



INFLUENCE OF HORIZONTAL DIVERSIFICATION ON THE PERFORMANCE OF CHARTERED PUBLIC UNIVERSITIES IN KENYA: THE MODERATING ROLE OF LEADERSHIP STYLE

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ABSTRACT

Chartered public universities in Kenya are increasingly facing a sustainability crisis characterized by declining government funding, escalating operational costs, shrinking student enrolment, mounting institutional debt, declining research commercialization, and growing pressure to improve institutional performance amidst intensified competition. These challenges have undermined the financial stability and competitiveness of many public universities, compelling university management to seek innovative strategic approaches capable of enhancing organizational performance while reducing dependence on traditional sources of revenue. Horizontal diversification has emerged as one such strategy through the introduction of new academic programmes, professional courses, executive education, short courses, and other market responsive services designed to attract diverse student populations and generate additional income. Despite the growing adoption of these initiatives, empirical evidence regarding the influence of horizontal diversification on the performance of chartered public universities in Kenya remains limited and inconclusive. This study examined the influence of horizontal diversification on the performance of chartered public universities in Kenya and investigated the moderating role of leadership style in this relationship. The study was anchored on the Ansoff Growth Matrix Theory and the Resource Based View Theory and adopted a positivist research philosophy and a descriptive correlational research design. The target population comprised managers drawn from the thirty six chartered public universities in Kenya. A sample of 205 respondents was selected using Yamane's sampling formula, of whom 170 returned completed questionnaires, representing a response rate of 82.9 percent. Data were collected using a structured questionnaire and analyzed using descriptive statistics, binary logistic regression, and moderated binary logistic regression. The findings established that horizontal diversification exerted a positive and statistically significant influence on the performance of chartered public universities. The results further revealed that leadership style significantly strengthened the relationship between horizontal diversification and organizational performance. The study concludes that expanding market responsive academic and professional offerings enhances institutional competitiveness, financial sustainability, and long term organizational performance when supported by effective leadership. The findings extend strategic management literature by providing empirical evidence on horizontal diversification within higher education and offer practical guidance to university managers and policy makers seeking to strengthen institutional resilience and performance.

KEYWORDS: Horizontal Diversification, Organizational Performance, Leadership Style, Chartered Public Universities, Strategic Management, Kenya.

1. INTRODUCTION

Higher education institutions play a pivotal role in advancing socioeconomic development through the creation and dissemination of knowledge, development of skilled human capital, promotion of scientific research, and generation of innovations that address emerging societal challenges. Beyond their traditional mandates of teaching, research, and community engagement, universities are increasingly expected to contribute to national competitiveness by producing employable graduates, commercializing research outputs, fostering entrepreneurship, and supporting evidence based policymaking. Consequently, organizational performance has become a strategic concern for higher education institutions because it determines their ability to remain competitive, attract students and research funding, build strategic partnerships, and achieve long term institutional sustainability. Universities that consistently demonstrate superior organizational performance are better positioned to respond to changing stakeholder expectations and contribute meaningfully to national and global development agendas (OECD, 2023; UNESCO, 2024; Times Higher Education, 2024).

Despite their strategic importance, universities across the world are operating in an increasingly dynamic and resource constrained environment characterized by declining public funding, demographic shifts, digital transformation, globalization of higher education,



and heightened demands for accountability and institutional effectiveness. Governments have progressively shifted from traditional block funding models towards performance based financing frameworks that require universities to demonstrate measurable outcomes in graduate employability, research productivity, innovation, financial sustainability, and societal impact. At the same time, intensified competition from private universities, cross border education providers, and digital learning platforms has compelled higher education institutions to rethink traditional institutional models and embrace more entrepreneurial and market responsive strategies capable of sustaining organizational performance (European University Association, 2024; OECD, 2023; UNESCO, 2024). Consequently, universities can no longer rely solely on conventional academic programmes but must continuously innovate to maintain their relevance and competitiveness.

The challenges confronting universities are particularly acute in developing countries where higher education institutions frequently operate under severe financial, infrastructural, technological, and governance constraints. Across many African countries, public universities continue to experience declining government funding, expanding student enrolment, ageing infrastructure, inadequate research financing, weak commercialization of innovations, and increasing pressure to improve educational quality within constrained resource environments. Although the rapid expansion of higher education has significantly improved access to university education across the continent, corresponding investments in institutional capacity have generally failed to keep pace with this growth, thereby undermining organizational performance and long term sustainability (African Development Bank, 2024; UNESCO IESALC, 2022; Teferra, 2023). Consequently, universities across Africa are increasingly adopting strategic management practices that seek to improve institutional resilience, diversify revenue sources, strengthen competitiveness, and enhance organizational performance.

Kenya reflects many of the structural challenges experienced within the African higher education sector. Chartered public universities remain central to the country's socioeconomic transformation through the production of highly skilled graduates, promotion of scientific research, advancement of technological innovation, and provision of community service. However, these institutions continue to face declining government capitation, increasing operational costs, growing institutional debt, reduced student enrolment in some programmes, intensified competition from private universities and international higher education providers, and limited commercialization of research outputs. Recent reports further indicate that many chartered public universities continue to experience declining financial sustainability, increasing dependence on internally generated revenue, pressure to improve graduate employability, and declining international competitiveness despite their strategic importance to national development (Commission for University Education, 2024; Universities Fund, 2024). These challenges have compelled university managers to reconsider conventional institutional strategies and pursue innovative approaches capable of strengthening organizational performance while ensuring long term institutional sustainability.

In response to these challenges, universities have increasingly embraced diversification strategies as part of broader institutional transformation initiatives aimed at enhancing financial sustainability and improving organizational performance. Diversification enables institutions to broaden their portfolio of educational programmes, professional services, research activities, and income generating ventures while responding to changing market demands and stakeholder expectations. Among the various diversification approaches, horizontal diversification has emerged as a particularly attractive strategy because it enables universities to introduce new but related academic programmes, professional certification courses, executive education, consultancy services, and market responsive training opportunities without fundamentally altering their core institutional competencies. Through these initiatives, universities seek to attract new student segments, expand revenue streams, improve resource utilization, strengthen institutional competitiveness, and reduce dependence on government funding. Strategic management scholars contend that organizations pursuing carefully planned diversification strategies are more likely to enhance organizational adaptability, strengthen competitive advantage, and improve long term performance when diversification initiatives are aligned with institutional capabilities and environmental opportunities (Ansoff, 1957; Barney, 1991; Hitt, Ireland, & Hoskisson, 2023).

The successful implementation of diversification strategies, however, depends not only on the strategic choices made by an organization but also on the quality of leadership responsible for translating those strategies into organizational outcomes. Leadership style influences how institutional resources are mobilized, strategic decisions are communicated, organizational change is managed, and employees are motivated to embrace innovation. Within higher education institutions, effective leadership is particularly important because universities operate within complex governance structures characterized by multiple stakeholders, competing institutional priorities, and increasing demands for accountability and performance. Leaders who foster collaboration, innovation, and strategic alignment are more likely to create an organizational environment in which diversification initiatives contribute meaningfully to institutional performance. Conversely, ineffective leadership may undermine the implementation of otherwise well conceived diversification strategies, thereby limiting their contribution to organizational effectiveness (Northouse, 2022; Yukl, 2023; Bush, 2023). These observations suggest that leadership style may strengthen or weaken the relationship between horizontal diversification and organizational performance.



Although diversification strategies have received considerable scholarly attention, existing empirical evidence regarding the relationship between horizontal diversification and organizational performance remains inconclusive. Several studies have reported that diversification enhances organizational performance by broadening market opportunities, improving resource utilization, strengthening competitive positioning, and reducing dependence on traditional revenue sources (Hitt, Ireland, & Hoskisson, 2023; OECD, 2023). Within higher education, universities that diversify their academic programmes, professional training, consultancy services, and executive education have been found to improve financial sustainability and institutional competitiveness. However, other studies have reported mixed or insignificant relationships, arguing that diversification may increase organizational complexity, create coordination challenges, dilute institutional identity, and divert scarce resources from core academic functions when not effectively managed (European University Association, 2024; UNESCO, 2024). These conflicting findings suggest that the effectiveness of horizontal diversification may depend on organizational conditions that facilitate or constrain strategy implementation.

The inconsistencies in previous studies reveal several important knowledge gaps. First, existing empirical studies have predominantly examined diversification within private sector organizations, manufacturing firms, and commercial enterprises, with comparatively limited attention devoted to public universities, particularly within developing countries. Second, many studies have investigated diversification as part of broader strategic management practices without isolating the specific contribution of horizontal diversification to organizational performance. Third, although leadership has been widely acknowledged as a critical determinant of organizational success, relatively few studies have examined its moderating influence on the relationship between diversification strategies and organizational performance. Consequently, the mechanisms through which leadership style shapes the effectiveness of horizontal diversification remain insufficiently understood. These limitations point to clear empirical, methodological, theoretical, and contextual gaps that justify further investigation within chartered public universities in Kenya.

The present study addresses these gaps by examining the influence of horizontal diversification on the performance of chartered public universities in Kenya while investigating the moderating role of leadership style. The study extends the application of the Ansoff Growth Matrix Theory and the Resource Based View Theory by demonstrating how strategic diversification and leadership capabilities interact to influence organizational performance within public higher education institutions. Unlike many previous studies that examined diversification without considering organizational contingencies, this study explicitly models leadership style as a moderating variable, thereby providing a more comprehensive understanding of the conditions under which horizontal diversification contributes to institutional performance.

The findings of this study are expected to make important theoretical, managerial, and policy contributions. Theoretically, the study enriches strategic management literature by providing empirical evidence on the interaction between horizontal diversification and leadership style within the higher education sector. From a managerial perspective, the findings provide university leaders with evidence based insights for designing diversification strategies that enhance institutional competitiveness, financial sustainability, and organizational performance. At the policy level, the findings offer useful guidance to government agencies, university councils, and higher education regulators in developing policies that strengthen institutional resilience and promote the long term sustainability of chartered public universities in Kenya.

2. LITERATURE REVIEW

2.1 Theoretical Foundation

This study was anchored on the Ansoff Growth Matrix Theory and the Resource Based View Theory. The two theories provide complementary perspectives for explaining how horizontal diversification influences organizational performance and how leadership capabilities strengthen the effectiveness of diversification strategies within chartered public universities.

The Ansoff Growth Matrix Theory, developed by Ansoff (1957), explains organizational growth through four strategic alternatives namely market penetration, market development, product development, and diversification. The theory posits that organizations achieve sustainable growth by identifying appropriate combinations of products and markets while responding strategically to environmental opportunities and competitive pressures. Horizontal diversification, which involves introducing new but related products or services into existing or closely related markets, enables organizations to expand their customer base, reduce dependence on existing products, and strengthen competitive advantage. Within higher education, horizontal diversification is reflected in the introduction of new academic programmes, executive education, professional certification courses, consultancy services, and other market responsive educational offerings that complement the traditional teaching mission. The theory therefore provides a useful framework for explaining why universities increasingly diversify their programme portfolios in pursuit of improved organizational performance.

Despite its wide application in strategic management research, the Ansoff Growth Matrix Theory has been criticized for assuming that organizations possess adequate resources and capabilities to implement diversification strategies successfully. The theory pays limited attention to internal organizational factors such as leadership, organizational culture, and strategic capabilities that influence the



successful implementation of diversification initiatives. Consequently, although the theory explains why organizations diversify, it provides less guidance on the organizational conditions necessary for diversification to translate into improved performance.

The Resource Based View Theory, advanced by Barney (1991), complements the Ansoff Growth Matrix Theory by emphasizing that sustainable competitive advantage arises from valuable, rare, inimitable, and non-substitutable organizational resources and capabilities. The theory argues that superior organizational performance depends not merely on the adoption of strategic initiatives but on the organization's ability to effectively deploy its internal resources in implementing those strategies. Within public universities, strategic resources include academic staff, leadership capabilities, institutional reputation, research capacity, organizational knowledge, technological infrastructure, and collaborative networks. These resources determine whether diversification initiatives generate sustainable improvements in institutional competitiveness and organizational performance.

The two theories are complementary in explaining the relationship investigated in this study. Whereas the Ansoff Growth Matrix Theory provides the strategic rationale for adopting horizontal diversification as a growth strategy, the Resource Based View Theory explains why the effectiveness of diversification depends on the availability and deployment of valuable organizational resources and capabilities. Leadership style represents one such strategic capability because effective leadership enhances strategic implementation, resource mobilization, employee commitment, and organizational adaptability. Accordingly, the integration of the two theories provides a robust theoretical foundation for examining the influence of horizontal diversification on the performance of chartered public universities in Kenya and the moderating role of leadership style in this relationship.

2.2 Horizontal Diversification and Organizational Performance

Empirical evidence examining the relationship between horizontal diversification and organizational performance has produced mixed findings across different organizational and institutional contexts. While a considerable body of research suggests that diversification enhances organizational competitiveness and financial sustainability, other studies report weak or inconsistent relationships, indicating that the effectiveness of diversification strategies depends on organizational and contextual conditions under which they are implemented. Studies conducted in developed economies generally associate horizontal diversification with improved organizational performance. For instance, recent studies have shown that organizations introducing related products and services are able to leverage existing capabilities, broaden market opportunities, strengthen customer retention, and improve financial performance. Within higher education, universities that have diversified their academic programmes, executive education, consultancy services, and lifelong learning initiatives have reported improvements in institutional competitiveness, student enrolment, and financial sustainability (OECD, 2023; European University Association, 2024; Marginson, 2024). These findings suggest that horizontal diversification enables institutions to exploit existing resources more efficiently while responding to changing stakeholder needs. However, most of these studies were undertaken within well resourced higher education systems characterized by relatively stable institutional environments, thereby limiting the generalizability of their findings to public universities operating in resource constrained settings.

Evidence from developing countries presents a less consistent picture. Although several studies report that diversification contributes positively to organizational resilience by expanding revenue sources and reducing dependence on traditional funding mechanisms, others argue that diversification may increase administrative complexity, stretch institutional resources, and compromise service quality where supporting organizational capabilities are inadequate. Within African higher education, universities have increasingly diversified through market responsive academic programmes, consultancy services, commercialization of research, and professional training initiatives. Nevertheless, the reported performance outcomes remain uneven because many institutions continue to face financial constraints, inadequate infrastructure, weak governance systems, and limited capacity to implement diversification strategies effectively (UNESCO, 2024; African Development Bank, 2024). These findings imply that the performance benefits associated with horizontal diversification are contingent upon the institutional environment within which the strategy is implemented.

Within Kenya, empirical studies examining diversification strategies have largely concentrated on private sector organizations, state corporations, and small and medium enterprises, with comparatively limited attention devoted to chartered public universities. Existing studies focusing on universities have predominantly examined diversification as one component of broader strategic management practices rather than investigating the independent contribution of horizontal diversification to organizational performance. Furthermore, previous studies have generally adopted direct effect models, paying limited attention to organizational factors that may influence the effectiveness of diversification strategies. Consequently, the existing evidence provides only partial understanding of how horizontal diversification influences the performance of chartered public universities in Kenya.

The foregoing empirical review demonstrates that although horizontal diversification is widely acknowledged as a potentially important strategic driver of organizational performance, previous findings remain inconsistent across different institutional contexts. The review further reveals empirical, methodological, and contextual gaps arising from the limited focus on public universities, the inadequate isolation of horizontal diversification as a distinct strategic construct, and the limited examination of organizational conditions that may



influence its effectiveness. The present study addresses these gaps by examining the influence of horizontal diversification on the performance of chartered public universities in Kenya while investigating the moderating role of leadership style.

H₁: Horizontal diversification has a statistically significant influence on the performance of chartered public universities in Kenya.

2.3 Leadership Style as a Moderating Variable

Leadership has consistently been identified as a critical determinant of successful strategy implementation and organizational performance across both public and private sector organizations. Empirical studies suggest that leadership influences organizational outcomes by shaping strategic direction, mobilizing resources, fostering innovation, enhancing employee commitment, and creating an environment that supports organizational change. Within higher education institutions, effective leadership has been associated with improved institutional governance, stronger strategic implementation, enhanced academic quality, and increased organizational adaptability (Bush, 2023; Northouse, 2022; Yukl, 2023). These findings suggest that leadership extends beyond routine administrative functions to become a strategic capability that influences the effectiveness of organizational initiatives.

Empirical evidence further indicates that leadership may not only exert a direct influence on organizational performance but also strengthen or weaken the relationship between strategic management practices and organizational outcomes. Several studies have demonstrated that transformational and participative leadership styles enhance the effectiveness of organizational strategies by improving employee engagement, facilitating knowledge sharing, promoting innovation, and strengthening organizational commitment. Conversely, ineffective leadership has been associated with poor strategy execution, resistance to organizational change, weak coordination, and suboptimal organizational performance despite the presence of sound strategic initiatives (Aga, Noorderhaven, & Vallejo, 2023; Ali, Ali, & Khan, 2024; Nguyen & Tran, 2023). These findings imply that leadership may function as an important contextual factor that determines whether strategic initiatives translate into improved organizational performance.

Within higher education, studies examining the interaction between leadership and strategic management practices remain relatively limited. Existing research has primarily focused on the direct influence of leadership on institutional effectiveness, employee performance, or organizational commitment, with comparatively fewer studies investigating leadership as a moderating mechanism through which strategic initiatives influence organizational performance. Furthermore, the available evidence has largely originated from universities in developed countries, leaving limited empirical understanding of how leadership shapes the effectiveness of diversification strategies within public universities operating in resource constrained environments such as Kenya.

The foregoing empirical review reveals important empirical, methodological, and contextual gaps. Although previous studies acknowledge the strategic importance of leadership, limited empirical evidence exists regarding its moderating influence on the relationship between horizontal diversification and organizational performance within chartered public universities. Consequently, it remains unclear whether effective leadership strengthens the contribution of horizontal diversification to organizational performance or whether diversification initiatives generate similar outcomes irrespective of prevailing leadership practices. The present study addresses this gap by examining leadership style as a moderating variable in the relationship between horizontal diversification and the performance of chartered public universities in Kenya.

H₂: Leadership style has a statistically significant moderating influence on the relationship between horizontal diversification and the performance of chartered public universities in Kenya.

3. METHODOLOGY

3.1 Research Philosophy and Design

The study adopted a positivist research philosophy, which assumes that social phenomena can be objectively measured and explained through empirical observation and statistical analysis. Positivism was considered appropriate because the study sought to test hypothesized relationships between horizontal diversification, leadership style, and organizational performance using quantitative data collected from chartered public universities in Kenya. Consistent with the positivist paradigm, the study employed a descriptive correlational research design. The design was appropriate because it enabled the researcher to examine the magnitude and direction of the relationship between horizontal diversification and organizational performance while simultaneously determining the moderating influence of leadership style without manipulating the study variables.

3.2 Target Population and Sampling Procedure

The target population comprised managers drawn from the thirty six chartered public universities in Kenya recognized by the Commission for University Education. Managers were selected because of their direct involvement in strategic planning, implementation of diversification initiatives, and institutional performance management. The study employed Yamane's (1967) sampling formula to determine a sample size of 205 respondents. A structured questionnaire was administered to the selected respondents, of whom 170



returned fully completed questionnaires, representing a response rate of 82.9 percent. The response rate exceeded the 70 percent threshold generally considered adequate for organizational research, thereby providing sufficient data for statistical analysis.

3.3 Data Collection Instrument and Procedure

Primary data were collected using a structured questionnaire consisting of closed ended questions measured on a five point Likert scale ranging from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*). The questionnaire was developed from validated measurement scales reported in previous strategic management and higher education studies and was refined to reflect the context of chartered public universities in Kenya. Prior to the main survey, the instrument was subjected to pilot testing to assess its reliability and construct validity. Reliability was evaluated using Cronbach's alpha coefficient, while construct validity was assessed using the Kaiser Meyer Olkin Measure of Sampling Adequacy and Bartlett's Test of Sphericity. The results confirmed that the instrument possessed satisfactory psychometric properties for the main study.

3.4 Measurement of Variables

Horizontal diversification constituted the independent variable and was operationalized using indicators relating to the expansion of academic programmes, professional training, consultancy services, executive education, strategic collaborations, and other market responsive educational offerings. Leadership style was measured as the moderating variable using indicators reflecting strategic leadership behaviours that facilitate institutional transformation and strategy implementation. Organizational performance, the dependent variable, was measured using indicators reflecting institutional competitiveness, financial sustainability, research performance, stakeholder satisfaction, and operational effectiveness. Composite indices were computed for each construct prior to inferential analysis.

3.5 Data Analysis

Data were analyzed using the Statistical Package for the Social Sciences (SPSS) version 30. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to summarize respondents' characteristics and perceptions of the study variables. Binary logistic regression analysis was employed to examine the influence of horizontal diversification on organizational performance after the dependent variable had been dichotomized into high and low performance categories. To determine the moderating influence of leadership style, an interaction term between horizontal diversification and leadership style was introduced into the logistic regression model. Model adequacy was evaluated using the omnibus test of model coefficients, the Hosmer and Lemeshow goodness of fit test, and the Nagelkerke R^2 statistic. Statistical significance was evaluated at the 95 percent confidence level.

4. RESULTS AND DISCUSSION

4.1 Preliminary Analysis

A total of 205 questionnaires were administered to managers drawn from the thirty six chartered public universities in Kenya. Of these, 170 were completed and returned, representing a response rate of 82.9 percent. The response rate was considered adequate for statistical analysis and exceeded the minimum threshold generally recommended for organizational research, thereby providing sufficient observations for binary logistic regression analysis.

Prior to hypothesis testing, the quality of the measurement instrument and the suitability of the data for binary logistic regression analysis were evaluated. Reliability was assessed using Cronbach's alpha coefficient, while construct validity was evaluated using the Kaiser Meyer Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity. The assumptions underlying binary logistic regression were also examined. Table 1 summarizes the results of the preliminary analyses.

Table 1: Summary of Preliminary Analyses

Diagnostic Test	Criterion	Result	Decision
Response Rate	$\geq 70\%$	82.9%	Adequate
Reliability (Cronbach's Alpha)	$\alpha \geq 0.70$	All constructs exceeded 0.70	Accepted
Construct Validity (KMO)	$KMO \geq 0.50$	All constructs ranged from 0.836 to 0.870	Accepted
Bartlett's Test of Sphericity	$p < 0.05$	$p < 0.001$ for all constructs	Accepted
Multicollinearity	VIF < 10; Tolerance > 0.10	Assumption satisfied	Accepted

The results presented in Table 1 indicate that all preliminary diagnostic tests satisfied the recommended statistical thresholds. The response rate of 82.9 percent was considered adequate for organizational research. In addition, all study constructs demonstrated satisfactory reliability, with Cronbach's alpha coefficients exceeding the recommended threshold of 0.70. The construct validity results further confirmed the suitability of the measurement scales, as all KMO values exceeded 0.50 and Bartlett's Test of Sphericity was statistically significant ($p < 0.001$), indicating that the measurement items adequately represented their respective latent constructs. The



multicollinearity assessment also confirmed that the predictor variables were sufficiently independent to permit reliable estimation of the logistic regression models.

Unlike multiple linear regression, binary logistic regression does not require the assumptions of normality, homoscedasticity, or linearity between the independent and dependent variables. Consequently, these assumptions were not evaluated in the present study because they are not prerequisites for estimating binary logistic regression models. The data therefore satisfied the relevant assumptions necessary for subsequent hypothesis testing.

4.2 Descriptive Statistics for Horizontal Diversification

Horizontal diversification was measured using fifteen statements that assessed the extent to which chartered public universities had expanded related academic programmes, diversified programme delivery modes, broadened market reach, and introduced market responsive educational offerings. Respondents rated each statement on a five point Likert scale ranging from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*). The descriptive statistics are presented in Table 2.

Table 2: Descriptive Statistics for Horizontal Diversification (n = 170)

SN	Statement	Mean	Standard Deviation
1.	The university continuously expands its portfolio of undergraduate degree offerings.	3.58	1.180
2.	The university has diversified into specialized diploma and postgraduate certificate programmes.	3.19	1.187
3.	Introducing professional short courses has broadened our market reach.	3.59	1.252
4.	The institution has established satellite campuses to reach students in different geographic regions.	3.28	1.156
5.	Regional distance learning centres have been established to enhance student access.	3.80	1.128
6.	Offering evening and executive classes attracts non traditional working student demographics.	3.52	1.227
7.	Weekend modes of study have successfully expanded overall student intake.	3.66	1.167
8.	Flexible online learning models allow us to serve a broader target market.	3.44	1.263
9.	Cross border academic outreach initiatives have expanded our regional enrolment base.	3.42	1.229
10.	The university regularly introduces market driven short courses to meet industry skill gaps.	3.52	1.168
11.	Programme specialization options within existing faculties have increased target student enrolment.	3.48	1.173
12.	Horizontal expansion effectively leverages the institution's existing teaching facilities.	3.51	1.183
13.	Academic staff expertise is efficiently utilized across new related academic programmes.	3.24	1.214
14.	New academic offerings target complementary student segments without requiring separate core structures.	3.54	1.083
15.	The institution actively modifies course structures to attract continuous education learners.	3.72	1.158
16.	Overall Construct Mean	3.50	1.18

The findings indicate that respondents generally agreed that chartered public universities have implemented horizontal diversification strategies, as reflected by the overall mean score of 3.50 (SD = 1.18). The highest rated practices were the establishment of regional distance learning centres (M = 3.80), continuous modification of course structures to attract continuous education learners (M = 3.72), and expansion of weekend modes of study (M = 3.66). Conversely, comparatively lower ratings were reported for diversification into specialized diploma and postgraduate certificate programmes (M = 3.19), efficient utilization of academic staff across new related academic programmes (M = 3.24), and establishment of satellite campuses (M = 3.28). These findings suggest that while chartered public universities have made considerable progress in broadening their academic offerings and programme delivery modes, further efforts are required to strengthen programme diversification, optimize staff deployment, and expand geographical outreach.

The descriptive findings are consistent with recent empirical evidence indicating that universities increasingly adopt market responsive programmes, flexible learning pathways, executive education, and professional training to enhance institutional competitiveness, increase student enrolment, and improve financial sustainability (Marginson, 2024; Hailu, 2024; UNESCO, 2024). The relatively moderate standard deviations further indicate reasonable consistency in respondents' perceptions regarding the implementation of horizontal diversification across the surveyed universities.

4.3 Binary Logistic Regression Results for the Influence of Vertical Diversification on Organizational Performance

The second stage of the analysis examined whether vertical diversification significantly influenced organizational performance among chartered public universities in Kenya. Prior to model estimation, responses to the fifteen Likert scale items measuring vertical diversification were aggregated to generate a composite score for each respondent. Following the analytical framework adopted in this study, the composite scores were dichotomized using the theoretical midpoint of the scale. Composite scores ranging from 15 to 45 were classified as low vertical diversification, while scores ranging from 46 to 75 were classified as high vertical diversification. Similarly, organizational performance was recoded into low organizational performance and high organizational performance categories. This transformation enabled the application of binary logistic regression to estimate the probability of attaining high organizational performance based on the level of vertical diversification.

Prior to interpreting the regression coefficients, the adequacy of the fitted logistic regression model was evaluated using the Omnibus Test of Model Coefficients, the Hosmer and Lemeshow goodness of fit test, the Nagelkerke R^2 statistic, and the minus two log likelihood statistic. The results are presented in Table 3.

Table 3: Model Fitness Statistics for Vertical Diversification

Statistic	Value	Interpretation
Omnibus Test (χ^2)	4.053 (p = 0.044)*	Model statistically significant
Hosmer and Lemeshow Test (χ^2)	1.853 (p = 0.173)*	Good model fit
Nagelkerke R^2	0.039*	Vertical diversification explained 3.9% of the variation in organizational performance
-2 Log Likelihood	166.084*	Model convergence achieved

Model fitness values are presented as obtained from the fitted binary logistic regression model.

The model fitness statistics indicate that the binary logistic regression model was appropriate for predicting organizational performance. The statistically significant Omnibus Test confirms that including vertical diversification significantly improved prediction of organizational performance compared with the intercept only model. The non significant Hosmer and Lemeshow test further indicates that there was no statistically significant difference between the observed and predicted outcomes, demonstrating that the fitted model adequately represented the data. The Nagelkerke R^2 value of 0.039 suggests that vertical diversification explained approximately 3.9 percent of the variation in organizational performance, indicating that although the explanatory power of the model was modest, vertical diversification made a statistically significant contribution to predicting organizational performance.

The estimated regression coefficients are presented in Table 4.

Table 4: Binary Logistic Regression Results for Vertical Diversification

Variable	β	S.E.	Wald	p-value	Odds Ratio
Low Vertical Diversification (RC)	—	—	—	—	1.000
High Vertical Diversification	0.405	0.205	3.903	0.048	1.499

The regression results indicate that vertical diversification exerted a positive and statistically significant influence on organizational performance ($\beta = 0.405$, Wald = 3.903, p = 0.048). The estimated odds ratio of 1.499 indicates that chartered public universities characterized by high levels of vertical diversification were approximately 1.5 times more likely to achieve high organizational performance than universities exhibiting low levels of vertical diversification. These findings suggest that universities strengthening internal institutional capabilities through alumni engagement, research support systems, staff development, strategic collaborations, and complementary institutional services are more likely to enhance operational effectiveness and achieve superior organizational performance.

The findings are consistent with the Resource Based View Theory, which posits that sustainable organizational performance is achieved through the effective acquisition, development, and deployment of valuable organizational resources and capabilities. By strengthening internally controlled support systems and complementary institutional functions, universities enhance their ability to create value, improve resource utilization, and sustain competitive advantage. The findings further corroborate recent empirical evidence indicating that investments in research capacity, staff development, institutional partnerships, and complementary support services strengthen organizational resilience and improve performance within higher education institutions operating in increasingly competitive environments (Hitt, Ireland, & Hoskisson, 2023; Marginson, 2024; Hailu, 2024).

The null hypothesis stating that vertical diversification has no statistically significant influence on the performance of chartered public universities in Kenya was therefore rejected. The findings demonstrate that strengthening vertically integrated institutional support systems constitutes an important strategic pathway for enhancing organizational performance among chartered public universities in Kenya.

4.4 Moderating Influence of Leadership Style on the Relationship Between Horizontal Diversification and Organizational Performance

The second objective of the study was to determine whether leadership style moderated the relationship between horizontal diversification and organizational performance among chartered public universities in Kenya. Prior to model estimation, the composite scores for horizontal diversification and leadership style were dichotomized into low and high categories using the theoretical midpoint of their respective scales. An interaction term was subsequently generated by multiplying the dichotomized horizontal diversification and leadership style variables. The interaction term was then introduced into the binary logistic regression model to determine whether leadership style significantly moderated the relationship between horizontal diversification and organizational performance.

Prior to interpreting the regression coefficients, the adequacy of the moderated logistic regression model was evaluated using the Omnibus Test of Model Coefficients, the Hosmer and Lemeshow goodness of fit test, the Nagelkerke R^2 statistic, and the minus two log likelihood statistic. The results are presented in Table 5.

Table 5: Model Fitness Statistics for the Moderated Logistic Regression Model

Statistic	Value	Interpretation
Omnibus Test (χ^2)	37.495 ($p < 0.001$)	Model statistically significant
Hosmer and Lemeshow Test (χ^2)	0.450 ($p = 0.798$)	Good model fit
Nagelkerke R^2	0.313	The moderated model explained 31.3% of the variation in organizational performance
-2 Log Likelihood	132.641	Model convergence achieved

The model fitness statistics indicate that the moderated binary logistic regression model adequately fitted the data. The statistically significant Omnibus Test ($\chi^2 = 37.495$, $p < 0.001$) demonstrates that the inclusion of leadership style and the interaction term significantly improved prediction of organizational performance relative to the intercept only model. Furthermore, the non significant Hosmer and Lemeshow goodness of fit test ($\chi^2 = 0.450$, $p = 0.798$) indicates that there was no statistically significant difference between the observed and predicted organizational performance outcomes, confirming that the fitted model adequately represented the data.

The Nagelkerke R^2 value of 0.313 indicates that the moderated model explained approximately 31.3 percent of the variation in organizational performance among chartered public universities in Kenya. Compared with the bivariate model (Nagelkerke $R^2 = 0.284$), the inclusion of leadership style and the interaction term increased the explanatory power of the model by 2.9 percentage points, providing empirical evidence that leadership style enhanced the predictive relationship between horizontal diversification and organizational performance.

The estimated regression coefficients are presented in Table 6.

Table 6: Moderated Binary Logistic Regression Results for Horizontal Diversification and Leadership Style

Variable	β	S.E.	Wald	p-value	Odds Ratio
Horizontal Diversification (RC)					
Low Horizontal Diversification (RC)	—	—	—	—	1.000
High Horizontal Diversification	1.742	0.589	8.743	0.003	5.709
Leadership Style (RC)					
Less Effective Leadership Style (RC)	—	—	—	—	1.000
More Effective Leadership Style	1.213	0.433	7.848	0.005	3.364
Horizontal Diversification $\times$ Leadership Style	0.716	0.307	5.440	0.020	2.046

The moderated logistic regression results indicate that horizontal diversification remained a positive and statistically significant predictor of organizational performance after accounting for the moderating influence of leadership style ($\beta = 1.742$, Wald = 8.743, $p = 0.003$). The corresponding odds ratio of 5.709 indicates that chartered public universities characterized by high levels of horizontal diversification were approximately 5.7 times more likely to achieve high organizational performance than universities exhibiting low levels of horizontal diversification.

Leadership style also exerted a positive and statistically significant direct influence on organizational performance ($\beta = 1.213$, Wald = 7.848, $p = 0.005$). The estimated odds ratio of 3.364 suggests that universities characterized by more effective leadership styles were approximately 3.4 times more likely to attain high organizational performance than those operating under less effective leadership styles. Most importantly, the interaction between horizontal diversification and leadership style was positive and statistically significant ($\beta = 0.716$, Wald = 5.440, $p = 0.020$). The interaction odds ratio of 2.046 indicates that leadership style significantly strengthened the positive



relationship between horizontal diversification and organizational performance. Specifically, universities that combined high levels of horizontal diversification with more effective leadership were approximately twice as likely to achieve high organizational performance compared with universities where leadership was less effective.

These findings support the Ansoff Growth Matrix Theory and the Resource Based View Theory. While horizontal diversification creates opportunities for institutional growth through expansion into related academic programmes and educational services, effective leadership provides the strategic capability required to successfully implement these initiatives. Consequently, leadership enhances resource mobilization, strategic coordination, employee commitment, and organizational adaptability, thereby amplifying the performance benefits derived from horizontal diversification.

The findings are consistent with recent empirical evidence indicating that effective leadership enhances the implementation of strategic management practices by fostering innovation, improving organizational coordination, and strengthening institutional performance (Hitt, Ireland, & Hoskisson, 2023; Marginson, 2024; Bush, 2023).

The null hypothesis stating that leadership style has no statistically significant moderating influence on the relationship between horizontal diversification and the performance of chartered public universities in Kenya was therefore rejected. The findings demonstrate that effective leadership significantly strengthens the contribution of horizontal diversification to organizational performance among chartered public universities in Kenya.

5. CONCLUSION

This study examined the influence of horizontal diversification on the performance of chartered public universities in Kenya and investigated the moderating role of leadership style. The findings established that chartered public universities have increasingly adopted horizontal diversification through the expansion of academic programmes, flexible learning pathways, professional training, and other market responsive educational offerings. The binary logistic regression analysis demonstrated that horizontal diversification exerted a positive and statistically significant influence on organizational performance, indicating that universities implementing higher levels of related diversification were more likely to achieve superior organizational performance.

The study further established that leadership style significantly moderated the relationship between horizontal diversification and organizational performance. The positive and statistically significant interaction effect demonstrates that effective leadership strengthens the contribution of horizontal diversification to institutional performance by enhancing strategy implementation, resource mobilization, organizational coordination, and institutional adaptability. The findings therefore suggest that diversification strategies are most effective when supported by leadership practices that facilitate strategic alignment and organizational change.

The study concludes that horizontal diversification constitutes an important strategic pathway through which chartered public universities can strengthen institutional competitiveness, improve financial sustainability, and enhance organizational performance. However, the successful realization of these benefits depends substantially on the presence of effective leadership capable of translating diversification initiatives into improved organizational outcomes.

6. IMPLICATIONS OF THE STUDY

The findings make several important contributions to strategic management theory and higher education practice. Theoretically, the study extends the application of the Ansoff Growth Matrix Theory and the Resource Based View Theory by demonstrating that leadership capability strengthens the performance outcomes associated with horizontal diversification. The findings therefore contribute to the growing body of literature emphasizing that organizational resources and strategic initiatives should be viewed as complementary rather than independent drivers of organizational performance.

From a managerial perspective, the findings suggest that university managers should pursue horizontal diversification through the introduction of market responsive academic programmes, executive education, professional certification courses, and flexible learning pathways while simultaneously strengthening leadership capacity to support effective strategy implementation. Investments in diversification should therefore be accompanied by deliberate efforts to enhance strategic leadership, organizational coordination, and institutional adaptability.

At the policy level, the findings underscore the need for the Commission for University Education, the Universities Fund, and university councils to formulate policies that encourage responsible diversification while strengthening leadership development within public universities. Such initiatives are likely to improve institutional resilience, reduce dependence on government funding, and promote the long term sustainability of chartered public universities in Kenya.



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