Strategic Leadership and its Influence on Competitive Advantage in Strategic Collaborations between Universities and Teaching Hospitals in Kenya

Paul Sesi* and Mary Mutisya

United States International University-Africa, Nairobi, Kenya
**Corresponding Author's Email: sesipaul@gmail.com*

Cite: Sesi, P., & Mutisya, M. (2022). Strategic Leadership and its Influence on Competitive Advantage in Strategic Collaborations between Universities and Teaching Hospitals in Kenya. *The University Journal, 5*(1), 93-116.

Abstract

Kenya lags behind in the attainment of universal healthcare goals and targets despite envisioning collaborations in healthcare as being critical to the realization of the universal health goals. The general objective of the study was to establish the influence of strategic leadership on strategic collaboration competitive advantage among universities and teaching hospitals in Kenya. This study adopted a positivist philosophy and a descriptive cross sectional research design. The study population comprised 10 universities and 10 teaching hospitals as approved by the Kenya Medical Practitioners and Dentists Council, respectively. The census technique was deployed to make use of all the elements in the population with primary data collected by use of a structured questionnaire, while secondary data was collected using a document review guide. Frequencies, measures of central tendency and dispersal were used in descriptive statistical analysis, while correlations, cross tabulations and ordinal logistic regression were used for inferential statistical analysis. Ordinal logistic regression helped determine the significance of relationships between the predictor and outcome variables. The study established that strategic leadership was significant for collaboration competitive advantage. Competitive advantage was operationalized using financial outcomes and learning and growth. Strategic leadership was a significant predictor of financial outcomes in universities ($\beta = 1.524$, $p < 0.05$), teaching hospitals ($\beta = 1.7$, $p < 0.05$) and combined ($\beta = 1.556$, $p < 0.05$). Strategic leadership was also a significant predictor of learning and growth in universities ($\beta = 0.981$, $p < 0.05$), teaching hospitals ($\beta = 1.186$, $p < 0.05$) and combined ($\beta = 1.037$, $p < 0.05$).

Keywords: Strategic Leadership, Competitive Advantage, Strategic Collaboration, Universities, Teaching Hospitals

Introduction

The global world economy is characterized by a turbulent, complex, dynamic and risky environment (He et al., 2020). The constant state of flux has resulted in corporate failure and at the same time, a search for organizational paradigms that not only navigate the unstable and risky environment, but also yield competitive advantage or superior performance (Bamel et al., 2021). The world is also bedeviled by complicated social issues such as the attainment of universal healthcare that cannot be attained by any one organization according to George et al. (2016). Cooperative strategy has emerged as a dynamic organizational paradigm that is adaptively suited for the modern business environment and for solving multiplex social challenges. A strategic collaboration being a subset of cooperative strategy under strategic

alliances is therefore a resolute engagement between two or more independent institutions that entails the synergistic combination and co-development of resources and capabilities with an aim to achieve competitive advantage (Child et al., 2019; Day-Duro et al., 2020; Mamédio, Rocha et al., 2019).

Strategic leadership is merited with the implementation of strategic change for competitive advantage in instances where organizational level attributes such as upper-echelon roles are shared, power and authority are distributed and strategic objectives are diverse leading to complex organizational structures synonymous with strategic collaborations (Sirmon et al., 2007). Strategic leadership is essential to environmental attributes characterized by turbulent and unpredictable economic, social, political and technological dimensions (Denis et al., 2001; Hitt et al., 2017; Samimi et al., 2020). Strategic leadership forms part of critical antecedents to strategic alliances and is significant to building social capital, risk management and trust over and above managing the complexity that comes with attempting to derive competitive advantage out of alliances. Strategic leadership being both directive and participative at the same time, is essential for external engagement in alliances, especially in partner selection, arising out of the need to discard instructional models of reward and punishment to more co productive and participatory styles of leadership that are more suited to collaborative engagements. The Kenya health policy recognizes the importance of strategic leadership in leading network relationships critical for the attainment of universal health goals in Kenya (Denis et al., 2001; Hitt et al., 2017; Luciano et al., 2020; Martin et al., 2013; Ministry of Health, 2014; Samimi et al., 2020).

Strategic collaborations between universities and healthcare institutions have particularly been successful in the developed world with strategic alliances in general being significant drivers to firm competitive advantage and national competitiveness. In the United States of America, a highly decentralized healthcare and higher education environment exists with a high level of successful strategic alliances involving over 150 industry/university cooperative research centers and engineering research centers involving over 100 universities, generating tens of billions of dollars with biotechnology and healthcare playing a critical role (Nawaz & Koç, 2020; Nhamo & Mjimba 2020; Sahs et al., 2017). The University of Massachusetts Medical School is a public medical school in the United States of America that has had a successful collaboration with UMass Memorial Healthcare as focal organizations within an alliance network that includes eighty communitybased hospitals and health centers. The collaboration network has helped improve patient outcomes, yielded innovation in teaching and learning and overall success in clinical care, research and education (Larkin & Fischer, 2020).

The developing world has also embraced collaborations in healthcare with considerable involvement from the governments and universities, albeit with varying degrees of success and failure. Strategic alliances in Africa have experienced failure rates comparable to the developing world according to Nkakleu and Biboum (2019). Studies in India and Nepal on the one hand, and South Africa and Ethiopia on the other, indicate considerable room for improvement on the alliances based on the non-attainment of the millennium development goals in healthcare and slow progress of the sustainable development goals (Nhamo & Mjimba, 2020; Ramutsindela & Mickler, 2020). Alliances in a three country study involving Uganda, Ghana and South Africa found successful collaboration between universities and healthcare institutions, especially in knowledge management, according to Agyepong et al. (2018).

The Problem

Strategic collaborations are indispensable in the realization of competitive advantage in healthcare (Croker et al., 2016; Day-Duro et al., 2020).The inadequacies of strategic alliancesamong universities and teaching hospitals in Kenya are a cause for alarm according to Health Committee Report (2019). Collaborations between universities and teaching hospitals are also critical to the attaining of competitive advantage in higher education, attaining the sustainable development goals and fulfilling regional and national agenda in healthcare (Ministry of Health, 2014; Ramutsindela & Mickler, 2020; WHO, 2014). Cross sector collaborations, though most significant in solving societal issues, are also the most difficult to execute according to Koschmann et al. (2012) and Al-Tabbaa et al. (2019). Despite the criticality of cross sector strategic collaborations in healthcare, a lot still needs to be done in examining alliance strategy at the institutional level and the central role of the university in the collaboration (El-Jardali et al., 2018; He et al., 2020). Studies on collaborative engagements have centered mainly on the formation and justification for alliances leaving room for improvement on the antecedents of effective collaboration such as strategic leadership (Hitt et al., 2004).

Objective

To establish the influence of strategic leadership on strategic collaboration competitive advantage among universities and teaching hospitals in Kenya.

Hypothesis

H_o: Strategic leadership does not significantly influence collaborative competitive advantage.

Literature Review

Singh et al. (2016) postulated that strategic leadership as a theory and consequent research sought to explicate the influence of the top management team in the upper echelon of an institution on competitive advantage. The theory, when put to empirical test, indicates that strategic leadership is positively correlated to sustained performance, similarly, conceptual work has also linked strategic leadership to competitive advantage (Hitt et al., 2017; Quigley & Graffin, 2017). However, some studies such as Fitza (2017) have indicated that the relationship between strategic leadership and superior performance over time is spurious and highly hindered by situational constraints weakening any causal relationship with competitive advantage, while other studies like Liu et al. (2018) argue that the relationship is not straightforward. The incongruence in findings from various studies demonstrates the difficulty in operationalizing the constructs of strategic leadership or a deficiency in the theory. Scholarly works are yet to converge on the operationalization and conceptualization of the contextual environment of strategic leadership (Hambrick & Quigley, 2014; Quigley & Hambrick, 2015).

Strategic leadership theory is bedeviled by methodological and statistical constraints, underdeveloped and weakly operationalized control variables that have effectively compromised the influence of strategic leadership on competitive advantage (Blettner et a., 2012; Fitza, 2017; Quigley & Hambrick, 2015). Competitive advantage, being a multidimensional construct, is also difficult to study, contextualize and operationalize, hence the entirety of weaknesses should not be placed on strategic leadership as a theory, as research outcomes could differ, depending on the dimension of performance deployed, in a particular context (Samimi et al., 2020). Empirical literature on strategic leadership has predominantly reviewed the effect of strategic leadership on sustained superior performance at the micro level

devoid of the integration of both the macro and micro perspectives of leadership. There is need to improve on strategic leadership studies biased towards competitive advantage variables and organizational attributes that include alliances. Strategic leadership however, remains substantial in its effects on performance through visioning, values, culture and the implementation of systems and structure, hence the need for scholarly works to further elucidate performance critical strategic leadership practices and behaviors.

Several studies have focused on strategic leadership and its relation or applicability to strategic alliances indicating that strategic leaders influence firm level performance arising out of interaction with other leaders from an interfirm engagement perspective and active sensing for alliance partners in effect, channeling the access to critical resources for competitive advantage. Interchanging directors and common directorships are also critical in stimulating appropriate strategic alliances (Beckman et al., 2014; Chung & Luo, 2013). The shared leadership perspective that is critical to strategic alliances, emanates from Hambrick and Mason's (1984) upper echelon theory that developed into strategic leadership based on the view that no individual possesses all competences to be able to singly lead an institution or alliance, hence sharing the responsibility with complementary partners in collaborating institutions, yielding competitive advantage (Pitelis & Wagner, 2019; Samimi et al., 2020).

In a study involving over a hundred firms in Europe over a period of four years, Georgakakis et al. (2016) found a positive relationship between strategic leadership and sustained superior organizational performance similar to Oracha et al. (2021). TheGeorgakakis et al. (2016) study controlled for size of the organization, employee complement, prior performance, socio-demographics, level of education of the chief executive, chief executive team tenure, industry munificence and chief executive autonomy. The study was significant to the extent that it had an emphasis on the relational capital within the upper echelon, though it weakly articulated the data analysis methods despite the succinct data collection articulation. The study concentrated on the leader attributes similar to the study by Sturm et al. (2017), which are critical issues in strategic leadership as postulated by Bonardi et al. (2018), and highly ignored in literature according to Sturm et al. (2017).

Bromiley and Rau (2016) scrutinized 149 articles in journals written over a period of ten years, and found positive linkages between strategic leadership and performance amidst other outcomes, however, there lacked coherence in the findings that would provide credible generalization for strategic leadership constructs as articulated by Bonardi et al. (2018) to be a critical issue in strategic leadership research. Liu et al. (2018), in a study using a sequential mediation process model to link strategic leadership behavior with firm performance, found a complex set of interactions as strategic leadership influence is transmitted across multiple levels similar to postulations by Greer et al. (2017). A need to explore the sequential mediation model on the strategic leadership's influence on performance through the organizational processes, would provide better clarity on the transmission mechanisms as studied by Barrick et al. (2015). Najmi et al. (2018) investigated the mediation effect and established that strategic leadership had no direct and significant effect on sustained organizational performance unless mediated by organizational dynamic capabilities.

Hunitie (2018) conducted a study on the impact of strategic leadership on competitive advantage similar to Zhanglan et al. (2021) who studied the effect on sustained competitive advantage. The study investigated strategic thinking and strategic planning as mediating

variables and used the health sector in Jordan as the context of the study. Data was gathered using a questionnaire with a total of five hundred and twentyone being returned, representing a response rate of 52.1% and the data was analyzed by use of structural equation modelling. The study findings indicated that strategic leadership had a positive relationship with competitive advantage, while strategic thinking and strategic planning positively mediated the relationship, with strategic thinking having a higher impact. The study findings are significant to the extent that they add to the gaps in strategic leadership as identified by Bonardi et al. (2018), however, they differ with Greer et al. (2017) and Barrick et al. (2015), who postulate that the most critical issues for strategic leaders is strategy implementation, as opposed to strategic thinking and planning.

Agyepong et al. (2018) conducted a multi country strategic leadership study covering three sub-Saharan Africa countries targeting the health sector. The study applied a mixed method, cross sectional multi country study involving data collection through non-exhaustive desk review, key informant dialogue and a semi-structured questionnaire. The study findings were that strategic leadership was critical for success in healthcare systems similar to Hunitie (2018), and found competencies related to strategic leadership to be similar to other highincome settings. Since this was a multicountry study, it would be important to conduct the study in a mixed environment involving high, middle and lowincome countries, the study did not explicate any mediation models and interrelationships among strategic leaders, in contrast to Hunitie (2018) and Greer et al. (2017), who postulated the criticality of strategic thinking, strategic formulation, planning and implementation as mediating factors on the effect of strategic leadership and competitive advantage.

Gachugu et al. (2019) conducted a study in Kenya and employed a cross-sectional research design. They found a significant relationship between strategic leadership and performance. Other studies conducted in Kenya like one by Kabetu and Iravo (2018) had similar findings, except the study by Mutuku et al.(2013), that indicated the diversity of the strategic leadership had insignificant effect on organizational performance like Fitza's (2017) findings. Most of the studies in Kenya used multiple linear regression for analysis, yet advanced tools like structural equation modelling would be appropriate since strategic leadership has latent constructs and its relationship with performance is curvilinear, according to Kohtamäki et al. (2018). The studies in Kenya would have more significance if they incorporated the moderating effects of change and environmental munificence and mediation effects of strategic thinking, strategy formulation, planning and implementation as studied by Hunitie (2018), Greer et al. (2017) and articulated to be critical issues in strategic leadership research by Bonardi et al. (2018).

Methodology

Data analysis was undertaken by use of varied statistical techniques suited to ordered categorical variables. Nonparametric tests, especially the Mann-Whitney U and the chi-squaretests were used. These statistical approaches, notwithstanding the main technique that was used to test the hypotheses for this study, was ordinal logistic regression analysis.

Results

Test of Difference in Strategic Leadership between Primary and Secondary data

The researcher conducted the Mann-Whitney U test to determine whether there was any difference between the ratings by respondents regarding strategic leadership and the secondary data collected on the variable. The outcomes are detailed in Table 1.

Table 1: Test of Difference in Strategic Leadership between Primary and Secondary Data

Variable	Data	N	Mean Rank	Sum of Ranks
Strategic Leadership	Primary	116	62.22	7155.50
	Secondary	10	71.95	719.50
	Total	126		
Test Statistics	**Strategic Leadership**			
Mann-Whitney U	485.500			
Z	-.878			
Asymp. Sig. (2-tailed)	.380			

The findings provided in Table 1 indicate that the mean rank of strategic leadership from the secondary data (71.95), was higher than the mean rank from the primary data (62.22). However, Mann-Whitney U test results indicated that this difference was not statistically significant (U = 485.5, p = 0.380). These findings, therefore, imply that the ratings of strategic leadership of the institutions in strategic collaborations were not different from the ratings derived after the documentary review.

Test of Association Between Strategic Leadership and Strategic Collaboration Competitive Advantage

This study applied chi-square tests to assess the association between strategic leadership and strategic collaboration competitive advantage. The mode was applied as the measure of central tendency to derive a single statistic for the measures of strategic leadership. The findings of the cross tabulation, chi-square tests and symmetric measures for the association between strategic leadership and financial outcome are provided in Table 2.

Table 2: Association between Strategic Leadership and Financial Outcome

			Financial Outcome					Total
			No extent	Little extent	Moderate extent	Good extent	Very good extent	
Strategic Leadership	No extent	Count	0	3	1	0	0	4
		Expected Count	.0	.4	1.1	1.4	1.0	4.0
	Little extent	Count	0	3	3	1	0	7
		Expected Count	.1	.7	1.9	2.5	1.8	7.0
	Moderate extent	Count	1	3	14	5	2	25
		Expected Count	.2	2.4	7.0	8.9	6.5	25.0
	Good extent	Count	0	2	12	27	12	53
		Expected Count	.5	5.1	14.7	18.9	13.8	53.0
	Very good extent	Count	0	0	2	8	16	26
		Expected Count	.2	2.5	7.2	9.3	6.8	26.0
Total		Count	1	11	32	41	30	115
		Expected Count	1.0	11.0	32.0	41.0	30.0	115.0

Chi-Square Tests	**Value**	**Df**	**Asymptotic Significance (2-sided)**
Pearson Chi-Square	72.590	16	<.001
Likelihood Ratio	62.557	16	<.001
Linear-by-Linear Association	44.447	1	<.001

Symmetric Measures		**Value**	**Approximate Significance**
Nominal by Nominal	Phi	.794	<.001
	Cramer's V	.557	<.001

The findings of the cross tabulation in Table 2 indicate that the observed values, in relation to expected values, are gradually increasing towards the very great extent ranking. The chi square statistics ($\chi^2 = 72.59$, $p < 0.05$) indicate that there is a significant association between strategic leadership and financial outcome. The Cramer's V statistics (CV = 0.557, $p < 0.05$) show a significant moderate and positive association between strategic leadership and financial outcome for strategic collaborations.

The study also applied chi-square tests to assess the association between strategic leadership and learning and growth from strategic collaborations. The findings of the cross tabulation, chi-square tests and symmetric measures for the association between strategic leadership and learning and growth, are provided in Table 3.

Table 3: Association Between Strategic Leadership and Learning and Growth

			Learning and growth					**Total**
			No extent	Little extent	Moderate extent	Good extent	Very good extent	
Strategic Leadership	No extent	Count	0	1	2	0	1	4
		Expected Count	.1	.3	.8	1.5	1.3	4.0
	Little extent	Count	0	1	5	0	1	7
		Expected Count	.1	.5	1.4	2.7	2.3	7.0
	Moderate extent	Count	1	5	7	8	4	25
		Expected Count	.4	1.7	5.0	9.6	8.3	25.0
	Good extent	Count	1	1	6	29	16	53
		Expected Count	.9	3.7	10.6	20.3	17.5	53.0
	Very good extent	Count	0	0	3	7	16	26
		Expected Count	.5	1.8	5.2	9.9	8.6	26.0
Total		Count	2	8	23	44	38	115
		Expected Count	2.0	8.0	23.0	44.0	38.0	115.0

Chi-Square Tests	**Value**	**Df**	**Asymptotic Significance (2-sided)**
Pearson Chi-Square	47.093	16	<.001
Likelihood Ratio	46.694	16	<.001
Linear-by-Linear Association	22.114	1	<.001

Symmetric Measures		**Value**	**Approximate Significance**
Nominal by Nominal	Phi	.640	<.001
	Cramer's V	.520	<.001

The findings of the cross tabulation in Table 3 indicate that the observed values, in relation to expected values, are gradually increasing towards the very great extent ranking for both strategic leadership and learning and growth. The chi square statistics ($\chi^2 = 47.093$, $p < 0.05$) indicate that there is a significant association between strategic leadership and learning and growth. The Cramer's V statistics (CV = 0.520, $p < 0.05$) show a significant moderate and positive association between strategic leadership and learning and growth from strategic collaborations.

Preliminary Tests of Ordinal Logistic Regression Assumptions

The influence of strategic leadership on strategic collaboration competitive advantage among universities and teaching hospitals in Kenya was investigated using an ordinal logistic

regression model. This model was appropriate for the study because the dependent variable (financial outcomes and learning and growth) was measured on an ordinal scale of 1–5 (where 1 is to no extent, 2 is to a little extent, 3 is to a moderate extent, 4 is to a good extent and 5 is to a very great extent). Before fitting the ordinal logistic regression, the researcher conducted preliminary tests to determine whether the four assumptions of the ordinal logistic regression were met. The four assumptions are an ordinal dependent variable, one or more ordinal, continuous, or categorical independent variables, no multicollinearity and the assumption of proportional odds (Williams, 2016).

The first assumption was met since the dependent variable was on an ordinal scale. The second assumption was also met since there was one independent variable (strategic leadership), which was measured using an ordinal scale. Since there were many statements measuring strategic leadership, the mode was computed to measure the strategic leadership used in the model. The multicollinearity assumption did not apply in this case since there was only one independent variable. The proportional odds supposition, commonly referred to as the parallel lines assumption, requires that at each cumulative split, the predictor variable possesses a similar effect on the ordered outcome variable. The fitted location model was compared to a model with variable location parameters using a -2-log likelihood ratio test. The null hypothesis of this analysis indicates that the slope coefficients of the independent variables are very similar across all the categories of the response variable. The outcomes are as detailed in Table 4.

Table 4: Proportional Odds Test for the Model of Strategic Leadership against Strategic Collaboration Competitive Advantage

Model	-2-Log Likelihood	Chi-Square	Df	Sig.
Null Hypothesis	49.312			
General	47.605	1.707	3	.635

The null hypothesis of proportionate odds was not rejected ($\chi^2 = 1.707$, $p = 0.635$), according to the results presented in Table 4. These findings suggest that the strategic leadership variable had similar influence or slope coefficients across all the levels of the dependent variable. Since all the assumptions of the ordinal logistic regression model were met, the following section provides the results of the model of strategic collaboration competitive advantage (financial outcome and learning and growth), against strategic leadership.

Generalized Ordinal Logistic Regression Model for Strategic Collaboration Competitive Advantage against Strategic Leadership

Using the ordered logistic technique, the researcher fitted three proportional odds models for universities, teaching hospitals and a combination of the two institutions. The first model fitted the strategic leadership on strategic collaboration of universities. However, in the case of universities, two models were fitted since strategic collaboration competitive advantage was measured using financial outcome and learning and development. This section provides the results of the R-squared values, the model fitness test and parameter estimates for universities' strategic leadership and financial outcome model. The R-squared findings are shown first in Table 5.

Table 5: R-Squared for the Model of Strategic Leadership on Financial Outcome of Universities

Cox and Snell	.389
Nagelkerke	.422
McFadden	.192

Link function: Logit.

The findings in Table 5 indicate that the Nagelkerke R–squared was 0.422, implying that strategic leadership towards strategic collaboration in universities explained 42.2% of the universities' financial outcome derived from strategic collaborations. This implies that 57.8% of financial outcomes derived from strategic collaborations were explained by other factors not included in the model. The Nagelkerke Pseudo R–squared was employed to determine the explained variance since it is the most reliable and efficient in small and large samples and whether a model includes few or many independent variables.

The -2-log likelihood ratio chi-square test was also used to assess the model's fitness. The model fitting information includes the -2-log likelihood ratio for the intercept only model and the model that consists of the independent variable (strategic leadership) and the chi square test to test the fitness of the ordinal logistic model relative to the intercept only model. Table 6 presents a summary of the results.

Table 6: Model Fitting Information

Model	**-2 Log Likelihood**	**Chi-Square**	**Df**	**Sig.**
Intercept Only	55.683			
Final	27.578	28.105	1	<.001

Link function: Logit.

The findings provided in Table 6 show that there is a significant improvement in the final model relative to the intercept only model ($\chi^2 = 28.105$, $p < 0.05$). The researcher also conducted the goodness of fit test using the Pearson and deviance chi-square tests. This is a test to assess whether the model fits the data well. The null hypothesis of the two tests is that the model is a good fit for the data. The outcomes are as detailed in Table 7.

Table 7: Goodness-of-Fit Test

	Chi-Square	Df	Sig.
Pearson	4.907	11	.936
Deviance	5.836	11	.884

Link function: Logit.

The findings provided in Table 7 indicate that both the Pearson Chi square test ($\chi^2 = 4.907$, $p = 0.936$) and the deviance chi square test ($\chi^2 = 5.836$, $p = 0.884$) were not significant, indicating that the null hypothesis was not rejected. This implies that the fitted ordinal logic regression model was a good fit for the data.

The fitted ordinal logistic regression model on financial outcome against strategic leadership is provided in Table 8. The regression coefficients and the significance of strategic leadership in predicting the financial outcomes of strategic collaborations in universities is provided.

Table 8: Parameter Estimates for Strategic Leadership on Financial Outcome of Universities

							95% Confidence Interval	
		Estimate	Std. Error	Wald	df	Sig.	Lower Bound	Upper Bound
Threshold	[Financial Outcome = 2]	2.195	1.022	4.61	1	.032	.192	4.198
	[Financial Outcome = 3]	5.298	1.238	18.30	1	.000	2.871	7.725
	[Financial Outcome = 4]	7.279	1.377	27.93	1	.000	4.580	9.979
Location	Strategic Leadership	1.524	.326	21.81	1	.000	.884	2.163

Link function: Logit.

The resultant models were;

Logit P ($Y \leq 2$)) = $2.195 - 1.524X_1$

Logit P ($Y \leq 3$)) = $5.298 - 1.524X_1$

Logit P ($Y \leq 4$)) = $7.279 - 1.524X_1$

Where Y is financial outcome and X_1 is strategic leadership

The findings provided in Table 8 show the thresholds for the different levels of the dependent variable (Financial outcome). The findings also provide the location estimates of the alliance's strategic leadership. The results indicate that strategic leadership was a significant predictor of the financial outcome of universities ($\beta = 1.524$, $p < 0.05$). These findings suggest that when the level of strategic leadership improves by a unit, there is a predicted change of 1.524 in the log odds of a university being in a higher financial outcome category. This implies that improvements in strategic leadership for collaborations are likely to enhance the financial outcome of a university.

The study also fitted a model of strategic leadership on learning and growth of universities. This section provides the results of the R-squared values, the model fitness test and parameter estimates for strategic leadership and the learning and growth model for universities. The R-squared findings are shown in Table 9.

Table 9: R-Squared for the Model of Strategic Leadership on Learning and Growth of Universities

Cox and Snell	.598
Nagelkerke	.419
McFadden	.393

Link function: Logit.

The findings in Table 9 indicate that the Nagelkerke R–squared was 0.419, implying that strategic leadership towards strategic collaboration in universities explained 41.92% of the universities' learning and growth derived from strategic collaborations. This implies that 58.1% of learning and growth derived from strategic collaborations was explained by other factors not included in the model. The Nagelkerke Pseudo R–squared was employed to determine the explained variance since it is the most reliable and efficient in small and large samples and when a model includes one independent variable.

The -2-log likelihood ratio chi-square test was also used to assess the model's fitness. The model fitting information includes the -2-log likelihood ratio for the intercept only model and the model that consists of the independent variable (strategic leadership) and the chi square test to test the fitness of the ordinal logistic model, relative to the intercept only model. Table 10 presents a summary of the results.

Table 10: Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	Df	Sig.
Intercept Only	47.128			
Final	34.516	12.612	1	<.001

Link function: Logit.

The findings provided in Table 10 show that there is a significant improvement in the final model, relative to the intercept only model (χ^2 = 12.612, p < 0.05). The researcher also conducted the goodness of fit test using the Pearson and Deviance chi-square tests. These are tests to assess whether the model fits the data well. The null hypothesis of the two tests is that the model is a good fit for the data. The findings are shown in Table 11.

Table 11: Goodness-of-Fit Test

	Chi-Square	Df	Sig.
Pearson	7.574	15	.224
Deviance	4.470	15	.458

Link function: Logit.

The findings provided in Table 11 indicate that both the Pearson Chi square test (χ^2 = 7.574, p = 0.224) and the Deviance chi square test (χ^2 = 4.470, p = 0.458) were not significant, indicating that the null hypothesis was not rejected. This implies that the fitted ordinal logistic regression model was a good fit for the data.

The fitted ordinal logistic regression model on the learning and growth against strategic leadership is provided in Table 12. The regression coefficients and the significance of strategic leadership in predicting learning and growth of strategic collaborations in universities is provided.

Table 12: Parameter Estimates for Strategic Leadership on Learning and Growth of Universities

							95% Confidence Interval	
		Estimate	Std. Error	Wald	df	Sig.	Lower Bound	Upper Bound
Threshold	[Learning and growth = 2]	-.256	1.056	.059	1	.808	-2.325	1.813
	[Learning and growth = 3]	2.456	1.008	5.934	1	.015	.480	4.432
	[Learning and growth = 4]	4.479	1.124	15.880	1	.000	2.276	6.682
Location	Strategic Leadership	.981	.280	12.261	1	.000	.432	1.529

Link function: Logit.

The resultant models were;

Logit P ($Y \leq 3$)) = $2.446 - 0.981X_1$

Logit P ($Y \leq 4$)) = $4.479 - 0.981X_1$

Where Y is learning and growth and X_1 is strategic leadership

The findings provided in Table 12 show the thresholds for the different levels of the dependent variable (learning and growth). The findings also provide the location estimates of strategic leadership. The results indicate that strategic leadership was a significant predictor of learning and growth of universities ($\beta = 0.981$, $p < 0.05$). These findings suggest that when strategic leadership improves by a unit, there is a predicted change of 0.981 in the log odds of a university being in a higher learning and growth category. This implies that improvements in the level ofstrategic leadership for collaborations are likely to enhance the learning and growth of a university.

The study also assessed how strategic leadership influenced strategic collaboration competitive advantage of teaching hospitals. First, the study fitted a model of strategic leadership to financial outcome of teaching hospitals. This section provides the results of the R-squared values, the model fitness test and parameter estimates for the strategic leadership and financial outcome model for teaching hospitals. The R-squared findings are shown first in Table 13.

Table 13: R-Squared for the Model of Strategic Leadership on Financial Outcome of Teaching Hospitals

Cox and Snell	.393
Nagelkerke	.421
McFadden	.184

Link function: Logit.

The findings in Table 13 indicate that the Nagelkerke R–squared was 0.421, implying that strategic leadership towards strategic collaboration in teaching hospitals explained 42.1% of the financial outcome that teaching hospitals derived from strategic collaborations. This implies that 57.9% of financial outcomes derived from strategic collaborations was explained by other factors not included in the model. The Nagelkerke Pseudo R–squared was employed to determine the explained variance since it is the most reliable and efficient in small and large samples and when a model includes one independent variable.

The -2-log likelihood ratio chi-square test was also used to assess the model's fitness. The model fitting information includes the -2-log likelihood ratio for the intercept only model and the model that consists of the independent variable (strategic leadership) and the chi square test to test the fitness of the ordinal logistic model, relative to the intercept onlymodel. Table 14 presents a summary of the results.

Table 14: Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	Df	Sig.
Intercept Only	65.470			
Final	36.534	28.936	1	<.001

Link function: Logit.

The findings provided in Table 14 show that there is a significant improvement in the final model, relative to the intercept only model (χ^2 = 28.936, p < 0.05). The researcher also conducted the goodness of fit test using the Pearson and Deviance chi-square tests. These are tests to assess whether the model fits the data well. The null hypothesis of the two tests is that the model is a good fit for the data. The outcomes are enumerated in Table 15.

Table 15: Goodness-of-Fit Test

	Chi-Square	Df	Sig.
Pearson	15.117	15	.443
Deviance	14.867	15	.461

Link function: Logit.

The findings provided in Table 15 indicate that both the Pearson Chi square test (χ^2 = 15.117, p = 0.443) and the Deviance chi square test (χ^2 = 14.867, p = 0.461) were not significant, indicating that the null hypothesis was not rejected. This implies that the fitted ordinal logistic regression model was a good fit for the data.

The fitted ordinal logistic regression model on financial outcome of teaching hospitals against strategic leadership is provided in Table 16. The regression coefficients and the significance of strategic leadership in predicting the financial outcome of strategic collaborations in teaching hospitals is provided.

Table 16: Parameter Estimates for Strategic Leadership on Financial Outcome of Teaching Hospitals

							95% Confidence Interval	
		Estimate	Std. Error	Wald	Df	Sig.	Lower Bound	Upper Bound
Threshold	[Financial Outcome = 1]	1.096	1.419	.596	1	.440	-1.685	3.876
	[Financial Outcome = 2]	3.849	1.236	9.705	1	.002	1.428	6.271
	[Financial Outcome = 3]	5.766	1.355	18.118	1	.000	3.111	8.422
	[Financial Outcome = 4]	7.975	1.521	27.504	1	.000	4.994	10.955
Location	Strategic Leadership	1.700	.349	23.669	1	.000	1.015	2.385

Link function: Logit.

The resultant models were;

Logit P ($Y \leq 2$)) = $3.849 - 1.7X_1$

Logit P ($Y \leq 3$)) = $5.766 - 1.7X_1$

Logit P ($Y \leq 4$)) = $7.975 - 1.7X_1$

Where Y is financial outcome and X_1 is strategic leadership

The findings provided in Table 16 show the thresholds for the different levels of the dependent variable (financial outcome). The findings also provide the location estimates of strategic leadership. The results indicate that strategic leadership was a significant predictor of the financial outcome of teaching hospitals ($\beta = 1.7$, $p < 0.05$). These findings suggest that when the level of strategic leadership improves by a unit, there is a predicted change of 1.7 in the log odds of a teaching hospital moving into a higher financial outcome category. This implies that improvements in strategic leadership for collaborations are likely to enhance the financial outcomes of teaching hospitals.

An ordinal logistic model of strategic leadership on learning and growth of teaching hospitals was also fitted. This section provides the results of the R-squared values, the model fitness test and parameter estimates for the strategic leadership and learning and growth model for teaching hospitals. The R-squared findings are shown first in Table 17.

Table 17: R-Squared for the Model of Strategic Leadership on Learning and Growth of Teaching Hospitals

Cox and Snell	.349
Nagelkerke	.365
McFadden	.203

Link function: Logit.

The findings in Table 17 indicate that the Nagelkerke R–squared was 0.365, implying that strategic leadership towards strategic collaboration in teaching hospitals explained 36.5% of the teaching hospitals' learning and growth derived from strategic collaborations. This implies that 63.5% of learning and growth derived from strategic collaborations was explained by other factors not included in the model. The Nagelkerke R–squared was employed to determine the explained variance since it is the most reliable and efficient in small and large samples and when a model includes one independent variable.

The -2-log likelihood ratio chi-square test was also used to assess the model's fitness. The model fitting information includes the -2-log likelihood ratio for the intercept only model and the model that consists of the independent variable (strategic leadership) and the chi square test to test the fitness of the ordinal logistic model, relative to the intercept only model. Table 17 presents a summary of the results.

Table 18: Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	Df	Sig.
Intercept Only	65.908			
Final	49.312	16.596	1	<.001

Link function: Logit.

The findings provided in Table 18 show that there is a significant improvement in the final model relative to the intercept only model ($\chi^2 = 16.596$, $p < 0.05$). The researcher also conducted the goodness of fit test using the Pearson and Deviance chi-square tests. These are tests to assess whether the model fits the data well. The null hypothesis of the two tests is that the model is a good fit for the data. The outcomes are enumerated in Table 19.

Table 19: Goodness-of-Fit Test

	Chi-Square	Df	Sig.
Pearson	17.574	15	.224
Deviance	14.470	15	.258

Link function: Logit.

The findings provided in Table 19 indicate that both the Pearson Chi square test ($\chi^2 = 17.574$, $p = 0.224$) and the Deviance chi square test ($\chi^2 = 14.470$, $p = 0.258$) were not significant, indicating that the null hypothesis was not rejected. This implies that the fitted ordinal logistic regression model was a good fit for the data.

The fitted ordinal logistic regression model on the learning and growth of teaching hospitals against strategic leadership is provided in Table 20. The regression coefficients, the significance of strategic leadership in predicting learning and growth from strategic collaborations in teaching hospitals is provided.

Table 20: Parameter Estimates for Strategic Leadership on Learning and Growth of Teaching Hospitals

							95% Confidence Interval	
		Estimate	Std. Error	Wald	df	Sig.	Lower Bound	Upper Bound
Threshold	[Learning and growth = 1]	.762	1.194	.408	1	.523	-1.577	3.102
	[Learning and growth = 2]	2.367	1.127	4.409	1	.036	.157	4.576
	[Learning and growth = 3]	3.689	1.181	9.760	1	.002	1.375	6.003
	[Learning and growth = 4]	5.573	1.295	18.506	1	.000	3.034	8.112
Location	Strategic Leadership	1.186	.305	15.161	1	.000	.589	1.784

Link function: Logit.

The resultant models were;
Logit P ($Y \leq 2$)) = $2.367 - 1.186X_1$
Logit P ($Y \leq 3$)) = $3.689 - 1.186X_1$
Logit P ($Y \leq 4$)) = $5.573 - 1.186X_1$
Where Y is learning and growth and X_1 is strategic leadership

The findings provided in Table 20 show the thresholds for the different levels of the dependent variable (learning and growth). The findings also provide the location estimates of strategic leadership. The results indicate that strategic leadership was a significant predictor of learning and growth of teaching hospitals ($\beta = 1.186$, $p < 0.05$). These findings suggest that when the level of strategic leadership improves by a unit, there is a predicted change of 1.186 in the log odds of a teaching hospital moving into a higher learning and growth category. This implies that improvements in strategic leadership for collaborations are likely to enhance the learning and growth of teaching hospitals.

The study further assessed how strategic leadership influenced strategic collaboration competitive advantage of both universities and teaching hospitals. First, the study fitted a model of strategic leadership to financial outcome of universities and teaching hospitals. This section provides the results of the R-squared values, the model fitness test and parameter

estimates for the strategic leadership and financial outcome model for universities and teaching hospitals. The R-squared findings are shown first in Table 21.

Table 21: R-Squared for the Model of Strategic Leadership on Financial Outcome of Universities and Teaching Hospitals

Cox and Snell	.388
Nagelkerke	.417
McFadden	.184

Link function: Logit.

The findings in Table 21 indicate that the Nagelkerke R–squared was 0.417, implying that strategic leadership towards strategic collaboration in universities and teaching hospitals explained 41.7% of the financial outcome that universities and teaching hospitals derived from strategic collaborations. This implies that 58.3% of financial outcomes derived from strategic collaborations was explained by other factors not included in the model. The Nagelkerke Pseudo R–squared was employed to determine the explained variance since it is the most reliable and efficient in small and large samples and when a model includes one independent variable.

The -2-log likelihood ratio chi-square test was also used to assess the model's fitness. The model fitting information includes the -2-log likelihood ratio for the intercept only model and the model that consists of the independent variable (strategic leadership) and the chi square test to test the fitness of the ordinal logistic model, relative to the intercept only model. Table 22 presents a summary of the results.

Table 22: Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	Df	Sig.
Intercept Only	95.657			
Final	39.102	56.555	1	<.001

Link function: Logit.

The findings provided in Table 22 show that there is a significant improvement in the final model, relative to the intercept only model (χ^2 = 56.555, p < 0.05). The researcher also conducted the goodness of fit test using the Pearson and Deviance chi-square tests. These are tests to assess whether the model fits the data well. The null hypothesis of the two tests is that the model is a good fit for the data. The outcomes are enumerated in Table 23.

Table 23: Goodness-of-Fit Test

	Chi-Square	Df	Sig.
Pearson	7.038	15	.957
Deviance	6.002	15	.980

Link function: Logit.

The findings provided in Table 23 indicate that both the Pearson Chi square test (χ^2 = 7.038, p = 0.957) and the Deviance chi square test (χ^2 = 6.002, p = 0.980) were not significant, indicating that the null hypothesis was not rejected. This implies that the fitted ordinal logic regression model was a good fit for the data.

The fitted ordinal logistic regression model on financial outcome of universities and teaching hospitals against strategic leadership is provided in Table 24. The regression coefficients, the significance of strategic leadership in predicting the financial outcome of strategic collaborations in universities and teaching hospitals is provided.

Table 24: Parameter Estimates for Strategic Leadership on Financial Outcome of Universities and Teaching Hospitals

							95% Confidence Interval	
		Estimate	Std. Error	Wald	Df	Sig.	Lower Bound	Upper Bound
Threshold	[Financial Outcome = 1]	-.332	1.153	.083	1	.773	-2.591	1.927
	[Financial Outcome = 2]	2.837	.782	13.162	1	.000	1.304	4.370
	[Financial Outcome = 3]	5.313	.893	35.425	1	.000	3.563	7.062
	[Financial Outcome = 4]	7.384	.997	54.809	1	.000	5.429	9.339
Location	Strategic Leadership	1.556	.233	44.728	1	.000	1.100	2.012

Link function: Logit.

The resultant models were;
Logit P ($Y \leq 2$)) = $2.837 - 1.556X_1$
Logit P ($Y \leq 3$)) = $5.313 - 1.556X_1$
Logit P ($Y \leq 4$)) = $7.384 - 1.556X_1$
Where Y is financial outcome and X_1 is strategic leadership

The findings provided in Table 24 indicate the thresholds for the different levels of the dependent variable (financial outcome). The findings also provide the location estimates of strategic leadership. The results indicate that strategic leadership was a significant predictor of the financial outcome of universities and teaching hospitals ($\beta = 1.556$, $p < 0.05$). These findings suggest that when the levels of strategic leadership are improved by unit, there is a predicted change of 1.556 in the log odds of a university or teaching hospital moving into a higher financial outcome category. This implies that improvements in strategic leadership for collaborations are likely to enhance the financial outcomes of universities and teaching hospitals.

An ordinal logistic model of strategic leadership on learning and growth of universities and teaching hospitals was also fitted. This section provides the results of the R-squared values, the model fitness test and parameter estimates for the strategic leadership and learning and growth model for teaching hospitals. The R-squared findings are shown first in Table 25.

Table 25: R-Squared for the Model of Strategic Leadership on Learning and Growth of Universities and Teaching Hospitals

Cox and Snell	.605
Nagelkerke	.521
McFadden	.387

Link function: Logit.

The findings in Table 25 indicate that the Nagelkerke R–squared was 0.521, implying that strategic leadership regarding strategic collaboration in university and teaching hospitals explained 52.1% of the learning and growth that the universities and teaching hospitals derived from strategic collaborations. This implies that 47.9% of learning and growth derived from strategic collaborations was explained by other factors not included in the model.

The -2-log likelihood ratio chi-square test was also used to assess the model's fitness. The model fitting information includes the -2-log likelihood ratio for the intercept only model and the model that consists of the independent variable (strategic leadership) and the chi square test to test the fitness of the ordinal logistic model, relative to the intercept only model. Table 26 presents a summary of the results.

Table 26: Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	Df	Sig.
Intercept Only	83.139			
Final	56.792	26.347	1	<.001

Link function: Logit.

The findings provided in Table 26 show that there is a significant improvement in the final model, relative to the intercept only model (χ^2 = 26.347, p < 0.05). The researcher also conducted the goodness of fit test using the Pearson and Deviance chi-square tests. These are tests to assess whether the model fits the data well. The null hypothesis of the two tests is that the model is a good fit for the data. The findings are shown in Table 27.

Table 27: Goodness-of-Fit Test

	Chi-Square	Df	Sig.
Pearson	22.744	15	.090
Deviance	20.347	15	.159

Link function: Logit.

The findings provided in Table 27 indicate that both the Pearson Chi square test (χ^2 = 22.744, p = 0.090) and the Deviance chi square test (χ^2 = 14.470, p = 0.159) were not significant, indicating that the null hypothesis was not rejected. This implies that the fitted ordinal logic regression model was a good fit for the data.

The fitted ordinal logistic regression model on the learning and growth of universities and teaching hospitals against strategic leadership is provided in Table 28. The regression coefficients, the significance of strategic leadership in predicting learning and growth from strategic collaborations in universities and teaching hospitals is provided.

Table 28: Parameter Estimates for Strategic Leadership on Learning and Growth of Universities and Teaching Hospitals

							95% Confidence Interval	
		Estimate	Std. Error	Wald	df	Sig.	Lower Bound	Upper Bound
Threshold	[Learning and growth = 1]	-.638	.742	.738	1	.390	-2.092	.817
	[Learning and growth = 2]	.903	.594	2.314	1	.128	-.260	2.067
	[Learning and growth = 3]	2.647	.628	17.793	1	.000	1.417	3.877
	[Learning and growth = 4]	4.664	.724	41.524	1	.000	3.245	6.082
Location	Strategic Leadership	1.037	.180	33.319	1	.000	.685	1.389

Link function: Logit.

The regression models derived from the analysis were;

Logit P ($Y \leq 3$)) = $2.647 - 1.037X_1$

Logit P ($Y \leq 4$)) = $4.664 - 1.037X_1$

Where Y is learning and growth and X_1 is strategic leadership

The findings provided in Table 28 show the thresholds for the different levels of the dependent variable (learning and growth). The findings also provide the location estimates of strategic leadership. The results indicate that strategic leadership was a significant predictor of learning and growth of universities and teaching hospitals ($\beta = 1.037$, $p < 0.05$). These findings suggest that when the levels of strategic leadership are improved by a unit, there is a predicted change of 1.037 in the log odds of a university and a teaching hospital moving into a higher learning and growth category. This implies that improvements in strategic leadership for collaborations are likely to enhance the learning and growth of universities and teaching hospitals. These findings led to a rejection of thenull hypothesis of the study, which was; Ho: Strategic leadership of the collaboration does not significantly influence the alliance competitive advantage.

Discussion

The study findings on strategic leadership were comparable to Oracha et al. (2021) who established that strategic leadership was critical in sustained superior performance in organizations. Oracha et al. (2021) argued that operationalization of competitive advantage needed to incorporate financial and non-financial metrics as applied in this study, a claim also supported by Liu et al. (2018). The findings of this study are also congruent with theoretical expectations from the resource-based view that in the attainment of competitive advantage, it is critical for an organization to deploy strategic ambidexterity through strategic leadership, by effectively leveraging on visioning, nurturing core competencies and building effective collaborations according to Hitt et al. (2017) and Quigley and Graffin (2017). In as much as this study established no auto correlation but a significant relationship between strategic leadership and competitive advantage, it is in contrast with Fitza (2017) who established spurious correlation between strategic leadership and superior performance. Studies like Quigley and Graffin (2017), debunked the notion of spurious correlation in strategic leadership and competitive advantage in line with this study.

Najmi et al. (2018), though using structural equation modelling in a study involving hospitals, established similar findings to this study as far as strategic leadership having a significant and positive direct influence on sustained performance. In congruence with Oracha et al. (2021) and this study, Najmi et al. (2018) also utilized financial and non-financial multidimensional constructs to determine superior performance. The results of this study and Najmi et al. (2018) are at odds with many other studies like Hunitie (2018) and Zhanglan et al. (2021) that determined that the strategic leadership is directly significant in determining competitive advantageonly in turbulent and competitive business environments. Zhanglan et al. (2021) focused on the attributes of strategic leaders, specifically used the census approach and both primary and secondary data analogous to this study. The secondary data in Zhanglan et al. (2021) was however used to determine the dependent variable, as opposed to this study that used the secondary data to triangulate the primary data, an approach prescribed by Quigley et al. (2017).

Liu et al. (2018) identified weaknesses in strategic leadership studies like Zhanglan et al. (2021)that involve surveys without mitigating the halo effects and social desirability biases that top management teams are associated with. This study mitigated the halo and social desirability biases by triangulating the primary data using independent inspection and performance reports on collaborations between universities and teaching hospitals and testing for any significance in the differences. The results of the Mann-Whitney U test in this study indicated that the differences between survey data and secondary data were not statistically significant ($U = 485.5$, $p = 0.380$), effectively increasing the reliability of the survey data and the instrument. Liu et al. (2018) recognized the dynamism and complexity of the relationship between strategic leaders and sustained superior performance as postulated by Samimi et al. (2020).

Conclusions

The study established for universities, a Nagelkerke R–squared of 0.422 implied that strategic leadership explained 42.2% of the financial outcomes that the universities derived from strategic collaborations. A Nagelkerke R–squared of 0.419 implied that strategic leadership explained 41.92% of the universities' learning and growth derived from strategic collaborations. For teaching hospitals, a Nagelkerke R–squared of 0.421 implied that strategic leadership explained 42.1% of the financial outcome that teaching hospitals derived from strategic collaborations. The study also established a Nagelkerke R–squared of 0.365, implying that strategic leadership explained 36.5% of the teaching hospitals' learning and growth derived from strategic collaborations.

Further, the results established that strategic leadership was a significant predictor of financial outcomes in universities ($\beta = 1.524$, $p < 0.05$), teaching hospitals ($\beta = 1.7$, $p < 0.05$) and combined ($\beta = 1.556$, $p < 0.05$), effectively indicating that when the level of strategic leadership improves by a unit, there is a predicted change of 1.524, 1.7 and 1.556 in the log odds of a university, teaching hospital and both combined respectively, being in a higher financial outcome category. The results also confirmed that that strategic leadership was a significant predictor of learning and growth of universities ($\beta = 0.981$, $p < 0.05$), teaching hospital ($\beta = 1.186$, $p < 0.05$) and combined ($\beta = 1.037$, $p < 0.05$), stipulating that when strategic leadership improves by a unit, there is a predicted change of 0.981, 1.186 and 1.037 in the log odds of a university, teaching hospital and combined, respectively being in a higher learning and growth category. This led to the rejection of the first null hypothesis. Therefore, the study concluded

that strategic leadership was a significant antecedent of collaboration competitive advantage in universities and teaching hospitals in Kenya.

Recommendations and Areas for Further Study

The study established that strategic leadership had a significant direct influence on alliance competitive advantage as operationalized through financial outcomes and learning and growth for both universities and teaching hospitals. Strategic leadership therefore emerges as a significant precursor to collaboration success. Therefore, the study indicates that strategic leadership is a necessary condition for collaborative success, but not sufficient, considering that strategic leadership is mainly concerned with the broader aspects such as setting and casting the vision and mission, formulating strategy including the broader and longer-term aspirations of the universities and teaching hospitals and the collaborations. Other aspects critical in the strategic management process are handled at the management level, including but not limited to, strategy implementation and monitoring and evaluation. Boundary conditions need to be established on the nexus between strategic leadership and alliance management capability and resultant overlaps if any.

References

Agyepong, Akua, I., Uta L., Rutembemberwa, E., Babich, M. S., Frimpong, E., Aku K., Olivier, J., Teddy, G., Hwabamungu, B., & Gilson, L. (2018). Strategic leadership capacity building for Sub-Saharan African health systems and public health governance: A multi-country assessment of essential competencies and optimal design for a Pan African DrPH. *Health Policy and Planning,33*(Suppl_2),35–49.

Al-Tabbaa, Omar, Leach, D., & Zaheer K. (2019). Examining alliance management capabilities in cross-sector collaborative partnerships. *Journal of Business Research,* 101, 268–284.

Bamel, N., Vijay, P., Umesh, B., & Giuseppe, C. (2021). Knowledge management within a strategic alliances context: Past, present and future. *Journal of Knowledge Management,25*(7), 1782–1810.

Barrick, M. R., Gary, R. T., Troy, A. S., & Stephen, H. C. (2015). Collective organizational engagement: Linking motivational antecedents, strategic implementation, and firm performance. *Academy of Management Journal,58*(1), 111–135.

Beckman, C. M., Claudia, B. S., Rottner, M. R., & Sang-Joon, K. (2014). Relational pluralism in De Novo organizations: Boards of directors as bridges or barriers to diverse alliance portfolios? *Academy of Management Journal,57*(2), 460–483.

Blettner, D. P., Fernando, R. C., &Bettis, A. R. (2012). The CEO performance effect: Statistical issues and a complex fit perspective. *Strategic Management Journal,33*(8), 986–999.

Bromiley, P., & Devaki, R. (2016). Social, behavioral, and cognitive influences on upper echelons during strategy process. *Journal of Management,42*(1), 174–202.

Child, J., Faulkner, D., & Tallman, S. (2019). *Cooperative strategy: Managing alliances, networks, and joint ventures*. Second.

Chi-Nien, C.,& Xiaowei, R. L. (2013). Leadership succession and firm performance in an emerging economy: Successor origin, relational embeddedness, and legitimacy. *Strategic Management Journal,34*(3), 338–357.

Croker, A., Higgs, J., & Franziska, T. (eds.). (2016). *Collaborating in healthcare: Reinterpreting therapeutic relationships*. Sense Publishers.

Day-Duro, E., Lubitsh, G., &Smith, G. (2020). Understanding and investing in healthcare innovation and collaboration. *Journal of Health Organization and Management,34*(4), 469–487.

El-Jardali, F., Nour, A., & Racha, F. (2018). Changing roles of universities in the era of SDGs: Rising up to the global challenge through institutionalising partnerships with governments and communities. *Health Research Policy and Systems,16*(1), 38.

Fitza, M. A. (2017). How much do CEOs really matter? Reaffirming that the CEO effect is mostly due to chance. *Strategic Management Journal,38*(3), 802–811.

Gachugu, E., Awino, B. Z., Machuki, V.,& Iraki, X. N. (2019). Emerging strategic management practices in Africa: Top management team diversity and the performance of public benefit organizations in Kenya. *African Journal of Emerging Issues,1*(5), 47–73.

Georgakakis, D., Greve, M. P., & Ruigrok, W. (2016). Bridge and rule: TMT faultlines, firm performance and the moderating role of the CEO-TMT interface. *Academy of Management Proceedings,*(1), 15474.

George, G., Howard-Grenville, J., Aparna, J., & Laszlo, T. (2016). Understanding and tackling societal grand challenges through management research. *Academy of Management Journal,59*(6), 1880–1895.

Greer, C. R., Lusch, F. R., & Hitt, M. A. (2017). A service perspective for human capital resources: A critical base for strategy implementation. *Academy of Management Perspectives,31*(2), 137–158.

Hambrick, D. C., & Mason, A. P. (1984). Upper echelons: The organization as a reflection of its top managers. *Academy of Management Review,9*(2), 193–206.

Hambrick, D. C., & Timothy, J. Q. (2014). Toward more accurate contextualization of the CEO effect on firm performance. *Strategic Management Journal,35*(4), 473–491.

He, Q., Meadows, M., Angwin, D., Gomes, E., & Child, J. (2020). Strategic alliance research in the era of digital transformation: Perspectives on future research. *British Journal of Management,31*(3), 589–617.

Health Committee Report. (2019). *Report on the status of national referral hospitals*.

Hitt, M. A., Ireland, R. D.,& Hoskisson, E. R. (2017). *Strategic management: Competitiveness & globalization concepts and cases*. Cengage Learning.

Hitt, M. A., Ireland, R. D., & Santoro, M. D. (2004). "Developing and managing strategic alliances, building social capital and creating value."In A. Ghobadian, N. O'Regan, D. Gallear & H. Viney (eds.).*Strategy and performance : Achieving competitive advantage in the global marketplace* (pp. 13-34). Palgrave Macmillan.

Hunitie, M. (2018). Impact of strategic leadership on strategic competitive advantage through strategic thinking and strategic planning: A bi-meditational research. *Business: Theory and Practice,19*, 320–330.

Jean-Louis, D., Lise, L., & Langley, A. (2001). The dynamics of collective leadership and strategic change in pluralistic organizations. *Academy of Management Journal,44*(4), 809–837.

Jean-phillipe, B., Hitt, M. H., Dusya, V., & Withers, M. C. (2018). Call for papers - Special issue on strategic leadership and strategic management. *The Leadership Quarterly,29*(3), VII–VIII.

Kabetu, D. G., & Iravo, A. M. (2018). Influence of strategic leadership on performance of international humanitarian organizations in Kenya. *International Academic Journal of Innovation, Leadership and Entrepreneurship,2*(2), 113–135.

Kohtamäki, M., Rodrigo, R., & Möller, K. (2018). Alliance capabilities: A systematic review and future research directions. *Industrial Marketing Management,68*, 188–201.

Larkin, A. C., & Fischer, A. M. (2020). University of Massachusetts medical school. *Academic Medicine,95*(9S), S232–S235.

Liu, D., Fisher, G.,& Guoli, C. (2018). CEO attributes and firm performance: A sequential mediation process model. *Academy of Management Annals,12*(2), 789–816.

Luciano, M. M., Nahrgang, D. J., & Shropshire, C. (2020). Strategic leadership systems: Viewing top management teams and boards of directors from amultiteam systems perspective. *Academy of Management Review,45*(3),675–701.

Mamédio, D., Rocha, C., Szczepanik, D., & Kato, H. (2019). Strategic alliances and dynamic capabilities: A systematic review. *Journal of Strategy and Management,12*(1), 83–102.

Graham, M. P., McNicol, S., & Chew, S. (2013). Towards a new paradigm in health research and practice? *Journal of Health Organization and Management,27*(2), 193–208.

Ministry of Health. (2014). *Kenya health policy 2014-2030*.

Mutuku, C., Obonyo, P. K.,& Awino, Z. B. (2013). Top management team diversity, quality of decisions and performance of commercial banks in Kenya. *DBA Africa Management Review,3*(2), 70–80.

Najmi, K., Kadir, A. R., &Kadir, M. I. H. (2018). Mediation effect of dynamic capability in the relationship between knowledge management and strategic leadership on organizational performance accountability. *International Journal of Law and Management,60*(2), 517–529.

Nawaz, W., & Muammer, K. (2020). *Industry, university and government partnerships for the sustainable development of knowledge-based society*. Springer International Publishing.

Nhamo, G., & Mjimba, V. (eds.). (2020). *Sustainable development goals and institutions of higher education*. Springer International Publishing.

Nkakleu, R., & Biboum, A. D. (2019). Governance and performance of strategic alliances in Africa: The role of institutions. *Journal of African Business,20*(2), 242–258.

Oracha, J. A., Ogutu, M., K'Obonyo, P., &Twalib, M. (2021). Effect of competitive advantage on the relationship between strategic leadership and performance of international non-governmental organizations in Kenya. *Journal of Human Resource & Leadership,5*(3), 74–85.

Pitelis, C. N., & Wagner, J. D. (2019). Strategic shared leadership and organizational dynamic capabilities. *The Leadership Quarterly,30*(2), 233–242.

Quigley, T. J., & Graffin, S. D. (2017). Reaffirming the CEO effect is significant and much larger than chance: A comment on Fitza (2014). *Strategic Management Journal,38*(3), 793–801.

Quigley, T. J., & Hambrick, D. C. (2015). Has the 'CEO effect' increased in recent decades? A new explanation for the great rise in America's attention to corporate leaders. *Strategic Management Journal,36*(6), 821–830.

Ramutsindela, M., &Mickler, D. (eds.). (2020). *Africa and the sustainable development goals*. Springer International Publishing.

Sahs, J. A., Nicasio, A. V., Storey, J. E., Guarnaccia, P. J., & Lewis-Fernández, R. (2017). Developing research collaborations in an academic clinical setting: Challenges and lessons learned. *Community Mental Health Journal,53*(6), 647–660.

Samimi, M., Cortes, A. F., Anderson, M. H., & Herrmann, P. (2020). What is strategic leadership? Developing a framework for future research. *The Leadership Quarterly,* 101353.

Singh, S., Darwish, T. K., & Potočnik, K. (2016). Measuring organizational performance: A case for subjective measures. *British Journal of Management,27*(1), 214–224.

Sirmon, D. G., Hitt, M. A., & Ireland, D. R. (2007). Managing firm resources in dynamic environments to create value: Looking inside the black box. *Academy of Management Review,32*(1), 273–292.

Sturm, R. E., Dusya, V., & Crossan, M. (2017). The entanglement of leader character and leader competence and its impact on performance. *The Leadership Quarterly28*(3), 349–366.

WHO. (2014). *WHO country cooperation strategy Kenya: Medium term supportstrategy*.

Williams, R. (2016). Understanding and interpreting generalized ordered logit models. *The Journal of Mathematical Sociology,40*(1), 7–20.

Zhanglan, Y., Awino, Z. B., Yabs, J., &Wainaina, G. (2021). Top management team characteristics and sustainable competitive advantage of Chinese multinational corporations in Kenya: An empirical investigation. *Academic Journal of Business & Management,3*(6), 76–82.