



Leadership Styles and Competency Development in Technical and Vocational Education Training Institutions in Kenya

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ABSTRACT

The purpose of the study was to examine the influence of leadership styles on competency development in technical and vocational education training institutions in Kenya. The study was guided by the following specific objectives: To establish influence of servant and laissez faire, leadership styles on competency development in technical and vocational education training institutions in Kenya. The study adopted descriptive, exploratory and correlational research design. The study population was 796 (principals and academic registrars) of the TVET institutions. The Slovin's Formula was used to determine the sample size of 262 respondents used during the research study. The study population was justified because the Principals and academic registrars are the ones mandated to carry out leadership and decision making in the TVET institutions in Kenya. The study used primary data, which was collected using questionnaires. A pilot study was conducted to establish the reliability and validity of the research instruments. A coefficient of above 0.7 was obtained and this indicated that the data collection instruments were valid. Both descriptive and inferential statistics were used to analyze the data collected. To draw conclusions on the relationship among the variables, the study tested the hypotheses by use of regression models .05 level of significance. The results indicated that leadership styles (servant and laissez faire leadership styles) positively and significantly influenced competency development in the TVET institutions. Further organizational culture had significant moderating effect on the relationship between leadership styles and competency development in TVET institutions in Kenya.

Keywords: Servant Leadership Style; Laissez faire Leadership Style; Competency Development; Technical and Vocational Education Training Institutions

INTRODUCTION

Tertiary education institutions are increasingly aware of industry expectations regarding the work-ready graduate. Grosch (2017) asserts that institutions worldwide are accused of producing graduates deficient in the 'soft' skills deemed essential for enhanced productivity and innovation in the workplace (that is competency skills)(Paryono, 2015; Jayalath & Esichakul, 2016). A useful definition of competency skills is "a set of attributes, skills and knowledge that all labour market participants should possess to ensure they have the capability of being effective in the workplace to the benefit of themselves, their employer and the wider economy (Bowden, 2014; Ismail & Mohammed, 2015; Wahba, 2013). Grosch (2017) contends that employers seek graduates who demonstrate self-efficacy (confidence to succeed) and agency (ability to act), which support a range of beliefs and attitudes that enable critical reflection and adaption to contextual variations.

The tertiary education institutions are shifting their thinking about how to produce work-ready graduates (Okoye &

Michael, 2015; Paryono, 2015). Aligned with this objective, there has been a surge in the use of effective leadership styles in TVET, in recognition of them being the superior choice for developing generic and competency skills (Ridzwan *et al.*, 2017; Grosch, 2017; Paryono, 2015). Competency development in TVET broadly refers to job enrichment that has an intrinsic mechanism to motivate an employee to accept and play challenging organizational tasks (Mat-som *et al.*, 2015; Kemmis, Hodge & Bowden, 2014). Specifically, Parkhouse (2016) argued that competency development in TVET involves activities that enable an employee to comfortably and conveniently perform organizational tasks. Competency development is the product of given situations, such that leadership style is the best for all trainees under all conditions especially in the training institutions (Pavlova & Huang, 2013; Ismail & Mohammed, 2015; Grosch, 2017; Okoye & Michael, 2016). Jayalatha and Esichaikul (2016); Beckles (2018) have pointed that there are various leadership styles which can enhance competency development in TVET and that each can contribute maximally if appropriately applied.

Verger and Pages (2018) reiterated that the most significant direct benefits leadership styles and competency development in TVET are clarity in job duties and responsibility as well as increases in employee's competence among others. According to Pavlova and Huang (2013); Grosch (2017) and Johnson (2018) the reasons and advantages for embarking on appropriate leadership styles in TVET and competency development include efficiency in trainee employability and performance. Similarly, Lees and Uri (2018) argues that leadership styles can enable an employee to produce efficiently sooner, prepares him for a higher position (advancement), enhances employee self-respect and increases his feeling of security and economic independence among others. The relevance of TVET towards the economic, industrial and technological growth and development of nations around the globe can't be overemphasized. The training institutions in recent occasions are seen as agents of social change and development (Ridzwan *et al.*, 2017; Hadi *et al.*, 2015; Kemmisi, Hodge & Bowden, 2014). They're heroines of innovation are likely to play a vital role in marketing sustainable economic, social and cultural development (Ismail & Mohammed, 2015). They are the major drivers of monetary knowledge driven global economy (Saglum & Aydomus, 2017).

Concept of Leadership Styles

Leadership is life blood of any organization and its importance cannot be underestimated. According to Bratton (2020) definition, leadership is the interaction process which occurs between leader and other workers and the goal of which is to reach the determined aims of management. Leadership is among the fundamental and many important needs of every organization. It's frequently regarded as the solution to most organizational problems (Pavlova & Huang, 2013; Zakaria *et al.*, 2012). It can direct human assets toward the proper objectives of the organization and be sure that organization functions are aligned using the exterior atmosphere (Anindo, Mugambi & Matula, 2016; Omwenga, Nyabero & Okioma, 2015). Furthermore, effective leaders can predict the long run odds and style choice methods to fulfil uncertainties (Kopish, 2017). As the communities become more science oriented today, persons with quality leadership abilities becomes the convincing order to make people in his environment reach the determined aim (Bonzet & Frick, 2019; Bratton, 2020).

According to Rus *et al.* (2020) and Njoroge (2015), cited in Okoye and Ukwuoma (2020) leadership is a process of influencing others' commitment towards attainment of goals by each member, as well as for the group so as to achieve a contingent reward. The relationships between the leader and employee, as well as the quality of employees' performance are significantly influenced by the leadership style adopted by the leader (Murimi & Omondi, 2014; Njenga & Kidombo, 2017). Leadership realizing their full potential in achieving a value added, shared vision, with passion and integrity. The nature of this influence is such that the members of the team cooperate voluntarily with each other in order to achieve the objectives which the leader has set.

Leadership style in an organization is one of the factors that play significant role in enhancing or retarding the interest and commitment of the individuals in the organization (Amran *et al.*, 2020; Rohanai *et al.*, 2020). These leadership styles consists of autocratic, laissez-faire, democratic, and bureaucratic (Ehrhart, 2015; Anand, 2020). Macharia, Chui and Edabu (2020) focused on the leadership style of an organization by which one can obtain the desired goals and objectives of the organization (Gandolfi & Stone, 2018) through creating the vision for the organization according to the setup of the organization, aligning the staff for the achievement of the goals of the firm rather than personal goals, providing the assistance to the intellectual in complicated things and clarifying expectations of the organization from the team and their performance for the organization (Murgor, 2017; Okoye & Ukwuoma, 2020).

The issue of leadership and leadership development in technical and vocational training institutions arise from the fact that there are series of changes that are rapidly and significantly altering the educational and economic environment in which public training institutions exists (Murimi & Omondo, 2014); Murgor, 2017; Njoroge, 2015). The nature of work is changing; technology keeps changing rapidly; there is increased public demand on tertiary public training institutions education system to produce individuals with more opportunities for present and future

prospects in multiple industries, and offer the individuals with enough skills for personal development and success in the changing society (Bonzet & Frick, 2019; Rohanai *et al.*, 2020).

Technical and Vocational training institutions are changing in terms of structures, programs, processes, and practices in order to be effective in improving the quality of learning outcomes (Njoroge, 2015; Macharia, Chui & Edabu, 2020; Florah & Ongati, 2013; Njenga & Kidombo, 2017), making it more accessible and attractive to all, and ensuring it is relevant and connected to the world of work (Anand, 2020; Bonzet & Frick, 2019; Florah & Ongati, 2013). This new direction requires technical and vocational training institutions to function in new and different ways. An effective leadership style therefore becomes a vital issue if these training institutions are to adapt constructively to the challenges now presented. As Rus *et al.*, (2020) stated, it is the effective leader in organizations experiencing change who initiate a vision and motivate followers to collectively develop and personally adopt the vision. It is the effective leader who empowers others to translate intentions into reality and then sustain it (Gandolfi & Stone, 2018; Bonzet & Frick, 2019).

Okoye and Ukwuoma (2020) observed that technical and vocational training institutions just like any other organization that are large in nature and size are faced with managerial challenges associated with management of large organizations. These include the management and utilization of human and capital resources both financial and non-financial (Yang, 2015; Bratton, 2020; Ehrhart, 2015; Vitanova *et al.*, 2015), co-ordination of various departmental activities, meeting stakeholders' demands and ensuring set quality standards are met (Murimi & Omondi, 2014; Cheruiyot & Munyi, 2019; Murgor, 2017). This has resulted in the institutions experimenting on a variety of modern management methods. The success of these institutions is dependent upon the leadership styles being adopted by the organizations (Njenga & Kidombo, 2017; Florah & Ongati, 2013). According to Cheruiyot and Munyi (2019) a democratic leader permits his subordinate to participate in the process of decision making. He leads by the consent of the group rather than by use of authority

Concept of Competency Development

Harshmann, (2016) defined competency as an underlying characteristic of a person which enables them to deliver superior performance in a given job, role or situation. Competences are defined in terms of what job holders should be capable of doing (Jebugei, 2020; Musyimi, 2016). Furthermore, competency means the power of human physical strength in terms of the workers available to perform a particular task in any organization (Ongaro, 2015; Mutua & Muriithi, 2019), be it educational service or industrial organization. It is the gap between what people should be able to do and what they can actually do. Upon establishing the gap, areas for personal development, learning and training are identified (Kopish, 2017; Njenga, 2018).

Competency refers to human power supplied by physical and or mental work of people rather than machines (Njeru & Mugi, 2018; Mulongo & Amod, 2017). Also, it refers to power in terms of number of people needed or available in a particular country for social and economic development (Maringa; Abugre & Kpinpuo, 2017). Natural and material resources are harnessed by competency in order to develop the economy of the nation (Oiro, 2019; Jahonga, Ngure & Muramba, 2015). Capital alone cannot move itself except with the involvement of competency (Mbarushiman, Role & Alida, 2017). No wonder Parkahre (2016) observed that to manage men, money, materials and machines, labour force requires continual study, high performance and righteous self-discipline as influenced by the appropriate leadership styles in the organization (Ongaro, 2015). According to Ferrira (2013); Mukundi and Njoki (2019; Wafula, Ferej and Kitainge (2013), managers must be in a continual state of education and training throughout their working lives.

According to Mbarushiman, Role and Alida (2017), the central idea underlying competency development in any sector, including the tertiary training institutions, is how best to keep learners current, vibrant and versatile. This will make them to continuously perform their roles effectively in this age of rapid socio-economic, political, scientific and technological changes and globalization according to Kwanya, Stilwell & Underwood (2012) supported by Omwenga, Nyabero & Okioma, (2015); Maringa, (2014) and Mulongo & Amod, (2017). In tertiary institutions, development programmes are considered very critical (Maina, Ogalo & Mwai, 2016; Jahonga, Ngure & Muramba, 2015; Anindo, Mugambi & Matula, 2016). They are planned activities which focus on increasing and enlarging the capabilities, improving the technical and conceptual skills of learners (Musyimi, 2016; Jebungei, 2020) so that they can possess the necessary skills and abilities to handle complex situations and better perform their job (Mbarushiman, Role & Alida, 2016; Maringa, 2014).

Being successful in the knowledge economy requires mastering a new set of knowledge and competencies. These include basic academic skills, such as literacy, foreign language, mathematics and science skills, management courses and the ability to use these skills effectively, act autonomously and reflectively (Oiro, 2019; Mukundi & Njuki, 2019; Zakaria *et al.*, 2012). When such resources or inherent power is developed through education, and training, individuals would be in a better position to make contribution to the group and or the society he or she belongs (Mbarushimana, Role & Alida, 2017; Jahonga, Ngure & Muramba, 2015).

Development of competency in TVET is undertaken through formal and non-formal education in order to make learners useful to themselves and the group they are working for (Maringa, 2014). The emerging challenge of developing competency not only support the acquisition, sharing and management of the knowledge that currently resides in individuals in an organization, but also the creation and application of new knowledge for improving business practices and processes (Jebungei, 2020; Nganga, 2016). Competency developments in TVET enhance the improvement in knowledge, skill, attitude and endowment of labour force so as to bring about sustained economic growth in a nation (Omwenga, Nyabero & Okioma, 2015; Wafula, Ferej & Kitainge, 2013; Oiro, 2019). In the past, much emphasis was laid on capital and material resources development. However, it has now been recognized that access to capital and material resources can only be achieved if competency is adequately developed (Mbarushimana, Role & Alida, 2017; Jahonga, Ngure & Muramba, 2015; Parkahre, 2016). Besides, it has also been realized that human beings are the active agents used in accumulating capital, tapping natural resources, building social, economic and political organization for national development (Ongaro, 2015; Maina, Ogalo & Mwai, 2016; Harshammnn, 2016).

According to the Maina, Ogalo and Mwai (2016) competency development enhances a knowledge economy which rests on four pillars such as a supportive economic and institutional regime which can provide incentives for the efficient use of existing and new knowledge; educated and skilled population who can create, share, and use knowledge (Maringa, 2014; Mjeru & Mugi, 2018); a dynamic information infrastructure which can facilitate the effective communication dissemination and processing of information (Bratton, 2020; Ehrhart, 2015; Anand, 2020); an efficient innovation system of firms, research centres, universities, consultants and other organizations who can tap the growing stock of global knowledge (Rus et la., 2020; Bonzet & Frick, 2019), assimilate and adapt it to local needs and create new technology (Njenga, 2018; Njenga & Kidombo, 2017; Murimi & Omondo, 2014).

Statement of the Problem

Kenya's Vision 2030 lays emphasis on competency development in technical and vocational training institutions as crucial pillars for economic growth and therefore the institutions being the main providers play a crucial role in creating the conditions in which development can take place (Cheruiyot & Munyi, 2019; Florah & Ongati, 2013; Nganga, 2016; Alagaranja, Kotamraju & Kim, 2014;). Technical and Vocational Education and Training (TVET) is one of the salient priority areas in Kenyan education system. TVET was designed to redress the challenges of poverty, unemployment, low technological development, and low productivity of the economy (Macharia, Chui & Edabu, 2020; Maina, Ogalo & Mwai, 2016; Milelu, 2019). According to UNESCO-UNEVOC (2017), TVET is concerned with the acquisition of knowledge and skills for the world of work. The TVET along with Competency Based Education (CBE) was introduced in Kenya in 2018 in response to the skill needs of the labour market (MoE, 2018).

World Bank (2016) report indicated that effective leadership styles has taken on increasing importance in the competency development discourse in the TVET institutions in the last fifteen years. Azevedo, Apfenthaler and Hurst (2012) and Jackson and Chapman (2012) stated that leadership styles enhances competency development with a critical characteristic being quality training in technical and vocational education institutions. A study by Osmani et al., (2015) and Martinović (2013) observed that effective leadership style allows students acquire greater competencies. Jackson (2014), Jurše and Tominc (2008) stated that leadership style enhances competency development and has a positive impact on training and productivity in technical and vocational institutions.

Competency development has proven to be one of the drivers to the achievement of the sustainable development goals linked to target of the United Nations sustainable development goals 4 and 8 under the following indicators: 4.3 that by 2030, equal access to TVET and university for all graduates and 8.5 states that by 2030 the achievement of full and productive employment for graduates. Competency development empowers all to contribute to the development of their communities. However, there are still many graduates from TVET institutions who are not able to master the skills and competencies needed to succeed in today's workforce in Kenya still (UNESCO, 2016). The question now remains; is the appropriate leadership styles the actual missing factor especially for improving competency development among TVET institutions in Kenya? If it has been effected, how has it contributed to competency development among TVET institutions in Kenya?

Further, the existing empirical studies have primarily focused on the role of technical and vocational training institutions on competency development (Were & Ahmed, 2018). These studies have in most cases adopted a case study approach Wheeler, 2017; Nganga, 2016; Zakaria, Jizat & Zakaria, 2015; Yusof, 2015; Van Der Bilj & Taylor, 2016; Sultana, 2017) or a descriptive research design (Schroeder, 2019; Songa, 2015; Rohanai *et al.*, 2020; Ratnata, 2015; Papier, 2017). Methodologically, a descriptive research design presents the possibility of error and subjectivity since questions are restricting and prescriptive (Terblanche & Bitzer, 2018; Salleh & Puteh, 2017; Shereni, 2019). Moreover, Osman and Kamis (2019) and Ongaro(2015) studies on leadership styles and competency developments are narrow and suffered from conceptual gaps since they only addressed merits and

demerits of leadership and governance in technical training institutions. Therefore, from the afore mentioned empirical studies which have yielded methodological, conceptual and contextual gaps this study seeks to fill as it focuses on relationship between leadership styles and competency development in technical and vocational training institutions in Kenya. The trend informed the need to examine the influence of leadership styles on competency development in technical and vocational training institutions in Kenya.

Research Objectives

The study was guided by the following specific objectives:

- i. To examine the influence of servant leadership styles on competency development in technical and vocational education training institutions in Kenya;
- ii. To assess the influence of laissez-faire leadership on competency development in technical and vocational education training institutions in Kenya;
- iii. To examine moderating influence of organizational culture on the relationship between leadership styles and competency development in technical and vocational education training institutions in Kenya.

Research Hypothesis

The study was guided by the following research hypotheses:

- H_{a1}: There is a positive and significant relationship between servant leadership styles and competency development in technical and vocational education training institutions in Kenya;
- H_{a2}: There is a positive and significant relationship between laissez-faire leadership styles and competency development in technical and vocational education training institutions in Kenya;
- H_{a3}: Organizational culture moderates the relationship between leadership styles and competency development in technical and vocational education training institutions in Kenya.

Theoretical Review

The trait theory attempt to identify specific physical, mental, and personality characteristics associated with Leadership competencies success, and it relied on research that related various traits to certain success criteria (MCGehee, Knollberg & Kmorowski, 2015). This theory argued that leaders are people who can fully express themselves while others cannot, and this is what makes them different from other people. A leader has the right combination of traits which makes him a good leader (Weiss, 2014). The meaning of this theory is that the same leadership styles attributes are applicable for leadership competencies on a battlefield, non-profitable organization, and profitable organizations (Ayele & Hamaraya, 2013). This theory is relevant to this study since it elaborates the characteristics of a good leader. For instance, the theory posits that the character of a leader is what determines whether he/she will be a good or a bad leader.

The path-goal theory was first introduced by Martin Evans (1970) and then further developed by House (1971). It is a theory based on specifying a leader's style or behavior that best fits the employee and work environment in order to achieve a goal (Bodla & Nawaz, 2010). The goal is to increase employees' motivation, empowerment, and satisfaction so they become productive members of the organization. In the field of organizational studies, the Path-Goal Theory considers the impact of a leader's behavior on workers' job satisfaction, motivation and effectiveness (Berger et al, 2012).

In the 1990s, the theory underwent subsequent revision from its original 1971 formulation by Robert J. House. The theory is identified by four leadership behaviors. Each leadership behavior aims to maximize worker outcomes by recognizing the impact of both environmental factors and worker characteristics in job performance (Molero et al., 2007). The path goal theory is complimentary to laissez-faire leadership style in as far as this study is concerned as it describes the way that leaders should encourage and support their followers in achieving set goals by making their path clearer. The leaders should do this by clarifying the path for their subordinates to know the way, by removing any roadblocks that hinder performance and finally by increasing their rewards when goals are achieved. This study therefore seeks to operate within the framework of transformational theories with path goal theory as a complimentary.

Leader-Member Exchange (LMX) theory provides a framework for researchers to evaluate the impact of superior-subordinate relationships (Usadolo, Usadolo & Makwambeni, 2019). LMX theory is grounded in the belief that there are differences in the quality of relationships between leaders and their subordinates, referred to as members (Bonzet & Frick, 2019). The value of the theory resides in the hypothesis that relationships quality is predictive of outcomes at the individual, group, and organizational levels (Mrwebi, 2019). Specifically, higher-quality relationships are associated with more positive organizational and member outcomes as well as fewer work-related problems.

Conceptual Model and Hypothesis

Conceptual framework can be defined as a set of broad ideas and principles taken from relevant fields of inquiry and used to structure a subsequent presentation (Ravitch & Carl, 2019). Figure 2.1 shows the conceptual framework which will be used in this study and depicts the interrelationship between the study variables. The independent variables are servant and laissez faire leadership styles. The leadership styles are moderated by the role of organizational culture. The dependent variable is the competency development in the TVET institutions. These variables and hypothetical causal paths and relationships are presented in Figure 2.1 below.

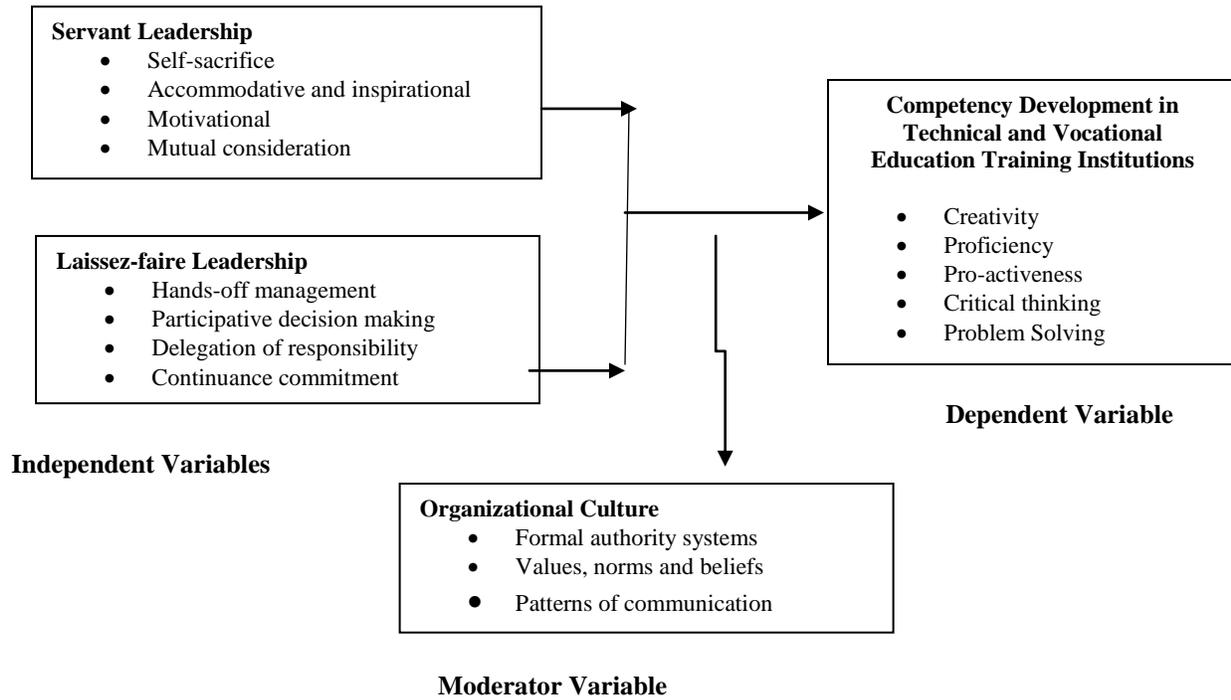


Figure 2.1: Conceptual Framework

METHODOLOGY

According to records at the Directorate of Technical Vocational Education and Training there are up to three hundred and eighty four (384) technical training institutions in Kenya registered with the Ministry of Education. According to Brymann (2016), target population is the entire set of units for which the study will be used to make inferences. The unit of analysis was Technical Vocational Education and Training institution. The unit of observation were the Principals and Academic Registrars of the Technical Vocational Education and Training institution in Kenya. This population is justified because the Principal is the one mandated with carrying out leadership and decision making in regard to ensuring adequate competency development is put place in the technical and vocational training institutions in Kenya. The Academic Registrar can also give views on the whether the institutions have effective leadership styles to enhance competency development. This is illustrated in Table 3.1:

Table 1: Target Population

Category	Population (N)
Principals	384
Academic Registrar	384
Total	768

In order to meet the expectation of the sampling theory that all possible units in the target population be identified to enable probability for selecting a random combination to be calculated, a sample of respondents purposely drawn

from the three hundred and eighty four (384) technical training institutions in Kenya registered with the, Ministry of Education as at April 2017 was used.

According to Neumann, (2013) and Zikmund et al. (2013), an optimum sample for small population of above 10,000 should be in a range of 10% - 30% which is further supported by Brickmann (2012) that a sample size of 30% is statistically viable in any population. Simple random sampling will be used to select the respondents to the sample to be determined. A *simple random sampling* which is a subset of a statistical population was adopted because each member of the subset had an equal probability of being chosen. This is good for generalization of the results to the target population. To determine the sample size for the unit of observation (Principals and Academic Registrars) a formular by Slovin's was used. The Slovin's Formula is quite popularly used for determining the sample size for a research, especially in thesis in social sciences, where the computation is based almost solely on the population size that is less than 1,000. The sample size of this study is calculated from the Slovin's formula given as:

$$n = \frac{N}{1 + N(e)^2}$$

Where: n = Sample size,
N = Total population and
e = Error tolerance (confidence level).

Since the population N = 768,
Error tolerance = 0.05,

The sample size is determined as:

$$n = \frac{768}{1 + 768(0.05)^2} = 262$$

The sample size therefore becomes 262. The 262 sampling units will be distributed to the conveniently identified population using the proportional stratified sampling technique using the formula;

$$n_i = \left(\frac{N_i}{N} \right) n$$

To determine the sample size of each category of respondents (Principals and Academic Registrars) were sampled using stratified sampling and simple random sampling. This was to ensure that the sampling units have equal chance in the study. The sample distribution is given as shown in Table 3.2;

Table 2: Sample Size Distribution

Category	Population (N)	Sample (n)
Principals	384	131
Academic Registrar	384	131
Total	768	262

Data Collection Instruments

This study collected both primary and secondary data. Thus, questionnaires and interview guides were used as important tools for collection of primary data due to their many positive attributes discussed herein. The method was useful in the interest of time and given the wider spread of the technical and vocational training institutions that will be involved in this study. The research instruments designed in the questionnaire and balanced between the quantity and the quality of data collected. A questionnaire is a research instrument which gathers data over a large sample (Rubin & Babbie, 2016).

In this study, quantitative data was collected through a structured questionnaire. Categorical data was collected on an ordinal scale. A five point Likert scale was used to measure the responses to the various indicators of the variables under investigation. The questionnaire had a 1-5 Likert scale questions whereby 5 meant strongly agreed or a strong agreement with the statement while 1 meant strongly disagreed or a strong disagreement with the statement. Likert scales are widely used in most studies in businesses and other related courses in social science literature, especially in instances where the reflection of the agreement of the respondent is required (Zikmund et al., 2013).The structured questionnaires was divided into two sections whereby the first section provides demographic information while the second section provides information on the content of the study. Information gathered represented individuals' opinions and attitudes towards some of the research study questions.

Diagnostic Tests

The study used classic linear regression model due to its ability to show relationships between the independent and the dependent variables (Bollen et al., 2016). Classic linear regression model has important underlying assumptions that must be tested before it can be utilized as a model of data analysis and hence the researcher embarked on the exercise. The key assumptions affecting the study are discussed herein.To examine whether the data collected was

adequate and appropriate for descriptive and inferential statistical tests such as the factor analysis, regression analysis and other statistical tests, two main tests were performed namely; Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Barlett's Test of Sphericity especially for a large sample of more than 200 and less than 1,000. The current study had a sample of 262 and for a data set to be regarded as adequate and appropriate for statistical analysis, the value of KMO should be greater than 0.5 (Sidiqqi, 2013).

Normally, $0 < KMO < 1$

If $KMO > 0.5$, the sample is adequate.

Here, $KMO = 0.789 - 0.843$ which indicates that the sample is adequate and we may proceed with the Factor Analysis.

Table 1: Kaiser-Meyer-Olkin (KMO) Bartlett's Test

KMO and Bartlett's Test		
Laissez- faire Leadership	Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.815
Servant Leadership	Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.832
Organization Culture	Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.789
Competency Development	Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.843

Normality tests are done to determine whether the sample data has been drawn from a normally distributed population. Normality assessment was done by using a graphical or numerical procedure. The numerical procedures include inferential statistics such as Kolmogorov-Smirnov and Shapiro-Wilk. The Kolmogorov-Smirnov test is considered appropriate for samples larger than 2000 while Shapiro-Wilk test is deemed appropriate for samples ranging from 50 to 2000. In this study, the response rate was 203 and therefore, the normality test was done using the Shapiro-Wilk test which also has power to detect departure from normality due to either skewness or kurtosis or both. If statistic ranges from zero (0) to one (1) and figures higher than 0.05 indicate the data is normal (Hanusz & Tarasinska, 2014). Shapiro-Wilk test assesses whether data is normally distributed using hypothesis:

H_0 : Sample follows a Normal distribution.

The criterion is to reject the null hypothesis if the p-value of the Shapiro-Wilk statistic is less than 0.05. The results in Table 2 shows the distribution of data on Servant leadership (p-value $0.095 > 0.05$), Laissez-faire leadership (p-value $0.092 > 0.05$), organizational culture (p-value $0.850 > 0.05$) and competency development (p-value $0.61 > 0.05$). Therefore, according to Shapiro-Wilk test we fail to reject the null hypothesis and conclude that the sample data was normally distributed.

Table 2: Normality Tests

Variable	Shapiro-Wilk		
	Statistic	df	Sig.
Servant Leadership	0.956	202	0.095
Laissez-faire Leadership	0.892	202	0.092
Organizational Culture	0.942	202	0.850
Competency Development	0.913	202	0.610

Test for Multicollinearity

The Variance Inflation Factor (VIF) quantifies the severity of multicollinearity in a regression analysis. VIF's greater than 10 are a sign of multicollinearity; the higher the value of VIF's, the more severe the problem. Results in Table 3 shows that all the variables had a variance inflation factors (VIF) of less than 10: Laissez-faire Leadership (2.590), Servant Leadership (1.851) and Organizational Culture (1.842). This implies that there was no severe collinearity with the variables thus all the variables were maintained in the regression model.

Table 3: Test for Multicollinearity

Model	Collinearity Statistics	
	Tolerance	VIF
Laissez-Faire leadership	0.386	2.590
Servant Leadership	0.540	1.851
Organizational Culture	0.543	1.842

a. Dependent Variable: Competency Development

Test for Heteroscedasticity

Heteroscedasticity refers to non-constant variance while homoscedasticity refers to constant variance. A classical assumption in linear model estimation is that the residual term is homoscedastic. A statistical test of heteroscedasticity was carried out to confirm homoscedasticity with statistical significance. The Breusch-Pagan test was carried out where the BP Lagrange multiplier (LM) statistic was computed for the residuals. The BP and Koenker tests the hypothesis:

H_0 : Residuals do not exhibit heteroscedasticity (residuals are homoscedastic).

The P-value of the BP-LM test as shown in Table 4 were greater than 0.05 implying that we fail to reject H_0 and therefore conclude that the residuals do not exhibit heteroscedasticity thus meeting the homoscedasticity assumption.

Table 4: Test for Heteroscedasticity

	LM	Sig	Conclusions
BP	5.998	0.320	Fail to reject H_0
Koenker	1.986	0.654	

Test for Autocorrelation

The study used Durbin-Watson test to test whether the residuals from the multiple linear regression models are independent. The null hypothesis (H_0) of Durbin-Watson test is that the residuals from multiple linear regression model are independent. According to Tsay (2020) rule of thumb, values of Durbin-Watson values close to 2 indicate rejection of the alternative hypothesis. The finding shows that the Durbin-Watson of 1.765 and is close to 2. This implies that the residuals from the regression model are independent. Bui (2020) looked at autocorrelation as the relationship between members of a series of observations ordered in time or space suggests using Durbin-Watson test to check for the presence of autocorrelation between variables. According to Zeng (2016), Durbin-Watson statistic ranges from 0 to 4. A value near 0 indicates presence of positive autocorrelation while a value close to 4 indicates presence of negative autocorrelation. A value ranging from 1.5 to 2.5 indicates that there is no presence of autocorrelation between the variables. The results presented in Table 5 indicate that there was no autocorrelation between the variables since the Durbin-Watson coefficient was 1.765.

Table 5: Autocorrelation Statistics

Model	Durbin-Watson
1	1.765

a. Predictors: (Constant), Laissez-faire Leadership, Servant Leadership

b. Dependent Variable: Competency Development

Test for Linearity

Linearity Assumption of linear estimation is that the dependent variable has a linear relationship with the independent variables. Computation of ANOVA statistics was used to test for the linearity assumption. The study hypothesize that: H_0 : the dependent variable has no linear relationship with the independent variables. The study results as shown in Table 6 indicate that the F-statistic (4,198=24.564, p-value <0.05). The ANOVA results indicate the model is significant and therefore we reject the null hypothesis and conclude that the dependent variable has a linear relationship with the independent variables.

Table 6: Test for Linearity ANOVA Statistics

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1234.120	4	308.530	24.564	.000 ^b
	Residual	2486.880	198	12.560		
	Total	3721.000	202			

a. Dependent Variable: Y

b. Predictors: (Constant), X₁,X₂,X₃,X₄

Hypothesis Testing

Hypothesis testing was undertaken utilizing regression analysis. The third study objective was to establish whether Laissez-faire leadership significantly influenced competency development in the technical and vocational training institutions in Kenya. The results of the regression are presented in Table 7 displays R (the correlation between the observed and predicted values of the dependent variable), which is 0.287. This is a moderate relationship between the observed and predicted values of the dependent variable. It also shows that there is positive correlation between Laissez-faire leadership and competency development in technical and vocational education training institutions in Kenya. Table 7 also displays R squared which is the proportion of variation in the dependent variable explained by the regression model, in this case, it is 0.082. This means that Laissez-faire leadership can explain 8.2% of the competency development in the technical and vocational training institutions in Kenya. The remaining percentage (91.80%) can be explained by other factors excluded from the model. The adjusted R-square of 0.079 indicates that Laissez-faire leadership in exclusion of the constant variable explained the change in competency development in technical and vocational education training institutions in Kenya by 7.9%. The value of the standard error of the estimate is shown in the output as 0.853. It shows the average deviation of the dependent variable (competency development in technical and vocational education training institutions) from the line of best fit.

Table 7 summarizes the results of an analysis of variance, with the sum of squares, degrees of freedom, and mean square being displayed for two sources of variation, regression and residual. For the accounted for values, the mean square (the sum of squares divided by the degrees of freedom), is 305.122, the F statistic (the regression mean square divided by the residual mean square) is 17.955 and the degree of freedom (df) is 1 whereas the output for residual which displays information about the variation that is not accounted for by the model has the following values: sum of squares as 3415.878 d.f as 201 and a mean square of 16.994. The overall relationship was statistically significant ($F_{1,201} = 17.955, p < 0.05$) It has a significance level of 0.000 this means that the chances are zero that the result of regression model are due to random events instead of a true relationship, which implies that the linear regression model is a good fit for the data and hence can be used to predict the influence of Laissez-faire leadership on the competency development in technical and vocational education training institutions in Kenya.

Table 7 represents coefficients of the independent variable (Laissez-faire leadership) and the dependent variable (competency development in technical and vocational education training institutions in Kenya). These findings show that the competency development in technical and vocational education training institutions in Kenya will be having an index of 4.322 when Laissez-faire leadership is held constant. In addition, the Beta coefficient was 0.290 for the relationship between Laissez-faire leadership and the competency development in technical and vocational education training institutions in Kenya. This shows that a unit improvement in Laissez-faire leadership would lead to a 0.290 improvement in the competency development in technical and vocational education training institutions in Kenya. The relationship is significant as the P-value (0.000) was less than the significance level (0.05). Thus

yielding a regression model where $Y = \beta_0 + \beta_3 X_3 + \epsilon$. The general form of the equation was to predict competency development in technical and vocational education training institutions in Kenya; $X_3 =$ Laissez-faire leadership; $Y = 4.322 + 0.290 X_3$. This indicates that competency development in technical and vocational education training institutions in Kenya = 4.322 + 0.290* Laissez-faire leadership. The t – value of more than +1.96 indicates that the change in competency development by Laissez-faire leadership is not by chance. Therefore we can conclude that Laissez-faire leadership has a significant influence on competency development in technical and vocational education training institutions in Kenya.

Table 7: Regression Statistics (Laissez-faire Leadership and Competency Development)

Model Summary						
R	R Square	Adjusted R Square	Std. Error of the Estimate			
.287a	.082	.079	.853			
a. Predictors: (Constant), Laissez-faire Leadership						
ANOVA Statistics						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	305.122	1	305.122	17.955	.000 ^b
	Residual	3415.878	201	16.994		
	Total	3721.000	202			
a. Dependent Variable: Competency Development						
Regression Coefficients						
Model		Unstandardized Coefficients		Standardized	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.322	.882		4.898	.000
	Laissez-faire Leadership	.290	.034	.287	8.542	.000

a. Dependent Variable: Competency development

Hypothesis Testing

The study hypothesized H_{a2} : *There is a positive and significant relationship between Laissez-faire leadership style and competency development in technical and vocational education training institutions in Kenya.*

The study results of the survey in Table 7 revealed that there was positive relationship between Laissez-faire leadership style and competency development in technical and vocational education training institutions in Kenya ($\beta_3=0.290$, $t_{cal}= 8.542 > t_{critical} =1.96$, $p\text{-value} < 0.05$). To test the relationship the Regression Model fitted was $Y = \beta_0 +$

$$\beta_3 X_3 + \epsilon$$

, that is $Y = 4.322 + 0.290X_3$.

The alternative hypothesis (H_{a3}): Laissez-faire leadership has a positive and significant influence on the competency development in technical and vocational education training institutions in Kenya or ($H_{a3}: \beta_j \neq 0$) is therefore accepted ($\beta_3=0.290$, $t_{cal}= 8.542 > t_{critical} =1.96$, $p\text{-value} < 0.05$) and conclude that Laissez-faire leadership (X_3) positively and significantly influences competency development in technical and vocational education training institutions in Kenya (Y).

The study findings are contrary to the findings by Nthoki (2017) who examined the influence of head teachers' leadership styles (laissez-faire) on pupils' academic performance at Kenya Certificate of Primary Education (KCPE) in Mbooni Division, in Makueni County, Kenya. The study findings indicated that Laissez faire is practiced by header teacher out of 30 representing 3.3% with a negative influence and not significant. Similarly, Oyugi and Gogo (2018) sought to establish the influence of the principals' leadership styles on secondary students' academic performance in Awendo sub-county. The objectives of the study were to: determine the influence of principals' democratic leadership style on students' performance; establish the influence of principals' autocratic leadership style on the students' performance; and to establish the influence of principals' laissez faire leadership styles on students' academic performance. The study established that democratic leadership accounted for 37.4% of variation in students' academic performance as signified by adjusted R square 0.374. Autocratic leadership accounted for 43.8% of variation in students' academic performance and Laissez-faire leadership style accounted for 15.7% of variation in students' academic performance. Principals are encouraged to balance the use both democratic and autocratic styles but avoid Laissez faire style.

Further, Kosgei, Tanui and Rono (2018) study examined the influence of selected Principal's leadership styles on the performance of students during K.C.S.E. in public secondary schools in Narok South Sub-County in Kenya. The study sought to identify the leadership styles of Principals in public secondary schools in Narok South Sub-County, and to establish the influence of the selected Principals' leadership styles on KCSE performance. The findings of this research revealed that Autocratic, Democratic, and Laissez-faire leadership styles were commonly used with preference given to democratic style of leadership. From the findings, the research further revealed that one Principal used little of Laissez-faire leadership styles to influence performance in KCSE examinations in public secondary schools with democratic having positive influence. The study further recommends that Principals should use more of Laissez-faire leadership styles as it is associated with good performance in KCSE.

The second study objective was to examine whether servant leadership significantly influenced competency development in the technical and vocational training institutions in Kenya. The results of the regression are presented in Table 8 displays R (the correlation between the observed and predicted values of the dependent variable), which is 0.241. This is a moderate relationship between the observed and predicted values of the dependent variable. It also shows that there is positive correlation between servant leadership and competency development in technical and vocational education training institutions in Kenya. Table 8 also displays R squared which is the proportion of variation in the dependent variable explained by the regression model, in this case, it is 0.058. This means that servant leadership can explain 5.8% of the competency development in the technical and vocational training institutions in Kenya. The remaining percentage (94.20%) can be explained by other factors excluded from the model. The adjusted R-square of 0.052 indicates that servant leadership in exclusion of the constant variable explained the change in competency development in technical and vocational education training institutions in Kenya by 5.2%. The value of the standard error of the estimate is shown in the output as 0.037. It shows the average deviation of the dependent variable (competency development in technical and vocational education training institutions) from the line of best fit.

Table 8 summarizes the results of an analysis of variance, with the sum of squares, degrees of freedom, and mean square being displayed for two sources of variation, regression and residual. For the accounted for values, the mean square (the sum of squares divided by the degrees of freedom), is 215.818, the F statistic (the regression mean square divided by the residual mean square) is 12.375 and the degree of freedom (df) is 1 whereas the output for residual which displays information about the variation that is not accounted for by the model has the following values: sum of squares as 3505.182 d.f as 201 and a mean square of 12.375. The overall relationship was statistically significant ($F_{1,201} = 12.375, p < 0.05$) It has a significance level of 0.000 this means that the chances are zero that the result of regression model are due to random events instead of a true relationship, which implies that the linear regression model is a good fit for the data and hence can be used to predict the influence of servant leadership on the competency development in technical and vocational education training institutions in Kenya.

Table 8 represents coefficients of the independent variable (servant leadership) and the dependent variable (competency development in technical and vocational education training institutions in Kenya). These findings show that the competency development in technical and vocational education training institutions in Kenya will be having an index of 3.654 when servant leadership is held constant. In addition, the Beta coefficient was 0.237 for the relationship between Laissez-faire leadership and the competency development in technical and vocational education training institutions in Kenya. This shows that a unit improvement in servant leadership would lead to a 0.237 improvement in the competency development in technical and vocational education training institutions in Kenya. The relationship is significant as the P-value (0.000) was less than the significance level (0.05). Thus

yielding a regression model where $Y = \beta_0 + \beta_4 X_4 + \epsilon$. The general form of the equation was to predict competency development in technical and vocational education training institutions in Kenya; $X_4 =$ Servant leadership; $Y = 3.654 + 0.237 X_4$. This indicates that competency development in technical and vocational education training institutions in Kenya = $3.654 + 0.237 * \text{Servant leadership}$. The t-value of more than +1.96 indicates that the change in competency development by servant leadership is not by chance. Therefore we can conclude that servant leadership has a significant influence on competency development in technical and vocational education training institutions in Kenya.

Table 8: Regression Statistics (Servant Leadership and Competency Development)

Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.241a	.058	.052	.037

a. Predictors: (Constant), Servant Leadership

ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	215.818	1	215.818	12.375	.000 ^b
	Residual	3505.182	201	17.439		
	Total	3721.000	202			

a. Dependent Variable: Competency Development

b. Predictors: (Constant), Servant Leadership

Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	3.654	.935		3.908	.000
Servant Leadership	.237	.035	.241	6.778	.000

a. Dependent Variable: Competency Development

Hypothesis Testing

The study hypothesized **H_{a2}**: *There is a positive and significant relationship between servant leadership style and competency development in technical and vocational education training institutions in Kenya.*

The study results of the survey in Table 8 revealed that there was positive relationship between servant leadership style and competency development in technical and vocational education training institutions in Kenya ($\beta_4=0.237$, t

$t_{cal}=6.778 > t_{critical}=1.96$, $p\text{-value} < 0.05$). To test the relationship the Regression Model fitted was $Y = \beta_0 + \beta_4 X_4 + \epsilon$, that is $Y = 3.654 + 0.237 X_4$

The alternative hypothesis (**H_{a4}**): Servant leadership has a positive and significant influence on the competency

development in technical and vocational education training institutions in Kenya or (**H_{a4}**: $\beta_j \neq 0$) is therefore accepted ($\beta_4=0.237$, $t_{cal}=6.778 > t_{critical}=1.96$, $p\text{-value} < 0.05$) and conclude that servant leadership (X_3) positively and significantly influences competency development in technical and vocational education training institutions in Kenya (Y).

The study findings concurs with the findings by Wang, Yu, Xi and Zhang (2019) who examined the effect of servant leadership on followers' subjective career success and the mediating role of career skills. The moderating effect of followers' proactive personality was also investigated from 283 employees of an IT company. It was established that servant leadership has a positive effect on career satisfaction and perceived employability through career skills. In addition, proactive personality moderates the association between servant leadership and career skills, such that the relationship is stronger when proactive personality is high. Proactive personality also moderates the indirect effect of servant leadership on career satisfaction and perceived employability. The findings suggest that organizations should select and train leaders to practice servant leadership to enhance employee subjective career success based on their competence.

Further, Allen *et al.*, (2016) established that servant leadership have attributes that provided guidance and inspiration through these changes to enhance competence development. Servant leadership focuses on supporting and developing the individuals within an institution, on inspiring followers to work towards a common goal. Moreover, Chen (2018) established a positive association between good medical servant leadership is the key to building high-quality healthcare. Being a physician requires not only management and leadership but also the need to transfer competencies to communication and critical thinking. These attributes can be obtained through experience in teamwork to develop skills learn to share leadership, take mutual responsibility and discuss their performance.

Moderated Regression Analysis for Organization Culture on Relationship between Laissez-faire Leadership, Servant leadership Styles and Competency Development

Moderated regression was used to estimate the interaction influence and test the moderating influence of organization culture on the relationship between laissez-faire leadership and competency development in technical and vocational education training institutions in Kenya. According to the study results in Table 9, model 1 results are as follows, R-square=0.082, adjusted R-square=0.079 and SE=0.853. Further, the F –statistic (1,201=17.955, $p\text{-value} < 0.05$). Model 2 results are as follows, R-square=0.083, adjusted R-square=0.081 and SE=0.467. Further, the F –statistic (2,200=9.051, $p\text{-value} < 0.05$). Model 3 results are as follows, R-square=0.084, adjusted R-square=0.082 and SE=0.837. Further, the F –statistic (3,199=6.083, $p\text{-value} < 0.05$). Model 1 indicates the results before moderation. Model 2 indicates the results between organization culture, laissez – faire leadership and competency development in technical and vocational education training institutions in Kenya. Model 3 indicates the results between competency development in technical and vocational education training institutions in Kenya, organization culture, laissez-faire leadership and moderated laissez-faire (laissez-faire leadership * organization culture).

In the first model, the coefficient of determination (R squared) of 0.082 shows that 8.2% of competency development in technical and vocational education training institutions in Kenya can be explained by laissez-faire leadership. The adjusted R-square of 0.79 indicates that laissez-faire leadership in exclusion of the constant variable explained the change in competency development in technical and vocational education training institutions in Kenya by 7.9%, the remaining percentage can be explained by other factors excluded from the model. R of 0.287

shows that there is positive correlation between competency development in technical and vocational education training institutions in Kenya and laissez-faire leadership. The standard error of estimate (0.853) shows the average deviation of the independent variables from the line of best fit.

The second model shows the relationship between laissez-faire leadership, organization culture and competency development in technical and vocational education training institutions in Kenya. The change in R-square from 0.82 to 0.83 implies that organization culture enhanced the relationship between laissez-faire leadership and competency development in technical and vocational education training institutions in Kenya. The third model shows the relationship between competency development in technical and vocational education training institutions in Kenya and laissez-faire leadership, organization culture and moderated laissez-faire leadership (Laissez-faire leadership * Organization culture). The findings revealed that the model became significant when the product term was introduced and there was change in R-square. Therefore, it can be concluded that organization culture had a significant moderation influence on the relationship between laissez-faire and competency development in technical and vocational education training institutions in Kenya.

The results (F=17.955, p-value < 0.05) shows that there is a significant relationship between competency development in technical and vocational education training institutions in Kenya and laissez-faire leadership and at least the slope (β coefficient) is not zero. Similarly, the F-statistics for the second model was (F=9.051, p-value < 0.05); therefore, it can be implied that there is a significant relationship between competency development in technical and vocational education training institutions in Kenya and laissez-faire leadership and organization culture and at least one of the beta (slope) is not zero. The F-statistics for the third model (F=6.083, p-value < 0.05) shows that there was a significant relationship between competency development in technical and vocational education training institutions in Kenya and laissez-faire leadership, organization culture and moderated laissez-faire leadership (laissez-faire leadership * Organization culture). It can then be concluded that the three models are significantly valid.

The study findings showed that there was a positive significant relationship between laissez-faire leadership and competency development in technical and vocational education training institutions in Kenya ($\beta=0.290$ and p-value<0.05). Therefore, a unit increase in use of laissez-faire leadership led to an increase in competency development in technical and vocational education training institutions in Kenya by 0.290. Since the p-value was less than 0.05, the null hypothesis was rejected and concluded that laissez-faire leadership had a significant positive relationship with competency development in technical and vocational education training institutions in Kenya.

The second model shows that there is a significant positive relationship between laissez-faire leadership and competency development in technical and vocational education training institutions in Kenya ($\beta = 0.289$ and p-value<0.05). Thus, it can be implied that a unit change in organization culture index increases competency development in technical and vocational education training institutions in Kenya index by 0.289 units. A closer scrutiny of the laissez-faire leadership beta coefficient depicts that organization culture strengthens the positive relationship ($\beta=0.289$ and p-value < 0.05) between organization culture and competency development in technical and vocational education training institutions in Kenya.

The third model shows significant relationship between moderated laissez-faire leadership and competency development in technical and vocational education training institutions in Kenya ($\beta=0.291$, p-value<0.05) and the relationship between laissez-faire leadership and competency development in technical and vocational education training institutions in Kenya strengthened from ($\beta = 0.289$, p-value <0.001) to ($\beta = 0.291$, p-value<0.001). Moreover, there was change in R square in model three after introduction of product term. It can then be concluded that organization culture had a significant moderating influence on the relationship between laissez-faire leadership and competency development in technical and vocational education training institutions in Kenya.

Table 9: Moderating Effect (Organization Culture, Laissez-faire leadership and Competency Development)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				Sig. Change	F
					R Square Change	F Change	df1	df2		
1	.287a	.082	.079	.853	.543	17.955	1	201	.000	
2	.289b	.083	.081	.467	.325	9.051	1	200	.000	
3	.291c	.084	.082	.837	.432	6.083	1	199	.000	

a Predictors: (Constant), Laissez-faire Leadership

b Predictors: (Constant), Laissez-faire leadership, Organization culture

c Predictors: (Constant), Laissez-faire leadership, Organization culture, Laissez-faire leadership * Organization culture

ANOVA Statistics

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	305.122	1	305.122	17.955	.000b ^a
Residual	3415.878	201	16.994		
Total	3721.000	202			
2 Regression	308.843	2	154.422	9.051	.000 ^b
Residual	3412.157	200	17.061		
Total	3721.000	202			
3 Regression	312.564	3	104.188	6.083	.000 ^c
Residual	3408.436	199	17.128		
Total	3721.000	202			

a Predictors: (Constant), Laissez-faire Leadership

b Predictors: (Constant), Laissez-faire leadership, Organization culture

c Predictors: (Constant), Laissez-faire leadership, Organization culture, Laissez-faire leadership *

d Dependent Variable: Competency Development

Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig
		B	Std. Error	Beta		
1	(Constant)	4.322	.882		4.898	.000
	Laissez-faire Leadership	.290	.034	.287	8.542	.000
2	(Constant)	3.456	.912		3.786	.000
	Laissez-faire Leadership	.289	.033	.289	8.546	.000
	Organization Culture	.169	.056	.041	2.989	.000
3	(Constant)	3.218	.627		5.125	.000
	Laissez-faire Leadership	.291	.034	.316	8.578	.000
	Organization Culture	.242	.062	.038	3.847	.000
	, Laissez-faire Leadership* Organization Culture	.298	.032	.060	9.075	.000

a: Dependent Variable: Competency Development

Summary of the Hypothesis Testing

The hypothesis to test for this specific objective was:

H_{a3} – Organization culture does moderate the relationship between Laissez-faire leadership and competency development in technical and vocational education training institutions in Kenya

To determine if organization culture moderates the relationship between Laissez-faire leadership and competency development in technical and vocational education training institutions in Kenya, three models have been fitted hierarchically with;

Model 1: $Y = \beta_0 + \beta_1 X_3 + \epsilon$;

Model 2: $Y = \beta_0 + \beta_1 X_3 + \beta_m M + \epsilon$;

Model 3: $Y = \beta_0 + \beta_1 X_3 + \beta_2 M + \beta_3 X_3 * M + \epsilon$;

Where Y is Competency development in technical and vocational education training institutions in Kenya, X₃ Laissez-faire leadership, M is Organization Culture and X₃*M is the interaction term between Laissez-faire leadership and Organization Culture

In model 1, the F change for X₃ was significant (F change = 17.955, P<0.05), implying that X₃ did significantly influence Y as discussed earlier in Table 7.

In model 2, when M (organization culture) was added as a predictor to the model containing X₃ the model was still significant (F change = 9.051, P<0.05)

In model 3, when the interaction term was introduced, the model remained the same (significant) (F change = 6.083, $P < 0.05$). This means that M (organization culture) is a significant moderator of the relationship between Laissez-faire leadership and competency development in technical and vocational education training institutions in Kenya.

1) Model 1 having X_3 as the predictor (see Table 9). Therefore, the model equation for Laissez-faire leadership is $Y = 4.322 + 0.290X_3$

2) Model 2 having X_3 and the moderation variable as a predictor (see Table 9). Thus, the model equation for Laissez-faire leadership and organization culture as a predictor is $Y = 3.456 + 0.289X_3 + 0.169M$

3) Model 3 is model 2 with interaction term between X_3 and the moderating variable (see Table 4.29). Thus, the model equation for Laissez-faire leadership and organization culture as a predictor is $Y = 3.218 + 0.291X_3 + 0.242M + 0.298X_3 * M$

Moderated multiple regression was used to estimate the interaction effect and test the moderating influence of organization culture on the relationship between servant leadership and competency development in technical and vocational education training institutions in Kenya. According to the study results in Table 10, model 1 results are as follows, R-square=0.058, adjusted R-square=0.055 and SE=0.098. Further, the F –statistic (1,201=12.375, p-value<0.05). Model 2 results are as follows, R-square=0.066, adjusted R-square=0.062 and SE=0.467. Further, the F –statistic (2,200=7.066, p-value<0.05). Model 3 results are as follows, R-square=0.076, adjusted R-square=0.074 and SE=0.837. Further, the F –statistic (3,199=5.456, p-value<0.05). Model 1 indicates the results before moderation. Model 2 indicates the results between organization culture, servant leadership and competency development in technical and vocational education training institutions in Kenya. Model 3 indicates the results between competency development in technical and vocational education training institutions in Kenya, organization culture, servant leadership and moderated servant leadership (Servant leadership * Organization culture).

The coefficient of determination (R squared) of 0.058 shows that 5.8% of competency development in technical and vocational education training institutions in Kenya can be explained by servant leadership. The adjusted R-square of 0.055 indicates that servant leadership in exclusion of the constant variable explained the change in competency development in technical and vocational education training institutions in Kenya by 5.5%, the remaining percentage can be explained by other factors excluded from the model. R of 0.241 shows that there is positive correlation between competency development in technical and vocational education training institutions in Kenya and servant leadership. The standard error of estimate (0.098) shows the average deviation of the independent variables from the line of best fit.

The second model shows the relationship between servant leadership, organization culture and competency development in technical and vocational education training institutions in Kenya. The change in R-square from 0.058 to 0.066 implies that organization culture enhanced the relationship between servant leadership and competency development in technical and vocational education training institutions in Kenya. The third model shows the relationship between competency development in technical and vocational education training institutions in Kenya and servant leadership, organization culture and moderated servant leadership (Servant leadership * Organization Culture). The findings revealed that the model became significant when the interaction term was introduced and there was change in R-square. Therefore, it can be concluded that servant leadership had a significant moderation influence on the relationship between servant leadership and competency development in technical and vocational education training institutions in Kenya.

The F-statistics was used to determine the validity of the model. The results (F=12.375, p-value < 0.001) shows that there is a significant relationship between competency development in technical and vocational education training institutions in Kenya and servant leadership and at least the slope (β coefficient) is not zero. Similarly, the F-statistics for the second model was (F=7.066, p-value < 0.05); therefore, it can be implied that there is a significant relationship between competency development in technical and vocational education training institutions in Kenya and servant leadership and organization culture and at least one of the beta (slope) is not zero.

The F-statistics for the third model (F=5.456, p-value < 0.05) shows that there was a significant relationship between competency development in technical and vocational education training institutions in Kenya and servant leadership, organization culture and moderated servant leadership (Servant leadership * Organization culture). It can then be concluded that the three models are significantly valid.

The study findings showed that there was a positive significant relationship between servant leadership and competency development in technical and vocational education training institutions in Kenya ($\beta=0.237$ and p-value < 0.05). Therefore, a unit increase in use of servant leadership led to an increase in competency development in technical and vocational education training institutions in Kenya by 0.237. Since the p-value was less than 0.05, the null hypothesis was rejected and concluded that servant leadership had a significant positive relationship with competency development in technical and vocational education training institutions in Kenya.

The second model shows that there is a significant positive relationship between servant leadership and competency development in technical and vocational education training institutions in Kenya ($\beta = 0.243$ and $p\text{-value} < 0.05$). Thus, it can be implied that a unit change in organization culture index increases competency development in technical and vocational education training institutions in Kenya index by 0.243 units. A closer scrutiny of the servant leadership beta coefficient depicts that organisation culture strengthens the positive relationship ($\beta=0.243$ and $p\text{-value} < 0.05$) between servant leadership and competency development in technical and vocational education training institutions in Kenya.

The third model shows a significant relationship between moderated servant leadership and competency development in technical and vocational education training institutions in Kenya ($\beta=0.268$, $p\text{-value}<0.05$) and the relationship between servant leadership and competency development in technical and vocational education training institutions in Kenya strengthened from ($\beta = 0.268$, $p\text{-value} < 0.05$) to ($\beta = 0.268$, $p\text{-value} < 0.05$). Moreover, there was change in R square in model three after introduction of product term. It can then be concluded that organization culture had a significant moderating influence between servant leadership and competency development in technical and vocational education training institutions in Kenya

Table 10: Moderating Effect (Organization Culture, Servant Leadership and Competency Development)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				Sig. F Change
					R Square Change	F Change	df1	df2	
1	.241a	.058	.055	.098	.580	12.375	1	201	.000
2	.258b	.066	.062	.467	.325	7.066	1	200	.000
3	.276c	.076	.074	.837	.432	5.456	1	199	.000

a Predictors: (Constant), Servant Leadership

b Predictors: (Constant), Servant leadership, Organization culture

c Predictors: (Constant), Servant leadership, organization culture, Servant leadership*organization culture

ANOVA Statistics

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	215.818	1	215.818	12.375	.000 ^a
	Residual	3505.182	201	17.994		
	Total	3721.000	202			
2	Regression	245.586	2	122.793	7.066	.000 ^b
	Residual	3475.414	200	17.377		
	Total	3721.000	202			
3	Regression	282.796	3	94.265	5.456	.000 ^c
	Residual	3438.204	199	17.277		
	Total	3721.000	202			

a Predictors: (Constant), Servant Leadership

b Predictors: (Constant), Servant leadership, Organization culture

c Predictors: (Constant), Servant leadership, organization culture, Servant leadership*organization culture

d Dependent Variable: Competency Development

Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig
	B	Std. Error	Beta		
1 (Constant)	3.654	.935		3.908	.000
Servant Leadership	.237	.035	.241	6.778	.000
2 (Constant)	2.678	.546		4.898	.000
Servant Leadership	.243	.027	.267	8.872	.000
Organization culture	.145	.043	.041	3.325	.000
3 (Constant)	2.879	.564		5.098	.000
Servant Leadership	.268	.035	.267	7.549	.000
Organization culture	.187	.076	.038	2.456	.000
Servant leadership*Organization Culture	.245	.039	.060	6.218	.000

a: Dependent Variable: Competency Development

Summary of the Hypothesis Testing

The hypothesis to test for this specific objective was:

H_{a3} – Organization culture does moderate the relationship between servant leadership and competency development in technical and vocational education training institutions in Kenya

To determine if organization culture moderates the relationship between servant leadership and competency development in technical and vocational education training institutions in Kenya, three models have been fitted hierarchically with;

To test the hypothesis, the following models were fitted;

Model 1: $Y = \beta_0 + \beta_1 X_4 + \epsilon$;

Model 2: $Y = \beta_0 + \beta_1 X_4 + \beta_m M + \epsilon$;

Model 3: $Y = \beta_0 + \beta_1 X_4 + \beta_2 M + \beta_3 X_4 * M + \epsilon$;

Where Y is Competency development in technical and vocational education training institutions in Kenya, X₄ is Servant Leadership, M is Organization Culture and X₄*M is the interaction term between Servant Leadership and Organization Culture

In model 1, the F change for X₄ was significant (F change = 12.375, P<0.05), implying that X₄ did significantly influence Y as discussed earlier in Table 9.

In model 2, when M (organization culture) was added as a predictor to the model containing X₄ the model was still significant (F change = 7.066, P<0.05)

In model 3, when the interaction term was introduced, the model remained the same (significant) (F change = 5.456, P<0.05). This means that M (organization culture) is a significant moderator of the relationship between servant leadership and competency development in technical and vocational education training institutions in Kenya.

1) Model 1 having X₄ as the predictor (see Table 10). Therefore, the model equation for servant leadership is $Y = 3.654 + 0.237X_4$

2) Model 2 having X₄ and the moderation variable as a predictor (see Table 10). Thus, the model equation for servant leadership and organization culture as a predictor is $Y = 2.678 + 0.243 X_4 + 0.145M$

3) Model 3 is model 2 with interaction term between X₄ and the moderating variable (see Table 4.29). Thus, the model equation for servant leadership and organization culture as a predictor is $Y = 2.879 + 0.268X_4 + 0.187M + 0.187X_4 * M$

The study findings are in tandem with findings by Wowor (2014) on the moderating influence of organizational culture on the impact of servant leadership and job satisfaction on community policing officers' job performance in Indonesia. In this study, the effect of the police organization cultures was investigated as a variable that moderate the impact of servant leadership on CP officers' job performance. CP officers' job satisfaction also was investigated as a mediator variable that lies intermediate between servant leadership and CP officers' job performance. This study is still in progress, and data was collected from more than 300 CP officers includes from their direct leaders and the head of community village as the CP officer's stakeholder. Structural Equating Modelling (SEM) analysis was used to testing the hypotheses and relationship between all research variables. It was established that organization had a moderating effect on the relationship between servant leadership and job satisfaction on community policing officers' job performance in Indonesia

CONCLUSION

The study assessed the influence of laissez-faire leadership style on competency development in technical and vocational training institutions in Kenya. The study concludes that there is a positive and significant relationship

between laissez-faire leadership with competency development in technical and vocational education training institutions in Kenya. Therefore, the third alternative hypothesis of the study was accepted and it was therefore concluded that Laissez-faire leadership had a positive significant influence on competency development in technical and vocational education training institutions in Kenya.

The study assessed the influence of servant leadership style on competency development in technical and vocational training institutions in Kenya. The findings of the study also led to the conclusions that servant leadership played a significant role in explaining the competency development in the technical and vocational education training institutions in Kenya. This was evident from the correlation results which indicated that the relationship between servant leadership and competency development in the technical and vocational education training institutions in Kenya was positive and significant. The regression analysis results also showed that servant leadership significantly influenced competency development in the technical and vocational education training institutions in Kenya while the ANOVA results indicated that a great percentage of the change competency development in the technical and vocational education training institutions in Kenya was due to servant leadership. This conclusion was also due to the fact that the fourth alternative hypothesis was accepted.

The study assessed the moderating effect of organizational culture on the relationship between leadership styles and competency development in technical and vocational training institutions in Kenya. The findings of the study also led to the conclusions that leadership styles played a significant role in explaining the relationship between leadership styles and competency development in the technical and vocational education training institutions in Kenya. This was evident from the correlation results which indicated that the relationship between leadership styles and competency development in the technical and vocational education training institutions in Kenya was positive and significant. The regression analysis results also showed that organizational culture significantly influenced competency development in the technical and vocational education training institutions in Kenya while the ANOVA results indicated that a great percentage of the change competency development in the technical and vocational education training institutions in Kenya was due to moderating effect of organizational culture.

RECOMMENDATIONS

From the study findings it was established that laissez-faire leadership influence competency development in the technical and vocational education training institutions in Kenya. The principals' laissez-faire leadership style will increase competency development in the institutions. So they should use this type of leadership style. Leaders should clarify expectations and provide goals and standards to be achieved for the followers. They should not wait until the problems become more serious and then act/ take action they should monitor competency development on timely basis. Whenever a problem arises, leaders should try to intervene into the issues as soon as possible. Leaders should respond to urgent questions and make decisions promptly and precisely. They should not be afraid of getting involved in problem solving to enhance competency development in the institutions.

The study results revealed that there existed a positive relationship between servant leadership attributes and competency development in the technical and vocational education training institutions in Kenya and the based on the vision, empowerment, humility and service and integrity attributes of the managers. The leaders should be forming relationships with subordinates, empowering subordinates, helping subordinates grow and succeed, behaving ethically, having conceptual skills, putting subordinates first and creating value for those outside the institutions to enhance competency development in the institutions.

The study also found out that organization culture had significant moderating influence on the relationship between leadership styles and competency development in technical and vocational education training institutions in Kenya. Organization culture also had a negative effect on the competency development in technical and vocational education training institutions in Kenya. The study recommends that policy makers of these technical and vocational education training institutions in Kenya pay careful consideration to aligning their leadership styles and in consideration with the organization culture as one of the environmental variables so as to enhance competency development in technical and vocational education training institutions in Kenya.

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