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**Internal Control System, Organizational Culture and Performance of the Public
Technical, Vocational Education and Training Institutions in Kenya**

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Abstract

Purpose: This study examined the moderating effect of organizational culture in the relationship between internal control systems (ICS) on the performance of Technical and Vocational Education and Training (TVET) institutions in Kenya.

Methodology: Anchored on agency theory, resource-based view, institutional and stewardship theories, the research adopted the Committee of Sponsoring Organizations (COSO) framework to conceptualize ICS through five components: control environment, control activities, risk assessment, monitoring activities, and information and communication. Performance was assessed multidimensionally, incorporating goal attainment, resource control, and service consistency, while organizational culture was analysed through leadership, employee management, organizational glue, strategic emphasis, dominant characteristics, and success criteria. The study employed a descriptive survey design targeting 720 respondents drawn from 180 approved public TVET institutions in Kenya. Data were collected from a sample size of 257 respondents using structured questionnaires

Findings: The findings revealed that organizational culture negatively but significantly moderated the relationship between control environment and performance ($\beta = -2.233, p = .028 < .05$). On the other hand, there were negative and insignificant moderating effect of organizational culture in the relationship between risk assessment ($\beta = -.857, p = .384 > .05$), control activities ($\beta = -1.16, p = .257 > .05$), information and communication ($\beta = -.957, p = .354 > .05$), monitoring activities ($\beta = -.808, p = .428 > .05$) and performance of public TVET institutions. The study concluded that effective interaction of control environment and organizational culture impacts on performance of TVET institutions.

Unique Contribution to Theory to Practice and Policy:

The study recommended that policymakers and TVET administrators strengthen internal control frameworks by institutionalizing robust monitoring and evaluation systems, enhancing staff capacity through continuous training, and fostering cultures that embrace accountability, transparency, and ethical practices. The study further suggests that future research could explore the role of leadership styles and governance structures in reinforcing the ICS - performance nexus. Overall, the study contributes to the body of knowledge on ICS and organizational performance, offering practical implications for enhancing efficiency, accountability, and service delivery in Kenya's TVET sector.

Keywords: Internal Control System, Organizational Culture, Performance

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INTRODUCTION

In Kenya, the human capital development strategy revolves around institutions of Public Technical and Vocational Education and Training (TVET). As such, TVET institutions equip the youth with practical and technical skills that are required to address the dynamic nature of labour market and national economic priorities (United Nations Educational, Scientific and Cultural Organization, UNESCO, 2022). With the government investing heavily in the sector, the TVET institutions are likely to bring transformation in the economy through increased employability, alleviation of poverty, and innovation. Nevertheless, inefficiencies, low rates of graduation, insufficient alignment with labour market requirements, scarce accountability systems and inadequate infrastructure remain a concern in the world and regions (International Labour Organization, ILO, 2023; UNESCO, 2022). According to ILO (2023) and Wakiaga (2022), significant number of TVET graduates are not relevant to industries, which will put the effectiveness of institutional governance and the quality of training into question. All such concerns are compounded by the structural vulnerabilities within the institutions such as obsolete curriculums, inadequate infrastructure and poor governance. As pointed out by Oketch et al. (2024) and Sifuna (2022), these issues have caused the loss of stakeholder trust and institutional output and reputation reduction.

To solve these concerns, the use of Internal Control Systems (ICS) is becoming an important means of governance to enhance transparency, accountability, and effective utilization of resources. ICS are the policies, procedures and practices that are used by organizations to protect the assets, facilitate operational effectiveness and efficiency, provide precise financial reporting, and maintain compliance with regulations (COSO, 2021). Success of ICS in ensuring better results is usually diffused by the organizational culture in which they are applied. Barasa and Kimani (2024) identified the gaps in governance and suggested adopting holistic internal control frameworks as a solution to institutional accountability. On the other hand, Wambua and Gikonyo (2025) stressed the importance of ICS in instigating institutional trust and strategic alignment. Ideally, ethical leadership and a strong control environment enhanced service delivery and financial discipline in technical institutes in Western Kenya (Naliaka and Wekesa, 2022). The organizational culture within the framework of TVET institutions may either support or weaken internal controls based on the leadership style, communication patterns, employee engagement, and decision-making structure (Owino and Were, 2022; Wanjiru and Otieno, 2023). It is therefore against this background that the study examined the moderating effect of organizational culture in ICS – Performance nexus among public TVET institutions in Kenya.

Problem Statement

The quality education offered through Competency-Based Education (CBE) under the mandate of the institution of higher learning is subject to national development and thus, the labour market requirement in Kenya. The institutions of higher learning seek to educate learners with practicable skills, facilitate innovation, become more employable, and make a difference in the socio-economic landscape (African Union, 2024; UNESCO-UNEVOC, 2022; World Bank, 2023). They are also public institutions, which means that they should pursue the principles of good governance, accountability, and sustainable development (Nassali, Tumwesige & Otim, 2022). In Kenya, the Technical and Vocational Education and Training Authority (TVETA) which is an organization created through the TVET Act No. 29 of 2013 has the authority to control training standards, curriculum and accredit institutions (TVETA Act, 2013). As of the

year 2024, more than 238 public TVET institutions are operating in six regions, including Western, Nyanza, North Rift, Mt. Kenya, Nairobi, and Coast (KNQA, 2024). These are Vocational Training Centres (VTCs), Technical Training Institutes (TTIs), National Polytechnics, and Technical Universities, with a variety of craft, diploma and degree-level programs (KATTI, 2022). Nonetheless, with heavy investments with regard to the TVET sector, there is suboptimal performance at the institutional level. Among them are the lack of effective governance systems, low graduation rates, inefficient training and development, and financial waste (UNESCO-UNEVOC, 2022; Mugambi, Wanyonyi & Koskei, 2023).

Audit reports by the Kenya's Office of the Auditor General (OAG) have on several occasions identified systemic weaknesses in ICS in the public TVET institutions. These reports have identified poor financial accountability, violation of procurement laws and poor oversight systems. For instance, the cases of misappropriating money, inconsistent procurements, and lack of control in the state TVET institutions were cited by the Auditor General in 2021 2023 financial year. As an illustration, the 2021 audit revealed that the Eldoret National Polytechnic did not sustain expenses to the tune of KES 24 million, with Kisumu National Polytechnic involving themselves in irregular procurement worth KES 18 million (Office of the Auditor General, 2022). In 2023, Meru National Polytechnic was raised as the one with overcharged procurement prices and payments that were not substantiated. There were other institutions like Sigalagala and Kisii National Polytechnics that were reported to misuse money and be non-compliant with the procurement regulations (Office of the Kenya's Auditor General, 2023). The presence of these recurring problems implies that there is the lack of effective ICS that would guarantee the efficiency of resources, transparency and effectiveness of the institutions. Although the ICS elements like the risk assessment, monitoring and the control activities are the necessary elements to enhance the performance of an institution, their performance is usually persuaded by the existing organizational culture. Internal controls can be enhanced by a supportive organizational culture with ethical values, trust, and open communication, whereas may be backed up by a toxic culture to the detriment of implementation of internal controls (Schein, 2021; Ochieng & Chege, 2023).

Empirically, studies have been conducted linking ICS and performance. To begin with, Musyoka (2022) discovered that there was a positive correlation of significant strength between ICS and financial performance in the public universities in Kenya. From the insurance sector context, ICS has been linked with performance (Jelagat et al, 2023). Moreover, ICS has been linked with organizational culture from the small and medium enterprises context (Rahayu & Nengzih, 2020) On the same note, Ochieng and Chege (2023) examined private universities in Kenya and noted that internal controls were not effective in enhancing performance unless a conducive culture is supported. Since the strategic importance of the public TVETs to the development agenda of Kenya cannot be overstated, there is a need to determine how the internal control systems are related to organizational culture with regard to institutional performance. This research was therefore aimed at filling this empirical gap by examining the moderating role of organisational culture in the relationship between ICS and performance of public TVET institutions in Kenya.

Theoretical Framework

First and foremost, the research as anchored on the agency theory by Jensen and Meckling in 1976. The theory points out that principals must introduce monitoring systems and performance incentives to make sure that agents act in line with their interests because they (agents) are a

priori risk-averse, opportunistic, and self-interested. In the study, agency theory illuminated on the importance of internal control systems as governance structures that ensure that performance objectives are attained, especially in the case where stakeholder and government accountability is the major determinant. Other than agency theory, resource-based view (RBV) model by Jay Barney (1991) that build upon Edith Penrose (1959) and Wernerfelt (1984) work was adopted. According to RBV, an organization whose resources are valuable, rare, inimitable, and non-substitutable (VRIN) can attain competitive advantage. This resource may be physical or any form of intangible idea. Particularly, RBV has gradually been utilised in performance appraisals in both the public and the non-profit organisations over the last few years. Using RBV to Kenyan government universities, Akinyi and Cheruiyot (2021) found out that internal capabilities such as training of staff, effective resource allocation, and ICT integration played significant roles in determining the success of the institutions. Additionally, in support of the relevance of RBV in the non-commercial sector, Otieno and Wanjiru (2024) and Levene and Higgs (2018) noted leadership competency and organisational culture as the most crucial performance drivers in the public TVET institutions.

Empirical Review

According to the Committee of Sponsoring Organizations of the Treadway Commission (COSO) framework ICS elements include the control environment, risk assessment, control activities, information and communication, and monitoring (COSO, 2013). Thus, ICS should be integrated at all levels of an institution in order to foster compliance, asset protection, and performance aspirations (COSO, 2013). Although the ICS elements like the risk assessment, monitoring and the control activities are the necessary elements to enhance the performance of an institution, their performance is usually persuaded by the existing organizational culture. Internal controls can be enhanced by a supportive organizational culture with ethical values, trust, and open communication, whereas may be backed up by a toxic culture to the detriment of implementation of internal controls (Schein, 2021; Ochieng and Chege, 2023). Organizational culture therefore entails the assumptions, practices, and customs that people typically follow to ensure they work collectively to achieve shared goals (Farida et al., 2023; Gasela, 2023). Organizational culture simply represents the psychological and social atmosphere of an organization, which influences the behaviour of the workers, choices, as well as their general efficiency. According to Ndirangu and Mwangi (2022), organisational culture has a critical impact on the success or failure of strategic efforts, such as internal control systems.

Research has been conducted given the different ICS elements in view of performance. First in regards to control environment, a well-organized control environment enhances the institutional governance and performance (Al-Ali & Al-Dmour, 2022). On the same note, Nguyen and Nguyen (2023) established that the ethical leadership and board monitoring, as part of the control environment, were positively related to the financial discipline and services delivery in Vietnamese public institutions. Secondly, a study by Sun and Liu (2023) found that Chinese public universities that have organised risk assessment systems performed higher in terms of financial stability and academic output. The risk assessment was found to largely influence timely service delivery and compliance with the strategy in public universities, according to another study by Omondi and Langat (2022). Third, Muriuki and Kirui (2023) argue that control activities play a critical role in ensuring that there is compliance, better performance, and protection of institutional assets. Mungai, Maina, and Kungu (2021) found

out that preventative control actions (process audits and mandatory authorizations) significantly enhanced the financial performance of Kenya-based public universities. Fourth, Okol (2021) found that information availability and decreased delays in execution enhanced the performance of Uganda College of Commerce significantly because of information and communication. Similarly, Moyo and Chikomba (2022) found that financial controls and fewer cases of resource misuse were observed in the case of public institutions in Zimbabwe when they shared information and used feedback mechanisms and platforms. Lastly, through the application of effective monitoring processes, transparency, operational accountability, and even institutional performance may be increased (Kamau & Atieno, 2023).

The relationship given ICS, organizational culture and performance have been examined over time. In Indonesia, Farida et al. (2023) in their investigation focused on the interaction of the three factors, namely, culture, effective governance, and internal control mechanisms which influenced performance. In cases where internal control mechanisms were strong, they found that organisational culture gave a strong influence on performance. In South Africa, Gasela (2023) investigated the state organisations and found out that organisational culture negatively impacts the success of implementing the strategy as there is no alignment between institutional values and aims. It is contrary to the results reported by Rahayu and Nengzih (2020), who found out that internal controls and organisational culture collaborate in enhancing fraud prevention in Indonesian SMEs. These contradictory findings enable to conclude that the relations between company culture and performance are contingent on the circumstances of the case. Nevertheless, the cultural aspects especially in technical schools have not been given much consideration in the regional studies. On the other hand, organizational culture has been assessed as a moderating variable given the relationship between quality management system (QMS) and performance of public organizations (Mise, Obura & Ojera, 2021), talent management and performance of insurance companies (Jelagat et al., 2023). In order to fill the existing gap, the study tested hypothesis H_{01} : Organizational culture has no significant moderating effect in the relationship between ICS and performance of public TVET institutions in Kenya. Moreover, given the five ICS elements, different hypotheses were tested, that is, organizational culture has no significant moderating effect in the relationship between control environment (H_{01a}), risk assessment (H_{01b}), control activities (H_{01c}), information and communication (H_{01d}), monitoring activities (H_{01e}) and performance of public TVET institutions in Kenya.

Conceptual Framework

Internal Control System (ICS)
(Independent Variable)

Performance
(Dependent Variable)

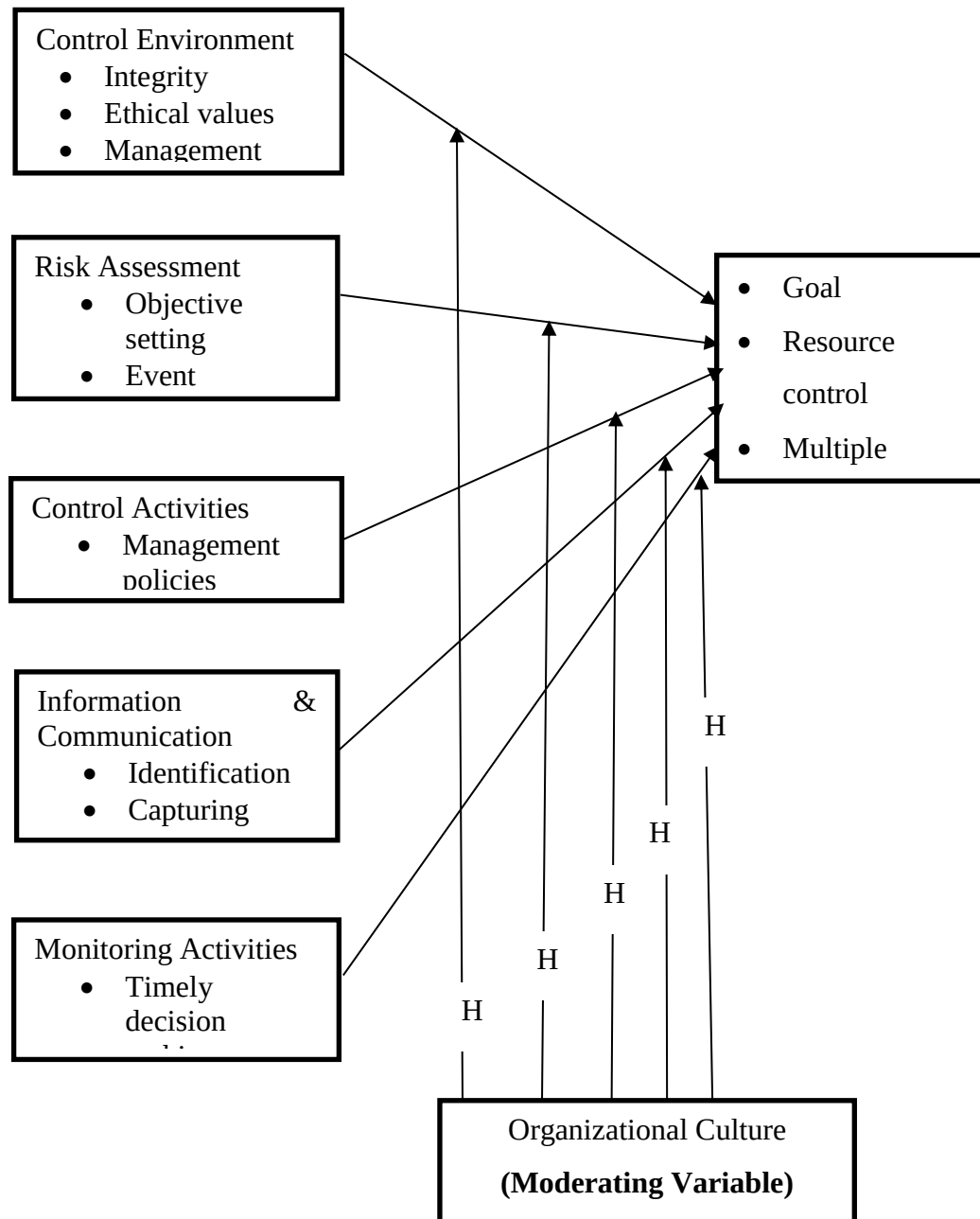


Figure 1: Conceptual Framework
Source: Researchers (2025)

METHODOLOGY

Descriptive survey research design was utilized whereby 180 public TVET institutions in Kenya according to TVET Institutions December 2024 annual returns report were targeted. This constituted technical training institutes (161), institute of technology (7), and national polytechnics (12). The analytical unit will consist of members of the board of management (BOM), internal auditors, principals and financial officers or accountants. Based on this unit of analysis; the 720 respondents were targeted out of which 257 were sampled using Taro Yamane Formula. Study variables were measured as indicated in Table 1;

Table 1: Measurement of Study Variables

Variables	Measurement	Reference/Author
Internal Control System (Independent Variable)		
Control Environment	○ Integrity ○ Ethical values ○ Management philosophy	Ratcliffe and Landes (2009)
Risk Assessment	○ Objective setting ○ Event identification ○ Risk assessment ○ Risk response	COSO 2013
Information Communication	○ Identification ○ Capturing ○ Communication	Kiprotich (2020) Okotchi et al. (2020)
Control Activities	○ Management policies and procedures	Visser & Erasmus (2008)
Monitoring activities	○ Timely decision making ○ Accountability	Whittington & Pany (2004)
Organizational Culture (Moderating Variable)		
	○ Leadership ○ Employee management ○ Organizational glue ○ Strategic emphasis ○ Organizational glue ○ Dominant characteristics ○ Success criteria	Farida et al (2023)
Performance (Dependent Variable)		
	○ Goal ○ Resource control ○ Multiple consistency approaches	Abdi and Mutswenje (2023); Shand (2023)

Source: Researchers (2025)

Structured questionnaires were used to collect data which were subjected to regression assumptions diagnostic tests, Pearson correlation and hierarchical regression analysis. The regression models were as follows;

Model 1: Moderating effect of organizational culture (OC) on the relationship between control environment (CE) and performance (PERF) of public TVET institutions in Kenya (Hypothesis H0_{1a})

$$\text{PERF} = \beta_0 + \beta_1\text{CE} + \beta_2\text{OC} + \beta_3(\text{CE}*\text{OC}) + e \dots \dots \dots \text{H}_{01a}$$

Model 2: Moderating effect of organizational culture on the relationship between risk assessment (RA) and performance of public TVET institutions in Kenya (Hypothesis H_{01b})

$$\text{PERF} = \beta_0 + \beta_4\text{RA} + \beta_5\text{OC} + \beta_6(\text{RA}*\text{OC}) + e \dots \dots \dots \text{H}_{01b}$$

Model 3: Moderating effect of organizational culture on the relationship between control activities (CA) and performance of public TVET institutions in Kenya (Hypothesis H_{01c})

$$\text{PERF} = \beta_0 + \beta_7\text{CA} + \beta_8\text{OC} + \beta_9(\text{CA}*\text{OC}) + e \dots \dots \dots \text{H}_{01c}$$

Model 4: Moderating effect of organizational culture on the relationship between Information and Communication (IAC) and performance of public TVET institutions in Kenya (Hypothesis H_{01d})

$$\text{PERF} = \beta_0 + \beta_{10}\text{IAC} + \beta_{11}\text{OC} + \beta_{12}(\text{IAC}*\text{OC}) + e \dots \dots \dots \text{H}_{01d}$$

Model 5: Moderating effect of organizational culture on the relationship between monitoring activities (MA) and performance of public TVET institutions in Kenya (Hypothesis H_{01e})

$$\text{PERF} = \beta_0 + \beta_{13}\text{MA} + \beta_{14}\text{OC} + \beta_{15}(\text{MA}*\text{OC}) + e \dots \dots \dots \text{H}_{01e}$$

KEY; β_0 (constant term); β_{1-15} (Beta coefficient of variables); CE*OC, RA*OC, CA*OC, IAC*OC and MA*OC (Interaction of ICE elements and Organizational Culture); e (Random error term)

FINDINGS AND DISCUSSIONS

Response Rate

Structured questionnaires were administered to 257 respondents in the public TVET institutions in Kenya out of which 182 questionnaires were filled sufficiently and returned (72%) as indicated in Figure 2.

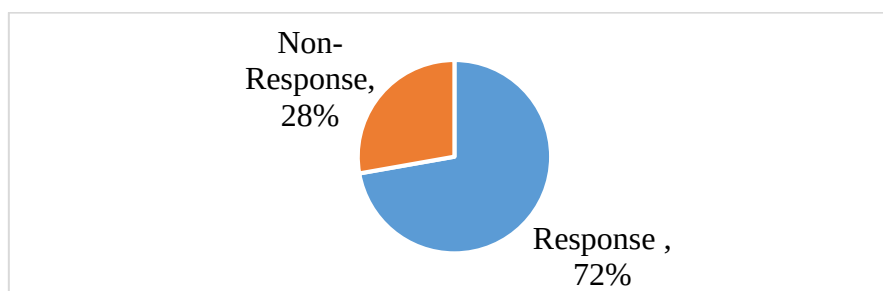


Figure 2: Response Rate

Source: Field Data (2025)

According to Nunnally (1978), an Alpha of 0.70 and above is said to be the satisfactory level of internal consistency. A good value is considered to be greater than 0.80 and the exceptional value is considered to be greater than 0.90. The reliability test in Table 2 indicated good and exceptional Cronbach Alpha values for Internal Control System (0.943), Organisational Culture (0.888) and Performance (0.853) of the public TVET institutions in Kenya.

Table 2: Reliability Test Results

	Cronbach's Alpha	Number of Items
Internal Control System	.943	21
Organizational Culture	.888	6
Performance of public TVET institutions	.853	6

Source: Field Data (2025)

Diagnostic Tests

Regression analysis assumptions tested were relating to normality, multicollinearity, and autocorrelation.

Normality Test

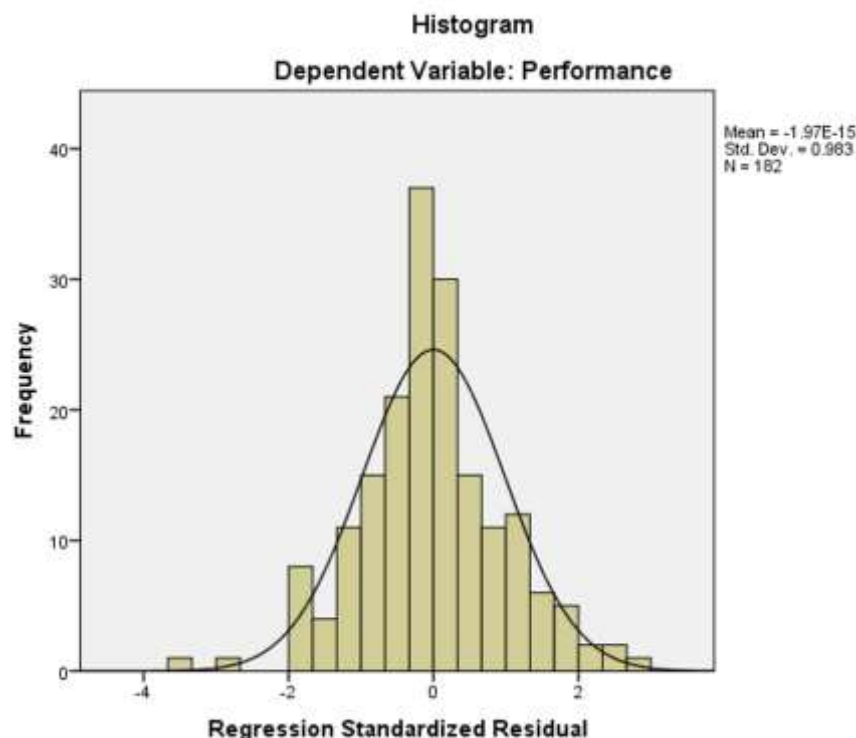


Figure 3: Normality Test

Source: Field Data (2025)

Regression analysis is based on the fact that the dependent variable Performance in the histogram of standardised regression residuals has a near-normal distribution. The residuals are symmetric about 0 and most of the values are within the range of -2 to +2. This implies that the errors of prediction are minimal. Further evidences of a normally-distributed data are given in the tight fit of the bell-shaped curve with the bars. Overall, the histogram indicates that the normalcy assumption of the regression residuals is met, thus indicating that the regression model is well-specified and the findings can be interpreted with a lot of confidence.

Multicollinearity Test

The Multicollinearity test results in Table 3 show the tolerance values of both Internal Control System and Organisational Culture are 0.613 and the variance inflation factor (VIF) is 1.632. Tolerance values greater than 0.1 and VIF less than 10 indicate that there is no significant multicollinearity as suggested by the statistical rules (Field, 2018). The model had no multicollinearity problem, as both of the predictors fall within the acceptable range.

Table 3: Multicollinearity Test Results

Variables		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Internal Control System	.613	1.632
	Organizational Culture	.613	1.632

Source: Field Data (2025)

Consequently, both the Internal Control System and the Organisational Culture were safely included into the regression analysis without the concern of skewing the results of the research and having the standard errors of the coefficients increased, as the two predictors are sufficiently independent of each other.

Autocorrelation Test

The Durbin-Watson value of 2.066 in Table 4 of the autocorrelation test results is within the acceptable limit of 1.5 to 2.5 (Field, 2018). This is an indication that the residuals of the regression model are not autocorrelated significantly. The most significant assumptions of regression analysis include the assumption that the errors are independent.

Table 4: Autocorrelation Test Results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.743 ^a	.552	.547	.421	2.066

a. Predictors: (Constant), Organizational Culture , Internal Control System
b. Dependent Variable: Performance

Source: Field Data (2025)

According to the model findings, the predictors (Organisational Culture and Internal Control System) had a strong positive relationship with Performance ($R = 0.743$). The fact that the R Squared of the two predictors has the value of 0.552 and the adjusted R Squared is 0.547 (when the number of predictors was corrected) indeed showed that the two predictors accounted a 55.2 percentage of the variance in Performance. Apparently, the model was fitting very well with the standard error of the estimate being only 0.421. The results indicated that regression model was acceptable, there are no autocorrelation problems.

Correlation Analysis

The correlation between Performance and Internal Control System (ICS) was positive and significant ($r = .731$, $p < .01$) as shown in Table 5. This gives additional support that when institutional controls are in place with a proper implementation of internal controls, the public TVET institutions enjoy uplifted institutional performance.

Table 5: Correlation Results for ICS, Organizational Culture and Performance

		Internal Control System	Organizational Culture	Performance
Internal Control System	Pearson Correlation	1	.622**	.731**
	Sig. (2-tailed)		.000	.000
	N	182	182	182
Organizational Culture	Pearson Correlation	.622**	1	.560**
	Sig. (2-tailed)	.000		.000
	N	182	182	182
Performance	Pearson Correlation	.731**	.560**	1
	Sig. (2-tailed)	.000	.000	
	N	182	182	182

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

Source: Field Data (2025)

There was a positive and significant relationship exists between organisational culture and performance ($r = .560$, $p < .01$). Moreover, ICS and Organisational Culture are positively correlated with each other ($r = .622$, $p < .01$) indicating that in many cases, the effective internal control system and the strong cultural framework coexist in the institutions.

Moderating Effect of Organizational Culture in the Relationship between Control Environment and Performance

The results in Table 6 indicate R square value was .398 implying that model 1 explained approximately 39.8% of the variance in performance. R square of .414 indicated that model 2 explained approximately 41.4% variations in performance.

Table 6: Model Summary for Performance, Interaction between Control Environment and, Organizational Culture

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.630 ^a	.398	.391	.489
2	.643 ^b	.414	.404	.483

a. Predictors: (Constant), Organizational Culture , Control Environment
b. Predictors: (Constant), Organizational Culture , Control Environment, Interaction Term CE*OC

Source: Field Data (2025)

In Model 2, the interaction term (CE*OC) was added to test the moderating effect. The R value slightly increased to .643, while R^2 improved to .414 and adjusted R^2 to .404. This shows that including the interaction term increased the explanatory power of the model by 1.6%.

Table 7: ANOVA for Performance, Interaction between Control Environment and, Organizational Culture

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	28.197	2	14.098	59.055	.000 ^b
	Residual	42.733	179	.239		
	Total	70.930	181			
2	Regression	29.347	3	9.782	41.875	.000 ^c
	Residual	41.583	178	.234		
	Total	70.930	181			

a. Dependent Variable: Performance

b. Predictors: (Constant), Organizational Culture , Control Environment

c. Predictors: (Constant), Organizational Culture , Control Environment, Interaction Term CE*OC

Source: Field Data (2025)

According to the results of ANOVA of Table 7, the regression models presented a statistically significant association of the relationship between control environment, organisational culture and performance. With control environment and organisational culture as predictors, the first model resulted in regression sum of squares of 28.197, F-statistic of 59.055, and $p = .000 < .05$ as the significance value. When the interaction factor (CE*OC) was added in model 2, the regression sum of squares increased to 29.347 and this was to test the presence of moderation. The significance value was $p = .000 < .05$ and the F-statistic was 41.875. Thus, both models were statistically fit.

Table 8: Coefficients for Performance, Interaction between Control Environment and, Organizational Culture

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.183	.214	5.538	5.522	.000
	Control Environment	.302	.060	.340	5.007	.000
	Organizational Culture	.377	.067	.384	5.657	.000
2	(Constant)	1.137	.213	5.338	5.339	.000
	Control Environment	.320	.060	5.333	5.323	.000
	Organizational Culture	.382	.066	5.788	5.801	.000
	Interaction Term CE*OC	-.067	.030	-2.233	-2.219	.028

a. Dependent Variable: Performance

Source: Field Data (2025)

The regression equation was model was fitted as:

$$PERF = 5.338 + 5.333CE + 5.788OC - 2.233(CE*OC) + e$$

Based on the results in Table 8, there was a negative but statistically significant moderating effect of organizational culture in the relationship between control environment and

performance ($\beta = -2.233$, $p = .028 < .05$). This implied that interaction of control environment and organizational culture reduced performance by 2.233 units. This led to rejection of H_{01a} and conclusion that organizational culture negatively but significantly moderates the relationship between control environment and performance of public TVET institutions in Kenya. These findings correspond with those of Mugambi (2021), who found that, in a facilitating culture, such aspects of the control environment as ethical leadership, integrity, and managerial commitment possess a positive impact on the institutional performance. The same was discovered by Njeri and Kariuki (2020): when the internal control mechanisms are efficient; when there is the organisational culture that focuses on openness, responsibility, and common values. Such studies provide support to the fact that company culture can be one of the factors influencing the influence of control techniques on productivity. The results are opposite to Wachira (2019) who expressed that the effect of cultural norms within a firm does not influence the relationship between ICS and business success due to the premise that culture operates independently of the ICS. Moreover, Gacheru (2022) found that in cases when the cultural norms are overly relied upon, objective controls are hard to put in place. This is particularly accurate within organisations that are in the public sector whereby group cohesiveness and informal practices are likely to override the formal control practices.

Moderating Effect of Organizational Culture in the Relationship between Risk Assessment and Performance

In Table 9, model 1 explained approximately 40.8% (R square value = .408) variations in performance. Once the interaction term (RA*OC) was added, Model 2, R- square value increased to increase to .411. Thus model 2 explained approximately 41.1% variations in performance.

Table 9: Model Summary for Performance, Interaction between Risk Assessment and Organizational Culture

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.639 ^a	.408	.402	.484
2	.641 ^b	.411	.401	.484

a. Predictors: (Constant), Organizational Culture , Risk Assessment

b. Predictors: (Constant), Organizational Culture , Risk Assessment , Interaction Term RA*OC

Source: Field Data (2025)

The results presented in Table 10 and indicate that both regression model 1 (F statistic =61.708, $p = .000 < .05$) and model 2 (F statistic =41.397, $p = .000 < .05$) were good predictors of performance.

Table 10: ANOVA for Performance, Interaction between Risk Assessment and Organizational Culture

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	28.972	2	14.486	61.798	.000 ^b
	Residual	41.958	179	.234		
	Total	70.930	181			
2	Regression	29.150	3	9.717	41.397	.000 ^c
	Residual	41.780	178	.235		
	Total	70.930	181			

a. Dependent Variable: Performance

b. Predictors: (Constant), Organizational Culture , Risk Assessment

c. Predictors: (Constant), Organizational Culture , Risk Assessment , Interaction Term RA*OC

Source: Field Data (2025)

In Table 12, there is a negative and insignificant moderating effect of organization culture in the relationship between risk assessment and performance as indicated by $\beta = -.857$ and $p = .384 > .05$ respectively. In this regard, one unit increase in interaction between risk assessment and organizational culture resulted in 0.857 decrease in performance. Consequently, the study failed to reject H_{01b} and concluded that organizational culture does not have a significant moderating effect on the relationship between risk assessment and performance.

Table 11: Coefficients for Performance, Interaction between Risk Assessment and Organizational Culture

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.142	.213	5.362	5.352	.000
	Risk Assessment	.288	.054	.349	5.371	.000
	Organizational Culture	.389	.064	.396	6.098	.000
2	(Constant)	1.160	.215	5.395	5.408	.000
	Risk Assessment	.284	.054	5.259	5.280	.000
	Organizational Culture	.391	.064	6.109	6.119	.000
	Interaction Term RA*OC	-.024	.028	-.857	-.872	.384

a. Dependent Variable: Performance

Source: Field Data (2025)

The regression equation was model was fitted as:

$$\text{PERF} = 5.395 + 5.259\text{RA} + 6.109\text{OC} - .857(\text{RA}*\text{OC}) + e$$

As much as a favourable organisational culture and excellent risk assessment techniques have been identified to result in improved performance, the variation in the influence of risk assessment on performance is quite moderate across different levels of culture. This implies that the cultural factors did not affect the extent to which risk assessment influenced the performance of the TVET institutions, which were studied. To some degree, these conclusions are supported by the literature assessment of the study. Munyua (2021) argues that the process

of risk assessment in most organisations is a more of a formality than a management tool, and therefore, does not actually impact performance. Such a superficial implementation reduces the likelihood of the risk management processes having any meaningful relationship with culture. These results are therefore contrary to this. Fatemi and Luft (2019) and Karimi (2019) both believe that strong risk assessment systems result in more efficient decisions and performance outcomes with the help of optimistic company culture. Similarly, Njeri (2020) and Mutiso and Karanja (2021) found that the performance impact of risk management methods is even more significant in cases when they can be aligned with institutional goals. These analyses were not able to substantiate the moderating effect of these studies which would have been high.

Moderating Effect of Organizational Culture in the Relationship between Control Activities and Performance

In Table 12, control actions and organisational culture jointly explained 51.4% of the variation of performance ($R^2 = .514$). In model 2, inclusion of interaction term ($CA * OC$) increased the R^2 value .517. This therefore implied that 51.7 variations in performance were explained by model 2.

Table 12: Model Summary for Performance, Interaction between Control Activities and Organizational Culture

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.717 ^a	.514	.509	.439
2	.719 ^b	.517	.509	.438

a. Predictors: (Constant), Organizational Culture , Control Activities

b. Predictors: (Constant), Organizational Culture , Control Activities, Interaction Term $CA*OC$

Source: Field Data (2025)

According to the Table 13 results, model 1 and 2 were statistically important in performance prediction as indicated by F statistic = 94.643, $p = .000 < .05$ and F statistic = 63.629, $p = .000 < .05$ respectively.

Table 13: ANOVA for Performance, Interaction between Control Activities and Organizational Culture

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	36.455	2	18.228	94.643	.000 ^b
	Residual	34.474	179	.193		
	Total	70.930	181			
2	Regression	36.704	3	12.235	63.629	.000 ^c
	Residual	34.226	178	.192		
	Total	70.930	181			

a. Dependent Variable: Performance

b. Predictors: (Constant), Organizational Culture , Control Activities

c. Predictors: (Constant), Organizational Culture , Control Activities, Interaction Term $CA*OC$

Source: Field Data (2025)

Table 13 results indicate that organizational culture negatively ($\beta = -1.16$) and insignificantly ($p = .257 > .05$) moderate the relationship between control activities and performance. Thus,

one unit increase in interaction of control activities and organizational culture resulted to decrease in performance by 1.16 units. The study failed to reject H_{01c} and concluded that organizational culture does not significantly moderate the relationship between control activities and performance of public TVET institutions in Kenya. The finding supports Nderitu (2020) who established that control actions to be the direct boost of organisational responsibility and efficiency, yet the organisational culture does not necessarily intensify this connection. Effective control activities also include authorisation processes, reconciliations, performance review and this may enhance organisational outcomes irrespective of cultural orientation (Kinyua, 2016).

Table 14: Coefficients for Performance, Interaction between Control Activities and Organizational Culture

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.897	.196	4.577	4.583	.000
	Control Activities	.458	.053	.518	8.600	.000
	Organizational Culture	.295	.059	.300	4.988	.000
2	(Constant)	.893	.196	4.556	4.563	.000
	Control Activities	.464	.053	.8755	8.676	.000
	Organizational Culture	.295	.059	5.000	4.991	.000
	Interaction Term					
	CA*OC	-.029	.025	-1.16	-1.137	.257

a. Dependent Variable: Performance

Source: Field Data (2025)

The regression equation was model was fitted as:

$$\text{PERF} = 4.556 + 8.7555\text{CA} + 5.000\text{OC} - 1.160(\text{CA}*\text{OC}) + e$$

The finding is contrary to Mwangi and Nyaribo (2021) who opined that organisational culture reinforces the relationship between internal controls and performance. They argued that performance will be enhanced due to more adherence to control processes caused by cultures of appreciating collaboration, responsibility, and ethics. According to Charlesworth and Banaji (2021), supportive environments contribute to communication, trust, and employee engagement, which enhance the effectiveness of control mechanisms. The fact that no moderating effect could be identified in this study can be explained by the fact that, the control activities within the companies that completed the survey are very procedural and standardised and there is not much leniency to cultural differences. This demonstrates that when good control mechanisms are in place then they might not be altered significantly in terms of effectiveness in improving performance according to the business culture. The findings indicate that both the control actions and the organisational culture are significant variables that determine performance, but culture does not moderate performance in this specific environment. Maintaining a culture that is independent of organisational goals is equally significant as improving control processes which is what should be given priority as a direct performance driver by managers.

Moderating Effect of Organizational Culture in the Relationship between Information and Communication as well as Performance

Table 15 outlined that model 1 and 2 explained 52.8% (R square = .528) and 53.0% (R square = .530) variations in performance respectively.

Table 15: Model Summary for Performance, Interaction between Information and Communication as well as Organizational Culture

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.727 ^a	.528	.523	.433
2	.728 ^b	.530	.522	.433

a. Predictors: (Constant), Organizational Culture , Information and Communication
b. Predictors: (Constant), Organizational Culture , Information and Communication, Interaction Term ICA*OC

Source: Field Data (2025)

According to the ANOVA data in Table 16, both regression models were significant in explaining the performance variance. This is because of the F-statistic of 100.081 and a p-value of $p .000 < .05$ under model 1 and F-statistic of 66.958 and a p-value of $p .000 < .05$ under model 2.

Table 16: ANOVA for Performance, Interaction between Information and Communication as well as Organizational Culture

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	37.444	2	18.722	100.081	.000 ^b
	Residual	33.486	179	.187		
	Total	70.930	181			
2	Regression	37.606	3	12.535	66.958	.000 ^c
	Residual	33.324	178	.187		
	Total	70.930	181			

a. Dependent Variable: Performance

b. Predictors: (Constant), Organizational Culture , Information and Communication

c. Predictors: (Constant), Organizational Culture , Information and Communication, Interaction Term ICA*OC

Source: Field Data (2025)

Furthermore, Table 17 results show that organisational culture had a negative and insignificant moderating role in the link between information and communication and performance ($\beta = -.957$, $p = .354 > .05$). Thus, one unit increase in interaction between information and communication as well as organizational culture led to decrease in performance by 0.957 units. The study was unable to prove against H01d and concluded that the organizational culture has no significant moderating effect in the relationship between information and communication as well as performance of public TVET institutions in Kenya. These findings suggest that the performance of an organization in terms of the impact of good information and communication systems does not necessarily depend on the culture that is prevalent in the company. In particular, these technologies enhance transparency, coordination and decision making. In other words, organisational culture and information flow have positive influences on performance, although they do not complement each other. Charlesworth and Banaji (2021)

also discovered that communication strategies influence the engagement and performance of employees directly through trust and clarity, independent of the culture. Thus, we find in agreement with them. Similarly, Wafula and Ochieng (2021) found out that performance outcomes in Kenya energy sector were not significantly influenced by cultural features, which mostly depended on the effectiveness of communication and governance frameworks.

Table 17: Coefficients for Performance, Interaction between Information and Communication as well as Organizational Culture

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.609	.206	2.956	2.948	.004
	Information and Communication	.552	.061	.545	9.024	.000
	Organizational Culture	.267	.059	.272	4.509	.000
2	(Constant)	.616	.207	2.976	2.982	.003
	Information and Communication	.551	.061	9.033	9.003	.000
	Organizational Culture	.270	.059	4.576	4.548	.000
	Interaction Term ICA*OC	-.022	.023	-.957	-.929	.354

a. Dependent Variable: Performance

Source: Field Data (2025)

The regression equation was model was fitted as:

$$\text{PERF} = 2.976 + 9.033\text{ICA} + 4.576\text{OC} - .957(\text{ICA}*\text{OC}) + e$$

Newaz et al. (2023) have discovered that internal communication enhances happiness and productivity of employees within inclusive and supportive organisational cultures, but the opposite seems to be true in our data. Furthermore, the more transparency, collaboration, and lifetime learning are promoted within the culture of a company, the higher the relationship between communication and the success of the organisation, as was observed by Chege et al. (2020). Although the outcomes demonstrate that information and communication and organisational culture are directly relevant towards performance improvement, the results also demonstrate that the two-way interaction lacks significant performance effect in this study. The existing communication systems in the organisations studied might be effective regardless of the cultural orientation. This implies that there is institutional maturity of the communication structures in these organisations.

Moderating Effect of Organizational Culture in the Relationship between Monitoring Activities and Performance

In Model 1 as shown in Table 18, which included monitoring activities and organizational culture as predictors, explains 45.8% of variations in performance (R square value = .458). On the other hand, model 2 shows that introduction of the interaction effect of monitoring activities and organizational culture increases the R square value to .460.

Table 18: Model Summary for Performance, Interaction between Monitoring Activities and Organizational Culture

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.677 ^a	.458	.452	.464
2	.678 ^b	.460	.451	.464

a. Predictors: (Constant), Organizational Culture , Monitoring Activities

b. Predictors: (Constant), Organizational Culture , Monitoring Activities , Interaction Term MA*OC

Source: Field Data (2025)

Table 19 revealed that both regression model 1 (F statistic = 75.554, $p = .000 < .05$) and model 2 (F statistic = 50.476, $p = .000 < .05$) were significant in the variation of the performance.

Table 19: ANOVA for Performance, Interaction between Monitoring Activities and Organizational Culture

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	32.468	2	16.234	75.554	.000 ^b
	Residual	38.462	179	.215		
	Total	70.930	181			
2	Regression	32.604	3	10.868	50.476	.000 ^c
	Residual	38.325	178	.215		
	Total	70.930	181			

a. Dependent Variable: Performance

b. Predictors: (Constant), Organizational Culture , Monitoring Activities

c. Predictors: (Constant), Organizational Culture , Monitoring Activities , Interaction Term MA*OC

Source: Field Data (2025)

In Model 2 under Table 20, there is a negative but insignificant moderating effect of organizational culture in the relationship between monitoring activities and performance ($\beta = -.808$, $p = .428 > .05$). In this case, performance decreased by 0.808 units when interaction given monitoring activities and organizational culture was introduced. Consequently, the study failed to reject H_{01e} and concluded that organizational culture does not have a significant moderating effect on the relationship between monitoring activities and performance. The implications of these results are that a favourable organisational culture and successful monitoring activities independently increase organisational performance, but there is no moderating role between them. It may be due to the fact that cultural orientation is not so significant compared to strict control, reporting and assessment in the world of monitoring which is highly organised and procedural. In such cases, the role of culture could not play a significant role in the operations of the monitoring systems or the outcomes of performance reviews.

Table 20: Coefficients for Performance, Interaction between Monitoring Activities and Organizational Culture

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.102	.201		5.472	.000
	Monitoring Activities	.409	.059	.470	6.909	.000
	Organizational Culture	.278	.067	.283	4.162	.000
2	(Constant)	1.116	.202	5.525	5.515	.000
	Monitoring Activities	.407	.059	6.898	6.861	.000
	Organizational Culture	.279	.067	4.164	4.178	.000
	Interaction Term MA*OC	-.021	.026	-.808	-.795	.428

a. Dependent Variable: Performance

Source: Field Data (2025)

The regression equation was model was fitted as:

$$\text{PERF} = 5.525 + 6.898\text{MA} + 4.164\text{OC} - .808(\text{MA}*\text{OC}) + e$$

These findings align with those of Wafula and Ochieng (2021) and Mugo et al. (2018), who discovered that operational efficiency and accountability are higher because of monitoring activities and that organisational culture does not influence such results when internal control frameworks are established. In the same vein, Thomas and Gupta (2021) alluded that culture alignment is not as significant as compliance and corrective feedback in terms of performance drive through the use of effective monitoring systems. However, these results contradict the efforts of Charlesworth and Banaji (2021), who argued that cultural influences increase the effectiveness of monitoring systems by influencing the opinion and willingness of workers to use them. Newaz et al. (2023) claim that a more participatory way of tracking the activities will result in a higher level of participation and better performance outcomes in organisations where communication, recognition, and shared values are cherished. This research findings indicate that performance in the chosen organisations, irrespective of organisational culture, is directly and significantly influenced by monitoring efforts. This finding speaks to the importance of having a culture that promotes responsibility, openness as well as reinforce control mechanisms and monitoring systems as two independent performance improvement levers.

Conclusion

The aim of the study was to establish whether the organizational culture moderated the relationship that existed between internal control systems (ICS) and performance of public TVET institutions in Kenya. The ICS elements examined were control environment, risk assessment, control activities, information and communication as well as monitoring activities. Organizational culture had no moderating role in the relationship between risk assessment, control activities, information and communication as well as monitoring activities and performance of public TVET institutions in Kenya. On the contrary, there was a negative and significant moderating effect of organizational culture in the relationship between control environment and performance. Thus, control environment can no longer be that effective in performance when organisational culture becomes overpowering. Tight control system might not work as desired in a culture which is very inflexible because it can act as a barrier to

innovation or decision making. The effectiveness of control environment in achieving the organisational goals would be improved through encouraging a balanced culture, which places importance on both responsibility and flexibility.

Recommendations and Study Implications

This study contributes to the Agency theory as it helps to minimize agency relationship conflicts by examining the interaction of organizational culture in ICS-performance relationship from a learning institution perspective. It highlights that accountability and transparency within the work place make the governance structures more effective. It is also useful in explaining the Resource-Based View (RBV) of strategic resources, which emphasizes the significance of internal controls and organizational culture. As for practical implications in the case of TVET administrators, the study identifies the necessity of reinforcing ICS practices, including periodic risk evaluation, ongoing observation, and the existence of efficient systems of sharing information. The effectiveness of ICS should be achieved through open, collaborative, and ethical organizational cultures that are promoted by managers. Establishment of training programs should be done to impart the staff with the skills required to administer and maintain effective control systems. The institution should develop effective communication channels that would enhance the decision-making and accountability across the institution.

The results have policy implications as it necessitates the government regulators and the Ministry of Education to make policies that enforce the provisions of stronger ICS structures within the public TVETs. Ethical leadership, transparency, and accountability should be among the non-negotiable elements of the institutional culture, where policies are concerned. The governmental control should incorporate the use of cultural evaluation in performance audit to make sure that reforms are applied in both the structural and behavioural aspects. In addition, by aligning ICS policies with the national development objectives in Kenya in terms of skills building and use of resources, efficiency and service delivery in the education sector will be enhanced. The future research must consider the longitudinal designs in evaluating the change of the ICS-performance relationship with variations in cultural background. A comparison of the public and private TVET institutions would be insightful on how governance and cultural aspects are different in various sectors. There is also potential research on the role of leadership styles and the governance structures in enhancing or undermining the ICS performance nexus. Besides that, qualitative case studies may shed more light on the role played by cultural peculiarities in guiding the application of internal controls in educational establishments.

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