



CONTROL PACKAGE AND TEACHING QUALITY IN NIGERIAN POLYTECHNICS

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Abstract

The incessant report of abysmal teaching quality in Nigeria polytechnics necessitate the appraisal of the management control system in place in this public higher institute of learning. The study examine the effect of control packages on the teaching quality of polytechnics in Nigeria. The study adopt a survey research design. Data were obtained from 169 respondents through structured questionnaires. Multiple regression analysis was employed and the study revealed that administrative control ($\beta = -0.311$; $p < 0.000$) was found with significant negative effect; cybernetic controls ($\beta = 0.758$; $p < 0.000$) have a notable and positive effect while the rewards and compensations control ($\beta = -0.047$; $p > 0.353$) was found with negligible and negative effects on the quality of teaching in Nigeria public polytechnics. The study concludes that effective control element such as administrative, reward and compensation, and cybernetics controls improved the utilization of the resource and ensure attainment of optimum performance. The study recommends the Nigeria polytechnics managements should implement efficient policies and procedure, effective remunerations, and accurate financial and non-financial metrics in attempt to improve their performance and able to compete with foreign counterpart.

Keywords: Administrative control, Control package, Cybernetic control, Reward & Compensation control, and Teaching quality

JEL Code: M12 and M40

INTRODUCTION

Nigeria, is the West Africa's most populous nation with the largest economy, this makes the present and future workforce of the country a matter of importance to African continent and the world at large. The country faces significant challenges in meeting the educational needs of her geometric growing population (Nurudeen, 2022). The Nigerian education system, particularly at the tertiary level, plays a crucial role in the country's socio-economic development. Within this system, public polytechnics occupy a unique and vital position, designed to produce skilled technical manpower to drive innovation and industrial growth. The country's polytechnic system was established to provide technical and vocational education; this institution has been under scrutiny for its ability to meet the demands of a rapidly evolving global economy.

Polytechnics are charged to play a vital role in technical and vocational education, with a mandate to equip students with practical skills and knowledge that foster national development.

They are expected to serve as key drivers of industrial growth, job creation, and technological advancement (Adebayo & Oyeleke, 2020). However, over the years, the performance of polytechnics in the country has come under scrutiny, raising concerns about their ability to fulfill these expectations.

Nigerian polytechnics are acknowledged for infamous reasons such as insufficient facilities, result racketeering, cultism, sex-escapades ground. The average graduate of these polytechnics is not employable as Oluwaseun and Adebayo (2022) revealed that many employers perceive a skills gap between polytechnic education and industry requirements despite the existence of strategic planning that were to navigate for the institute in complex environments. While formal performance appraisal systems for staff is employed in 78% of higher institute of learning in Nigeria as (Nwankwo, 2023) confirmed. The implications of these poor performances are multifaceted, affecting the education system, employment sector, national development, and individual student outcomes (Ogunlade, 2021).

Furthermore, the vacuum that Nigeria polytechnics were meant to fill remain unoccupied as the underperformance of these institutions undermines the broader goals of national development (Nkechi & Adetayo, 2020). The inability of polytechnics to produce a technically skilled workforce has significant ramifications for various sectors of the economy, including agriculture, healthcare, and infrastructure development (Uzor & Okafor, 2021). As established in the extant literature (Agymang and Broadbent, 2015; Blind 2017; Nurudeen, 2024) that performance is archived through the alignment, combination or coordination of activities. Having abysmal performance as described above deserved an appraisal of the techniques and procedures of performance attainments implemented in these noble institutions. These are otherwise known as the management control system. Management control systems are the technique and tools used to modify the behavior of a whole system or an organization to attain a desired result (Sanni et'al 2020).

The management control system is a broad concept that has engaged robust intellectual contributions from reputable authors in management accounting (Nurideen 2024), The concept introduce a businesslike approach to an organisation and ensures attainment of each projected objectives through the procedural and control implementation (Bakare et al, 2023). Management control system involve the techniques of achieving the result at least cost with analysis of the functions, intended result and establishing the control procedure to ensure success and sanctions to deter the unwanted activities.

According to Nurudeen and Garba (2022), people's attitude to work is essential to productivity and subjected to motivation. Therefore employee behavior can be improved or decreased by the rewards and compensation, which serve as motivation. More also performance is can be enhanced with accounting and non-accounting control measures (Mustapha, 2019). Furthermore the organization design and procedures otherwise refer to administrations or coordination from the management also have significant roles on performance of the personnel (Berend et al., 2018). These three factors, are part of the elements which management control system are to employ in achieving the organization's objectives.

Management control has been described in many frameworks, and looks more of corporate business approach. Academics is a distinct environment where the personnel enjoy level of autonomous in the discharge of duty. The rigidity of straight jacket approached seems not in existence, more also, the heads are not trained managers (Brown and Sutton, 2014; Baid 2017; Nurudeen 2022; Bakare et al 2023). However, the academics behaviours is influenced with

motivations from rewards and compensations like other personnel. Similarly they affected with levels of accounting controls such as budgeting and access to facilities. More also, the support services' procedure is also another factor moderating the academic's performance. Implicit on the above, this study seek to establish the effect of between management control systems on the quality of teachings in Nigeria polytechnics through the following specific research questions:

- i. What is the effect of reward and compensation controls on the quality of teaching in Nigeria polytechnic?
- ii. To what extent is the effect of administrative controls on the quality of teaching in Nigeria polytechnic?
- iii. To what extent is the influence of cybernetic controls on the quality of teaching in Nigeria Polytechnic?

LITERATURE REVIEW

Polytechnics Performance.

Performance of higher institute of learning is considerably distinct from other public industrial and business enterprises (Nurudeen, 2022). Notwithstanding the management or leadership style, Institute of learning possessed numbers of attributes which makes its performance attainment and measurement considerably varied from other service organization (Sanni et al 2020; Nurudeen, 2024). The higher institute of learning which includes the polytechnic produce unique products, skilled and professionals who are billed to contribute positively to the national work force, they produced much needed object and tools from research and improve the economic outlook of their immediate community (Bakare et al, 2023; Baid 2017).

Measurement of the polytechnic's performance is cumbersome to determine objectively as a result of the fact that the heads and management are trained managers, they are mostly appointed on knowledge based from their area of specialization. Also, the graduands can be viewed from two different fonts; the quantities and quality. While the polytechnic can measure quantities they cannot measure the quality. The quality is measured through the industrial sector rating. Likewise the research quality is being rated by other external schemes. Moreover the relationship between the academics is collegial against the managerial obtainable in other sector (Bakare et al 2023).

The polytechnics were established to provide the vast population with required skilled manpower for running of the country's economy. The skills required can only be trained by the higher education system, especially the technical education system. The polytechnics output can do the magic of liberating the nation from technological backwardness and over dependence on foreign manpower aids. Therefore, investigating the research efforts, teaching quality and industrial collaboration performance of the polytechnics will surely be of imperative advantage not the institution alone but to the country at large.

Teaching Quality

Teaching quality has a multifaceted nature which extends beyond simple metrics, encompassing various cultural interpretations and contextual dimensions. In Western educational systems, quality often emphasizes efficiency and measurable outcomes (Sanni et al, 2020), while Asian educational contexts may prioritize holistic development and moral education alongside academic achievement (Wang & Li, 2020). The concept of teaching quality integrates various dimensions including pedagogical competence, content knowledge, classroom management, and student engagement (Sahito & Vaisanen, 2018; Sanni et'al,2020).

In developing nations, teaching quality often intertwines with resource accessibility and equity considerations (Kumar & Patel, 2022). The varied terminology used across different educational settings reflects these diverse perspectives, with terms like efficiency, effectiveness, and equity often used interchangeably with quality, though each carries distinct nuances in different contexts (Ako, 2018). Nurudeen and Garba, (2022) stated that quality education consists of the participation that revolves around the learners, environments, contents, processes, and outcomes, where learners, are to be salubrious, well-alimented and participate healthy and safe. Teaching quality assessment encompasses various dimensions to ensure comprehensive evaluation. The assessment framework typically integrates three fundamental factors: presage (input), process (method), and product (outcome) variables (Biggs & Tang, 2022).

Management Control System

Management Control Systems (MCS) are essential tools for ensuring effective governance, decision making, and performance management within organizations, including educational institutions. In the context of tertiary institutions, the adoption and effectiveness of MCS have gained increasing significance due to the complex challenges faced by the higher education sector globally. These challenges include limited financial resources, bureaucratic inefficiencies, governance issues, and the need for enhanced accountability and transparency (Ademola et al., 2020).

Management control system is essential in any organisation, irrespective of its size, and it is even more important where decentralization is practiced (Andrew, 2018). MCS functions are crucial to any organization's performance, its purpose is enhancement of the company achievement of its goals and objectives with ease and at the lowest possible expense. Any system's ultimate goal should be to be "in control" rather than "controlling people." It also tries to aid management in coordinating and steering the many sections of an organization toward the attainment of the organization's main purposes, goals, and objectives in line with the company plan (Nurudeen et al. 2021).

From extant literature, MCS are used by the organisations to guide employee behavior, track performance, manage resources, and achieve strategic objectives (Anthony & Govindarajan, 2007; Mustapha, 2019; Nurudeen, 2022). MCS ensures clearly communication of the organisation's goals; ensure that managers and employees understand the specific actions required of them to achieve organizational goals; communicate results of actions across the organisation and ensure that managers can adjust to changes in the environment. A precise control system leads to unity out of the diverse activities of an organization and fulfills its overall goal. In other words, a control system is designed to bring unity out of the diverse activities of an organization and steer the whole efforts towards predetermine goals (Sanni et al., 2020).

Administrative controls

Administrative controls serve as the foundational framework that guides organizational behavior and decision-making in an organisation. These controls encompass governance structures, organizational design, policies, procedures, and management systems that collectively ensure institutional effectiveness and accountability (Jarvis, 2018). The complexity of modern higher education institutions necessitates robust administrative frameworks that can balance multiple stakeholder interests while maintaining academic integrity.

Chen and Roberts (2023) argue that successful organizational design in higher education must facilitate both vertical and horizontal coordination while maintaining flexibility to respond to environmental changes. Their research indicates that institutions with well-designed administrative controls demonstrate better performance in both academic outcomes and operational efficiency. Policies and procedures, as components of administrative control systems, play a crucial role in standardizing operations and ensuring consistency in decision-making. However, Brown and Martinez (2022) caution against over-bureaucratization, noting that excessive administrative controls can stifle innovation and reduce organizational agility. They recommend adopting a balanced approach that provides necessary structure while allowing for adaptation to local contexts and emerging needs.

Reward and Compensation Controls

These controls focus on the use of incentives, rewards, and compensation systems to align individual behavior with the institution's strategic objectives. The adoption of performance based compensation systems in the organisation, especially for administrative staff and, in some cases, department or unit heads. This control elements was traditionally linked to corporate environments, it is also relevant in the management of educational institutions. Kaplan (2020) notes that educational institutions are beginning to recognize the importance of incentives in motivating employees, increasing accountability, and enhancing overall organizational performance.

The trend towards performance-based compensation has also begun to extend to faculty in certain contexts. Some institutions have implemented reward systems that recognize faculty members' achievements in teaching, research, and service. This is inform of offering incentives for high teaching evaluations, securing research grants, or publishing in prestigious journals. Dee and Hennessey (2021) emphasize that while these reward mechanisms can promote productivity, they also raise concerns about fairness, especially in research-driven environments where publishing and grant acquisition can be influenced by factors beyond an individual's control.

Moreover, reward and compensation controls can have a significant impact on organizational culture within educational institutions. Incentives, when carefully designed, can foster a culture of achievement, collaboration, and accountability. However, poorly implemented compensation systems can lead to unintended consequences, such as fostering competition over collaboration or emphasizing certain measurable outcomes at the expense of less quantifiable aspects of education, such as teaching quality and mentorship (Kaplan, 2020). Thus, it is essential for institutions to strike a balance between rewarding measurable achievements and maintaining a commitment to their educational values.

Cybernetic controls.

These are a critical aspect of management in educational institutions, encompassing mechanisms such as budgets, financial measures, non-financial metrics, and hybrid systems. These controls are designed to provide feedback, enabling institutions to monitor performance, make informed adjustments, and achieve desired outcomes. In the educational sector, cybernetic controls have become increasingly significant as institutions strive for accountability, efficiency, and improved performance (Mustapha, 2019). Budgets and financial controls are among the most traditional forms of cybernetic controls, providing the organisation with a way to allocate resources, manage costs, and plan for future expenditures. In higher education, budgets are not just financial planning tools but also strategic instruments that reflect

institutional priorities. According to Malmi and Brown (2008), budgets serve as a means of control by setting financial targets and monitoring deviations from expected outcomes. For example, universities may use budget controls to ensure that funds are adequately distributed across academic programs, research projects, student services, and infrastructural development (Mustapha, 2019).

The integration of financial and non-financial measures aligns with the concept of hybrid systems within cybernetic controls. Hybrid systems combine various types of data, including quantitative and qualitative indicators, to offer a holistic view of institutional performance. In the context of educational institutions, hybrid systems might involve dashboards that track financial stability alongside academic excellence metrics; enabling administrators to make balanced decisions that take into account both financial viability and academic quality (Malmi & Brown, 2008).

Theoretical Framework.

The Resource-Based Theory (RBT) is a strategic framework that emphasizes the importance of internal resources and capabilities as the primary drivers of organizational performance and competitive advantage (Barney, 1991). In the context of Management Control Systems (MCS) in polytechnics, RBT provides a relevant lens to analyze how educational institutions can leverage their unique resources to achieve operational effectiveness and improve educational outcomes. MCS, in this setting, encompasses the processes and mechanisms through which polytechnics allocate resources, evaluate performance, and ensure accountability.

According to RBT, institutions can derive sustained competitive advantage if they possess resources that are valuable, rare, inimitable, and non-substitutable (VRIN) (Barney, 1991). For polytechnics, key resources might include specialized faculty expertise, proprietary teaching methods, advanced technological infrastructure, strong industry linkages, and unique curricula tailored to the needs of specific industries (Teece, 2007). The strategic use of MCS can help polytechnics effectively manage and optimize these resources, ensuring they align with institutional goals and contribute to long-term success.

Another key aspect of applying RBT to MCS in polytechnics is the notion of dynamic capabilities. Dynamic capabilities refer to an institution's ability to reconfigure and adapt its resource base in response to changing environmental conditions (Teece, 2007). Application of RBT to MCS in polytechnics underscores the importance of viewing internal resources and control mechanisms as strategic assets. Leveraging MCS effectively, polytechnics can manage their valuable resources, respond dynamically to external changes, and create a sustainable competitive edge in the educational sector.

Empirical Review

Joaquim and Patrício (2019) evaluate the management control system in two European countries' Higher Education Institutions (HEI). The study compares four HEIs strategic management, control process and performance. Adopting the case study approach, the study found that HEIs with different missions and contexts have performance and control systems that are generally indistinguishable. Findings revealed that controlling strategies in the public HEIs have taken on isomorphic characteristics based on processes that enhance competition, decentralize functions, and solidify performance management.

Heinike and Guenther (2019) examined the effect of management control systems on the relationship between structural autonomy and the higher institute of education's research, and

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teaching performance. The study compared the two major actor's perceptions: heads of administration and deans of academics. Employing survey data from 104 heads of administration and 104 academic deans, the data was subjected to a multi-group analysis with structural equation modeling. The study revealed that MCS is significantly associated with both groups and improves their performance.

De Waal, Mols, & Smeets (2019) analyzed the effects of performance management systems on teaching quality across multiple Dutch universities. A quantitative approach was utilized, with surveys distributed to academic staff in Dutch universities. The study explored the effectiveness of performance indicators in enhancing teaching quality, focusing on student satisfaction, graduation rates, and research outputs. The study found that MCS focusing on performance indicators, such as student satisfaction and graduation rates improved teaching quality.

Ghosh & Chan (2020), explored how MCS influences teaching quality in Malaysian public and private universities. The findings indicates that a robust MCS framework that includes faculty performance evaluations, professional development, and feedback improves teaching quality by fostering a culture of continuous improvement. Laura (2021), evaluates the teaching performance in United States of American Universities concerning the student evaluations of teaching (SET). Findings indicate the essentiality of the management control system on performance achievement and appraisal. The study discovered that behavioral control such as the use of established culture, results, and actions approach have a robust impact on teaching performance in the USA universities.

Nurudeen et al (2023), examines the moderating effect of funding on the management control system elements and performance of public Universities. Cross-survey research design was employed on the fourteen (14) public universities in the Southwestern region of Nigeria. The PLS SEM analysis result revealed that MCS influenced the Universities teaching quality however, the funding scheme negatively moderates the MCS effects. Nurudeen (2024), appraised the effect indirect controls as elements of management control system on the Nigerian universities performance. Analysis of the regression revealed both personnel and cultural control are positively and significantly related to quality of teaching, research efforts and community development services.

METHODOLOGY

The study adopts the survey research design. Being the most appropriate for a perceptual study (Creswell & Creswell, 2018; Bhandari, 2022). The study population comprises of six (6) federal and six (6) state polytechnics in the southwestern geopolitical zone of Nigeria. The twelve higher institute have a total of 56 deans of schools, and 288 heads of academic departments. This gives a total of 344 as the population of the study. Subjecting the population to Yamane (1967) approach, " $n = N / [1 + N(e)^2]$ " with a 5% level of precision, the sample size of approximately one hundred and eighty-five (185) a respondent was found suitable for the study.

A proportional sampling technique was introduced at this stage to have equal and unbiased representation among the polytechnics. In attempt to have equal proportional respondents from the twelve selected polytechnics, the sample size was increased from 185 to 192. This permits 16 respondents from each institution. The increment also have another advantage of protecting the study from outliers and unreturned questionnaire.

RESULT AND DISCUSSION

Response Rate

A total of 192 questionnaires were distributed and 173 were returned out of which four (4) was not suitable for the analysis. A total of 169 was found to have been completely filled. This represent 88% of the study sample.

	N	Mean	Std. Deviation	Skewness	Std. Error	Kurtosis	Std. Error
Stati stic	Statistic	Statistic	Statistic	Statistic	Error	Statistic	Error
ADMcontr	169	3.9541	.98185	-1.394	.187	1.145	.371
RECcontr	169	4.1627	1.00896	-1.614	.187	1.931	.371
CYBcontr	169	4.2825	.85242	-1.854	.187	2.028	.371
TQPerf	169	3.9320	.33043	-1.865	.187	2.846	.371
Valid N (listwise)	169						

Table 1 reveals important insights about management control systems and quality of teaching. It states the mean, standard deviation, skewness and Kurtosis for the entire variables under the study. Administrative Controls (ADMcontr), Cybernetic Controls (CYBcontr), and Teaching Quality Performance (TQPerf) have high means while Rewards and Compensation Controls (RECcontr) has moderate. This suggest implementation effectiveness, aligning with established management control system. The standard deviations reveal Administrative control and Rewards and compensation controls have moderate variability 1.0 SD. CYBcontr: scores of 0.85 SD indicates lower variability and more consistency. TQPerf: presented a very low variability, highly consistent with 0.33 SD.

Preliminary Diagnostic

Skewness Pattern

All variables show substantial negative skewness, ADMcontr: -1.394 (moderate-to-strong); RECcontr: -1.614 (strong); CYBcontr: -1.854 (very strong); TQPerf: -1.865 (very strong). When skewness and kurtosis are close to zero, it's considered a normal distribution. In line with the position of Kline, (1998) Skewness and Kurtosis are acceptable when it fell within ranges of -3 to +3. The consistent negative skewness across all measures suggests a "ceiling effect" where organizations generally perform well, with few low performers. This pattern is common in organizational assessment studies where participants represent established organizations rather than random sampling. The caliber of the respondent account for this. (HODs, and Dean of Schools).

Kurtosis Analysis

Kurtosis values reveals ADMcontr: 1.145 (platykurtic - flatter than normal); RECcontr: 1.931 (mesokurtic - near normal); CYBcontr: considered as 4.028 (leptokurtic - peaked with heavy tails) and TQPerf: 4.846 (highly leptokurtic - very peaked). Kurtosis from – 0.27 to 6.44; therefore, the distributions were considered normal.

Regression Analysis

Table 2. Model Summary^b

Model	R	R Square	Adjusted R Square	R	Std. Error of the Estimate	
1	.815 ^a	.665	.659		.19302	
ANOVA^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	12.195	3	4.065	109.117	.000 ^b
	Residual	6.147	165	.037		
	Total	18.342	168			
Coefficients^a						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.137	.136		23.066	.000
	ADMcontr	-.101	.015	-.300	-6.580	.000
	RECcontr	.015	.017	-.047	-.932	.353
	CYBContr	.294	.020	.758	15.025	.000

a. Dependent Variable: TQPerf

Table 2 present the model summary and results of a multiple regression analysis examining the relationship between three elements of management control system (administrative, reward and compensation, and cybernetic controls) as predictors of what appears as teaching quality performance measure (TQPerf) based on the previous descriptive statistics. The R value of 0.815 indicates a very strong positive correlation between the combination of all three predictor variables and the dependent variable. This R value (0.15) indicates excellent model fit. This suggests that administrative controls, reward and compensation controls, and cybernetic controls, when considered together, have a robust linear relationship with the outcome measure. In other word, the independent variables synergistically predict the dependent.

More also, coefficient of determination (R^2) value of 0.665 is particularly meaningful, indicating that 66.5% of the variance in the dependent variable is explained by the three predictor variables combined. Therefore the study model explains approximately two-thirds of the outcome variance, which is exceptionally strong for organizational behavior research. The adjusted R^2 of 0.659 accounts for the number of predictors relative to sample size, providing a more conservative estimate of explained variance. Indicates good model parsimony (predictors genuinely contribute), adequate sample size relative to predictors ($N=169$, $k=3$), and Low risk of over fitting.

The study F- Statistics from table 2 is 109.117 with a corresponding probability value of 0.000, which can be interpreted to mean that the model derived for the purpose of the study is statistically significant as the p-value is less than 5% significant level. As stated on the table 2, (the coefficients), the study regression equation is $TQPerf = 3.137 - 0.101(ADMcontr) - 0.015(RECcontr) + 0.294(CYBcontr)$. This reveals fascinating and counterintuitive relationships that require careful theoretical interpretation and hypothesis testing.

The constant term (3.137) with $t = 23.066$, $p < 0.001$ indicates When all predictor variables equal zero, the predicted TQPerf is 3.137. This represents the baseline teaching quality performance level independent of the three control systems, suggesting fundamental organizational capabilities that exist regardless of management control mechanisms.

Administrative Controls (ADMcontr) has coefficients of ($B = -0.101$, $\beta = -0.300$; $t = -6.580$, $p < 0.001$) Effect Size: Medium-to-large standardized effect. This coefficient indicates that for every one-unit increase in administrative controls, total quality performance decreases by 0.101 units, holding other variables constant. The standardized coefficient ($\beta = -0.300$) shows this is a substantial negative effect. This result is line with some previous studies (Nurudeen, 2024) in significances. However not on negative effect.

Reward and Compensation Controls (RECcontr) gathered the coefficients ($B = -0.015$, $\beta = -0.047$; $t = -0.932$, $p = 0.353$). Rewards and compensation controls show no statistically significant relationship with teaching quality performance ($p = 0.353 > 0.05$). This suggests that reward and compensation control, while important for the performance of the academics. The present mechanism for it in the tested polytechnics does not impact day-to-day teaching quality performance.

Cybernetics Controls (CYBcontr) presented coefficient ($B = 0.294$, $\beta = 0.758$; $t = 15.025$, $p < 0.001$). This is the dominant predictor, showing that each one-unit increase in cybernetic controls increases teaching quality performance by 0.294 units. The standardized coefficient ($\beta = 0.758$) indicates this is an exceptionally strong positive relationship.

Research Hypotheses

Ho1: Administrative controls have no significant effect on teaching quality performance in Nigeria polytechnics.

The null hypothesis is REJECTED ($\beta = -0.300$, $p < 0.001$) Administrative controls have a significant negative relationship with teaching quality performance

Ho2: Reward and compensation controls have no significant influence on the teaching quality in Nigeria polytechnics.

The null hypothesis is STRONGLY SUPPORTED ($\beta = -0.047$, $p = 0.353$) based on the result of the analysis. No significant effect of reward and compensation controls on teaching quality in Nigeria polytechnics

Ho3: Cybernetics controls have no significant effect on teaching quality in Nigeria polytechnics.

The null hypothesis is REJECTED based on the study result ($\beta = 0.758$, $p < 0.001$). Cybernetics controls have a very strong positive effect on the teaching quality in Nigeria polytechnics.

Discussion of Findings

The study found a significant negative effect of administrative control on the teaching performance. This result is consistent with the findings of Blind (2017); Nurudeen and Garuba (2022); Sanni et al (2020). The result is also in line with the postulation of the contingency theory. The result implies that the administrative control in place in the selected institution affecting the performance negatively. This can be inferred from the conflicts between academic autonomy and bureaucratic system. The study also found a negligible and negative influence of the reward and compensation controls on the teaching performance. This result is in contrast to the findings of Nurudeen et al (2023); Berend (2018). This result implied that salaries and other benefits controls implemented in the studied higher institute of learning in Nigeria are not contributing positively as suppose. Lastly the study found a positive and significant effect

of cybernetics controls on the teaching performance. The result is correspond with the findings of Baid (2017); Nurudeen (2024); Nurudeen et al (2023). The result indicates series of actions and physical controls implemented are contributing positively to the quality teaching performance in tested polytechnics in Nigeria.

CONCLUSION AND RECOMMENDATIONS

The study concludes that control package's element such as administrative controls, and cybernetic controls implemented in the public polytechnics in Nigeria are significantly influencing the quality of teaching delivery. It was observed that the reward and compensation controls in place are not significant to the teaching performance.

In essence, the study underscores the importance for management control system in the attainment of performance in Nigeria public polytechnics. The management of the higher institute of learning in Nigeria have implemented series of control elements which are capable of significant influence on the quality of teaching performance. Evidently effective control elements will enhance and efficient performance in the education sectors as it does in other industry.

Recommendations

- i. The management should review the administrative controls to achieve positive effect of policy and procedure on support services to facilitate meaningful and impactful influence on the academics. This will change the narrative of the negative result obtained at the moment.
- ii. Reward and Compensation is a strong factor that should stimulate and induce performance, on the literature and previous findings (Baid, 2017; Berend et al 2018). This result indicates inappropriateness of the concept in the tested higher institution. The management should review the procedure for it.
- iii. The management should review the accounting and non-accounting controls in order to achieve more required quality performance.

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