version 21.0. The simple linear regression model was in the form of:

$$Y = \beta_0 + \beta_1 X_1 + \varepsilon \dots \dots \dots \text{Model (i)}$$

$$Y = \beta_0 + \beta_2 X_2 + \varepsilon \dots \dots \dots \text{Model (ii)}$$

$$Y = \beta_0 + \beta_3 X_3 + \varepsilon \dots \dots \text{Model (iii)}$$

$$Y = \beta_0 + \beta_4 X_4 + \varepsilon \dots \dots \text{Model (iv)}$$

The researcher used simple linear regression models (i) to (iv) to ascertain the causal effect of the independent variables upon the dependent variable. Multiple linear regressions requires at least three independent variables, and in this study, the independent variables are four justifying its use.

$$y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon \dots \dots \dots \text{model (v)}$$

Where:

Y = Dependent variable performance of (VTCs)

X = Independent variable (Resource Management)

β_0 represents Constant term

X_1 represents Physical Resources Management

X_2 represents Trainer's Competence Management

X_3 represents Training Program Quality Assurance Management

X_4 represents Fund Management

ε presents Error term (standard error)

3.9.2 Presentation

The data from the questionnaires were entered into Statistical Package for Social Sciences (SPSS) version 21 from which data was extracted in form of frequency tables. Patterns of commonalities were pooled, discourses was identified, and significant differences was also highlighted (Brannen, 2008). Tables were used in presentation to allow for visual simplicity of presented data and frequency tables that quantify data.

3.10 Ethical Considerations

Kombo and Tromp (2006) note that researchers whose subjects are people or animals must consider the conduct of their research, and give attention to the ethical issues associated with carrying out their research. This study dealt with trainers in VTCs as respondents. Therefore, the researcher assured the respondents of confidentiality, anonymity, voluntary participation among others. The researcher considered the fact that participation in research was voluntary. This is why the researcher took time to explain to the respondents the importance of the study and therefore request the respondents to participate in the study by giving information relevant to the study. To establish good working relationship with the participants, the researcher developed a rapport with them.

The researcher got authorization from the university and NACOSTI, No names were required and therefore put on the questionnaires. There was also no sharing of results with correspondents.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

Research findings and discussion are presented in this chapter according to the research objectives and Research questions. Demographic variables such as age, gender, level of education and period of service were descriptively analyzed using mean, frequencies and standard deviation. Descriptive statistics such as percentages, mean and standard deviation was used to analyze responses on physical resource, competencies of instructors, training programs quality assurances and funding (independent variables) and Performance of vocational training centres (dependent variable). Inferential statistics were used to answer the research questions on relationship between independent and dependent variable as per the purpose of the study.

4.2 Response Rate

A total of 132 questionnaires were distributed to the 19 vocational training centres targeted in Busia County, Kenya. Out of the 132 questionnaires the number of returned questionnaires were 102 from which, questionnaires were discarded for either lack of response, being improperly filled, or being incomplete. Thus the researcher remained with 87 correctly filled questionnaires, which is 66% response rate. Mugenda., (2008) Loewenstein, et al., 2013) opine that any response of 50% is adequate, 60% is good and above 70% is rated very good for analysis thus 66 % is rated good. This good response rate

was ascribed to pre-notification of the participants about the purpose of the survey, utilization of self-administered questionnaires, making follow-ups to clarify questions.

4.3 Demographic Characteristics of the respondents

There was 100% Response to questions regarding demographic profile that included; age, gender, level of education and period of work in the institution.

4.3.1 Respondents Age [Staff]

Table 4.1 presented results on respondents age where most of the respondents were aged below 30 years old at 36.8% followed by 51-60yrs at 26.4%, 21.8% were between 41-50yrs old and lastly 14.9% were between 31-40 years old .

Table 4.1: Respondents Age

Demographics	Cases	Frequency	Percentage
Age	Below 30yrs	32	36.8
	31-40yrs	13	14.9
	41-50yrs	19	21.8
	51-60yrs	23	26.4
Totals		87	100

4.3.2 Respondents gender

Males represented majority of the trainers at (69%) and females (31%), in this regard the population of either gender was more than one third of building technology and construction trainers population in vocational training centres in Busia county .

Table 4.2: Respondents gender

Demographics	Cases	Frequency	Percentage
Gender	Male	60	69.0
	Female	27	31.0
Total		87	100

4.3.3 Response on level of education

According to highest level of education attained by building and construction technology trainers of vocational training centres in Busia County majority had Diploma at (49.4%) followed by Craft at (36.8 %), higher diploma (8.0%) and Bachelors (5.7%). Based on this it can be inferred that respondents skilled labor which could interpret the strategies of the institution for implementation besides understanding what is sought by this study and even interpret questionnaire well.

Table 4.3: Respondents level of education

Demographics	Cases	Frequency	Percentage
Level of education	Craft	32	36.8
	Diploma	43	49.4
	Higher Diploma	7	8.0
	Bachelors	5	5.7
Totals		87	100

4.3.4 Respondents on period of work

Majority of the respondents had served for more than 2years at72.8%in their respective institutions thus they were experienced enough to provide information that the researcher could rely on. 21.8% of respondents had worked for less than 2yrs, 69.0% had worked for 2-5yrs, 9.2% had worked for >5yrs.

Table 4.4: Respondents period of work

Demographics	Cases	Frequency	Percentage
Period work	<2yrs	19	21.8
	2-5yrs	60	69.0
	>5yrs	8	9.2
Total		87	100

4.4 Analysis for the Variables

Descriptive statistics analyzed included skewness, kurtosis, means and standard deviations. Respondents' responses for independent and dependent variables were computed using means and standard deviations. Means and standard deviations provide a general picture of how the respondents perceived theResource management and performance of vocational training centres in Busia county.

4.4.1 Analysis of Physical Resources Management in Vocational training Centres

Physical resources management responses in vocational training Centres in Busia County were descriptively analyzed. In table 4.6, majority of respondents agreed and strongly agreed at 92.0%. The county government has constructed workshops for students ($M=4.02$, $SD=.647$), while 5.7%, 2.3% were both in disagreement and undecided respectively. 80.4% of the respondents both agreed and strongly agreed that workshops built have ample space to accommodate students and carry out experiments with ($M=3.94$, $SD=.920$) however 12.6% and 6.9% were in disagreement and undecided respectively. The county government procures machines and equipment for practical purposes 81.6% were in strong agreement and agreed with a mean of 4.03 and standard deviation of 1.028 while 16.1% disagreed while 2.3% remained undecided. Respondents were in agreement that workshop equipment and machinery are replaced without delay once worn out at 64.4% and ($M=3.46$, $SD=.900$) while 23% disagreed with the remaining 12.6% undecided. In response to statement on the school has enough books and other learning resources for all students 55.2% agreed and strongly agreed at ($M=3.23$, $SD=1.185$), 2.3% disagreed while 36.8% were undecided. Based on the means and standard deviations there is need for further strengthening of physical resource management to enhance the performance of VTCs.

Table 4.6: Analysis of Physical Resources Management

Responses	SA%	A%	UD%	D%	SD %	MEAN	SD
1 The county government has constructed workshops for students	16.1	75.9	2.3	5.7	0.0	4.02	.647
2 Workshops built have ample space to accommodate students and carry out experiments	26.4	54	6.9	12.6	0.0	3.94	.920
3 The county government procures machines and equipment for practical purposes	37.9	43.7	2.3	16.1	0.0	4.03	1.028
4 Work shop equipment and machinery are replaced without delay once worn out	4.6	59.8	12.6	23	0.0	3.46	.900
5 The school has enough books and other learning resources for all students	9.2	46	5.7	36.8	2.3	3.23	1.118

4.4.2 Analysis of trainer's competence management in vocational training centres

In establishing the prevailing status of trainer's competence management in vocational training centres. From table 4.7 a total of 70.16% of the respondents both agreed and strongly agreed that tutors and instructors in vocational training centers institutions are qualified for the job (M=3.93 SD=1.310), 17.2 % were in disagreement while 12.6% were

undecided. Rigorous recruitment process is conducted to ensure only the best are given an opportunity to teach who agreed and strongly agreed 71.2%, (M=3.72 SD=1.096), disagreement and undecided were in 20.7% and 8.0% respectively. The respondents at 72.7% and mean of 3.97 with a standard deviation of .958 were also in agreement and strongly agreed that performance appraisal is done to ensure high performance of tutors 14.9% and 2.3% were in disagreement and undecided. 51.8% of respondents were in agreement and strongly agreed that performance appraisal is done to ensure high performance of tutors with a mean of 3.18 and standard deviation of 1.018 while 35.6% strongly disagreed and disagreed with 11.5% remaining were undecided. Finally respondents agreed and strongly agreed at 88.5% that involvement of learners in setting experiments at a mean of 4.40 and standard deviation of .695 and 11.5% undecided. It can be observed that Competence of instructors is adequately focused on by in vocational training centres to enhance their performance.

Table 4.7: Analysis of the Trainers Competence Management

Responses	SA%	A%	UD%	D%	SD %	MEA	SD
						N	
1 Tutors and instructors in vocational training centers institutions are qualified for the job	48.3	21.8	12.6	9.2	8.0	3.93	1.310
2 Rigorous recruitment process is conducted to ensure only the best are given an opportunity to teach	24.1	47.1	8.0	18.4	2.3	3.72	1.096
3 Performance appraisal is done to ensure high	28.7	54	2.3	14.9	0.0	3.97	.958

	performance of tutors							
4	Trainers in vocational training centers institutions have the opportunity for further trainings funded by the county government	3.4	49.4	11.5	33.3	2.3	3.18	1.018
5	Involvement of learners in setting experiments	51.7	36.8	11.5	0.0	0.0	4.40	.690

4.4.3 Analysis for Training Program Quality Assurance Management

The study also sought to establish the status of training program quality assurance management of vocational training centres in Busia County. In this regard, five questionnaire items were used to examine the prevailing status of training program quality assurance in vocational training centres in Busia County. From the findings as expressed in Table 4.8 a total of 62.0% of respondents both agree and strongly agree that the trainings offered are certified by recognized bodies with a mean of 3.26 and standard deviation of 1.333, while 37.9% were in strong disagreement and disagreement. Respondents both agreed and strongly agreed that graduates of vocational training centers institutions are able to work without supervision at 70.1% with a mean of 3.82 and standard deviation of 1.177 while 24.5% in disagreement and strong disagreement while 10.3% remained undecided. Most of the graduates from vocational training centers institutions get employment as agreed and strongly agreed by respondents at 70.1% and (M=3.60 SD=1.289) while 23 % strongly disagreed and disagreed with 6.9 % undecided. Respondents agreed and strongly agreed that the trainings are relevant to market demand at 49.4 % and (M=3.23 SD=1.336), 46%, 4.6 % both strongly disagreed, disagreed and undecided respectively. The courses offered have technical orientation at 58.6% as respondents tended to agree and strongly

agree with a (M=3.51 SD=1.446) while 35.6 % , 5.7 % disagreed and were undecided respectively. This implies that the vocational training centers in Busia county have embraced training programme quality assurance management to enhance their performance.

Table 4.8: Training Programme Quality Assurance Management Descriptive

Statistics

Responses	SA%	A%	UD%	D%	SD %	MEA N	SD
1 The trainings offered are Certified by recognized bodies	14.9	47.1	0.0	25.3	12.6	3.26	1.333
2 Graduates of vocational training centers institutions are able to work without supervision	34.5	35.6	10.3	16.1	8.4	3.82	1.177
3 Most of the graduates from vocational training centers institutions get employment.	24.1	46	6.9	11.5	11.5	3.6	1.289
4 The trainings are relevant to market demand	24.1	25.3	4.6	41.4	4.6	3.23	1.336
5 The courses offered have technical orientation	36.8	21.8	5.7	26.4	9.2	3.51	1.146

4.4.4 Analysis of Fund Management of Vocational Training Centres

Findings in table 4.9, reveals that there is continued fund management by county government to vocational training centers to 40.2% of respondents who agreed and strongly agreed at ($M=3.00$ $SD= 1.110$) with 43.7% in disagreement in addition to 16.1% who were undecided. 24.1% of the respondents were of the view that there is formulated policy to guide on vocational training centers funding by the county government ($M=3.96$ $SD= .698$), 72.4 % were in disagreement while 3.4% were undecided. Funding to vocational training centers institutions is consistent as was indicated by 48.2% of the respondents who were in agreement with a mean of 3.28 and standard deviation of 1.148, while 51.7% were in a disagreement. Funding to the vocational training centers is adequate 79.3% of the respondents were in agreement with ($M=3.86$ $SD=1.069$), while 14.9% and 5.7% were in disagreement and undecided respectively. Majority of the respondents at 60.9% also agreed that funds to vocational training centers are promptly disbursed to meet the needs of the students with a ($M=3.49$ $SD=1 .055$) while 20.7 % were undecided. From the findings averagely the respondents were in agreement with all the statements depicting the fact there is some aspect of funds management by the VTCs. This implies that there is a need for strengthening the efficacy of funds management to potentiate the performance of VTCs.

Table 4.9: Analysis of Funds Management of vocational training centres

Responses	SA%	A%	UD %	D%	SD %	MEAN	SD
1 There is continued funding by county government to vocational training centers	8.0	32.2	16.1	39.1	4.6	3.00	1.110
2 There is formulated policy to guide on vocational training centers funding by the county government	8.0	16.1	3.4	63.2	9.2	2.51	1.119
3 Funding to vocational training centers institutions is consistent	17.2	31.0	0.0	13.8	37.9	3.28	1.148
4 Funding to the vocational training centers is adequate	4.6	10.3	5.7	52.9	26.4	3.86	1.069
5 Funds to vocational training centers are promptly disbursed to meet the needs of the students	5.7	12.6	20.7	43.3	12.6	3.49	1.055

4.4.4 Analysis of Performance of Vocational Training Centres

Findings in table 4.10, reveals that the trainers are motivated and have no intentions to leave. 50.5% of respondents who agreed and strongly agreed at (M=3.48 SD= .819) with 8% in disagreement in addition to 41.4% who were undecided. 54% of the respondents were of the view that the building technology graduates are able to secure jobs (M=3.52 SD= .819), 8 % were in disagreement while 37.9% were undecided. There is an increase in the enrolment levels of trainees as was indicated by 74.7 % of the respondents who were in

agreement with a mean of 3.94 and standard deviation of .867, while 5.7% were in a disagreement and 19.5% undecided.

The facilities are expanding with the demands of trainees 60.9% of the respondents were in agreement with (M=3.63 SD=.684), while 4.6% and 34.5% were in disagreement and undecided respectively.

Table 4.10: Analysis of the Performance of vocational training centres

Responses	SA%	A%	UD %	D%	SD %	MEAN	SD
1 The trainers are motivated and have no intentions to leave	8.0	42.5	41.4	5.7	2.3	3.48	.819
2 The building technology graduates are able to secure jobs	8.0	46.0	37.9	5.7	2.3	3.52	.819
3 There is an increase in the enrolment levels of trainees	26.4	48.3	19.5	4.6	1.1	3.94	.867
4 The facilities are expanding with the demands of trainees	6.9	54.0	34.5	4.6	0.0	3.63	.684

4.5 Assumptions of Regression Model

When running a multiple Regression, there are several assumptions that you need to check if your data has met for a reliable and valid analysis. In this regard before determination of which among the aspects of management of vocational training centres affect performance

of their performance in Busia County the assumptions of regression analysis were first tested.

4.5.1 Test for Normality

Normality of data was tested by use of skewness and kurtosis whose values must fall within +1 and -1 for skewness and kurtosis in the range of +3 and -3 (Garson, 2012). Data meeting this threshold is considered normally distributed and no any skewed distribution. Based on results presented on Table 4.11 normality assumption has been fulfilled. Thus none fell outside the stated ranges.

Table 4.11: Test for Normality

Construct	Skewness Statistics	Kurtosis Statistics
Physical Resources Management	-.416	-.967
Trainers Competence Management	-.945	-.198
Training quality Assurance Management	-.717	-.046
Fund Management	-.374	-.661
Performance of VTCs	-.573	-.134

4.5.2 Test for Linearity

Linearity assumption was tested using Pearson's correlation coefficients. Correlation was used to ascertain the direction of relationship between resource management and performance of VTCs for best predictions for regression analysis. The correlations were presented in Table 4.12. Based on the findings, it can be seen that correlations among the

dimensions of management aspects under study and performance of VTCs were significant. The correlations between Physical resources management, Trainers competence management, Training program quality assurance management and fund management. Were $r=.595^{**}$, $r=.544^{**}$, $r=.766^{**}$ and $.700^{**}$ respectively are positively and significantly related to performance of VTCs at $P<0.01$. Therefore the assumption of linearity was satisfied. This implies that Physical resources management, trainers competence management, Training program quality assurance management and fund management have a positive and significant impact on performance of VTCs in Busia County. In this regard the county government should pay high premiums in improving the management of VTCs on these realms of management to secure their continued performance.

Table 4.12: Test for Linearity

	PR	TC	QA	F	Performance
Physical Resources Mgt(PR)	1				
Trainers Competence Mgt(CI)	.166	1			
Training Programme Quality Assurance(QA)Mgt	.693**	.388**	1		
Fund Mgt (F)	.347**	.328**	.563**	1	
Performance	.595**	.544**	.766**	.700**	1

**Correlation is significant at the 0.01 level (2-tailed).

4.5.3 Test for Multicollinearity

Multicollinearity was tested with three central criteria: Correlation, Tolerance and Variance Inflation Factor (Garson, 2012). From the findings of there was no multicollinearity since there was an identity matrix with correlation coefficient between a factor and itself was 1 as seen in the principal diagonal in Table 4.12 According to table 4.22 Variance Inflation Factor (VIF), Tolerance were within the required ranges hence no multicollinearity.

4.5.4 Test for Autocorrelation

Autocorrelation occurs when the residuals are not independent from each other (Chatfield, 2016). little or no autocorrelation in the data is necessary in conducting linear regression analysis. The linear regression model was tested for autocorrelation using Durbin-Watson test. The ranges should be within $1.5 < d < 2.5$ (Field, 2009). Based on table 4.20, the Durbin-Watson was found to be 1.837 which fell within the range hence it is justified to conclude that there was no autocorrelation in the data.

4.6 Regression Analysis

4.6.1 Effect of physical resources management on performance of vocational training centres in Busia County

In table 4.13 where physical resources management is the independent variable. The coefficient of determination (R square) of 0.354 which explains that 35.4 % of the change on the performance VTCs with the remainder of 64.6 % explained by other factors other than physical resources management . The explanatory behavior of Adjustment of the R

square was 34.6% hence variation on performance of VTCs did not substantially reduce. It can therefore be argued that an increase of physical resources management causes 34.6 % increase in the performance of VTC in Busia County.

Table 4.13: Model Summary

Model	R	R square	Adjusted square	R Std. Error of the Estimate	Durbin-Watson
1	.595 ^a	.354	.346	.493	1.976

a. Predictors: (Constant), Physical Resources Management

b. Dependent Variable: Performance of VTCs

From the regression coefficients presented in Table 4.13 the estimates of β values provides the contribution of physical resources management to performance of VTCs. Based on the positive results of β value it can be concluded that there is a positive relationship between the Physical resources and .595 changes in performance of VTCs. From the results in Table 4.14, the model is presented as-

$$y = \beta_1 X_1 + \varepsilon \dots \dots \dots \text{Equation 4.1}$$

$$\text{Performance of VTCs} = .595 \text{physical resources management} + \varepsilon$$

In conclusion standardized regression coefficient for physical resources management in consort with t-test ($t = 6.821$, $P < .05$), associated with β value ($\beta = 0.595$), means that an increase in the provision of physical resources management by 1 standard deviation would result in a 0.595 significant standard deviations increase in performance of VTCs.

Table 4.14: Regression Coefficients

Model	Unstandardized		Standardized			Collinearity	
	Coefficients		Coefficients			Statistics	
	B	Std. Error	Beta	T	Sig.	Tolerance	VIF
1 (Constant)	1.306	.347		3.767	.000		
Physical							
Resources	.625	.092	.595	6.821	.000	1.000	1.000
Management							

a. Dependent Variable: Performance of VTCs

4.6.2 Effects of trainer's competence management on performance of vocational training centres in Busia County

The coefficient of determination for trainers' competence management (R square) of 0.296 presented in table 4.15 which explains only 29.6% change in the performance of VTCs. Adjustment of the R square reduced the explanatory behavior of trainers' competence management to 28.8%. In conclusion further adoption and potentiation of enhancing trainers' competence management would certainly guarantee an improvement in the performance of VTCs in Busia County.

Table 4.15: Model Summary

Model	R	R square	Adjusted R square	Std. Error of the Estimate	Durbin-Watson
1	.544 ^a	.296	.288	.514	1.349

a. Predictors: (Constant), **Trainers Competence Management**

b. Dependent Variable: Performance of VTCs

From table 4.16 the positive β value indicates the positive relationship between trainers competence management which is .544 and positive. The regression model can therefore be specified as:-

$$y = \beta_1 X_1 + \varepsilon \dots \dots \dots \text{Equation 4.2}$$

$$\text{Performance of VTCs} = .544 \text{Trainers Competence Management} + \varepsilon$$

Thus, the regression coefficient of the competence of Trainers Competence Management notes that an increase of trainers' competence management at one standard deviation would result in ($t = 5.977$, $P < 0.05$) and a 0.544 variation in performance of VTCs in Busia County. Thus trainers competence management can enhance the performance of VTCs.

Table 4.16: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
	B	Std. Error	Beta	T	Sig.	Tolerance	VIF
1 (Constant)	1.847	.305		6.052	.000		
Trainers Competence Managemet	.467	.078	.544	5.977	.000	1.000	1.000

a. Dependent Variable: Performance of VTCs

4.6.4 Effect of training program quality assurance management on performance of vocational training centres in Busia County

The coefficient of determination for training program quality assurance management as indicated in table 4.17(R square) of 0.586 explained 58.6 % of the change in the performance of VTCs. There was no substantial change in the outcome of training program quality assurance management in terms of performance with the adjustment of the R square which was at 58.1%. It can therefore be deduced that through the adoption of training program quality assurance management the performance of VTCs are likely to improve by 58.1%.

Table 4.17: Model Summary

Model	R	R Square	Adjusted Square	R Std. Error of the Estimate	Durbin-Watson
1	.766 ^a	.586	.581	.394	2.103

a. Predictors: (Constant), training program quality assurance management

b. Dependent Variable: Performance of VTCs

From table 4.17 the estimates of β , t, and P values for explains some magnitude of positive and significant change on the performance of VTCs as predicted by training program quality assurance management. From the regression results the model was then specified as:-

$$y = \beta_1 X_1 + \varepsilon \dots \dots \dots \text{Equation 4.3}$$

$$\text{Performance of VTCs} = .766 \text{training program quality assurance management} + \varepsilon$$

The coefficient of training program quality assurance management ($\beta=0.766$), explains that an increment of one standard deviation of training program quality assurance management occasions a 0.766 standard deviations increase in performance of VTCs. Based on the T-test results ($t = 10.971$, $P < 0.05$) training program quality assurance management was making a significant contribution to the model.

Table 4.17: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients		Collinearity Statistics		
	B	Std. Error	Beta	T	Sig.	Tolerance	VIF
1 (Constant)	1.991	.156		12.724	.000		
Training program quality assurance management	.475	.043	.766	10.971	.000	1.000	1.000

a. Dependent Variable: Performance of VTCs

4.6.4 Effect of fund management on performance of vocational training centres in Busia County.

The coefficient of determination for fund management as indicated in table 4.18 (R square) of 0.490 explained 49 % of the change in the performance of VTCs. There was no substantial change in the outcome of fund management in terms of performance with the adjustment of the R square which was at 48.4%. It can therefore be deduced that through fund management the performance of VTCs are likely to improve by 48.4%.

Table 4.18: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.700 ^a	.490	.484	.438	1.582

a. Predictors: (Constant), fund management

b. Dependent Variable: Performance of VTCs

From table 4.18 the estimates of β , t, and P values for explains some magnitude of positive and significant change on the performance of VTCs as predicted by funding. From the regression results the model was then specified as:-

$$y = \beta_1 X_1 + \varepsilon \dots \dots \dots \text{Equation 4.3}$$

$$\text{Performance of VTCs} = .700 \text{ fund management} + \varepsilon$$

The coefficient of fund management ($\beta=0.700$), explains that an increment of one standard deviation of fund management occasions a 0.700 standard deviations increase in performance of VTCs. Based on the T-test results ($t = 9.044$, $P < 0.05$) fund management was making a significant contribution to the model.

Table 4.19: Regression Coefficients

Model		Unstandardized		Standardized		Collinearity	
		B	Std. Error	Beta	T	Sig.	Tolerance VIF
1	(Constant)	1.684	.222		7.593	.000	
	Fund Management	.607	.067	.700	9.0441	.000	1.000 1.000

a. Dependent Variable: Performance of VTCs

4.6.4 Resource Management and Performance of Vocational Training Centres

Physical resources management, Trainers Competence management, Training program quality assurance management and fund management which are amongst the prerogative of the devolved systems in management of VTCs were focused on by this study jointly

explained 76.4% ($R^2=0.764$) change on the performance of VTCs. In this regard the county government effective performing this roles in resource management in VTCs should seek for ways of synergizing these roles by proactively formulating policies which effectively bundles them for better performance of VTCs.

Table 4.20: Goodness of fit model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Durbin-Watson
1	.874 ^a	.764	.752	.303	.764	1.837

a. Predictors: (Constant), Physical resources management, Trainers Competence management, Training program quality assurance management and funding

b. Dependent Variable: Performance of VTCs

From Table 4.21 it can be inferred that there is a joint contribution of Physical resources management, Trainers Competence management, Training program quality assurance management and fund management which was equally significant in predicting performance of VTCs at an F-value of 66.365 significant at 5% level of confidence.

Table 4.21 ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	24.413	4	6.103	66.365	.000 ^b
Residual	7.541	82	.092		
Total	31.954	86			

a. Dependent Variable: VTCs

b. Predictors: (Constant), Physical resources management ,Trainers Competence management, Training program quality assurance management and fund management

4.6.4.1 Regression coefficients of VTCs as explained by their management challenges under devolution

The positive Beta values indicate the positive relationship between the Physical resources management, trainers' competence management, training program quality assurance management, fund management and performance of VTCs. The Beta value for Physical resources management (.208), Trainers Competence management (.269), Training program quality assurance management (.312) and fund management(.364) were all positive. From the results in Table 4.22, the model can then be specified as: -

$$Y = .208X_1 + .269X_2 + .312X_3 + .364X_4 + \epsilon, \dots\dots\dots \text{Equation 4.5}$$

Where:

X_1 =Physical Resources Management (PR)

X_2 =Trainer Competence Management(CI)

X₃= Training Program Quality Assurance Management(QA)

X₄= Fund Management (F)

The independent variables were making a significant contribution to the model as confirmed by the T-test. The results showed that Physical resources management (t =2.752, P<.05), trainers competence management(t =4.527, P<.05) , training program quality assurance management (t =3.530, P<.05), and fund management(t =5.544, P <.05). These findings indicate that all the Resource management elements studied jointly and significantly affect the performance of VTCs.

Table 4.22: Regression coefficients of performance VTCs

Model	Unstandardized Coefficients		Standardized Beta	T	Sig.	Collinearity Statistics	
	B	Std. Error				Tolerance	VIF
(Constant)	.246	.294		.839	.004		
PR	.218	.079	.208	2.752	.007	.506	1.975
TC	.231	.051	.269	4.527	.000	.814	1.228
QA	.194	.055	.312	3.530	.001	.368	2.721
F	.316	.057	.364	5.544	.000	.667	1.500

Dependent Variable: Performance of VTCs

4.7 Discussion of findings

The purpose of the study was to assess the effect of management challenges on vocational training centres in Busia County, Kenya offering building and construction technology. The study looked at physical resources management, trainers' competence management, training program quality assurance management and fund management besides how these aspects affect the performance of these VTCs. In literature management remains the pillar of performance for any organization. VTCs just like other organizations rely on good management for their performance and realization of the Vision 2030. The converse would leave the realization of the sustainable development goals in jeopardy. This informed the devolution of the VTCs management to the county in schedule 10 of the Kenyan constitution 2010.

The study looked at the effect of physical resources management on performance of VTCs offering building technology in Busia County. From the findings of the study physical resources significantly affect the performance of vocational training centres. Provision of adequate facilities helps in effectively conducting practical lessons to improve on quality of training and enhance public confidence in the trainees. This is corroborated by Gurney, (2007); Adeyemi, (2008); Ngunzo, (2011) who also noted that successful teaching and learning took place in school buildings that were safe, clean, quiet, comfortable and healthy in the converse lack of or poorly maintained physical facilities affects the teachers morale and effectiveness while affects the learners ability to succeed because they impact on factors like learners attitude towards the school, self-esteem, security, comfort and social behavior. In this regard the county governments plus other stakeholders should allocate

more resources to vocational training centers for adequate modern facilities to boost their performance.

The trainers' competence affects their job performance. The competence of instructors also affects the brand image of the VTCs hence their performance. The findings of this study that trainer's competence significantly affects their performance and the VTCs. This implies that any deficiency in the competence of the trainer's would compromise on the performance of the VTCs. The realization of the mandate of the VTCs is pegged on the resourcefulness of the trainers. In view of globalization, knowledge economy, technology advances and global labour mobility requires vocational college teachers to be practically competent and effective in profession (Roziyah & Muhamad, 2017). These findings are in line with the argument of Andersson and Köpsén, (2015) Kim and Kim (2016), teaching competence drives the student's ability to learn and can contribute to the effectiveness of the lesson. Based on this the county government should invest on enhancing competency of the instructors to enhance the performance of VTCs.

Good vocational educational training ' has five key features responds to labour market, societal and individual needs; leads to nationally, or even internationally, recognized qualifications or credentials; provides access to decent jobs and sustainable employment; is attractive, inclusive and accessible, i.e. all citizens have access to VET; fosters capabilities that enable progression to further learning (Watters & Hanf, 2015). The study assessed the effect of training program quality assurance management on performance of vocational training centres in Busia County. The study found a positive and significant relationship

between training program quality assurance management and performance of vocational training centres. These findings are in line with the finding of Onyesom and Ashibogwu, (2013); ETF., (2012).Who concluded that QA enhances the effectiveness of education system towards achieving set standards which affects performance of vocational centres. Vocational centres are therefore under obligation to be aware of trainees expectations on quality. This implies that that there is training program quality assurance management within the VTCs of Busia County should be improved to consistently meet the quality threshold. The vocational centers and its staff should much the visions and missions with the training needs of the students, handling of student complaints and solving student problems. Thus policy-makers should focus on quality assurance management to ensure relevance of the building construction programme to the needs of the country.

Effect of fund management on performance of vocational training centres was also assessed by the study. Vocational training is a vital component of the drive to enhance productivity, stimulate economic development and competitiveness, to reduce the incidence of unemployment and to lift disadvantaged groups out of poverty. However, training provision in many countries is underfinanced and fragmented and, as a consequence, fails to meet the skill needs of the economy and of society as a whole (Adrian., 2016). From the study findings fund management significantly affect the performance of the vocational training centres. These findings are in line with the findings of (Magano, 2008; Tshitangoni, Okore, & Francis, 2008; Batter ham, 2011). However, from the study findings, fund management in vocational training centers is inconsistent and in adequate which affects their performance this is corroborated by the findings of(Batter

ham, 2011). This implies that there is need for the county governments to consistently allocate adequate funds which they receive from the national Government and strengthen funds management to enhance service delivery to the trainees and implementation of vocational training projects.

With regard to the general objective on resource management and performance of Vocational Training Centres. The study affirms that courtesy of resource management elements such as physical resources management, trainer's competence, training programmes quality assurance management and fund management the performance of the VTCs is guaranteed. From the study findings all these provisions significantly affect the performance of the vocational training centres jointly explaining 76.4% ($R^2=0.764$) change on the performance of VTCs. These findings are corroborated by the Kerre(1992);Sang et al., (2012) who also found that the provision of resources is of great significance for the performance of vocational training centres. Thus, there is need for the government and governments to strengthen policies on resource management in the VTCs so that they can effectively perform their mandate. This implies that the VTCs should adhere to the policy framework on resource management and its challenges to enhance their performance.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter explains summary, conclusions, recommendations and areas recommended for further the study.

5.2 Summary of Findings

The summary of findings was derived from the original research objectives with their research questions. The way the research questions have been answered for each variable is shown, and the eventual conclusion following the test was thus given. The study investigated the effect of physical resources management, trainers competence management, training program quality assurance management and fund management on performance of building and construction technology in vocational training centres in Busia County.

In view of the analysis of data results physical resources management significantly affect the performance of vocational centres .In this regard the provision of the required physical resources would certainly lead to an increase of the performance of the centres. This findings are further potentiated the argument owing to the fact that there was a positive and significant correlation between physical resources management and performance. This implies that the national government through the county government should ensure continued provision of adequate physical resources to engender high performance of the vocational training centres. The study also assessed the effect of competence of building

and construction technology trainers on the performance of vocational training centres. From the findings competence of trainers is positively correlated to the performance of vocational training centres. Besides the improvement of competence of trainers occasions a positive variation on the VTCs. From the descriptive statistics trainers in VTCs are competent thus the VTCs are to realize high performance. This implies that an investment on the competence of trainers through career development program is likely to enhance their continued performance.

The VTCs in Busia County training building and construction technology is also affected by training programs in quality assurance management thus there is need for the county and national government to strengthen quality assurance in this institutions. This further justified by the positive and significant correlation between quality assurance management and the performance of vocational training centres in provision of relevant skills. This finding depicts the efficacy of the training programs quality assurance management of the VTCs courtesy of the employability of the graduates in the labour market . However there is need to temper the mission and vision of the VTCs with the needs of the trainees for continued performance of the VTCs. The study also looked at the effect of funding management on VTCs. Funding management for the VTCs significantly affects their performance. The findings further reveal the need for adequacy and consistency offunding to enhance service delivery to the trainees and implementation of the VTCs projects. The findings also reveal the additive effect of the management challenges of the physical resource, trainer competence, training programmes quality assurance and funding on the performance of VTCs.

5.2 Conclusion

It is evident that management challenges of VTCs in Busia County affects them. Thus the management of the VTCs institutions should come up with strategies of addressing management challenges so that the graduates of VTCs are in tune with the dictates of dynamics of the labour market demands. The management challenges under study jointly and individually significantly affect performance of VTCs in Busia County based on their beta values. The study established existence of the physical resources, competent instructors, training programs quality assurance and funding within the VTCs in Busia County. The institutions have physical resources ,competent instructors , training programs quality assurance however from the descriptive statistics lamented that funding was inadequate and inconsistent which have given them the ability to effectively fulfill their mandate.

The study provides evidence physical resources management contribute significantly to the performance of VTCs in training building technology. A strategic recipe which ensures the availability and adequacy of the physical resources. Thus the county government is under obligation to provide the VTCs with physical resources for sustained performance in building technology. However, there is need for upgrading the resource to be in line with current technologies so that the trainees can fit in the market.

Competence of trainers remains quintessential for the performance of building technology in VTCs. This is attributed to their positive and significant effect of on the performance of

building technology in VTCs as depicted by the findings of this study. It therefore remains incumbent upon VTCs to strategically advance the competence of the instructors through continuous in service trainings and more attachment in building technology in order to keep pace with the changes in industrial demands. In view of this it remains inordinately necessary for VTCs and their management to analyze the skill gaps of trainers and fill them proactively for continued competence.

The study provides evidence that the factors associated with training programs quality assurance management effects performance of building technology in VTCs. Thus, embedding training programmes quality assurance management. Therefore, strategies which can embeds training programs quality assurance management remains evidently instrumental in enhancing the performance of building technology in VTCs. Thus through policy framework focus should be in exceeding quality as perceived by the trainees and the labour market for sustained performance of building technology in VTCs.

Funding management is imperative for the success of any venture. This argument is based on the positive and significant effect of funding on performance of building technology in VTCsas per the findings of this study. It therefore remains incumbent upon the county governments to ensure adequate and consistent funding in order to affect their high performance in building technology in VTCs. In view of this the county government should analyze funding gaps for VTCs so that their needs are adequately met for sustained performance . In fine from the study finding the only way to elevate the performance of building technology in the VTCs is by strengthening their management. This study

therefore submits that bundling of physical resources, competence of instructors, training programme quality assurance and funding should be a major concern for the county government as they are precursors of performance of building technology in VTCs.

5.2 Recommendation

In view of the findings as well as the conclusion deduced from the study some recommendations were made. Achieving high performance is always one of the strategic objectives of every institution and organization. To effect this the VTCs should ensure that they have adequate physical resources which should also be upgraded to be in tune with industrial demands. The study also recommends that there is need for enhancing the competence of instructors for continued performance in building technology through in service trainings and industrial attachment to keep pace with the upcoming building technologies. The study recommends training programme quality assurance should be strengthened. The vocational centers and its staff should much the visions and missions with the training needs of the students, handling of student complaints and solving student problems. Thus policy-makers should focus on quality assurance to ensure relevance of the building construction program to the needs of the country. There is need for the county governments to allocate adequate funds consistently which they receive from the national government to enhance service delivery to the trainees and implementation of vocational training projects. In view of this the county government should analyze funding gaps for VTCs so that their needs are adequately met for sustained performance. The management of building technology in VTCs should be strengthened through provision of physical resources, enhancing competence of instructors, training program quality assurance and funding.

5.3 Areas for further Research

More research should be conducted to explore the effect of other management challenges on the performance of building technology in VTCs in counties and countries. More research to be conducted considering other areas of technology like Electrical, Automotive, hairdressing etc by involving the trainees as the target population.

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APPENDICES

APPENDIX I: QUESTIONNAIRE

This study focuses on the to assess the effect of resource management on technical vocational education and training, a case of vocational training centres in BusiaCounty, Kenya. Please note that your responses are confidential and anonymous as you are not required to indicate your name. The questionnaire will be purely for academic purposes. Kindly answer all questions to the best of your knowledge.

SECTION A: GENERAL INFORMATION

(Please tick as appropriate)

1. What is your gender?

Male Female

2. What is your age bracket?

20 -30yrs yrs

41-50yrs 51-60yrs

3. What is your educational level?

Craft Diploma

Higher Diploma Bac

Post graduate

4. Kindly indicate the number of years you have worked for the Vocational Training Centre?

<2Years 2 to 5 Years >5Years

SECTION B: INSTRUCTIONS

Please indicate the extent to which you agree or disagree with each statement by placing a tick where appropriate using the following 5-Point Likert scale:

Strongly Disagree =1, Disagree=2, Neutral=3, Agree=4, Strongly Agree=5

PART I: PHYSICAL RESOURCES MANAGEMENT

Response item	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
The county government has constructed workshops for students					
Workshops built have ample space to accommodate students and carry out experiments					
The county government procures machines and equipment for practical purposes					
Work shop equipment and machinery are replaced without delay once worn out					
The school has enough books and other learning resources for all students					

PART II: TRAINERS COMPETENCE MANAGEMENT

Response item	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Tutors and instructors in vocational training centers institutions are qualified for the job					
Rigorous recruitment process is conducted to ensure only the best are given an opportunity to teach					
Performance appraisal is done to ensure high performance of tutors					
Trainers in vocational training centers institutions have the opportunity for further trainings funded by the county government					
Involvement of learners in setting experiments					

PART III :TRAININGPROGRAMME QUALITY ASSURANCE MANAGEMENT

Response item	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
The trainings offered are Certified by recorgnized bodies					
Graduates of vocational training centers institutions are able to work without supervision					
Most of the graduates from vocational training centers institutions get employment.					
The trainings are relevant to market demand					
The courses offered have technical orientation					

PART IV: FUND MANAGEMENT

Response item	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
There is continued funding by county government to vocational training centers					
There is formulated policy to guide on vocational training centers funding by the county government					
Funding to vocational training centers institutions is consistent					
Funding to the vocational training centers is adequate					
Funds to vocational training centers are promptly disbursed to meet the needs of the students					

PART V: PERFORMANCE OF VOCATIONAL TRAINING CENTERS

Response item	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
The trainers are motivated and have no intentions to leave					
The building technology graduates are able to secure jobs					
There is an increase in the enrolment levels of trainees					
The facilities are expanding with the demands of trainees					

AUTHORITY LETTER FROM NACOSTI

THIS IS TO CERTIFY THAT:
MR. GHONZO MILTON ODONGO
of MOI UNIVERSITY, 44-50410 PORT
VICTORIA, has been permitted to
conduct research in Busia County

Permit No : NACOSTI/P/18/80186/22906
Date Of Issue : 10th July,2018
Fee Received :Ksh 1000

on the topic: MANAGEMENT OF
VOCATIONAL TRAINING CENTRES UNDER
DEVOLUTION, CASE STUDY OF BUILDING
TECHNOLOGY IN BUSIA COUNTY-KENYA.

for the period ending:
6th July,2019


.....
Applicant's
Signature



.....
Director General
National Commission for Science,
Technology & Innovation

SR011



EDU 999 THESIS WRITING COURSE

PLAGIARISM AWARENESS CERTIFICATE

This certificate is awarded to

GHONZO MILTON ODONGO

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In recognition for passing the University's plagiarism awareness test with a similarity index of 2% and striving to maintain academic integrity

Awarded by:

A handwritten signature in black ink, appearing to read 'J. Changach', is placed on a light grey rectangular background.

Prof. John Changách, CERM-ESA Project Leader

Date: 28/10/2021