

Critical Success Factors, Institutional Culture and Curriculum Delivery in Public TVET Institutions in North Rift Region, Kenya

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Abstract

Vocational programmes are frequently neglected, and they certainly do not guarantee access to employment and better living conditions. Thus high-quality curriculum and its delivery should always remain part of the story. This begs the question as to what is the effect of critical success factors on curriculum delivery process in TVET institutions. In this regard the study was designed to; To find out the correlation between critical success factors and curriculum delivery process in selected ISO certified public TVET institutions in North Rift Region, Kenya, To assess the effect of Institutional Culture on curriculum delivery process in selected ISO certified public TVET institutions in North Rift Region, Kenya, assess the moderating role of institutional culture on the effect of critical success factors on curriculum delivery process in selected ISO certified public TVET institutions in North Rift Region, Kenya. The study adopted an explanatory research design targeting 735 respondents comprising of Deputy HoDs, ISO champion/HoDs trainers from ISO 9001: 2015 certified TVET institutions in the North-Rift region. This study employed stratified random sampling, proportionate, simple random sampling techniques to select the respondents to be included in the sample. Kerjcie and Morgan (1970) formulae for determining the sample size the sample of the trainers was 252 as obtained using Kerjcie and Morgan (1970). The study used questionnaires for data collection. Data was analysed by use of inferential statistics. using the Statistical Package for Social Sciences (SPSS), version 25. From the findings critical success factors such as ISO training and communication are significantly correlated with curriculum delivery with the correlation coefficient ranging of $r = .789^{**}$ and $r = .767^{**}$ significantly. 15.4% percent changes in curriculum delivery in selected public ISO certified TVET institutions in North Rift region, Kenya could be accounted to institutional culture. With institutional culture moderator, the variables jointly explained 68.6 percent ($R^2 = 0.686$) variation in sustenance of curriculum delivery process. There fore the TVET institutions should set instructional cultures which engenders high educational goals and high human values for synergistic effect of employee critical factors and sustenance of curriculum delivery process. The institutional culture must nurture the uptake of ISO training and dissemination of information geared towards curriculum delivery.

Keywords: Institutional culture, critical success factors and curriculum delivery.

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BACKGROUND OF THE STUDY

Although TVET has been used by several developing countries as an instrument of sustainable development, it has been still left to the periphery and its significance has not really been embraced (Moustafa, n.d.). Thus, TVET is under obligation of walking the talk of transformation of lives and getting economies to a higher gear through effective curriculum delivery. The delivery of training TVET should adhere to the design of the curriculum (TVETA., 2019). This is underscored by the fact that, effective curriculum delivery guarantees the provision of quality TVET and skills development that is relevant to current and future

job needs is essential to achieving inclusive social and economic growth (ILO., 2010). *In the contrary, vocational programmes are frequently neglected, and they certainly do not guarantee access to employment and better living conditions* (Jjuuko, 2012). In this regard, high-quality curriculum and its delivery should always remain part of the story (First Learning., 2019).

Curriculum delivery can only succeed if the right curriculum delivery practices of teaching are applied (Alammary, Sheard, & Carbone, 2014). Trainers (teachers) participate in curriculum delivery by deciding how students should actively participate in

lessons taught. When teaching, teachers interpret situations, offer solutions and make decisions to classroom problems that come up. All these are key to effective curriculum delivery. Focusing on *employee performance* as a critical success factor have strong positive relationship with service *quality* (Thevaranjan & Ragel, 2016). Customer service quality in organizations is often affected by poor employee performance. This makes it indispensable for TVET to strengthen the adoption of critical success factors of TQM as means of enhancing the performance of trainers and other employees to meet the needs of the societies they serve. In addition through a collaborative institutional culture, the objectives of the organization and the mutual support of teachers are achieved, so that they can cope with the increased educational needs of the students (Yakoumis & Theofilidis, 2012). It is therefore presumed that epitomising the critical success factors of TQM by TVET in tandem with positive institutional cultures will guarantee curriculum delivery which will provide knowledge, skills, competencies and values to enable learners to move seamlessly from the education system into the world of work which is at the heart of their vision.

Critical success factors are the behavioural aspects of management styles or the human factors which emphasize on organization's total quality management (Arumugam, Rouhollah & Malarvizhi, 2011). Therefore, achieving quality service delivery in terms of curriculum development and delivery without paying dividends to quality management orientation of the trainers and other employees of TVET is a mirage. According to Nyerere (2009), TVET institutions continue to face quality related challenges despite most of them being certified under ISO standards. Peter, To and Billy (2009) that it is possible that certified organizations may not implement the eight (8) ISO9001:2008 principles in similar extents, and therefore, exhibit varying patterns of implementation resulting in different performance outcomes, holds the key to this puzzle. Gholami *et al.*, (2018), Chisi (2018), Chepkech (2014) Sabihaini, Yuli and Widhy (2010), Salleh *et al.*, (2018) accentuate the importance of critical success factors of TQM in enhancing performance of learning institutions. However, there are limited studies which have focused on curriculum delivery as an outcome of the critical success factors as moderated by institutional culture which provided a gap for the current study.

Specific Objectives

- i. To find out the correlation between critical success factors and curriculum delivery process in selected ISO certified public TVET institutions in North Rift Region, Kenya.
- ii. To access the effect of Institutional Culture on curriculum delivery process in selected ISO certified public TVET institutions in North Rift Region, Kenya

- iii. To analyze the moderating role of institutional culture on the effect of critical success factors on curriculum delivery process in selected ISO certified public TVET institutions in North Rift Region, Kenya.

Hypotheses

H₀₁: There is no significant correlation between critical success factors and curriculum delivery process in selected ISO certified public TVET institutions in North Rift Region, Kenya.

H₀₂: There is no significant effect of institutional culture on curriculum delivery process in selected ISO certified public TVET institutions in North Rift Region, Kenya.

H₀₃: Institutional culture doesn't have a significant moderating effect on curriculum delivery process in selected ISO certified public TVET institutions in North Rift Region, Kenya.

LITERATURE REVIEW

Critical Success Factors

Critical Success Factors are those variables or circumstances necessary to enable a positive outcome for a business program or strategy (John, 2019). Identifying Critical Success Factors enable an organization to track and measure your progress toward achieving strategic goals and, ultimately, to fulfilling your organization's mission. Critical success factors are a combination of internal critical factors (successful customer relationships, security and trust, transparency of information, IS/IT infrastructure, top management support, supply chain facilities) and external critical factors (global competitiveness, government commitments, cultural considerations) in developing and sustaining the success of business-to-business e-commerce (Chong, Shafaghi, & Tan, 2011). According to Salaheldin (2009) Strategic factors such as leadership, top management support, and organizational culture have strong positive impact on overall performance, while operational factors such as customer orientation, process control, product and service design have a strong positive impact on operational and financial performance, and lastly tactical factors such as supplier relationships, employee training and empowerment have a strong positive impact on operational performance only. Therefore, top management support is both a strategic and a critical success factors.

The management of TVET should focus on sustaining continuous daily improvement by invoking a positive attitude of employees towards continuous improvement. Thus, it is a continuous effort for the management to maintain a standard in the institutions. TQM has been seen as a managerial tool to fix the problems relating to services as well as approaches in education industry and it can standardize the education industry (Chen, 2012). Critical success factors of total quality management (TQM) implementation in higher

education are management commitment and leadership; continuous improvement; total customer satisfaction; employee involvement; training; communication and teamwork (Salleh *et al.*, 2018). According to Talib, Rahman and Qureshi, (2011) there are nine TQM critical success factors: top management commitment, customer focus, continuous improvement, process management, training and developing, quality culture, employee empowerment and participation and communication. Arumugam, Rouhollah and Malarvizhi (2011) adds that critical success factors include leadership, customer focus, training, supplier quality management, product design, process management, and team work. This study focused on training and employee communication as critical success factors.

Curriculum Delivery Process

A Curriculum is a blueprint consisting of subject themes, topics, performance or behavioral activities, content or subject matter and students' activities (Haerens, Kirk, Cardon, & De Bourdeaudhuij, 2011). Any curriculum consists of several components: goals, disposition, duration, needs analysis, learners and teachers, exercises and activities, resources, ways of learning, skills to be acquired, lexis, language structure, and ability assessment (Zohrabi, 2011). A curriculum seeks to contain all the facts and methods of delivery for a learner. Curriculum delivery can only succeed if the right curriculum delivery practices of teaching are applied (Alammary, Sheard, & Carbone, 2014). Teachers participate in curriculum delivery by deciding how students should actively participate in lessons taught. When teaching, teachers interpret situations, offer solutions and make decisions to classroom problems that come up. The three stages of the curriculum delivery processes which includes the Preparation stage, delivery stage, Evaluation stage which is synonymous to a fire place supported by three stones, each stone matters, as it plays equal role as the others (Kimosop, 2014).

Institutional Culture

Institutional culture is the characteristic and the tangible personality originated inside every institution and differentiates from other institutions. The effectiveness of a college is a function of how it responds to external forces and internal pressures in fulfilling its educational mission. Institutions names represent the taste of their workplaces, the attitude, the unwritten protocol of interactions and the institutions values (Morcos, 2018). Institutions make culture their priority and distinct. Culture is defined through four filters every culture is unique, cultures give us a clear guideline, cultures are fluid like, internal cultures to become part of their external identity (Brown, Chheng, Melian, Parker, & Solow, 2015). It reflects the employee experience, and it often determines whether companies win or lose (Weiner, 2018).

Selznick (2011) observed that leaders must promote dynamic adaptation, foster new organizational competence, and cultivate an evolving sense of mission through 'critical decisions' that alter institutional character in the longer term. Otherwise, institutions move out of synch with their external and internal environments. Studies of cultures in HEIs indicated that institutions with a supportive, proactive approach to goal and task accomplishment reported high performance (Kish, 2016;Tharp, 2012). In contrast, a dysfunctional culture reflecting low trust, insularity, and defensive behaviors is associated with a low-performing institution (Corry, 2016). Members of the department and administrators should start from the assumption that the student is a learner who should trust the institution where he/she studies and who should be encouraged to see the learning experience as a personal transformation; this process, at times, will challenge the tastes, desires and preconceived opinions they might have held up till that moment (Adela & Catalina, 2016). Teaching and research are carriers of institutional culture seen as an interconnected web whose components overlap and connect with one another. Moreover, increasing performance in both teaching and research sends the right message to students and the general public regarding to what the institution does to reach its mission and goals, solve critical problems and build trust in its capacity to do what it has promised.

Ochoa, Celaya and González (2016) posits that there seven dimensions of culture of learning institutions (teacher professionalization, organizational management, organizational leadership, organizational cohesion, strategic emphasis, organizational effectiveness and external elements), concluding that an initial stage of raising awareness must be added. The idea of institutional culture is related to questions of power and control in institutions of higher education. The components include mission, environment, socialization, information, strategy, and leadership (Alhija & Fresko, 2010; Bingham & Nix, 2010). Institutional culture was measured in terms of mission, strategy and leadership. Cultural dimensions would thus become the visible aspects that are reflected in practices and values being lived out in border institutions like this one (Nelson, Barrera, Skinner & Fuentes, 2014).

Employee critical success factors, institutional culture and curriculum delivery process.

The literature reviewed has presented a huge number of critical success factors in a range of areas such as the construction sector, health sector, service sector, the manufacturing sector with limited studies in the higher education sector. The critical factors that have been identified may vary from one sector and setting to another. Gholami *et al.*, (2018), Chisi (2018), Chepkech (2014), (Sabihaini, Yuli, and Widhy (2010), Salleh *et al.*, (2018) accentuate the importance of critical succes factors of TQM in enhancing performance of learning institutions. There is a positive

impact of TQM, human resources management and ISO on the sustainability and competitiveness of the enterprise (Izvercian, Radu, Ivascu, & Ardelean, 2014). Critical success factors of total quality management (TQM) implementation in higher education are management commitment and leadership; continuous improvement; total customer satisfaction; employee involvement; training; communication and teamwork (Salleh *et al.*, 2018). However, there are limited studies which have focused on the in them with curriculum delivery as their outcome.

According to the contingency perspective, most relationships between two variables are influenced by other variables (Boyd., Takacs, Hitt, Bergh, & Ketchen, 2012). In this regard the sustainance of curriculum delivery in TVET institutions is not a natural phenomenon, but rather the choices and social interactions made by the management to induce the extent of influence of the employee critical success factors. This provides a basis of assessing the moderating role of institutional culture on the relationship between critical success factors of TQM and curriculum delivery. This is explained by numerous factors influence the ultimate performance of any education institution one among these factors is the prevailing culture of an institution (Ng'ang'a & Wesonga, 2012). Managers who display a strong organizational culture to influence employees 'work attitude and performance because culture engages and motivates employees (Simoneaux & Stroud, 2014).

Empirical research has revealed that there are limited studies that have explored the relationship between critical success factors, institutional culture and curriculum delivery. Hilman, Ali and Gorondutse (2019) empirically tested the association between total quality management (TQM) and small and medium

enterprises' (SMEs) performance in the Riyadh, Mecca and Eastern regions of the Kingdom of Saudi Arabia. In particular, it examined whether organizational culture (OC) has a mediating effect on the TQM-SME performance relationship. However, the study was limited to SMEs in thus the findings of the may not be generalized to the TVET institutions Kenya context. Besides the study was limited to quantitative techniques thus providing a gap for using of both quantitative techniques for further information analysis. Thus the current study was designed to feel in the gaps in literature by assessing the relationship between critical success factors, institutional culture and curriculum delivery in TVET institutions in the Kenyan context.

Conceptual Framework

This study conceptualizes the relationship between critical success factors and curriculum delivery as moderated by institutional culture. According to Mizne (2017), the interplay of building institutional culture, critical success factors is in essence an ecosystem that must be focused on as a whole in order to ultimately achieve effective curriculum delivery. The critical success factors which are the independent variable, were measured in terms of measured ISO training and employee communication. Consequently, the conceptual framework includes two sets of hypothesized relationships. The first set of hypotheses a direct relationship where the greater use of critical success factors (independent variable) will lead to effective curriculum delivery (dependent variable). The second set of hypotheses an indirect relationship where institutional culture moderates the relationship between critical success factors (independent variable) and curriculum delivery (dependent variable).

Independent Variable Dependent Variable Critical Success Factors Curriculum Delivery

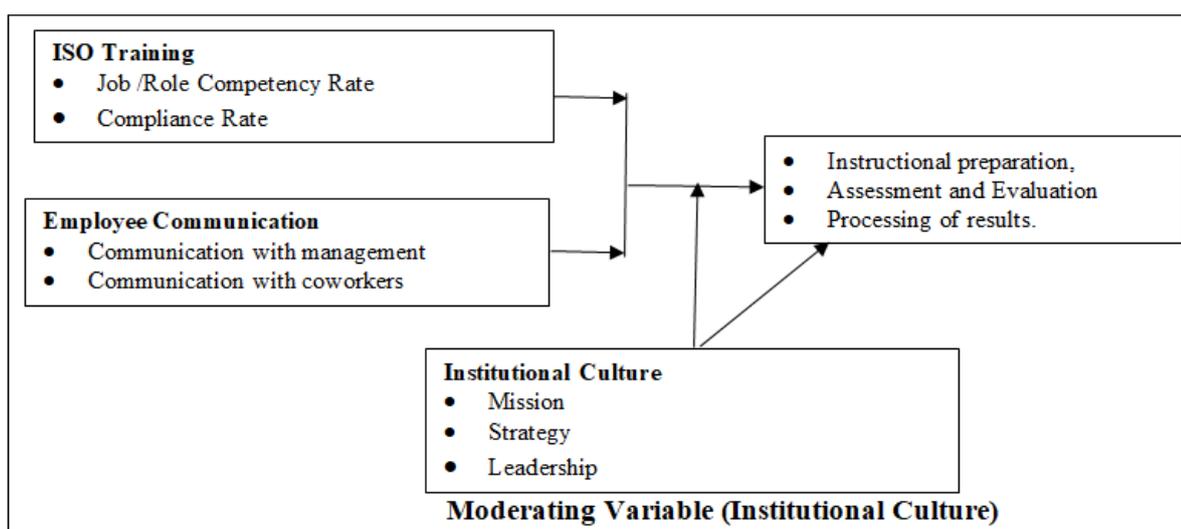


Figure 1: Diagram of conceptual Framework

RESEARCH DESIGN AND METHODOLOGY

Research Methodology

Research methodology is the specific procedures or techniques used to identify, select, process, and analyse information about a topic (Almalki, 2016). This study adopted explanatory research design to increase an understanding on the study variables.

Study Population

The target population comprised of employees of TVET institutions in North rift region which have curriculum delivery basing on QMS processes in their respective institutions. For purposes of this study the accessible population was 735 respondents comprising of Deputy HoDs, ISO champion/HoDs trainers from ISO 9001: 2015 certified TVET institutions in the North-Rift region.

Table 1: Accessible Population.

S. No	Institution	Trainer	ISO Champions	Internal Auditors	QASO
1	Poly1	226	11	11	1
2	Poly2	180	9	9	1
3	TTI1	87	8	8	1
4	TTI2	74	7	7	1
5	TTI3	168	7	7	1
TOTALS		735	42	42	5

Source: TVET institutional records, 2019

Sampling Techniques and Sample Size

This study employed stratified random sampling, proportionate, simple random sampling techniques to select the respondents to be included in the sample. Kerjcie and Morgan (1970) formulae for determining the sample size was used as follows:

$$n = \frac{x^2 N p (1 - p)}{d^2 (N - 1) + x^2 p (1 - p)}$$

X^2 =table values of chi-square at df =1 for desired confidence level (0.5=3.841)

N= Population size

P=population proportion (assumed to be 0.5)

d=degree of accuracy (expressed as a proportion)

Substituting for N=735 trainers, we have

$$n = \frac{3.841 * 735 * 0.5 (1 - 0.5)}{0.0025(735 - 1) + 0.025(1 - 0.5)} = 252 \text{ trainers.}$$

The sample of the trainers was 252 as obtained using Krejcie and Morgan (1970). Purposively sampling was used to obtain 29 staff which included; HODs who double up as ISO champion, auditors who are also Deputy HoDs and QASO together makes a study sample size of 281 respondents.

Table 2: Sample size

S. No	Institution	Trainers	ISO Champion	Internal Auditors	QASO
1	Poly1	77	3	3	1
2	Poly2	62	3	3	1
3	TTI1	30	2	2	1
4	TTI2	25	2	2	1
5	TTI3	58	2	2	1
Totals		252	12	12	5

Research Instruments

A research instrument is a tool used to collect, measure, and analyze data related to your research interests (Kothari & Garg, 2014). This study focused on primary data. Primary data is obtained from original sources which provides firsthand information found in the context of the study (Hancock & Algozzine, 2017). The study used questionnaires for data collection. The interview was administered to, ISO champions, quality assurance standard officers and internal auditor to provide in depth data which was not possible to get using questionnaires. Piloting involved 10% of the size of the sample which was 26 questionnaires which was

done at Rift Valley Institute of Science and Technology. Few corrections were made on wording, layout, sequencing, validity and reliability of the questions before the final draft disseminated to the respondents.

Data Analysis

Data analysis involved organization, interpretation and presentation of collected data in order to reduce the field information to a usable size (Guest & Marilyn, 2013). Data was analysed by use of inferential statistics. Inferential statistics is concerned with the cause-effect relationships between variables and uses

various tests of significance for testing hypotheses. This study used regression analysis.

Multiple regression analysis was applied to analyze the relationship between a single dependent variable and several independent variables (Nathans, Oswald, & Nimon, 2012). The model was as follows;
 $y = \beta_0 + \beta_1 X_1 Z + \beta_2 X_2 Z + \varepsilon \dots \dots \dots$ (Model 1)

Equation 1 shows the relationship between the predictors X_1 to X_2 , which are critical success factors and curriculum delivery which is Y as moderated by Z the moderator institutional culture.

Where,

- y = curriculum delivery
- β_0 = Constant (Value. of change in y when x = 0)
- β_1 and β_2 represents the regression coefficients describing the degree of change in independent variable by one-unit variable.
- X_1 ISO training
- X_2 Employee communication
- Z Institutional Culture
- ε Error term (the residual error, which is an unmeasured variable)

All the above statistical tests were analyzed using the Statistical Package for Social Sciences (SPSS), version 25. The researcher used data condensation mode of analysis to extract important themes from qualitative data from the administrators. The researcher interrogated themes in light of the objectives of the study.

FINDINGS AND DISCUSSION

H₀₁: Critical success factors are not significantly correlated to curriculum delivery process in selected public ISO certified TVET institutions in North Rift region, Kenya

Pearson’s correlation analysis showed that critical success factors such as ISO training and communication are significantly correlated with curriculum delivery with the correlation coefficient ranging of $r = .789^{**}$ and $r = .767^{**}$ significantly. This provides empirical support for the rejection of the null hypothesis H_{01} . TVET institutions in North Rift region, which scored highly on ISO training and communication also reported high levels of curriculum delivery (Korir, 2021; Barclay, Donalds, & Osei-Bryson, 2018).

Table 3: Correlation of critical success factors and curriculum delivery

	ISO training	Communication	Curriculum Delivery
ISO training	1		
Communication	.898 ^{**}	1	
Curriculum Delivery	.789 ^{**}	.767 ^{**}	1

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

H₀₂ Institutional Culture is doesn’t significantly affect curriculum delivery in selected public ISO certified TVET institutions in North Rift region, Kenya

From the model summary in table 4 the R-value showed a simple correlation value of all the independent variables to the dependent variable, which was 0.397. This is an indication of a strong positive correlation between the independent variables to the dependent variable. The reported R squared value .157 or 15.7 % showed how much of the variance in the dependable(curriculum delivery) variable was explained

by institutional culture (independent variable) in the model. The value of adjusted R squared was 0.154 an indication that there was variation of 15.4 percent on curriculum delivery due to changes in institutional culture at 95 percent confidence interval. This shows that 15.4% percent changes in curriculum delivery in in selected public ISO certified TVET institutions in North Rift region, Kenya could be accounted to institutional culture. It can therefore be inferred that changes in the greater environment, the unanticipated actions of individual actors, and the constructed understanding of an institution’s history are fundamental for positive outcomes in curriculum delivery.

Table 4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.397 ^a	.157	.154	.359	1.680
a. Predictors: (Constant), Institutional Culture					
b. Dependent Variable: Curriculum Delivery					

The regression coefficients table 5 showed the contribution of the independent variable to the dependent variable. Finally, from the data in Table 5, the study established regression equation was $Y = 3.864$

$+ .189X_1$. Therefore, curriculum delivery = $3.864 + .189$ Institutional Culture.

From the above regression equation it was revealed that holding Institutional culture to a constant

zero, curriculum delivery in TVET institution in North Rift region would be at 3.864 units. A unit increase in positive institutional culture would lead to increase in

institutional culture by a factor of 0.189 (B=0.189, P<0.05).

Table 5: Regression Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Model	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3.864	.085		45.496	.000		
	Institutional Culture	.189	.029	.397	6.581	.000	1.000	1.000

a. Dependent Variable: Curriculum Delivery

H₀₃ Institutional Culture doesn't significantly moderate the relationship between critical success factors and curriculum delivery in selected public ISO certified TVET institutions in North Rift region, Kenya

Table 6 illustrates the model summary of multiple regressions showing that all the two predictors (ISO training and sensitization and employee communication) jointly explained (R²=0.640) 64 percent variation sustenance of curriculum delivery without the effect of the moderating variable. However, with the moderator, the variables jointly explained 68.6

percent (R²= 0.686) variation in sustenance of curriculum delivery. This implies that when public ISO certified TVET institutions in North Rift region, Kenya strengthens critical success factors with consideration of institutional culture, then sustenance of curriculum delivery is likely to improve. Whether the assumption of independent errors is tenable is informed by the Durbin Watson statistic. Values less than 1 or greater than 3 should raise alarm, but the closer to 2 the value is, the better. The study gave a value of 1.599. This value is very close to 2 and therefore the assumption has been met.

Table 6: Goodness of Fit Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Durbin-Watson
1(without moderator)	.800 ^a	.640	.637	.235	.640	
2 (With moderator)	.828 ^b	.686	.682	.220	.046	1.599

a. Predictors: (Constant), ISO, Communication,
b. Predictors: ISO, Communication, Institutional Culture
c. Dependent Variable: Curriculum Delivery Process

Table 7 reveals an F-value of 205.598 and a p-value of 0.00 significant at 5 percent level of confidence, indicating that the overall regression model was significant. Hence, the joint contribution of the independent variables was significant in predicting sustenance of curriculum delivery process. On the other hand, when institutional culture is introduced to moderate the relationship between critical success

factor and sustenance of curriculum delivery process, an F-value of 167.344 and a p-value of 0.00 significant at 5 percent level of confidence is obtained, indicating that the overall regression model is significant. Hence, the joint contribution of the independent variables was also significant in predicting sustenance of curriculum delivery process with institutional culture as a moderator.

Table 7: ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1(Without Moderator)	Regression	22.666	2	11.333	205.598	.000 ^b
	Residual	12.733	231	.055		
	Total	35.399	233			
2(Moderator)	Regression	24.277	3	8.092	167.344	.000 ^c
	Residual	11.122	230	.048		
	Total	35.399	233			

a. Dependent Variable: Curriculum Delivery Process
b. Predictors: (Constant), ISO, Communication
c. Predictors: (Constant), ISO, Communication, Institutional Culture

Multiple Regression coefficients for Curriculum Delivery as Explained by Critical Success Factors and Moderated by Institutional Culture

Results of the multiple regression coefficients presented in Table 8 show the estimates of beta values and give an individual contribution of each predictor to the model. The magnitude of the beta coefficients associated with the independent variables can be compared to determine the strongest independent variable in predicting the dependent variable (Blair, Czajka, & Blair, 2013). The beta value tells us about the relationship between sustenance of curriculum delivery process with each predictor. The positive beta values indicate the positive relationship between the predictors and the outcome. Table 8 shows that the beta value for ISO training as .521 Communication .299 were all positive. The model can then be specified as:

$$Y = .521X_1 + .299X_2 + \varepsilon, \text{ without the moderating variable}$$

Where:

$$X_1 = \text{ISO training}$$

$X_2 = \text{Employee Communication}$

$\varepsilon = \text{Error term}$

T-test was then used to identify whether the predictors were making a significant contribution to the model. The t-values test the hypothesis that the coefficient is different from 0. To reject this one needs a t-value greater than 1.96 for 95 percent level of confidence. T-values also show the significance of a variable in the model. When the t-test associated with B value is significant, it implies the predictor is making a significant contribution to the model. The results show that ISO training ($T = 5.798, P < .05$) and Communication ($T = 3.330, P < .05$) also made significant contributions to the model. These findings indicate that all the critical success factors under study jointly significantly affect sustenance of curriculum delivery process in public ISO certified TVET institutions in North Rift region, Kenya without a moderator.

Table 8: Regression Coefficients of sustenance of curriculum delivery process without a Moderator

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.733	.085		20.380	.000		
	ISO	.321	.055	.521	5.798	.000	.193	5.179
	Commun	.142	.043	.299	3.330	.001	.193	5.179

Dependent Variable: Curriculum Delivery Process

Table 9 below shows results when institutional culture as the moderator are introduced, the beta values ISO training as .241 Communication .270 were all positive. The positive beta values indicate the direction of relationship between predictors and outcome. From the results in Table 9 the model can then be specified as:- $Y = .742X_1 * Z + .285X_2 * Z + \varepsilon$, with the moderating

variable. The t-test associated with beta values were significant which implies that the predictor is making a significant contribution to the model. The results show that show that ISO training ($T = 8.025, P < .05$) and Communication ($T = 3.390, P < .05$) also made significant contributions to the model.

Table 9: Regression Coefficients of sustenance of Curriculum Delivery Process with a Moderator

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.891	.166		5.367	.000		
	ISO	.457	.057	.742	8.025	.000	.160	6.252
	Commun	.136	.040	.285	3.390	.001	.193	5.183
	Culture	.142	.025	.298	5.772	.000	.511	1.957

Dependent Variable: Curriculum Delivery Process

DISCUSSION

From the findings there is a high correlation between ISO training, communication and curriculum delivery. TVET institutions in North Rift region, which scored highly on ISO training and communication also reported high levels of curriculum delivery (Korir, 2021; Barclay, Donalds, & Osei-Bryson, 2018). ISO training was highly correlated with curriculum delivery thus learning institutions should strive to embrace all the tenets of ISO training however this doesn't devalue

the need for strengthening communication as one of the critical success factors. Thus the management of TVET institutions may give importance to achieving curriculum goals and objectives of TVET by blending ISO training and communication among other critical success factors.

The moderating effect of institutional culture on the relationship between employee critical success factors and sustenance of Curriculum Delivery Process.

Trainers as employees of learning institutions play a major role in the whims and caprices of the educational system by influencing learning outcomes either positively or negatively (Ofojebe & Ezugoh, 2010). This is explained by the fact that they determine the quality of instructional delivery and also influence quality education when it comes to implementation of the curriculum and educational policies. Thus, the consideration of employee critical success factors in TVET is overly important for the realization of quality of both curriculum delivery process and educational innovations (Sabihaini, Liestyana, & Astuti, 2010; Zakuan, *et al.*, 2012; Salleh *et al.*, 2018).

This is corroborated by findings of the study within the pragmatic paradigm that employee critical success factors significantly influence sustenance of Curriculum Delivery Process in selected ISO certified public TVET institutions in North Rift Region, Kenya with an F-value of 167.344 and a p-value of 0.00, ($R^2=0.640$) 64 percent without a moderator. This implies that strengthening the implementation of strategies which are geared towards the promotion of the employee critical success factors in synthesizing employee motivation is fundamental for quality assurance; quality delivery (teaching), quality context and quality learning outcomes in the context of sustain ace of curriculum delivery. These altogether invokes the social conscience amongst the employees to demonstrate genuine emotional investment in their responsibilities and express high productivity indexed by sustain ace of curriculum delivery.

However according to the contingency perspective, most relationships between two variables are influenced by other variables (Boyd, Takacs, Hitt, Bergh, & Ketchen, 2012). In this regard the sustainace of curriculum delivery in TVET institutions is not a natural phenomenon, but rather the choices and social interactions made by the management to induce the extent of influence of the employee critical success factors. Therefore, the management should cultivate a vision, which is the result of collective intelligence that makes employee to share his vision by committing them to the collective realization of this vision. This creates a social impact that can bring positive results not only at organizational level but also in serious pedagogical issues that play a catalytic role in shaping the institutional culture (Stergios *et al.*, 2017; Roby, 2011). At the same time, through the institutional culture, a stability in the environment of the institutions community is ensured, which contributes to the modern society's demands and difficulties (Yakoumis & Theofilidis, 2012; Kythreiotis, Dimitriou, & Antoniou, 2010).

Therefore there are no reservations in arguing that institutional culture significantly moderates the relationship between employee critical success factors and sustainace of curriculum delivery Process in

selected ISO certified public TVET institutions in North Rift Region, Kenya based on the findings of the study 90 percent ($R^2= 0.900$), F-value of 341.884 and a p-value of 0.00 thus a rejection of the null hypothesis. This implies that the management should set instructional cultures which engenders high educational goals and high human values for synergistic effect of employee critical factors and sustenance of curriculum delivery process. This perspective is further concretized by the increased joint effect of the bundling of the employee critical factors on sustenance of curriculum delivery process. This is based on both the ADKAR model and Jurans trilogy theory.

CONCLUSION

There is a high correlation between ISO training, communication and curriculum delivery. Thus, embracing these critical success factors remains a cornerstone in the attainment of effective curriculum delivery. In conclusion ISO training coupled with communication remains a cog in the wheels of realizing sustainable development through curriculum delivery in TVET institutions. However, the sustainace of curriculum delivery in TVET institutions is not a natural phenomenon, but rather the choices and social interactions made by the management to induce the extent of influence of the employee critical success factors. This argumentation is hinged on the fact that institutional culture significantly moderates the relationship between critical success factors and curriculum delivery. Therefore the TVET institutions should set instructional cultures which engenders high educational goals and high human values for synergistic effect of employee critical factors and sustenance of curriculum delivery process. The institutional culture must nurture the uptake of ISO training and dissemination of information geared towards curriculum delivery.

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