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RESEARCH ARTICLE

INFLUENCE OF ESTABLISHING BALANCED CONTROLS ON THE PERFORMANCE OF PUBLIC UNIVERSITIES IN KENYA

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ABSTRACT

This study examined the influence of balanced controls on the performance of public universities in Kenya. A correlational research design was employed, with data collected from 246 respondents comprising university management board members and senate members across 18 public universities, yielding a response rate of 82.8%. The study found a strong positive relationship between balanced controls and university performance (r = 0.645, p < 0.001), with balanced controls explaining 41.6% of the variance in university performance. The findings suggest that while universities excel in individual control components, they struggle with establishing balanced, integrated systems that effectively harmonize different organizational demands. The study recommends strengthening financial oversight mechanisms, streamlining internal business processes, enhancing strategic control integration, and promoting a more balanced approach to customer demands and financial constraints to improve overall university performance. By implementing these recommendations, public universities in Kenya can leverage the strong link between balanced controls and performance to achieve sustained excellence.

Keywords: Balanced controls, university performance, balanced scorecard, strategic leadership, higher education, Kenya

INTRODUCTION

Effective organizational culture stands as a cornerstone of strategic leadership practices, wielding significant influence over how an organization operates and the behaviors of its employees (Willis et al., 2022). This intricate concept encompasses shared beliefs, customs, and practices that shape the character of an organization, serving as a guiding force for employee actions and attitudes. In essence, organizational culture sets the tone for how employees collaborate, make decisions, and approach their professional responsibilities, providing the backdrop against which the drama of business unfolds (Abdi, 2018).

Organizational culture carries profound implications for an organization's performance and its capacity to thrive in a dynamic business landscape (Saud et al., 2020). The distinctive character of

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Abeid et .al.

an organizational culture lies in its ability to guide how employees make decisions, collaborate, and fulfil their work responsibilities. In an organization that values innovation and embraces calculated risk-taking, employees tend to be more inclined to seek out new ideas and contribute to the pursuit of the organization's objectives. Conversely, in a culture characterized by risk aversion, innovation may be stifled, and the organization may resist change, potentially hampering its growth and adaptability.

Strategic leaders play a pivotal role in shaping and nurturing organizational culture to gain a competitive edge in the marketplace (Dohamid et al., 2020). They serve as the architects of the cultural framework, responsible for instilling core values, promoting specific behaviors, and creating an environment conducive to innovation, adaptability, and agility. Core values form the bedrock upon which organizational culture is built, acting as guiding principles that employees can draw upon to make decisions and guide their behavior within the organization (Alayoubi et al., 2020). These values transcend mere words; they encapsulate the fundamental essence of what the organization stands for and believes in, reflecting the core identity of the organization.

Strategic leaders must actively promote specific behaviors that align with the desired culture (Jha et al., 2022). They must recognize and reward behaviors that resonate with the established culture while addressing behaviors that deviate from it. Leading by example is instrumental in setting the standard for expected behaviors, thereby fostering a culture of consistency. Innovation thrives in an organizational culture that fosters and encourages it, providing employees with the freedom and resources to explore new ideas, experiment, and take calculated risks (Al-essawi & Al-Aubaidy, 2022).

Nurturing an effective organizational culture is crucial in the world of strategic leadership, playing a significant role in shaping an organization's identity, influencing employee behavior, and providing a competitive advantage (Wanyama & Nyaga, 2019). Integral to fostering this culture is embracing an entrepreneurial mindset, which consists of five dimensions: autonomy, innovativeness, risk-taking, proactiveness, and competitive aggressiveness, each contributing to an environment where innovation and creativity can flourish (Willis et al., 2022). Empowering employees is another vital aspect, as empowered employees equipped with autonomy and a sense of ownership are more likely to contribute positively to the organizational culture (Bakir, 2017).

An effective organizational culture provides several advantages that directly enhance an organization's competitive edge. It leads to higher employee engagement, resulting in more committed, productive, and innovative employees who contribute to the organization's success (Al-essawi & Al-Aubaidy, 2022). A culture that values customer-centric behaviors leads to improved customer service, as employees who understand and embrace the culture provide excellent service, creating loyal and satisfied customers. Moreover, an effective culture is associated with better organizational performance, as employees aligned with the culture work more cohesively toward achieving strategic objectives (Spain & Woodruff, 2023). An effective culture serves as a unique asset that sets an organization apart from competitors, providing a source of sustainable competitive advantage that differentiates the organization in a highly competitive marketplace.

https://journals.kabarak.ac.ke/index.php/kjri/

Abeid et .al.

Sustaining an effective organizational culture is paramount for strategic leadership, particularly in a rapidly changing business landscape (Dohamid et al., 2020). Organizations that nurture such cultures through instilling core values, promoting desired behaviors, fostering innovation, and embracing an entrepreneurial mindset are better positioned not only to survive but to thrive in the face of adversity. Therefore, the main objective of this study is to examine the influence of strategic leadership on the performance of public universities in Kenya.

RESEARCH METHODOLOGY

Study Design

This study employed a descriptive correlational research design to examine the influence of strategic leadership on the performance of public universities in Kenya. According to Pavel and Pavel (2023), a correlational design investigates the relationship between an independent variable and a dependent variable, focusing on how one variable influences the other. Kumari et al. (2023) note that descriptive correlational designs are particularly suitable when experimental designs are unethical or impractical. Given these considerations, this study adopted a descriptive correlational design as it allows for the observation of phenomena without interference, minimizing researcher bias and maintaining objectivity (Gawali, 2023).

Correlational research can be divided into explanatory and prediction designs (Rathore, 2023). Saldanha (2023) explains that explanatory designs explore how variables vary together, while prediction designs focus on the influence of an independent variable on a dependent variable. This study utilized a prediction design to investigate the impact of strategic leadership on university performance.

Study Location

The study was conducted across 18 public chartered universities in Kenya whose details are available and accessible for research purposes.

Sampling Framework

The study used university management boards and senate members from 18 public universities as the target population. The total target population consisted of 1,153 participants, comprising 149 management board members and 1,004 senate members as detailed in Table 1.

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Table 1: Target Population

Public Chartered Universities	Management Board Members	Management Board Members (%)	Senate Members	Senate Members (%)
University of Nairobi	18	12.08%	240	23.91%
Tharaka University	6	4.03%	15	1.49%
Kaimosi Friends University	9	6.04%	38	3.79%
Garissa University	8	5.37%	9	0.90%
University of Embu	7	4.70%	20	1.99%
Rongo University	6	4.03%	14	1.39%
Kibabii University	15	10.07%	51	5.08%
Meru University	6	4.03%	39	3.89%
South Eastern Kenya University	9	6.04%	45	4.49%
Jaramogi Oginga Odinga University of Science & Technology	6	4.03%	63	6.28%
Maseno University	6	4.03%	77	7.67%
Kenyatta University	9	6.04%	102	10.16%
Technical University of Mombasa	7	4.70%	32	3.19%
Technical University of Kenya	7	4.70%	108	10.76%
Moi University	7	4.70%	80	7.97%
Masai Mara University	8	5.37%	35	3.49%
Cooperative University	9	6.04%	13	1.30%
Murang'a University Total	6 149	4.03% 100.00%	23 1004	2.29% 100.00%

Source: Websites Various Universities (2024)

https://journals.kabarak.ac.ke/index.php/kjri/

Abeid et .al.

The study adopted a multi-stage stratified random sampling approach, a sophisticated sampling method involving several stages and strata within the population. Multi-stage sampling entails categorizing the population into different stages or layers, such as university management board and senate members from 18 public universities in this case. The process involves dividing the population into strata based on specific criteria like the university and the level of authority (management board or senate), with each university forming its own category and containing separate groups for management board members and senate members.

Within each university stratum, random sampling methods are then used to select participants. This process is replicated for each university in the sample, and the samples from all universities are aggregated to form the final sample for the study. Through multi-stage stratified random sampling, the study ensures representation of each university and its respective management board and senate members while minimizing bias through random selection techniques at each stage, thus providing a sample that accurately reflects the diversity of the entire population.

The sample size of the study was calculated using the Taro Yamane (1967) formula which is as follows:

$n = N/(1+N(e^2))$

where n is the sample size, N is the target population size, and e is the margin of error. According to Gathii et al. (2019), the Taro Yamane formula is easy to use in the study.

The sample size was thus calculated in the following manner: $n = N/(1+N(e^2)) = 1153/(1+1153(0.05^2)) = 297$ respondents.

The study used a sample size of 297 respondents. The study further used the proportionate stratified random sampling design in the distribution of the sample members amongst the two strata as shown in Table 2.

Table 2: Sample Size Determination

Public Chartered Universities	Management Board Members	Calculations	Sample Size	Senate Members	Calculations	Sample Size
University of Nairobi	18	18/1153 × 297	5	240	240/1153 × 297	61
Tharaka University	6	6/1153 × 297	2	15	15/1153 × 297	4
Kaimosi Friends University	9	9/1153 × 297	2	38	38/1153 × 297	10
Garissa University	8	8/1153 × 297	2	9	9/1153 × 297	2

https://journals.kabarak.ac.ke/index.php/kjri/

Abeid et .al.

Public Chartered Universities	Management Board Members	Calculations	Sample Size	Senate Members	Calculations	Sample Size
University of Embu	7	7/1153 × 297	2	20	20/1153 × 297	5
Rongo University	6	6/1153 × 297	2	14	14/1153 × 297	4
Kibabii University	15	15/1153 × 297	4	51	51/1153 × 297	13
Meru University	6	6/1153 × 297	2	39	39/1153 × 297	10
South Eastern Kenya University	9	9/1153 × 297	2	45	45/1153 × 297	12
Jaramogi Oginga Odinga University of Science & Technology	6	6/1153 × 297	2	63	63/1153 × 297	16
Maseno University	6	6/1153 × 297	2	77	77/1153 × 297	20
Kenyatta University	9	9/1153 × 297	2	102	102/1153 × 297	25
Technical University of Mombasa	7	7/1153 × 297	2	32	32/1153 × 297	8
Technical University of Kenya	7	7/1153 × 297	2	108	108/1153 × 297	27
Moi University	7	7/1153 × 297	2	80	80/1153 × 297	21
Masai Mara University	8	8/1153 × 297	2	35	35/1153 × 297	9
Cooperative University	9	9/1153 × 297	2	13	13/1153 × 297	3
Murang'a University	6	6/1153 × 297	2	23	23/1153 × 297	6
Total	149		41	1004		256

Source: Websites Various Universities (2024)

Data Collection Tools and Procedure

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The study used semi-structured questionnaires as the primary data collection tool. In this research, a self-administration method for the questionnaire, employing the drop-off and pick-up later

https://journals.kabarak.ac.ke/index.php/kjri/

Abeid et .al.

approach was used. Initially, the respondents were briefed about the study's objectives and significance. They then received the questionnaire along with clear guidelines to ensure they grasp how to respond effectively. Understanding the demanding nature of their roles, timely reminders leading up to the designated drop-off date were scheduled. These reminders, whether sent through emails or phone calls, served as prompts for respondents to complete their questionnaires. To facilitate this approach, the researcher designated a secure location on campus, such as a specific office or a marked collection box, where respondents can confidentially deposit their completed questionnaires after completion.

Data Analysis

The quantitative data analysis was used for the analysis of quantitative data. The quantitative data is data in numerical form. The Statistical Packages for Social Sciences (SPSS) software was used for the quantitative data analysis process. There are diverse processes that were undertaken in the quantitative data analysis process using SPSS including data editing, data coding, data entry and data analysis aspects. The first step in undertaking quantitative data analysis is the data editing process of the raw data collected using structured questionnaires. The data editing is undertaken on the raw data for the purposes of elimination of any errors, inconsistencies, and outliers in the data (Agresti & Kateri, 2022). The data editing was undertaken on the questionnaires before they are coded into the SPSS software version 24. The data coding refers to a process in the data processing stage where the information in the structured questionnaire is replaced by a numerical code to represent that information. In this context, the data coding was undertaken by ensuring that the information in the structured questionnaire are adequately represented using numerical codes into the SPSS software. After the data coding process, the data entry process was undertaken. The data entry process was the process of keying the numerical codes to represent specific information in the questionnaire.

Ethical Considerations

The study adhered to established research ethics protocols to ensure participant protection and research integrity. Informed consent was obtained from all participants, with clear explanation of the study's purpose, procedures, and voluntary nature of participation. Confidentiality of responses was maintained through anonymous data collection and secure data storage procedures. Institutional approvals were obtained from relevant university authorities and ethics committees prior to data collection. Participants were informed of their right to withdraw from the study at any time without consequences.

RESULTS

Response Rate

Before examining the specific research findings, it is essential to analyse the questionnaire return rate to establish the representativeness and validity of the collected data. According to Gordon

https://journals.kabarak.ac.ke/index.php/kjri/

Abeid et .al.

(2023), response rate analysis provides crucial insights into the quality and generalizability of survey research findings as shown in Table 3.

Table 3: Questionnaire Return Rate

Sample Size	Responses Received	Response Rate
297	246	82.8%

From the initial sample size of 297 distributed questionnaires, 246 completed responses were received, yielding a response rate of 82.8%. According to Stockemer and Bordeleau (2023), response rates exceeding 80% indicate excellent survey implementation and substantially reduce the risk of non-response bias. The study's response rate of 82.8% exceeds this threshold, demonstrating exceptional participation levels.

The achieved response rate has significant implications for the study's reliability and representativeness. Ho (2023) emphasizes that response rates above 80% provide strong evidence of target population engagement and enhance the generalizability of research findings. Additionally, Heumann et al. (2023) suggest that high response rates strengthen statistical conclusion validity by ensuring adequate sample sizes for complex analyses. The robust response rate of 82.8% thus provides a solid foundation for subsequent statistical analyses and strengthens confidence in the study's conclusions about strategic leadership practices in Kenyan public

Balanced Controls and University Performance

The regression analysis examined the effect of balanced controls on university performance through a systematic evaluation of model fit, significance, and predictive power. This analysis provides insights into the causal relationship between these variables. The model summary is shown in Table 4.

Table 4: Model Summary - Balanced Controls

Model	odel R R Square A		Adjusted R Square	Std. Error of the Estimate
1	0.645	0.416	0.414	0.4923

The regression analysis reveals a strong relationship between balanced controls and university performance, demonstrated by an R value of 0.645 as shown in Table 4. Stockemer and Bordeleau (2023) emphasize that R values exceeding 0.6 indicate robust relationships between variables in organizational research. The R Square value of 0.416, as defined by Heumann et al. (2023), indicates that balanced controls explain 41.6% of the variance in university performance. This substantial explanatory power aligns with Gordon's (2023) assertion that R Square values above 0.4 represent meaningful predictive capability in social science research.

https://journals.kabarak.ac.ke/index.php/kjri/

Abeid et .al.

The empirical evidence supporting this relationship is extensive. Ibrahim et al. (2019) demonstrated how effective control systems significantly improve university performance through enhanced risk management and operational efficiency. Similarly, Akinleye and Kolawole (2020) found that comprehensive internal controls positively influence tertiary institution performance through well-defined control environments and systematic risk assessment procedures. Further support comes from Towett et al. (2019), who established that internal controls significantly impact income-generating activities in public universities, with a particular emphasis on monitoring and evaluation mechanisms.

The ANOVA results presented in Table 5 demonstrate strong model significance with an F-statistic of 180.234 (df = 1, 244) and p < 0.001. According to Sürücü et al. (2023), F-values exceeding 10 with corresponding p-values below 0.05 indicate robust model fit. The current results substantially exceed these thresholds, confirming that balanced controls significantly predict university performance. The mean square error of 0.251, interpreted through Zhu's (2023) framework, suggests good model precision in organizational research settings. The results align with empirical findings in higher education contexts. Al Frijat (2018) and Ibrahim et al. (2019) demonstrated how balanced control mechanisms significantly enhance university performance through improved operational efficiency and stakeholder management. Similarly, Liu and Phee (2022) found that balanced controls lead to adequate strategy deployment and sustained competitive advantage in universities. Peris-Ortiz et al. (2019) further support these findings, showing how balanced controls enable universities to achieve their strategic objectives through systematic resource allocation and performance monitoring.

Table 5: ANOVA Results - Balanced Controls

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Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	43.679	1	43.679	180.234	0.000
Residual	61.320	244	0.251		
Total	104.999	245			

The regression analysis examining the effect of balanced controls on university performance revealed a strong positive relationship. The correlation coefficient (R = 0.645) indicated a robust association between the variables, with balanced controls explaining 41.6% of the variance in university performance. This substantial explanatory power aligned with Gordon's (2023) assertion that R Square values above 0.4 represent meaningful predictive capability in social science research. The regression coefficients presented in Table 6 (β = 0.623, t = 13.425, p < 0.001) confirmed that balanced controls significantly predicted university performance. The significant positive relationship between balanced controls and university performance (β 1 = 0.623, p < 0.001) aligns with the evolving landscape of higher education institutions in Kenya (Table 6). Kiriri (2022) emphasizes that the Balanced Scorecard has emerged as a pivotal tool for performance management, providing a comprehensive framework that aligns educational objectives with

https://journals.kabarak.ac.ke/index.php/kjri/

Abeid et .al.

strategic goals. The magnitude of the coefficient demonstrates the substantial impact of balanced controls in addressing critical challenges faced by Kenyan universities, particularly in areas of resource allocation, stakeholder engagement, and quality assurance. This finding is especially relevant given the rapid expansion of higher education in Kenya under a cost-sharing model, where effective performance management systems have become increasingly crucial for institutional success and sustainability.

Table 6: Coefficients - Balanced Controls

Model	Unstandardized B	Std. Error	Standardized Beta	t	Sig.
Constant	1.345	0.152		8.849	0.000
Balanced Controls	0.623	0.046	0.645	13.425	0.000

DISCUSSION

The strong positive coefficient can be understood within the context of knowledge-based leadership and innovation. According to R10ba et al. (2023), the integration of leadership strategies with balanced controls facilitates a more structured approach to performance evaluation, as evidenced by the significant beta coefficient. This perspective is reinforced by Oketch (2022), who conceptualizes higher education finance as a public good, emphasizing the role of universities in fostering democratic space and civil service development. The substantial coefficient magnitude suggests that balanced controls effectively support these institutional objectives through enhanced accountability and stakeholder responsiveness, ultimately contributing to improved organizational performance within the Kenyan higher education system.

The effectiveness of balanced controls is further demonstrated through their impact on human resource management and institutional infrastructure. Research by Muhamad (2023) demonstrates the vital role of effective human resource management in improving lecturer performance, which subsequently influences student outcomes and institutional effectiveness. These findings are complemented by Gikunju et al.'s (2023) research on the significance of library spaces and facilities in enhancing educational experiences in Kenyan universities. The significant coefficient supports these findings, suggesting that balanced controls effectively integrate both human and physical resource management, leading to improved institutional performance. This integration is further supported by Fernández et al. (2022), who establish the critical role of leadership commitment and participation in improving educational quality through systematic control mechanisms.

The technological dimension of balanced controls provides additional context for the strong coefficient. Research by Widodo (2023) demonstrates how artificial intelligence-based decision support systems enhance educational quality through data-driven insights into performance management. This technological integration is supported by Dong's (2023) findings on teaching quality monitoring and evaluation through big data analysis. The substantial beta coefficient

https://journals.kabarak.ac.ke/index.php/kjri/

Abeid et .al.

suggests that balanced controls effectively leverage these technological advancements, enhancing the responsiveness and effectiveness of performance management systems. Additionally, Fatkhurrochman et al. (2022) illustrate how comprehensive performance appraisal mechanisms, when integrated within the balanced control framework, contribute to overall educational quality while supporting faculty professional development.

The practical implications of the coefficient magnitude are particularly relevant for institutional development. Badjuka (2024) emphasizes the importance of robust performance management systems in prioritizing quality assurance and accreditation processes in higher education. The strong positive coefficient indicates that balanced controls effectively support these priorities, facilitating continuous improvement and accountability. This finding aligns with Sangita's (2021) research on the impact of advanced training and development systems on institutional performance. The coefficient magnitude demonstrates that investments in balanced control systems yield substantial returns in terms of enhanced educational outcomes and institutional effectiveness, particularly when integrated with comprehensive performance management frameworks.

CONCLUSIONS

The study confirms that balanced controls significantly influence university performance, explaining about half of performance variance. Strong implementation in control measures assessment and customer demands consideration demonstrates effective monitoring mechanisms. However, the substantial gap in balancing customer demands with financial controls indicates a critical weakness in integrating different control aspects. The findings suggest that while universities excel in individual control components, they struggle with establishing balanced, integrated control systems that effectively harmonize different organizational demands.

RECOMMENDATIONS

To enhance university performance through balanced controls, the institution should prioritize strengthening financial oversight, internal processes, and strategic alignment while building on its robust customer focus and innovation. Implementing advanced financial management tools and regular audits can improve the moderate integration of financial controls, ensuring transparency and efficiency. Simultaneously, streamlining internal operations through automation and cross-departmental collaboration will address the weaker performance in internal business perspectives. To bolster strategic controls, the university should develop clear, measurable strategic plans and train leaders to align decisions with institutional goals. Promoting a balanced approach to customer demands and financial constraints through integrated performance metrics will further drive sustainability and stakeholder satisfaction.

The university can capitalize on its strengths in assessing control measures and fostering innovation by adopting predictive analytics to anticipate risks and establishing innovation hubs to encourage collaboration. To ensure equitable focus across all control aspects, a comprehensive framework should guide resource allocation and regular audits should maintain balance. By

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https://journals.kabarak.ac.ke/index.php/kjri/

Abeid et .al.

embedding these strategies into long-term planning and fostering data-driven decision-making, the university can leverage the strong link between balanced controls and performance to achieve sustained excellence, ensuring responsiveness to stakeholder needs while maintaining operational and financial health.

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