Influence of Geographical Diversification on Sustainable Performance of Private Universities in Kenya

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Abstract

Purpose: Both public and private universities have been obligated to revamp their strategies, including but not limited to diversification. This study aimed to assess the influence of geographical diversification on sustainable performance of private universities in Kenya.

Methodology: The research adopted post positivism philosophy. The target population was 1444 respondents comprising senior management of private universities which included vice chancellors, their deputies, registrars and key section heads. The sample size was 313 respondents determined using Taro Yamane's formula. Structured questionnaires were used as the data collection instruments. 246 questionnaires were dully filled and returned. The data collected was quantitative which was then analyzed using SPSS and the results presented in form of descriptive and inferential data.

Findings: The results indicated that geographical diversification explains 17.5 per cent of sustainable performance.

Unique Contribution to Theory, Practice and Policy: From the results, the study recommended greater investment in Open and Distance Learning platforms and virtual learning technologies is imperative to accommodate both local and international students.

Keywords: *Geographical Diversification, Higher Education Sustainability, Educational Institutions*

JEL Codes: *L14, I29, I21*

INTRODUCTION

Globally, higher education institutions are grappling with the twin challenges of globalization and intensified competition, which have compelled universities to adopt diversification strategies to remain viable. Diversification, including geographical expansion, has been recognized as a critical survival tool in sustaining institutional performance. European universities, for instance, have embraced strategies such as international campuses, e-learning platforms, and diversity initiatives to enhance competitiveness and ensure sustainable performance (Anna & Thomas, 2020). Similarly, universities in Italy that adopted technological and geographical diversification gained competitive advantage compared to those that did not (Breschi et al., 2020). These global experiences underscore the importance of geographical diversification in broadening market reach and strengthening institutional resilience.

Regionally, African universities have also turned to diversification as a response to funding constraints, rising student demand, and the need to align education with labour market requirements. Nigerian studies reveal that diversified organizations outperform undiversified ones in terms of profitability and sustainability (Oladimeji & Udosen, 2019). In Zambia, lack of revenue diversification was found to hinder sustainability, prompting calls for universities to exploit income-generating activities and geographical expansion (Masaiti, 2018). Similarly, South African households' livelihood diversification strategies highlight the broader relevance of diversification for sustainability (Mishi et al., 2020). These findings suggest that geographical diversification through outreach beyond local markets and cross-border program delivery can serve as a strategic pathway for African universities to enhance competitiveness and sustainable performance.

In Kenya, private universities face acute sustainability challenges due to their reliance on tuition fees and limited government support. The proliferation of universities, coupled with declining student enrollment following education reforms, has intensified competition and strained financial viability (Republic of Kenya, 2017; CUE, 2019). Notably, the closure of several satellite campuses revealed weaknesses in earlier geographical expansion efforts, often linked to poor location choices, inadequate market research, and high overhead costs that outweighed revenue potential (CUE, 2020). These failures underscore the need for a more evidence-based approach to diversification, where sustainability is anchored in strategic planning, cost efficiency, and alignment with student demand. At the same time, the government's 100% transition policy has increased pressure on public universities to absorb secondary school graduates, thereby reducing the intake capacity available to private institutions. This policy shift, combined with declining enrollments, has heightened financial strain on private universities. Within the framework of Vision 2030, which emphasizes globally competitive education and human capital development, geographical diversification emerges not only as a growth strategy but also as a survival imperative. By expanding beyond local markets to attract regional and international students, private universities in Kenya can strengthen resilience against domestic enrollment fluctuations and align with national development goals (Nderitu et al., 2018).).

Problem Statement

Universities are expected to provide globally competitive education, training, and research while ensuring sustainable performance through strategies that balance economic viability, social responsibility, and environmental stewardship (Long, 2020). In the context of globalization and Vision 2030, private universities in Kenya are anticipated to expand their

reach beyond local markets, attract diverse student populations, and contribute to national development by leveraging geographical diversification as a strategic tool for sustainability.

However, empirical data reveals that private universities in Kenya face acute sustainability challenges. Declining student enrollment following education reforms, coupled with over-establishment of institutions, has led to financial strain and closure of satellite campuses; six private and twenty-eight public between 2016 and 2020 (CUE, 2020). Importantly, these closures were often linked to unsustainable expansion models characterized by poor location choices, inadequate market analysis, and high overhead costs that outweighed revenue potential. Thus, the failure of past satellite campuses does not negate the relevance of geographical diversification; rather, it highlights the need for more strategic, evidence-based approaches that prioritize market demand, cost efficiency, and alignment with institutional strengths. With private universities relying almost entirely on tuition fees and receiving minimal government support, their ability to sustain operations has been severely compromised (Republic of Kenya, 2017; CUE, 2019). This situation underscores the pressing need for alternative strategies such as carefully planned geographical diversification to stabilize revenue streams and enhance resilience.

The stakeholders most affected by this problem are private universities, whose management teams struggle to maintain financial viability, retain staff, and deliver quality programs amidst declining enrollments. Students are equally impacted, as reduced program offerings and closure of campuses limit access to higher education opportunities. The broader Kenyan society also suffers, given the critical role universities play in producing skilled manpower for socio-economic development (Nderitu et al., 2018).

Previous studies have examined diversification strategies in various contexts. Globally, research has focused on SMEs, construction firms, and agricultural enterprises (Budiato et al., 2022; Arsan et al., 2023). Regionally, Nigerian and Zambian studies have highlighted the positive impact of diversification on firm performance and sustainability (Oladimeji & Udosen, 2019). Locally, Kenyan studies have explored diversification in public universities, cosmetic firms, banks, and telecommunications companies (Njoro, 2017; Mathooko & Ogutu, 2014; Ndege, 2018; Nyakora, 2017; Mwangi, 2016). While these studies affirm the relevance of diversification, few have specifically addressed geographical diversification in private universities.

Therefore, despite evidence linking diversification strategies to performance, there remains limited empirical research on the influence of strategically executed geographical diversification on the sustainable performance of private universities in Kenya. This study sought to fill that gap by investigating how geographical diversification, when guided by market intelligence, cost efficiency, and alignment with Vision 2030, can enhance resilience, broaden market reach, and secure sustainable performance for private universities in Kenya.

Theoretical Framework

Institutional Theory, advanced by DiMaggio and Powell (1983), posits that organizations adopt certain practices in response to external pressures, coercive, mimetic, and normative in order to gain legitimacy and ensure survival. Firms, including universities, are influenced by societal expectations, regulatory frameworks, and competitive dynamics, which drive them to align their strategies with recognized economic, social, and environmental standards (Scott, 2004). In this context, geographical diversification can be understood as a strategic response to institutional pressures: universities expand beyond local markets, establish satellite campuses,

or attract international students to meet stakeholder expectations, secure legitimacy, and enhance sustainable performance.

Applied to private universities in Kenya, Institutional Theory explains the transition from pressure to choice. Declining enrollments and limited government funding represent coercive pressures, while heightened competition and imitation of successful peers reflect mimetic pressures. Normative expectations from regulators and society further reinforce the need for universities to demonstrate relevance and sustainability. Faced with these pressures, universities make strategic choices, such as geographical diversification, to broaden market reach, stabilize revenue streams, and strengthen legitimacy. This transition illustrates that diversification is not merely reactive but a deliberate strategic response shaped by institutional constraints and opportunities.

Thus, Institutional Theory provides a robust lens for understanding how external pressures translate into strategic choices that enhance resilience and long-term sustainability of private universities in Kenya. By framing geographical diversification as the outcome of institutional pressures, the theory clarifies the pathway from coercive and mimetic forces to strategic decision-making, ensuring that universities remain viable and competitive in a dynamic environment.

Conceptual Framework

The framework below shows the interrelationship between the independent variable (Geographical diversification) and the dependent variable (Sustainable Performance of Private Universities).

Independent variable   **Dependent variable**

Geographical diversification
- Internal diversification
- External diversification
- Span of Campuses/colleges
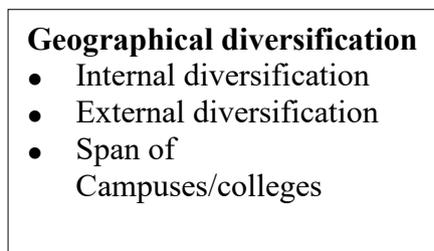
Sustainable Performance of Private Universities
- Graduation rates
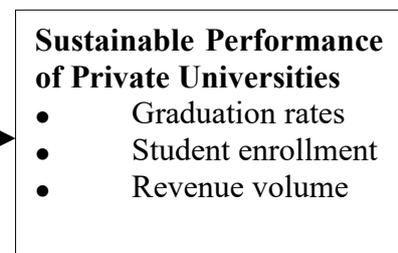- Student enrollment
- Revenue volume

Figure 1: Conceptual Framework

Empirical Review

A study conducted in Portugal adopted a longitudinal approach to examine program diversity in higher education. The findings revealed significant institutional competition between public and private universities, with geographical diversification recommended as a strategy to enhance sustainable performance (Teixeira et al., 2012). This study highlights the importance of geographical diversification but presents a contextual gap since it focused on European universities rather than Kenyan private universities. In China, Shen, Wang and Su (2019) analyzed diversification strategies in 200 universities using regression and Herfindahl indices. Their results showed an inverse U-shaped relationship between diversification and performance, recommending that universities adopt either product or geographical diversification but not both simultaneously. This study provides methodological insights but leaves a contextual gap, as it did not address the specific challenges of private universities in developing economies such as Kenya.

Valis-Boas and Gonzalez (2018) examined diversification strategies among 291 organizations across Eurozone countries. Using Tobin-q and regression analysis, they found that excessive international diversification negatively impacted performance due to difficulties in transferring knowledge and managing institutional practices in host countries. Moderate geographical diversification, however, was associated with better performance. This study underscores the risks of over-expansion but presents a sectoral gap since it focused on manufacturing organizations rather than universities.

Haim (2018) conducted a qualitative study on Malaysian companies to explore the significance of geographical diversification. The findings revealed inconclusive results, noting that diversification could be profitable but risky if adopted without adequate market knowledge. This study highlights the uncertainty surrounding geographical diversification outcomes, presenting a conceptual gap on how universities can mitigate such risks in their expansion strategies.

In Kenya, Okari (2018) examined the effect of geographical diversification on the performance of universities. The study revealed that geographical diversification had only a small influence on performance, recommending that universities focus less on physical expansion through branches and campuses. While this study provides local evidence, it presents a conceptual gap by not fully exploring how geographical diversification could be strategically leveraged to enhance sustainable performance in private universities. Further evidence from Mutinda (2016) and Alando (2016) affirmed that physical expansion increases student enrollment, while Mathooko and Ogutu (2015) emphasized the need for proactive approaches such as setting up campuses in underserved regions to boost enrollment. These studies demonstrate the potential of geographical diversification to improve performance but leave a gap in empirical evidence on its long-term sustainability impact in private universities.

In Kenya, Mutinda, Okello, Otinga, and Kitonga (2024) affirmed that vertical diversification significantly influences sustainable organizational performance in chartered private universities, particularly when aligned with institutional capacity and market demand. Similarly, Riechi (2024) emphasized that universities must adopt revenue diversification initiatives to prepare for the competency-based curriculum transition, noting that resource-intensive reforms demand innovative approaches to sustainability. These studies demonstrate the potential of geographical diversification to improve performance but leave a gap in empirical evidence on its long-term sustainability impact in private universities.

Research Gap

Empirical studies have examined geographical diversification and its influence on organizational performance across different contexts. Teixeira et al. (2012) recommended geographical diversification as a viable strategy for sustainable performance in Portuguese higher education, but their focus was on European institutions, leaving a contextual gap in developing economies. Shen, Wang, and Su (2019) found that Chinese universities should adopt either product or geographical diversification, but not both, highlighting methodological insights while leaving a gap in understanding how geographical diversification alone affects private universities in Kenya. Valis-Boas and Gonzalez (2018) revealed that excessive international diversification negatively impacts performance, while moderate geographical diversification yields better outcomes. However, their study was based on manufacturing organizations, presenting a sectoral gap in higher education. Haim (2018) emphasized the inconclusive nature of geographical diversification outcomes in Malaysian companies, noting

that profitability depends on prior market knowledge. This introduces a conceptual gap on how universities can strategically mitigate risks when expanding geographically.

Locally, Okari (2018) found that geographical diversification had only a small influence on the performance of Kenyan universities, recommending less emphasis on physical expansion. However, more recent Kenyan evidence challenges this limited view. Mutinda, Okello, Otinga, and Kitonga (2024) demonstrated that diversification strategies significantly influence sustainable organizational performance in private universities when aligned with institutional capacity and market demand. Similarly, Riechi (2024) emphasized that diversification initiatives are essential for preparing universities for the competency-based curriculum transition, which has intensified resource demands. These findings suggest that the small influence observed by Okari (2018) reflected conditions before the pandemic and major policy reforms. In the current environment, diversification is not merely physical expansion but a strategic response to heightened financial pressures, declining enrollments, and Vision 2030 priorities. The present study therefore expects different results by situating geographical diversification within this new context, where it is increasingly critical for resilience and long-term sustainability.

Therefore, although existing literature demonstrates both the opportunities and risks of geographical diversification, most studies have focused on contexts outside private universities in Kenya or have produced inconclusive results. This creates a clear research gap on the precise influence of geographical diversification on the sustainable performance of private universities in Kenya, which the current study seeks to address.

METHODOLOGY

This study adopted a post-positivist philosophy and an explanatory research design, targeting top and middle-level management of private universities in Kenya. The unit of analysis comprised the 21 chartered private universities, while the unit of observation included Vice Chancellors, Deputy Vice Chancellors, Registrars, Finance Managers, Human Resource Managers, Deans, Directors, Heads of Departments, and senior lecturers. The sampling frame was drawn from the list of all private universities in Kenya, and stratified sampling was used to ensure representation. A sample size of 313 respondents was determined using Taro Yamane's formula. Primary data was collected using structured questionnaires administered through the drop-and-pick-later method. A pilot test was conducted on 10% of the study population, involving two universities and 31 respondents, to assess the reliability and validity of the instruments. Reliability was measured using Cronbach's alpha, while construct validity was confirmed in consultation with subject experts. The study used the Shapiro -Wilk test for testing the normality of data, t-Test to examine whether there is some significant linear relationship between the independent and dependent variables and the Breusch-Pagan (BP) test was employed to assess the presence of heteroscedasticity. Quantitative data was analyzed using the Statistical Package for Social Sciences (SPSS) and Microsoft Excel. Descriptive statistics were used to summarize the data, while correlation and regression analyses were employed to examine the effect of geographical diversification on the sustainable performance of private universities.

$$Y = \beta_0 + \beta_1X_1 + \varepsilon_i \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{(i)}$$

RESULTS

Response Rate

The researcher distributed a total number of 313 questionnaires to the targeted respondents. Table 1 shows the response rate results.

Table 1: Response Rate

Respondents	Sample size	Dully filled	Return rate (%)
Vice Chancellors	5	0	0
Deputy Vice Chancellors	12	8	66.7
Registrars	4	3	75
Finance managers	4	3	75
Human Resource Managers	4	3	75
Deans	16	13	81.3
Directors	21	16	76.2
HODs	122	97	79.5
Senior Lecturers	125	103	82.4
Total sample	**313**	**246**	**78.6%**

Out of these 246 questionnaires were successfully filled and handed back to the researcher which gave a 79% response rate. According to Baruch and Holtom (2008) a minimum average level of response rate of 52.7 percent is good; with any rates above 70% deemed to be excellent. Therefore, the response rate obtained for this study (79%) was adequate to draw conclusions.

Descriptive Statistics

Geographical Diversification

The fourth objective of this study was to establish the influence of geographical diversification on sustainable performance of private universities in Kenya. To achieve this, the researcher asked the respondents about internal diversification, external diversification and span of campuses/colleges of sustainable performance of private universities in Kenya. The study findings were as detailed in the subsequent sub-section. The descriptive analysis of the geographical diversification findings are shown in Table 2.

Table 2: Descriptive Analysis for Geographical diversification

Statements on Geographical diversification adopted by Private Universities	5	4	3	2	1	Mean	S.D
The university has established campuses/constituent colleges within the Main University's County of operation	15.4% (38)	39.8% (98)	35.8% (88)	2.4% (6)	6.5% (16)	3.55	1.00
The university has campuses/constituent colleges outside the Main University's County of operation to increase student acquisition	15.4% (38)	53.7% (132)	24.4% (60)	2.4% (6)	4.1% (10)	3.74	0.89
The university has campuses/constituent colleges outside the Main University's Country of operation	11.4% (28)	65.9% (162)	9.8% (24)	8.9% (22)	4.1% (10)	3.72	0.93
The university has introduced Open Distance Learning (ODEL) to reach out to distant students and attract new students	20.3% (50)	48% (118)	22% (54)	5.7% (14)	4.1% (10)	3.75	0.98
Flexible virtual programs have been established to improve accessibility and increase student retention	14.6% (36)	54.5% (134)	16.3% (40)	10.6% (26)	4.1% (10)	3.65	0.99

Average level of Geographical diversification	Mean(%Mean)	Std. Dev.	Std. Error of mean	Minimum	Maximum
	3.68 (73.6%)	.65743	.04192	1.80	5.00

The results in Table 2 show the descriptive analysis of geographical diversification among private universities in Kenya that revealed an overall mean score of 3.68 (73.6%), indicating that geographical diversification strategies are adopted to a moderate-to-great extent. The standard deviation of 0.657 shows relatively low variability in responses, suggesting consistency across institutions. The standard error of the mean was 0.0419, confirming reliability of the average score. The minimum value recorded was 1.80, while the maximum was 5.00, demonstrating that while some universities adopt geographical diversification to a very small extent, others implement it to a very great extent.
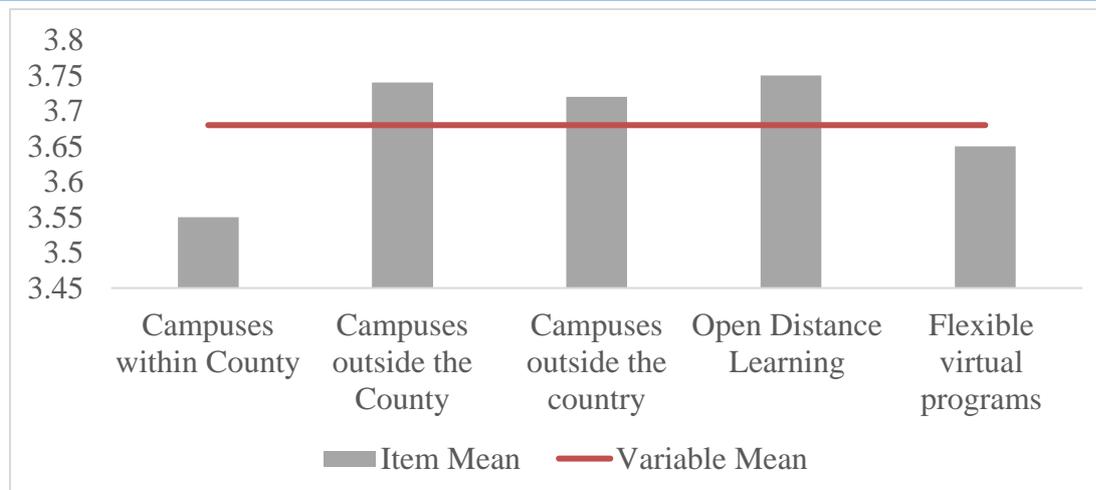
Figure 1: Geographical Diversification Mean Summary

The results show that the average level of geographical diversification among private universities in Kenya was 73.6% (mean = 3.68), reflecting adoption at a moderate to great extent. The relatively low standard deviation of 0.66 indicates consistency in responses, with most universities falling between moderate and great levels of diversification. As illustrated in the mean summary chart, strategies such as establishing campuses outside the county of operation, opening campuses outside the country, and introducing Open Distance Learning (ODEL) recorded higher mean values than the overall average, highlighting their stronger role in student acquisition and sustainability. Flexible virtual programs also scored above average, while establishing campuses within the main county of operation fell below the overall mean, suggesting that external expansion and digital learning approaches are more impactful in driving sustainable performance.

Sustainable Performance of Private Universities in Kenya

The researcher sought to evaluate sustainable performance in reference to the following indicators; graduation rates, student enrollment and revenue volume. The results are as shown in Table 3.

Table 3: Sustainable Performance of Private Universities

Sustainable Performance of Private Universities	5	4	3	2	1	Mean	S.D
The university has high student enrollment	21.1% (52)	33.3% (82)	35% (86)	6.5% (16)	4.1% (10)	3.61	1.02
Unique skills offered by the university have increased the employability of our students	6.5% (16)	14.6% (36)	35% (86)	38.2% (94)	5.7% (14)	2.78	0.99
The university has a high graduation rate of students.	11.4% (28)	44.7% (110)	23.6% (58)	16.3% (40)	4.1% (10)	3.43	1.02
High number of student enrollment has increased university revenue from student fees	17.9% (44)	49.6% (122)	17.9% (44)	13.8% (34)	0.8% (2)	3.70	0.95
Unique programs offered by the university have attracted new students	22% (54)	22% (54)	34.1% (84)	17.9% (44)	4.1% (10)	3.40	1.13
The university offers unique competitive programs which has increases student enrollment	17.9% (44)	24.4% (60)	35.8% (88)	17.9% (44)	4.1% (10)	3.34	1.09

Average level of Sustainable Performance	Mean(%Mean)	Std. Dev.	Std. Error of mean	Minimum	Maximum
	3.38 (67.60%)	.816729	.052073	1.167	4.667

The findings indicate that the average level of sustainable performance among private universities in Kenya was 67.6% (mean = 3.38), reflecting a moderate extent of achievement. The relatively low standard deviation of 0.82 shows some variation in responses, ranging from a minimum of 1.17 (very little extent) to a maximum of 4.67 (very great extent). Key indicators such as high student enrollment, graduation rates, increased revenue from student fees, and attraction of new students through unique programs recorded mean values above the overall average, suggesting stronger contributions to sustainability. Conversely, unique competitive programs and unique skills enhancing student employability scored below the average mean, highlighting weaker areas in sustainable performance across private universities.
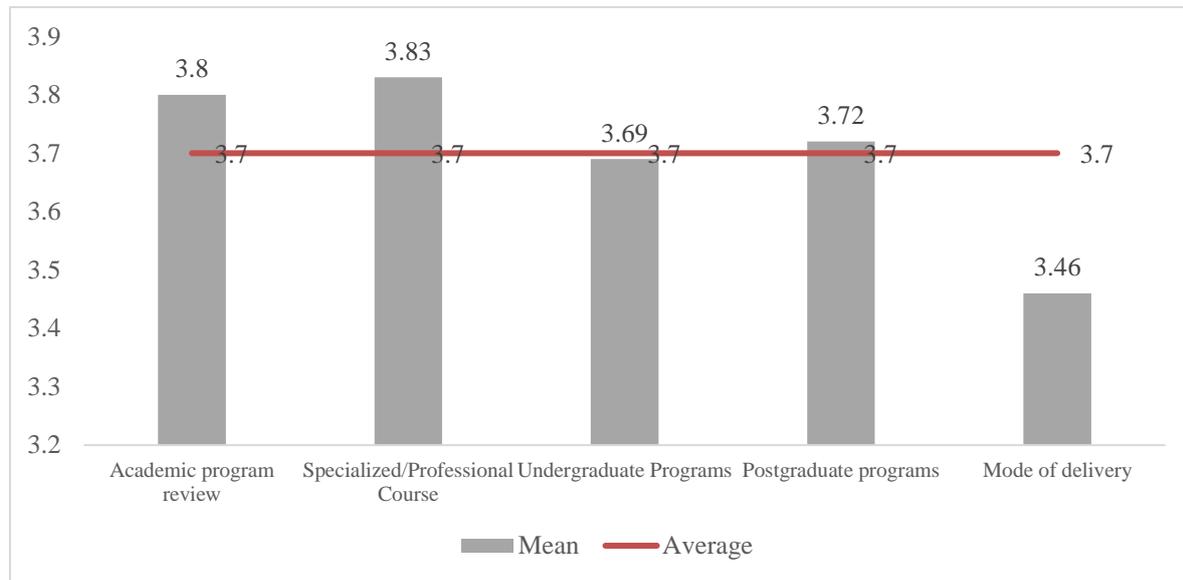
Figure 2: Mean of Sustainable Performance of Private Universities

Private universities in Kenya operate in an increasingly competitive environment, requiring them to strategically position themselves to achieve sustainable performance. This performance entails maintaining effective academic programs, curricula, and learning environments that equip students with knowledge, values, and skills to meet future challenges (Ekpoh & Okpa, 2017). It is influenced by governance structures, institutional culture, and external pressures, which often make sustainability complex (Gohari, Medalen, & Aranya, 2019). Ultimately, the ability of these universities to attract students, enhance their reputation, and satisfy stakeholders depends on the quality of teaching and research, both of which are central to achieving long-term sustainability (Zangoueinezhad & Moshabaki, 2011).

Tests of Assumptions

The study dataset was tested for purposes of inference or prediction, if it satisfied all the assumptions of this model.

Normality Test

To test for normality, the study adopted the Shapiro-Wilk test to test for the assumption of normal distribution of the study variables; sustainable performance of private universities, and geographical diversification. The null hypotheses were that; the scores for the sustainable performance of private universities, and geographical diversification were not significantly different from a normal distribution. The findings were as reported in Table 3.5.

Table 4: Normality Test Results

Variable Construct		Shapiro-Wilk test		
		Statistic (W)	df	p-value
1.	Sustainable performance	.804	246	.120
5.	Geographical diversification	.830	246	.700

The Shapiro-Wilk test results shown above (Table 4) indicate that the p-values for both sustainable performance was greater than 0.05 level of significance (W=0.804, p-value=0.120>0.05). Therefore, the null hypothesis was rejected and a conclusion was drawn

that sustainable performance was significantly normally distributed. The Shapiro-Wilk test results shows that the p-value for geographical diversification was greater than 0.05 level of significance; geographical diversification (W=0.830, p-value=0.910>0.05). The null hypothesis was rejected and a conclusion that the score for geographical diversification was significantly normally distributed.

Linearity

Normal probability plots were adopted in this study to test for linearity between geographical diversification and sustainable performance of private universities in Kenya. The findings of this test were as shown in figure 3.3.
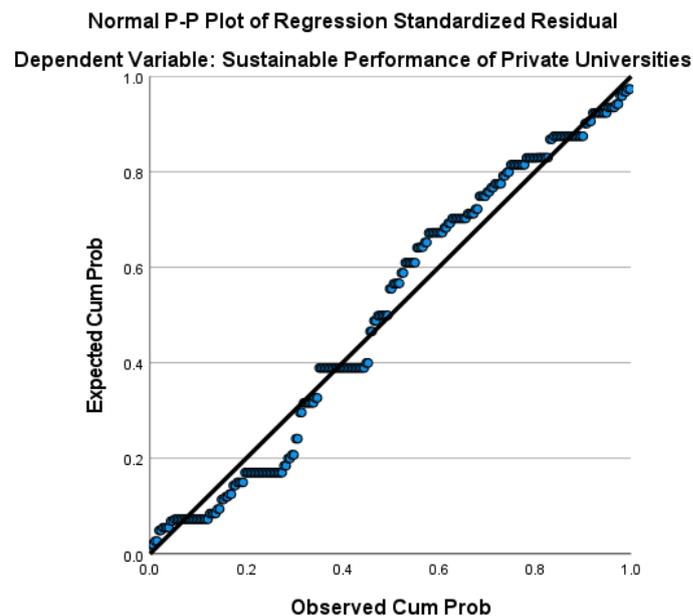

Figure 3: Normal P-P Plot for Geographical Diversification

From the results as reported in figure 3.3, the points lie along a reasonably straight diagonal line from bottom left to top right, an indication of a linear relationship between geographical diversification and sustainable performance of private universities in Kenya, therefore the assumption for linearity is confirmed.

Homoskedasticity

Homoscedasticity test refers to the assumption that the dependent variable exhibits similar amounts of variance across the range of values for an independent variable. Homoskedasticity in this study was tested using Breusch-Pagan Test for heteroskedasticity as shown in Table 3.5.

Table 5: Breusch-Pagan Test for Heteroskedasticity

Chi-Square	df	Sig.
.567	1	.451

a. Dependent variable: Sustainable Performance
b. Tests the null hypothesis that the variance of the errors does not depend on the values of the independent variable.
c. Predicted values from design: Intercept + Geographical Diversification

The Breusch-Pagan test produced a Chi-Square value of 0.567 with 1 degree of freedom and a significance level of 0.451. Since the p-value (0.451) is greater than the conventional threshold of 0.05, we fail to reject the null hypothesis that assumes homoskedasticity. This implies that the variance of the residuals is constant and does not depend on the values of the independent variable (geographical diversification). Therefore, the regression model is not affected by heteroskedasticity, meaning that the estimates obtained are efficient, reliable, and can be interpreted without bias from unequal error variances. This strengthens the validity of the regression analysis and supports the robustness of the model for making statistical inferences.

Test for Outliers

Test for Outliers in Sustainable performance Scores

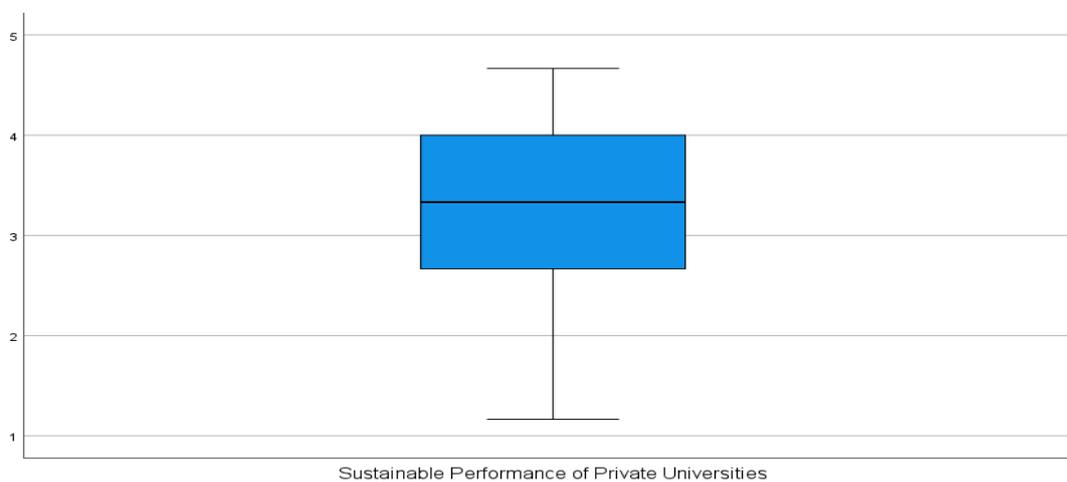The test findings for this assumption were as shown below in Figure 3.4.

Figure 4: Test for Presence of Outliers for Sustainable Performance

The results in figure 3.4 show there were no presence of outliers nor extreme values in the data scores for sustainable performance scores since no value extended more than the 1.5 box-lengths from the edge of the box plots therefore this assumption holds.

Test for Outliers in Geographical Diversification Scores

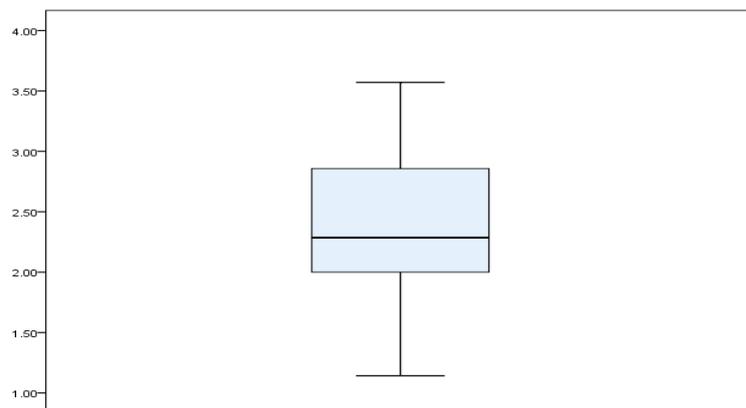The test findings for this assumption were as shown below in Figure 5.

Figure 5: Test for Presence of Outliers for Geographical Diversification

The results further indicate there were no presence of outliers nor extreme values in the data scores for Geographical diversification since no value extended more than 1.5 box-lengths from the edge of the box plots therefore this assumption holds.

Autocorrelation

Durbin-Watson statistic was obtained to examine the independence of errors. The value D lies between 0 and 4. When it is correlated residuals, it approaches 4. A value of D between 1 and 3 is usually considered to be acceptable, (Kothari & Garg, 2014). Since the value of Durbin-Watson was between 1 and 3, there was no problem of autocorrelation.

Table 6: Autocorrelation

Std. Error of the Estimate	Durbin-Watson
.23415	2.030

Correlation Analysis

Correlation analysis is used to determine the strength and direction of the relationship between geographical diversification and the sustainable performance and the findings were as shown in Table 7 below:

Table 7: Correlation Summary Matrix

		Sustainable performance	Geographical
Sustainable performance	Pearson Correlation	1	
	P-value		
	N	246	
Geographical diversification	Pearson Correlation	.419**	1
	P-value	.000	
	N	246	246

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

A correlation coefficient of 0.419** implied that there is significant positive relationship between geographical diversification and sustainable performance of private universities in Kenya. This implies that increase in geographical diversification would results to significant increase in sustainable performance of private universities in Kenya. Teixeira *et al.* (2012) adopted a longitudinal approach in exploring program diversity in Portuguese higher education in the last decades and significant institutional competition in recent years. The study provided

a detailed analysis of the evolution of diversification of public and private sectors as well as the university polytechnic subsectors; thus, recommended use of geographical diversification for sustainable performance of universities.

Regression Analysis

Linear Regression Geographical Diversification and Sustainable Performance of Private Universities

The fourth hypothesis of the study sought to establish the influence of geographical diversification on sustainable performance of private universities in Kenya, the researcher sought to test for the following hypothesis;

H_{04} Geographical diversification does not significantly influence sustainable performance of private universities in Kenya.

The findings were as shown in Table 8.

Table 8: Linear Regression Analysis between Geographical Diversification and Sustainable Performance

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.419ᵃ	.175	.172	.743252

a.   Predictors: (Constant), Geographical diversification
b.   Dependent Variable: Sustainable performance

ANOVAᵃ					
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	28.635	1	28.635	51.835	.000ᵇ
	Residual	134.791	244	.552		
	Total	**163.426**	**245**			

a. Dependent Variable: Sustainable performance
b. Predictors: (Constant), Geographical diversification

Coefficientsᵃ						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		β	Std. Error	Beta		
1	(Constant)	1.462	.270		5.415	.000
	Geographical diversification	.520	.072	.419	7.200	.000

a. Dependent Variable: Sustainable performance

The ANOVA test results as indicated in Table 8 were F $(1, 244)$ =51.835, P = 0.000< 0.05; an indication that the Simple Linear Regression model was a good fit to our dataset. The model (geographical diversification) was able to explain 17.5% of the variation in sustainable performance of private universities in Kenya as indicated by the R Square = 0.175 as shown in the model summary of Table 8. The regression coefficient results showed that β= 0.520, *t* =7.200*, p=0.000<0.05*; hence geographical diversification had a statistically significant influence on the sustainable performance of private universities in Kenya.

Geographical diversification had a positive standardized beta coefficient = 0.520 as shown in the coefficients results of Table 8; this indicates that an improvement in the geographical diversification by a unit was likely to result to an improvement in the sustainable performance of private universities in Kenya by 0.520 units. To predict the sustainable performance of private universities in Kenya when given the level of Geographical diversification, the study used the following model;

Sustainable performance= 1.462 + 0.520 Geographical diversification

Geographical diversification is viewed as a critical growth strategy for organizations with limited scope, enabling them to broaden their client base and exploit new market opportunities (Barringer & Greening, 2010; Zahra et al., 2011). However, past research has produced inconclusive results, with some studies finding only a small influence of geographical diversification on sustainable performance in Kenyan universities (Okari, 2018), while evidence also links proximity to campuses with higher student enrollment (Mutinda, 2016). At the corporate level, Eiteman et al. (1998) observed that multinational corporations gradually increase leverage with foreign involvement, though geographical diversification can raise coordination costs due to information asymmetry between headquarters and divisions. Overall, while geographical diversification offers opportunities for growth and enrollment, its impact on sustainability remains mixed and context-dependent.

Summary of Hypothesis Tested

H_{01}: *Geographical diversification does not significantly influence sustainable performance of private universities in Kenya.*

The results in Table 7 shows a positive and significant correlation between geographical diversification and sustainable performance (r=0.419, p=0.000). Simple linear regression confirms there was direct significant influence of geographical diversification on sustainable performance as it explained 17.5% variation. Therefore, there was enough evidence to reject the null hypothesis and accept that for each increase in geographical diversification, there is 0.177 units increase in sustainable performance of private universities in Kenya.

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Summary

The objective of the study sought to determine the influence of geographical diversification on sustainable performance of private universities in Kenya, focusing on internal diversification, external diversification, and the span of campuses or colleges. Descriptive statistics revealed that geographical diversification was adopted to a great extent, with a mean of 3.68, as universities reported establishing campuses within and outside their counties, expanding beyond national borders, introducing Open Distance Learning (ODEL), and offering flexible virtual programs. Inferential analysis confirmed a direct and significant relationship between geographical diversification and sustainable performance, with the coefficient of determination (R^2) showing that changes in performance were substantially explained by diversification. Regression results further indicated that, when controlling for other variables, a unit increase in geographical diversification led to a significant improvement in sustainable performance, establishing it as a key predictor of sustainability in private universities.

Conclusion

The study established that geographical diversification significantly influenced sustainable performance of private universities in Kenya hence, the fourth null hypothesis was rejected. This implied that increase in internal diversification, external diversification and Span of Campuses/colleges would result to improvement in graduation rates, student enrollment and revenue volume. This was illustrated by the universities having campuses/constituent colleges outside the Main University's County of operation to increase student acquisition; introducing Open Distance Learning to reach out to distant students and attract new students and flexible virtual programs have been established to improve accessibility and increase student retention.

Recommendations

Geographical diversification in private universities would mean expanding their reach by establishing satellite campuses or constituent colleges in regions where demand for higher education remains high. To complement this, greater investment in Open and Distance Learning platforms and virtual learning technologies is imperative to accommodate both local and international students. Flexible and mobile study programs that allow learners to study across multiple campuses or through digital platforms will also amplify accessibility and retention. Furthermore, cross-border expansion within East Africa, through strategic partnerships or franchise models, would enable universities to tap into regional markets.

Areas for Further Research

First, future studies should investigate the long-term sustainability effects of geographical diversification strategies such as Open Distance Learning and virtual programs to determine whether they remain effective over time. Second, researchers could explore the interaction between geographical diversification and other diversification strategies like product or program diversification, to assess whether combined approaches enhance or hinder performance. Third, further inquiry is needed into the financial and stakeholder implications of geographical diversification, including its impact on capital structure, resource allocation, and perceptions of legitimacy among students, faculty, and regulators.

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