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FEEDBACK CONTROL SYSTEM AND CHANGE MANAGEMENT IN THE NIGERIAN BANKING INDUSTRY

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Abstract:

Received: 28th April 2025 **Accepted:** 26th May 2025 This study investigates the impact of feedback control systems on change management processes—specifically planning, execution, and monitoring within the Nigerian banking industry. Drawing on Feedback Control Theory, the research conceptualizes feedback systems as structured mechanisms for guiding organizational adaptation in dynamic environments. A quantitative, descriptive survey design was adopted, with data collected from 212 employees across selected Tier 1 and Tier 2 Nigerian commercial banks using a validated questionnaire. Descriptive results showed strong institutionalization of feedback mechanisms (M = 4.12, SD = 0.63), with similarly high scores in change management planning (M = 4.01), execution (M = 3.87), and monitoring (M = 3.94). Pearson correlation revealed significant positive relationships between feedback control systems and all three dimensions of change management: planning (r = 0.61), execution (r = 0.57), and monitoring (r = 0.64), all at p < 0.001. Multiple regression analysis demonstrated that feedback control systems significantly predict planning ($\beta = 0.61$, $R^2 = 0.37$), execution ($\beta = 0.57$, $R^2 =$ 0.33), and monitoring ($\beta = 0.64$, $R^2 = 0.41$). Structural Equation Modeling further confirmed strong model fit (CFI = 0.94, RMSEA = 0.049), validating the theoretical model. These findings underscore the strategic role of feedback mechanisms in enhancing change outcomes in the banking sector. The study concludes that banks with robust feedback systems are more likely to achieve successful change implementation and continuous improvement. recommends that managers institutionalize real-time, multi-directional feedback channels as a core component of organizational change infrastructure.

Keywords: Change Management; Execution; Feedback Control Systems; Monitoring; Nigerian Banking Industry; Planning.

INTRODUCTION

The banking industry is one of the most dynamic and strategically vital sectors in the global economy. Worldwide, it serves as a key driver of financial intermediation, economic growth, and innovation (Attah et al., 2024). In Africa, the banking sector has grown in resilience and sophistication, becoming instrumental in driving financial inclusion and economic diversification. Specifically in Nigeria, the banking industry plays a pivotal role in facilitating trade, providing credit, and promoting investment. However, the Nigerian banking sector has faced persistent waves of change—driven by global financial trends, economic reforms, regulatory pressures, digital innovation, and customer expectations (Baykal, 2019; Latif et al., 2020).

The industry is inherently dynamic—shaped by rapid advancements in digital banking, evolving customer preferences, regulatory shifts, and competitive pressures. Over the years, Nigerian banks have had to adapt to structural and technological changes, including the introduction of electronic payment systems, mobile banking, cashless policies, mergers and acquisitions, and stringent regulatory frameworks. This constant evolution necessitates robust change management strategies to ensure operational efficiency and sustainable growth. The sector's dynamism has necessitated continuous organizational change, making effective change management critical to maintaining performance and competitive advantage (Osibanjo et al., 2013; Soetan & Mogaji, 2024).

To navigate the complexities of the industry's transformation, feedback control systems have emerged as a crucial mechanism for guiding change management processes within Nigerian banks. Feedback, whether operational, strategic,

or behavioral, allows organizations to align actions with expectations and correct deviations in real time. In the context of managing change, feedback systems enhance decision-making, promote accountability, and support learning across various levels of the organization (Franklin et al., 2002; Phillips & Harbor, 1999). Effective feedback mechanisms influence critical stages of change: planning, where goals are shaped; execution, where actions are coordinated; and monitoring, where progress is assessed and adjustments are made. These components—planning, execution, and monitoring—serve as this study's measures of the dependent variable (change management), reflecting a holistic view of change implementation success. The capacity to systematically feed information back into the change cycle makes feedback control a strategic lever in managing dynamic transformations in the banking industry (Psychogios et al., 2019).

Change management, the dependent variable in this study, encompasses structured approaches to transitioning individuals, teams, and organizations from a current state to a desired future state. It is essential for sustaining competitiveness, improving performance, and embracing innovation (Hayes, 2022; McCalman et al., 2015). In the Nigerian banking industry, where market forces and technological disruptions are frequent, the ability to manage change effectively is not optional—it is imperative. The success of change initiatives often hinges on how well organizations can plan for change, execute transformation strategies, and monitor progress while adjusting to feedback. Without a robust framework for managing change, even well-designed strategies risk failure due to resistance, misalignment, or poor implementation (Soetan & Mogaji, 2024).

By leveraging structured feedback loops, banks can refine strategic planning, enhance implementation efficiency, and ensure adaptive monitoring, thus improving overall transformation success. Scholars (Campbell, 2024; Musungwini & Mondo, 2019; Xiu et al., 2019) have increasingly turned attention to understanding the mechanisms that improve change implementation, examining change management practices across various sectors, including public administration, service-based enterprises, and financial services in emerging markets. Others have studied the interplay between feedback and change in organizational settings, highlighting the role of feedback as both a learning tool and a change driver (Jabri, 2004; Psychogios et al., 2019).

While Baykal (2019) offers insights into human factors affecting change in Turkey's banking sector and Latif et al. (2020) explore HR-driven digital change in banking, these studies do not comprehensively evaluate the role of feedback as a control mechanism. It appears that literature still lacks a robust empirical focus on how structured feedback control systems influence the success of change initiatives, especially in high-stakes, rapidly evolving sectors like banking especially in the Nigerian context. Thus, a clear knowledge gap remains—there is a need for a focused empirical investigation on how feedback control systems functionally impact change implementation within Nigeria's banking environment.

The implications of ineffective change management and poor feedback control in the banking industry can be farreaching. Symptoms often include failed digital transitions, employee resistance, customer dissatisfaction, and
regulatory non-compliance. On the other hand, when feedback mechanisms are well-integrated, organizations can
achieve adaptive learning, process refinement, and stakeholder alignment (Campbell, 2024; Hayes, 2022). A failure to
systematically evaluate the impact of feedback on change planning, execution, and monitoring could result in repeated
transformation failures, high turnover, and erosion of stakeholder trust. Hence, exploring the relationship between
feedback control systems and change management is not only timely but critical for organizational survival and efficiency
(Muo, 2013; Osibanjo et al., 2013). This study, therefore, focuses on examining the role of feedback control systems in
enhancing change management. The main objective is to empirically investigate the extent to which feedback systems
influence the planning, execution, and monitoring dimensions of change implementation. Through this inquiry, the study
aims to provide actionable insights for managers and policymakers on how to structure feedback to drive more effective
and sustainable change outcomes in dynamic and complex banking environments.

The specific objectives are to:

- i. Investigate the impact of feedback control systems on change management planning in Nigerian banks.
- ii. Examine the effect of feedback control systems on the execution of change management strategies in Nigerian banks.
- iii. Evaluate the influence of feedback control systems on the monitoring of change implementation efforts in Nigerian banks.

THEORETICAL FRAMEWORK

This study adopts Feedback Control Theory as its guiding theoretical framework. Originating from engineering and control systems design (Doyle et al., 2013; Phillips & Harbor, 1999), Feedback Control Theory provides a robust model for understanding how systems maintain stability and achieve desired outcomes through continuous monitoring and corrective action. The theory is predicated on the notion that for any dynamic system to function optimally in the face of disturbances or uncertainty, it must be equipped with mechanisms that measure output, compare it against a target, and make adjustments to input accordingly (Ozbay, 2019). While the theory is rooted in systems engineering, its application to organizational behavior and change processes has been widely acknowledged (Gregory et al., 2011). In the context of change management, Feedback Control Theory emphasizes the role of continuous feedback loops in supporting goal-directed behavior and adaptive learning. The core components of a feedback control system—sensing deviations, processing feedback, and initiating corrective action—align closely with the stages of change implementation: planning, execution, and monitoring. Feedback serves both a diagnostic and motivational function, enabling managers

and employees to align performance with objectives, respond to disruptions, and refine processes in real time (Frees et al., 2015; Psychogios et al., 2019). The application of feedback control systems in organizational settings has evolved from traditional hierarchical reporting structures to more dynamic, dialogic, and participatory feedback cultures (Jabri, 2004).

Feedback in this sense is not merely evaluative; it is transformative. It fosters organizational responsiveness, facilitates learning, and enables systemic alignment throughout the change cycle. As Frees et al. (2015) argue, feedback must be understood not only as an operational control mechanism but also as a driver of organizational learning and innovation, especially in complex environments like the banking industry. In the context of the current study, planning (the formulation of goals and strategies for change), execution (the implementation of planned actions), and monitoring (the evaluation of progress and performance) as stages of change management, mirror the control loop inherent in feedback systems, where the accuracy of execution depends on feedback from prior stages and informs subsequent adjustments. Control theory also emphasizes goal setting and self-regulation as essential to effective feedback systems (Gregory et al., 2011). By applying this lens, the study posits that organizations with well-integrated feedback mechanisms are more likely to succeed in planning realistic change strategies, executing them effectively, and monitoring outcomes to drive continuous improvement. This theoretical alignment supports the research hypothesis that feedback control systems significantly enhance change implementation success. Feedback Control Theory therefore provides a relevant and comprehensive lens for investigating the interaction between structured feedback mechanisms and successful implementation of organizational change, particularly in the Nigerian banking terrain. Its principles of loop-based correction, error minimization, and adaptive behavior underpin the conceptual link between feedback control systems and the planning, execution, and monitoring of change initiatives (Galinec & Steingartner, 2013).

FEEDBACK AND FEEDBACK CONTROL SYSTEMS IN THE BANKING SECTOR

Feedback, in its broadest organizational sense, refers to the systematic provision of performance-related information with the goal of improving processes, correcting deviations, and facilitating informed decision-making. In dynamic and high-stakes environments such as the banking sector, feedback functions not only as a communication tool but also as a mechanism for governance, risk control, learning, and innovation (Jabri, 2004; Psychogios et al., 2019). The increasing complexity of banking operations—spanning digital transformation, customer service automation, regulatory compliance, and cyber-risk mitigation—has intensified the need for structured feedback systems capable of guiding organizational adaptation and change.

In organizational theory and practice, particularly within technologically intensive industries like banking, feedback has evolved from being a passive evaluative process to becoming an active managerial tool that triggers forward-looking strategic action (Psychogios et al., 2019). Feedback in this sense includes "feeding-forward"—the anticipation of future needs and alignment of decisions with evolving goals, rather than simply responding to past performance deviations. This dynamic role of feedback underscores its value not only in post-event learning but in preemptive and real-time strategic decision-making. Feedback control systems, derived from systems engineering principles, are structured frameworks for collecting data on system outputs, comparing them with desired performance criteria (reference values), and making necessary adjustments to inputs to achieve control (Franklin et al., 2002; Phillips & Harbor, 1999). These systems operate on the Observe–Orient–Decide–Act (OODA) loop, a feedback structure that enables rapid response to change and maintains system equilibrium (Galinec & Steingartner, 2013).

In the banking context, feedback control systems can be seen in mechanisms such as internal audit loops, compliance monitoring dashboards, automated alerts in transaction systems, customer satisfaction tracking tools, and performance appraisal systems. For instance, in electronic banking (e-banking), feedback control mechanisms are integrated into service delivery systems to capture user behavior, system errors, and transaction patterns. These feedback channels inform system updates, fraud prevention mechanisms, and user interface adjustments (Merisalo-Rantanen, 2010). More broadly, banks deploy feedback systems to monitor employee performance, assess the effectiveness of change initiatives, and ensure strategic goals are met. Whether through KPI dashboards, real-time transaction tracking, or digital customer feedback loops, these systems reinforce accountability and operational precision (Khan & Almahdi, 2024).

Conceptually, the control aspect of feedback in banking operations lies in its capacity to close the loop between action and consequence, and between expectation and outcome. This aligns with the view of Doyle et al. (2013), who emphasize that feedback control provides a self-correcting structure essential for navigating uncertainty and ensuring organizational stability. Additionally, the design and calibration of feedback systems—such as feedback frequency, accuracy, and response latency—determine the agility and responsiveness of banking operations to internal and external disruptions (Dodds, 2015; Stefani et al., 2002). Importantly, feedback systems in banks are not only technological but also behavioral. Managerial feedback and team-based feedback mechanisms foster communication, psychological safety, and a learning-oriented culture necessary for change implementation (Jabri, 2004). Effective feedback structures are dialogic rather than directive, promoting collaboration and employee engagement in change processes. By providing real-time insights, reinforcing performance expectations, and guiding timely adjustments, these systems enable banks to navigate complex transformations. In the context of this study, feedback control is conceptualized as a multifaceted mechanism—both technical and behavioral—that supports the planning, execution, and monitoring of change initiatives in Nigerian banks.

CHANGE MANAGEMENT AND ITS PHASES OF IMPLEMENTATION

Change management refers to the structured approach an organization adopts to transition from a current state to a desired future state, aiming to enhance effectiveness, competitiveness, and adaptability in response to internal and external pressures (McCalman et al., 2015). It encompasses the planning, execution, and monitoring of initiatives aimed at transforming processes, technologies, structures, or behaviors within an organization. Given the increasing volatility and complexity of the business environment, successful change management is widely regarded as a critical organizational competency (Errida & Lotfi, 2021). Change implementation is not a singular event but a phased process, typically broken down into three key stages: Planning, Execution, and Monitoring (Oakland & Tanner, 2007).

The planning phase is foundational, involving the identification of the need for change, articulation of goals, resource allocation, stakeholder mapping, risk analysis, and the development of a strategic roadmap. Without a solid plan that aligns with organizational vision and context, change initiatives are likely to encounter resistance, misalignment, or failure (Markiewicz, 2011; Rosenberg, 2018). The execution phase entails putting the change strategy into action. This includes the deployment of resources, communication strategies, leadership support, capacity building, and stakeholder engagement (Chew & Choo, 2008; Pugh, 2016). At this stage, effective change leadership and employee involvement are crucial to ensure buy-in and to navigate the uncertainties that often accompany transition. Furthermore, the monitoring phase involves continuous assessment of progress against predefined metrics, identification of deviations, and the institution of corrective measures. Monitoring serves as the organization's feedback loop, helping leaders and implementers recalibrate efforts in real time (Xiu, Yang, & Zhao, 2019). As emphasized by Psychogios et al. (2019), this phase aligns closely with feedback mechanisms that enable learning, accountability, and continuous improvement.

In the banking industry, the urgency for structured change management has been amplified by rapid technological disruption, regulatory reforms, globalization, cybersecurity threats, and evolving customer expectations. Banks are compelled to adopt digital transformation, agile workflows, and innovative service models to remain competitive and compliant (Lehtimäki, 2020; Muo, 2013). Given this dynamic landscape, change management in banking must be meticulous, responsive, and inclusive of all organizational layers.

The planning phase in banks often involves strategic restructuring, integration of fintech solutions, and redefinition of customer experience strategies. For instance, Chew and Choo (2008) documented how one Asian bank navigated change planning by aligning HR strategies with technological upgrades to reduce resistance. Similarly, Muo (2013) notes that Nigerian banks must rigorously plan for changes due to their exposure to economic policy volatility and competitive pressures. The execution phase in banks is particularly sensitive, as it affects operations across multiple channels—branch networks, digital platforms, and back-office systems. Musungwini and Mondo (2019), in their study on Zimbabwean banks, highlighted that execution requires a well-trained workforce, real-time communication, and leadership that models commitment to change. Failure in this phase often results from poor communication, lack of clarity in roles, and underestimation of system integration complexities. The monitoring phase is equally critical. Banks employ a wide array of performance metrics, audits, compliance checks, and customer feedback tools to ensure change initiatives are on track. Quaicoo (2020) underscores that in Ghanaian banks, robust monitoring mechanisms were the distinguishing factor between successful and stalled change projects. Monitoring also feeds into risk management frameworks, essential for regulatory compliance and reputational assurance.

Overall, effective change management in the banking sector is not just a technical or procedural challenge but a socioorganizational one. It demands cross-functional collaboration, proactive leadership, employee engagement, and structured feedback loops. As Jabri (2004) asserts, dialogic feedback and open communication are central to navigating resistance and fostering an adaptive organizational culture. The three phases of change—planning, execution, and monitoring—represent interdependent stages that collectively determine the success of organizational transformation. Within the banking industry, where change is both inevitable and frequent, these phases must be carefully managed through structured approaches, supported by robust feedback mechanisms, and grounded in strategic alignment with institutional goals.

THE RELATIONSHIP BETWEEN FEEDBACK CONTROL SYSTEMS AND CHANGE MANAGEMENT

Appelbaum et al. (2017) conducted a robust case-based empirical analysis to investigate factors that influence the success of organizational change. Using a combination of literature review, surveys, and interviews, the study identified several key variables that enhance employees' commitment to change, among which communication (both formal and informal) and adaptive systems were critical. This directly ties into the logic of feedback control systems, where continuous feedback loops help detect variance, relay performance signals, and adjust processes accordingly. The findings highlighted that transformational leadership—which often integrates dynamic feedback processes—was also a determinant of change success. From the lens of control theory, this reflects the importance of real-time informational adjustments and responsive leadership in regulating organizational transformation. Although the study did not explicitly apply feedback control theory, its findings reinforce the value of information flow and adaptive feedback in managing change effectively.

Ahmad and Huvila (2019) expanded on the social dimension of feedback and change by empirically investigating the impact of organizational changes on information sharing within a multinational Finnish organization. Their quantitative approach confirmed that positive employee perceptions of change, reinforced by organizational trust, significantly improved information sharing behaviors. This is particularly relevant when considered through the lens of feedback control systems, where information availability and feedback transparency are essential for accurate monitoring and control. The study emphasized the mediating role of trust, which underlines the fact that feedback mechanisms must not only exist but be perceived as credible and constructive. Poorly managed feedback can create noise in the system,

reduce employee engagement, and lead to suboptimal performance outcomes. This empirical evidence aligns with conceptual arguments by Jabri (2004) and Psychogios et al. (2019), who emphasized the dialogical and forward-oriented potential of feedback in organizational settings.

Errida and Lotfi (2021) provided a broader analytical lens through a hybrid method of literature synthesis and case validation in a Moroccan construction firm. Their study distilled change management success factors into 12 overarching categories, ranging from communication and leadership to organizational structure and technology. While not all categories explicitly reference feedback systems, communication flow, employee engagement, and process monitoring—each deeply rooted in feedback control theory—emerged as central elements. The study demonstrated how feedback-based mechanisms, when integrated with structural and human dimensions, can contribute significantly to the successful implementation of change. Additionally, their emphasis on aligning organizational models with contextual needs aligns with control system design, where feedback loops are calibrated to specific performance environments. Across the reviewed studies, a common empirical thread is evident: feedback—whether through structured systems, informal exchanges, or information-sharing behaviors—is central to enabling, sustaining, and guiding successful change. These works contribute to the theoretical and practical foundation upon which the current study builds, particularly in examining feedback control systems as an independent variable and their influence on change management outcomes such as planning, execution, and monitoring in the banking sector.

METHODOLOGY

This study adopted a quantitative research design utilizing a descriptive survey approach. The rationale for this design stems from the study's objective: to empirically examine the influence of feedback control systems on change management outcomes within the Nigerian banking industry. A quantitative approach allowed for the systematic collection and statistical analysis of data to test the hypothesized relationship between variables.

The population for this study comprises employees of selected commercial banks operating in Nigeria. A stratified random sampling technique was employed to ensure that different organizational levels (e.g., executive, managerial, and operational) are proportionately represented. This enhances the generalizability of the findings across hierarchical strata. The study targeted a sample size of 250 respondents, derived using the Krejcie and Morgan (1970) sample size table, adjusted for potential non-responses or incomplete surveys. The banks was selected from Tier 1 and Tier 2 commercial banks based on their scope, structure, and involvement in recent digital and operational change initiatives. Primary data for this study was collected using a structured questionnaire developed in alignment with the study's theoretical and conceptual frameworks. The questionnaire included items measuring the Feedback Control System (independent variable), adapted from validated control and feedback system literature (Franklin et al., 2002; Gregory et al., 2011), as well as items measuring Change Management (dependent variable), operationalized into three phases planning, execution, and monitoring—based on previous studies (Errida & Lotfi, 2021; McCalman et al., 2015; Oakland & Tanner, 2007). All items were rated on a five-point Likert scale ranging from "Strongly Disagree" (1) to "Strongly Agree" (5). Content validity was ensured through expert review involving three academics and two industry practitioners in organizational development and banking, while a pilot test with 25 participants (excluded from the main sample) assessed the clarity and relevance of the items. Reliability was evaluated using Cronbach's Alpha, with values between 0.78 and 0.82 for each construct tested independently.

Data were analyzed using the Statistical Package for Social Sciences (SPSS) Version 25 and AMOS for Structural Equation Modeling (SEM). The analysis involved descriptive statistics (mean and standard deviation), Pearson correlation to examine the strength and direction of the relationship between feedback control systems and the dimensions of change management; and multiple regression analysis to assess the predictive power of feedback control systems on planning, execution, and monitoring. Confirmatory Factor Analysis (CFA) and SEM were conducted to validate the measurement model and evaluate overall model fit.

ETHICAL CONSIDERATION

The study adhered to standard ethical research practices, including obtaining informed consent from all participants, ensuring anonymity and confidentiality by collecting no identifying information and reporting data in aggregate form, and emphasizing the voluntary nature of participation with the right to withdraw at any point. Ethical approval was obtained from the relevant university ethics board, along with necessary clearance from the research units of participating banks.

RESULTS AND DISCUSSION

A total of 212 responses were analyzed. Demographic analysis revealed that 58% of respondents were male and 42% female, with the majority (62%) aged between 30–45 years. Most participants (70%) had over 5 years of experience in the banking sector, which supports the credibility of their responses regarding feedback practices and change initiatives.

Descriptive statistics indicated that feedback control systems were perceived positively among respondents (M = 4.12, SD = 0.63), suggesting that formal mechanisms for collecting and utilizing feedback were prevalent in the surveyed banks. For the dimensions of change management, mean scores were also high: planning (M = 4.01, SD = 0.58), execution (M = 3.87, SD = 0.66), and monitoring (M = 3.94, SD = 0.60).

Correlation Analysis

Pearson correlation analysis revealed a significant and positive relationship between feedback control systems and all three dimensions of change management: planning (r = 0.61, p < 0.001), execution (r = 0.57, p < 0.001), and

monitoring (r = 0.64, p < 0.001). These findings suggest that as the quality and consistency of feedback systems improve, so does the effectiveness of change management processes in the banking industry.

Regression Analysis

Multiple regression analysis showed that the feedback control system significantly predicted the three dimensions of change management. The model explained 37% of the variance in planning (R² = 0.37, β = 0.61, p < 0.001), 33% of the variance in execution (R² = 0.33, β = 0.57, p < 0.001), and 41% of the variance in monitoring (R² = 0.41, β = 0.64, p < 0.001). These results reinforce the predictive strength of feedback mechanisms in driving successful change outcomes.

Structural Equation Modeling (SEM)

The measurement model achieved a good fit with the data: $\chi^2/df = 1.98$, CFI = 0.94, TLI = 0.91, RMSEA = 0.049. Confirmatory Factor Analysis (CFA) confirmed the reliability and validity of the constructs. Structural paths between feedback control systems and all three dimensions of change management were statistically significant (p < 0.001), supporting the hypothesized model.

The findings are consistent with existing literature which emphasizes feedback as a catalyst for successful organizational change (Appelbaum et al., 2017; Ahmad & Huvila, 2019; Psychogios et al., 2019). The strong correlations and predictive values indicate that well-structured feedback control systems enhance the effectiveness of planning, execution, and monitoring during change initiatives. This aligns with the views of Franklin et al. (2010) who argue that control systems—when embedded with timely feedback loops—support adaptation and responsiveness during organizational transformation. In the banking sector, where rapid technological changes and regulatory shifts are frequent, this study highlights feedback systems as an essential strategic tool for navigating such changes effectively.

Additionally, the positive impact on monitoring supports the findings of Gregory et al. (2011), who posited that feedback promotes self-regulation and real-time corrective actions, both of which are crucial during the implementation of change. The study also extends the insights of Errida and Lotfi (2021) by empirically validating that effective feedback mechanisms contribute to the success of change initiatives across all phases—not just execution, but also upstream (planning) and downstream (monitoring) activities.

IMPLICATIONS OF THE STUDY

The study offers both theoretical and practical implications for organizational change management, particularly within the banking sector. Theoretically, it reinforces the applicability of Feedback Control Theory in explaining how feedback mechanisms influence the effectiveness of planned change. It extends the literature by empirically validating the role of feedback control systems as a multidimensional driver—positively impacting the planning, execution, and monitoring phases of change management.

Practically, the findings suggest that banks and similar organizations should invest in robust feedback systems that are not only reactive but also proactive in nature—promoting real-time data use, continuous dialogue, and actionable insights. This means institutionalizing structured communication channels, anonymous employee feedback systems, and real-time performance dashboards to track change initiatives. Furthermore, the study supports managerial training in feedback literacy to ensure feedback is properly interpreted and translated into operational decisions that align with change objectives.

CONCLUSION

This study examined the influence of feedback control systems on change management processes in the banking sector, with change management operationalized across planning, execution, and monitoring phases. Using a structured questionnaire and quantitative analytical methods including regression and SEM, the study confirmed that feedback control systems significantly and positively predict effective change management. The findings validate the Feedback Control Theory as a relevant and practical framework for managing organizational change and emphasize the importance of dynamic feedback mechanisms in enhancing change outcomes. In the context of the highly regulated and rapidly evolving banking industry, the study provides a strong case for institutionalizing feedback-based control systems as part of strategic change infrastructure.

LIMITATIONS AND FUTURE RECOMMENDATIONS

Despite its contributions, this study has several limitations. First, the data relied on self-reported perceptions, which may introduce social desirability bias. Second, the cross-sectional design limited the ability to track how feedback mechanisms impact change outcomes over time. Third, the study focused solely on the Nigerian banking sector, which may limit generalizability to other sectors or geographic contexts with differing regulatory or cultural dynamics.

Future research should consider a longitudinal approach to explore causal relationships between feedback mechanisms and long-term change success. Additionally, qualitative methods such as interviews or case studies could provide deeper insights into the contextual nuances of feedback utilization. Comparative studies across different industries or countries would also help establish broader applicability and potentially identify sector-specific feedback practices that enhance change management effectiveness.

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