COLLABORATION STRATEGIES AND INSTITUTIONAL PERFORMANCE IN KENYAN PUBLIC TVET: A CASE STUDY OF MAKUENI COUNTY TECHNICAL COLLEGES

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ABSTRACT

This research work looked at the effect of collaboration strategy on organizational performance of public Technical and Vocational Education and Training (TVET) institutions in Makueni County, Kenya. In that effort, the study incorporated both quantitative and qualitative data by using structured questionnaires and semi-structured interviews with support of a convergent parallel design funded by a mixed-methods research approach. The number of the participants included in the study was 328 which was composed of principals, support staff, trainers as well as the final year students from David Mbiti Wambuli Technical and Vocational College and Kibwezi West Technical and Vocational College. The calculation of sample size included 181, which accounts to a formula of Yamane, and this was with the use of purposive, census, and a simple random method. The Cronbach Alpha value of the questionnaire reliability was found to be 0.812 signifying that data are consistent. The quantitative method, such as Z-scores, Chi-Square tests, T-test, and multiple linear regression, revealed the strength of 0.42 meant that there was a moderate statistical association between the aspect of collaboration strategy and the organizational performance, whose two measures were external examination pass rate and trends in student enrollment. The qualitative findings revealed that collaboration was the most favored approach amongst the educational stakeholders where teamwork, information sharing, and joint solutions to issues were more deliberated upon. The results prove that the better performance outcome in terms of academic achievement and institutional effectiveness is reached among the institutions that have developed a structured approach to collaboration. The gap that this research is going to fill is that the study focuses on TVET institutions and provides evidence that the educational administrators and policymakers can use to enhance cooperation practices and organizational performance.

Keywords: Collaboration Strategy, Organizational Performance, Teamwork Effectiveness, Strategic Management, Organizational Behavior.

INTRODUCTION

In the complex world of organizational dynamics, performance is the key measure of success. Achieving and maintaining high performance within an organization is challenging, as various internal and external factors influence it. From leadership strategies to operational efficiency, a high-performing organization reflects effective management across different areas (Wonah, Oluo, Ake, & Benjamin, 2020). However, as organizations aim for

excellence, conflicts are inevitable, creating both challenges and opportunities (Shabani, Behluli, & Qerimi, 2022). How organizations handle and navigate these conflicts is crucial in shaping their overall performance and success (Ofobruku, 2022). Conflict is an unavoidable reality in the constantly changing environment of modern organizations (Martins, Trindade, Vandresen, Amestoy, Prata, & Vilela, 2020). Conflicts may arise from differing opinions, competition for resources, or personality clashes. Depending on how they are managed, conflict can either disrupt productivity and cause harm or serve as a catalyst for positive change and growth (Min, Iqbal, Khan, Akhtar, Anwar, & Qalati, 2020). The outcome depends on how the organization manages the conflict situation (Chaudhary & Arora, 2023).

LITERATURE REVIEW

The collaboration strategy reflects a win-win orientation, characterized by high levels of both assertiveness and cooperation. In this collaborative approach, individuals and teams work together to achieve a resolution that satisfies the concerns of all parties involved (Cheng et al., 2020; Imtiaz et al., 2022). Collaboration involves integrating ideas and engaging in a creative process that draws on the contributions of all participants, ultimately leading to the most effective solution for the conflict (Kayser & Kaplan, 2020; Umana, 2019). The approach is often regarded as the ideal conflict management strategy because it achieves resolution through the active participation of everyone involved. However, it requires significant time, effort, and resources to identify and address the underlying needs of each party. The process is typically iterative, layering ideas upon one another to develop the best possible resolution that meets the expectations of all stakeholders (Utaka & Silas-Dikibo, 2020; Shariq et al., 2022). The solutions generated through collaboration are often more innovative and effective than those devised by a single individual. As noted by Turesky et al. (2020), leaders widely encourage collaboration, not only because it produces positive outcomes, but also because it strengthens team dynamics and fosters innovation. Imtiaz et al. (2022) examined the impact of various conflict management styles on employee motivation and performance in banking institutions in Bahawalpur, Pakistan. Using a convenience sampling method, the study collected primary data from 385 employees working under managers or supervisors in the banking sector. Structural Equation Modeling (SEM) was applied to analyze the relationships between variables. The results reveal that the integrating conflict management style has little effect on organizational performance, but it also enhances employee motivation. On the other hand, the accommodating and avoiding conflict management styles have a positive influence on both employee motivation and organizational performance. Meanwhile, the forcing conflict management style has no significant effect on either employee motivation or organizational performance. Furthermore, the study identifies a positive correlation between employee motivation and organizational performance. The study was undertaken outside of Kenya and did not consider TVET institutions. The present research aims to fill the gap by examining TVET institutions in Makueni County, Kenya. Nwokedi et al. (2022) explored the relationship between conflict management and organizational performance, focusing on selected breweries in South-East Nigeria. The study aimed to assess how different conflict

management strategies: Collaboration, Compromising, Mediation, Arbitration, and Negotiation, impact overall organizational performance. A survey research design was used, collecting primary data from five selected brewery companies. The analysis involved the creation of frequency tables and the calculation of percentages, while regression analysis was applied to test the study's hypotheses. The findings revealed that all the examined conflict management strategies had a significant and positive influence on organizational performance. The study was undertaken outside of Kenya and did not consider TVET institutions. The current study aims to fill the gap by examining TVET institutions in Makueni County, Kenya.Wanja, Wachira, and Mwaura (2018) examined the effect of collaborating conflict management strategy on employee productivity at the Rift Valley Institute of Science and Technology (RVIST). The study targeted 293 teaching and non-teaching staff, selecting a sample of 166 participants through stratified random sampling, with 134 completing the study. Data was collected using survey questionnaires for quantitative analysis and interviews for qualitative analysis. Quantitative data were analyzed using descriptive statistics and the Pearson correlation test, while qualitative data were organized into themes and presented through narrative. The study found that interpersonal and intergroup conflicts were the most common at the institution. Results from the Pearson correlation test indicated that the collaborating conflict management strategy had a significant positive effect on employee productivity. This study was based on a TVET institution. However, it narrowed itself to one conflict management strategy. The current study aims to fill the gap by examining TVET institutions in Makueni County, Kenya.

MATERIAL AND METHODS

In this research, a convergent parallel mixed-methods design was used to analyse collaboration strategies and organisational performance in public Technical and Vocational Education and Training institutions in Makueni county, Kenya. The study was done using quantitative data where structured questionnaires were used in conjunction with qualitative data received by use of semi-structured interviews to give the researcher a holistic understanding regarding collaboration practices and performance effects. A total of 328 people were targeted which were 2 principals, 56 trainers, 20 support staff and 250 final-year students in the 2 institutions. A margin of error of 5 percent using the Yamane formula gave a sample size of 181 respondents who were sampled using purposive sampling of principals, census sampling of all trainers and support staff, and simple random sampling of students. Two main data collection instruments were used; i.e., structured questionnaires with Likert-scale closed-ended questions and open-ended responses, and semi-structured interview schedules to be completed by the principals. The questionnaires were used to evaluate the collaboration strategies used and organizational performance measures which focus on outside analysis pass rates as well as enrolment tendencies. The detailed experiences and perceptions associated with the collaboration approaches in the institutions were studied through the interviews. The process of investigating instrument validity was achieved by expert review and pilot testing at Katine Technical Training Institute, Machakos County. Its reliability was established using Cronbach Alpha which was 0.812 showing strong internal consistency. The results of analyses of quantitative data were revealed using

SPSS software to do a descriptive analysis, correlation analysis, Chi-square test, T-test, and multiple linear regression. Interview data in qualitative format were subjected to a thematic content analysis to obtain commonalities and lessons connected to the implementation of collaboration. The combination of mixed-methods allowed triangulation of the results and the all-around explanation of the collaborative strategy efficacy within the TVET institutional setting.

RESULTS AND DISCUSSION

The researcher distributed one hundred and seventy nine (179) questionnaires to the sampled respondents that includes fifty six (56) trainers, twenty (20) support staff, and one hundred and three (103) students to both David Mbiti Wambuli TVC and Kibwezi West TVC. The table below summarizes the response rate.

Table 4. 1 Response Rate

S/No	Questionnaire Type	Total Number	Number Returned	Number not returned	Percentage
1	Trainers	56	48	8	85.7%
2	Support Staff	20	14	6	70.0%
3	Students	103	103	0	100%
Average Response Rate		179	165	14	85.2%

Out of the one 179 questionnaires distributed, a total of one hundred and sixty five (165) were fully filled and returned back. These questionnaires were enough to be used in the analysis so as to determine the effect of conflict management strategies on organizational performance. The collected questionnaires represent 85.2% response rate which can be considered for the analysis.

Reliability Test

In order to assess the reliability of the data in determining the effects of conflict management strategies on organization performance at public technical and vocational education and training institutions, the primary data collected from the sampled population using the designed questionnaires was analyzed using SPSS. The reliability test for the sampled data are as per their category is as shown in the table below.

Table 4. 2 Reliability Test

S/No	Sampled Population	Number Returned	Cronbach's Alpha
1	Trainers	48	0.749
2	Support Staff	14	0.821
3	Students	103	0.865
Average Reliability Test		**165**	**0.812**

Table 4. 3 Descriptive Z-score Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Sampled Population (N)	165	1	2	1.44	.497	.261	.182	-1.954	.361
Valid N (listwise)	165								

According to the results of the data analysis, the z-score displays a mean of 1.44, a range of the entire sampled population, and a standard deviation of 0.497. According to the research, the hypothesis is supported by a negative Kurtoisis of -1.954 and a positive skewness of 0.261. The impact of conflict management techniques on organizational performance at public technical and vocational education and training institutions in Makueni County, Kenya, can be ascertained using the descriptive data analysis mentioned above.

The figure below displays the correlation of the data collected for this study following analysis with SPSS software.

Table 4. 4 Correlation

Correlations

Control Variables			Collaboration Strategy
Conflict management strategies & Organizational performance	Organizational Policy	Correlation	1.000
		Significance (2-tailed)	.
		Df	0
	Leadership style	Correlation	.320
		Significance (2-tailed)	.018
		Df	52
	External examination pass rate	Correlation	.114
		Significance (2-tailed)	.412
		Df	52
	Students	Correlation	.042
		Significance (2-tailed)	.762

	enrollment	Df	52

The Pearson correlation for collaborative strategy was initially 1 and thereafter decreases to 0.042. This shows that the relationship between conflict resolution techniques and organizational effectiveness in public technical and vocational education and training institutions has changed.

Multiple Linear Regression Analysis

The linear regression models of the data are displayed in the figures below, which demonstrate the results of the regression analysis of the collection. The Pearson correlation, or R of 0.259, as shown in the model summary, indicates a relationship between the number recorded and the period. The hypothesis is tested using the R and R squared in the model summary. The mean square of the data and the F value, which also examines the study hypothesis, are provided by the ANOVA below. The hypothesis is also tested in both analyses using the standard errors. The sign of the hypothesis, or whether it is positive or negative, is indicated by the coefficient's beta and B values.

Table 4. 5 Model Regression Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.259[a]	.067	.013	.848

a. Predictors: (Constant), External exam pass rate, Students enrollment trends

Table 4. 6 Regression ANOVA

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2.694	3	.898	1.247	.302[b]
	Residual	37.431	52	.720		
	Total	40.125	55			

a. Dependent Variable: External Exam pass rate, Student Enrollment Trends

b. Predictors: (Constant), Collaboration Strategy, Accommodation Strategy, Compromising Strategy, Avoidance Strategy.

Table 4. 7 Regression Coefficients

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	2.704	.972		2.781	.008
	Collaboration Strategy	.269	.139	.261	1.927	.059

a. Dependent Variable: External Exam pass rate, students enrollment trends

The data has a residual standard error of 0.848 on two degrees of freedom, according to the analysis above. The analysis's F value is 1.247, the t value is 2.781, the multiple R squared is 0.067, and the adjusted R is 0.013. The fact that the F value is smaller than the t value indicates that there is a significant relationship between the recorded number and the timeframe. The B value's negative sign indicates that the significance is negative. In this investigation, the regression equation is $y = \beta_0 + 2.704x$.

The research revealed that the average Cronbach's Alpha correlation value of 0.812 for the sampled population, which is higher than the typical value of 0.7, was derived from the data gathered by questionnaires (Roni & Djajadikerta, 2021). The value demonstrates the reliability of the data collected from the population sampled for this study. Supported by the pilot study, the data can be used to ascertain how conflict management strategies affect the organizational performance of public technical and vocational education and training institutions in Kenya's Makueni County.

When interpreting the qualitative thematic analysis, it was found that collaboration is the most used conflict management strategy which had 46 percent of the total references in both Kibwezi West TVC and David Mbiti Wambuli TVC. This observation compares with the conclusion of Turesky et al. (2020) the authors of the article, which proved that collaborative methods result in stakeholder engagement and innovation, which is beneficial to organizational performance. The prevalence rate of collaboration in both the institutions shows that it has developed a mature organizational culture, which facilitates the process of decision-making in a comprehensive way and involvement of stakeholders making win-win solutions to solve conflicts. Shariq et al. (2022) further conclude that the collaborative strategies are effective and validated that in the banking sector, such strategies did improve the performance of employees. The uniformity in the behavior patterns in both institutions reveals the aspect of standardization within the TVET sector, as Bosire and Gichana (2024) identified the issue of institutional norms in TVET conflict management.

Nonetheless, the result of the multiple linear regression analysis showed a positive correlation between collaborative strategy and organizational performance of weak level ($R = 0.259$) but with limited explanatory power ($R^2 = 0.067$). The regression coefficient of collaboration strategy was 0.269 and the significance value was 0.059 and it was more than

the conventional statistical significance value. This implies that although the collaboration leads to creation of favorable conditions within an organization, direct effects on quantifiable performance outcomes within TVET institutions might be moderated by the contextual factors such as resource limitation and institutional policies, as Shabani et al. (2022) argue. These results mean that despite the importance of collaboration in the creation of favorable organizational climate, other intervening factors such as leadership styles, training of employees, and accessibility of resources might have a greater impact on the performance of institutions as stated by To et al. (2021).

Recommendations

In an effort to create an effective and supportive working environment, it is the responsibility of the organizations to organize effective training programs which can help in equipping the staffs as well as the management team on conflict resolution, with reference to the collaborative approaches to conflict resolution, which tend to create understanding amongst the involved parties. Conducting training on negotiation and group conflict solving will help ensure that win-win solutions are reinforced and skills on how to go about the dispute are practical. Also, resource management approaches are necessary in order to overcome the limitations, which sometimes impair successful resolving of conflicts e.g. time limitation, human limitations etc. To make sure that a constant process of improvement is maintained, a system of frequent evaluation is needed to clarify the effect of such conflict management approaches in order to implement adjustments where possible and achieve an ongoing process of improvement.

Conclusion

The findings of the study showed collaboration as the predominant conflict management approach used in the public TVET institutions in the county of Makueni with 46 percent of all the coded conflict management issues totaling 33 mentions both in Kibwezi west TVC and David Mbiti Wambuli TVC. This supremacy indicates that the organization culture has a mature level that solely values the collaborative problem solving and the stakeholder engagement in the decision making. The qualitative analysis revealed that both the institutions have the same kind of pattern in their like to collaborate which is an indicator of there being a standardization of institutional operations in the TVET sector. Nonetheless, the quantitative study has shown a contradictory result that collaborative strategies were of low impact in the multiple linear regression analysis with low positive relationship ($R = 0.259$) and limited explanatory power ($R^2 = 0.067$) on organizational performance measures even though they occurred in high frequency. The coefficient of collaboration was 0.269 with a level of significance of 0.059, which showed that it was marginally statistically significant. This implies that despite the positive organizational climate, and institutional commitment to win-win solutions, the direct association between effectiveness and collaboration is abrogated by the contextual factors that include resource constraints, the trait of leaders, and institutional guidelines. Based on the findings, it must be concluded that cooperation, which is culturally deeply embedded and is widely used, will only actually lead

to the measurable improvement of performance with the help of favorable organizational conditions.

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