
Strategic Uptake of Digital Process Innovation on Financial Performance of Commercial Banks in Kenya

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Abstract

Uptake of digital process innovation has become a critical determinant of financial performance in the banking sector, particularly in emerging economies characterized by rapid technological change and strict regulatory oversight. In Kenya, commercial banks are increasingly adopting digital solutions, yet limited empirical evidence exists on how specific dimensions of digital process innovation influence financial performance within the context of government policy constraints. This study examined the effect of strategic uptake of digital process innovations on the financial performance of commercial banks in Kenya, while assessing the moderating role of government policies. Digital process innovation was operationalized through ideation, process automation, and creativity. Guided by Rogers' Diffusion of Innovation Theory, the study adopted a positivist philosophy and descriptive research design. Primary data were collected using structured questionnaires administered to licensed commercial banks employees in different cadre and thus acted as respondents, complemented by secondary data from audited financial reports obtained from the Central Bank of Kenya. Multiple regression analysis revealed a statistically significant positive relationship between digital process innovation and financial performance. Ideation enhanced innovation-driven revenue streams, process automation improved operational efficiency and cost management, and creativity supported the development of differentiated digital banking solutions. Government policies significantly moderated this relationship, either strengthening or constraining the financial benefits derived from digital initiatives. The study concludes that digital process innovation represents a strategic capability that enhances financial performance when effectively integrated into organizational processes and aligned with regulatory frameworks, offering valuable insights for both bank managers and policymakers in Kenya's banking sector.

Keywords: digital process innovation; ideation; process automation; creativity; financial performance.

1. Introduction

1.1 Introduction to the problem

Process innovation in commercial banks involves the transformation and optimization of banking operations through the integration of digital technologies to enhance efficiency, customer experience, and profitability (Mowery et al., 2019). Jin and Cedrola (2019) describe it as the application of technologies such as automated teller machines (ATMs), automated service delivery systems, artificial intelligence, machine learning, and blockchain to streamline core banking processes. These technologies reduce manual errors, accelerate transaction processing, and enable employees to focus on higher value-added activities such as customer relationship management and strategic decision-making (Gupta et al., 2023). Beyond operational improvements, digital process innovations reshape interactions between banks, customers, and partners, fostering new digital channels and personalized services that create competitive advantage (Karabulut, 2015).

Prior research indicates that organizations may develop innovations internally or adopt them externally as part of a diffusion process (Rossignoli et al., 2016). The integration of creativity and ideation into automated systems further enhances innovation in business models and operational efficiency (Zhao et al., 2022). Empirical evidence also suggests that digital innovations are associated with improved financial performance (Wadesango & Magaya, 2020). However, while existing studies examine digital innovation and performance, limited attention has been given to how specific dimensions of digital process innovation; namely ideation, process automation, and creativity; jointly influence financial performance within highly regulated environments, particularly in emerging economies.

In Kenya, commercial banks operate under stringent regulatory oversight from the Central Bank of Kenya (CBK) and other authorities (Arungai, 2015; Mwangi, 2018). Compliance with capital adequacy requirements, liquidity ratios, anti-money laundering (AML) standards, taxation policies, lending regulations, and data protection laws requires substantial investment in systems and processes. Non-compliance may result in penalties, reputational damage, and erosion of customer trust (Ongo'ong'e & Eddie, 2021). While regulation safeguards financial stability, it may also influence how digital innovations translate into financial performance. Despite increasing digital adoption, the strategic uptake of process innovations remains inconsistent, and empirical evidence linking these innovations to outcomes such as return on equity (ROE) remains limited.

Guided by Rogers' Diffusion of Innovation Theory, proposed by Everett Rogers in 1962, this study examines how the strategic uptake of digital process innovation influences financial performance in Kenyan commercial banks. The theory explains how innovations are adopted and diffused within institutions through characteristics such as relative advantage, compatibility, complexity, trialability, and observability. These attributes provide a useful lens for understanding how ideation, automation, and creativity are absorbed and translated into performance outcomes within banking institutions.

Specifically, this study investigates the influence of ideation, process automation, and creativity on financial performance and examines the moderating role of government policies, including lending regulations, taxation, and data protection frameworks. By integrating regulatory context into the innovation; performance relationship, this research contributes to theory by extending diffusion perspectives into regulated financial environments. Practically, it offers insights to bank managers and policymakers on how to strategically align digital process innovation with regulatory requirements to enhance financial performance in Kenya's evolving banking sector.

1.2 The Importance of the Problem

Digital process innovation is widely acknowledged as a strategic determinant of organizational performance in the banking sector. Empirical studies link digital transformation to improved operational efficiency, enhanced customer experience, and increased profitability (Wadesango & Magaya, 2020). Research further emphasizes the role of ideation, automation, and creativity in strengthening business models and competitive positioning (Zhao et al., 2022). However, prior studies often treat digital innovation as a broad construct, offering limited insight into how specific dimensions of digital process innovation jointly influence financial performance. This lack of disaggregation constrains theoretical precision and limits practical guidance for managers.

Moreover, most existing evidence originates from developed economies, where institutional and regulatory environments differ significantly from those in emerging markets. In Kenya, commercial banks operate under strict oversight by the Central Bank of Kenya (CBK), facing requirements related to capital adequacy, liquidity, taxation, lending regulations, and data protection (Arungai, 2015; Mwangi, 2018). While such regulation promotes financial stability and consumer protection, it may also affect the extent to which digital innovations generate financial returns. Yet, few studies integrate government policy as a moderating variable in the innovation; performance relationship.

Theoretically, Rogers' Diffusion of Innovation Theory explains how innovations are adopted within institutions but provides limited empirical exploration of how regulatory conditions shape performance outcomes in regulated financial systems. Extending diffusion theory to incorporate regulatory moderation enhances its contextual relevance and contributes to cumulative knowledge in innovation research. Practically, Kenyan banks continue to invest substantially in digital infrastructure without sufficient empirical evidence on how specific innovation strategies translate into measurable financial gains under policy constraints. Addressing this gap is essential for strategic decision-making and policy alignment. Therefore, this study examines the influence of ideation, process automation, and creativity on the financial performance of commercial banks in Kenya and assesses the moderating role of government policies in this relationship.

1.3 Relevant Scholarship

Process innovation in banking has emerged as a critical driver of operational efficiency, customer satisfaction, and financial performance. Existing literature recognizes digital innovations broadly, including product, marketing, organizational, and process dimensions, as enhancing competitiveness in financial institutions (Karabulut, 2015; YuSheng & Ibrahim, 2020). While prior studies underscore the importance of innovation adoption for bank performance, most treat innovation as a composite construct, offering limited insight into the specific mechanisms through which process innovation influences financial outcomes. This gap is particularly salient in emerging markets, where regulatory frameworks and institutional contexts differ substantially from developed economies.

Several studies have examined innovation and bank performance. Kahn (2018) qualitatively explored digital technologies' integration in banking, emphasizing innovation as both a process and outcome. The study highlighted ideation, process redesign, and mindset shifts as key elements but lacked quantitative assessment of their impact on financial performance. YuSheng and Ibrahim (2020) surveyed 500 respondents across 10 banks in Ghana, finding positive associations between organizational, product, and marketing innovations and performance. However, process innovation was not isolated, and socio-economic and regulatory factors affecting implementation were not considered. Similarly, Kiplagat and Tibbs (2018) investigated financial innovations in Kenyan banks but did not analyze process innovation sub-dimensions or their interactions with policy contexts, leaving a conceptual and empirical gap regarding operational transformation as a strategic capability.

Process innovation can be deconstructed into ideation, process automation, and creativity. Ideation facilitates the generation of novel operational approaches and service models. Process automation improves efficiency, reduces operational costs, and minimizes manual errors. Creativity supports differentiated digital banking solutions that enhance customer experience and competitive positioning (Zhao et al., 2022; Gupta et al., 2023). Although these sub-dimensions have been conceptually acknowledged, their collective and individual influence on financial performance, especially under regulatory constraints, remains underexplored.

Government policies in Kenya; covering capital adequacy, lending regulations, taxation, and data protection; affect how banks implement process innovations. Regulation may amplify or constrain the financial gains from digital initiatives depending on alignment with organizational capabilities (Arungai, 2015; Mwangi, 2018). While prior research has tested moderation at the aggregate innovation level, limited work investigates how regulatory frameworks differentially moderate the effects of ideation, automation, and creativity on bank performance.

Building on Rogers' Diffusion of Innovation Theory, this study situates process innovation sub-dimensions as strategic capabilities whose adoption and performance outcomes are shaped by government policy. By isolating these sub-dimensions and examining their interaction with regulatory constraints, this research extends existing scholarship in two ways: first, by providing empirical evidence of their distinct contributions to financial performance; second, by

contextualizing innovation adoption within Kenya's regulatory environment. This approach provides both theoretical and practical insights for banking managers and policymakers seeking to strategically align digital process innovations with regulatory requirements.

1.4 Hypotheses and Their Correspondence to Research Design

Based on the theoretical and empirical literature reviewed, the study proposed two central null hypotheses to examine the relationship between digital process innovation and financial performance of commercial banks, while accounting for the moderating role of government policy. Process innovation was operationalized through three sub-dimensions: ideation, process automation, and creativity, which were treated as the mechanisms through which strategic uptake influenced financial outcomes. Rogers' Diffusion of Innovation Theory provided the theoretical framework, emphasizing how adoption, implementation, and acceptance of innovations are affected by perceived advantages, compatibility, complexity, testability, and observability within organizational and institutional contexts.

H0₁: There was no statistically significant relationship between the strategic uptake of digital process innovation and the financial performance of commercial banks in Kenya.

Rationale: Process innovation, through ideation, facilitated the generation of novel operational approaches and revenue-generating service models. Process automation reduced operational costs, minimized errors, and accelerated service delivery. Creativity enabled the development of differentiated banking solutions, enhancing customer experience and competitiveness. Prior studies (Zhao et al., 2022; Gupta et al., 2023; Rossignoli et al., 2016) indicated that these mechanisms collectively contributed to improved financial outcomes. Testing H0₁ allowed the study to determine whether these sub-dimensions, when implemented strategically, had a measurable impact on bank performance.

H0₂: There was no statistically significant moderating effect of government policy on the relationship between the strategic uptake of digital process innovation and the financial performance of commercial banks in Kenya.

Rationale: Regulatory frameworks in Kenya, including capital adequacy, lending policies, taxation, and data protection, potentially influenced how process innovations translated into financial performance. Government policy could either amplify the benefits of ideation, automation, and creativity or impose constraints that limit operational effectiveness (Arungai, 2015; Mwangi, 2018). Testing H0₂ enabled the study to examine whether regulatory factors altered the strength or direction of the relationship between process innovation sub-dimensions and financial outcomes.

The study employed a descriptive and positivist research design, collecting primary data through structured questionnaires and secondary data from audited financial reports. Multiple regression analysis was used to estimate the direct effects of process innovation sub-dimensions and the interaction effects with government policy, allowing the study to test the null hypotheses robustly and draw valid inferences about strategic adoption in regulated banking contexts.

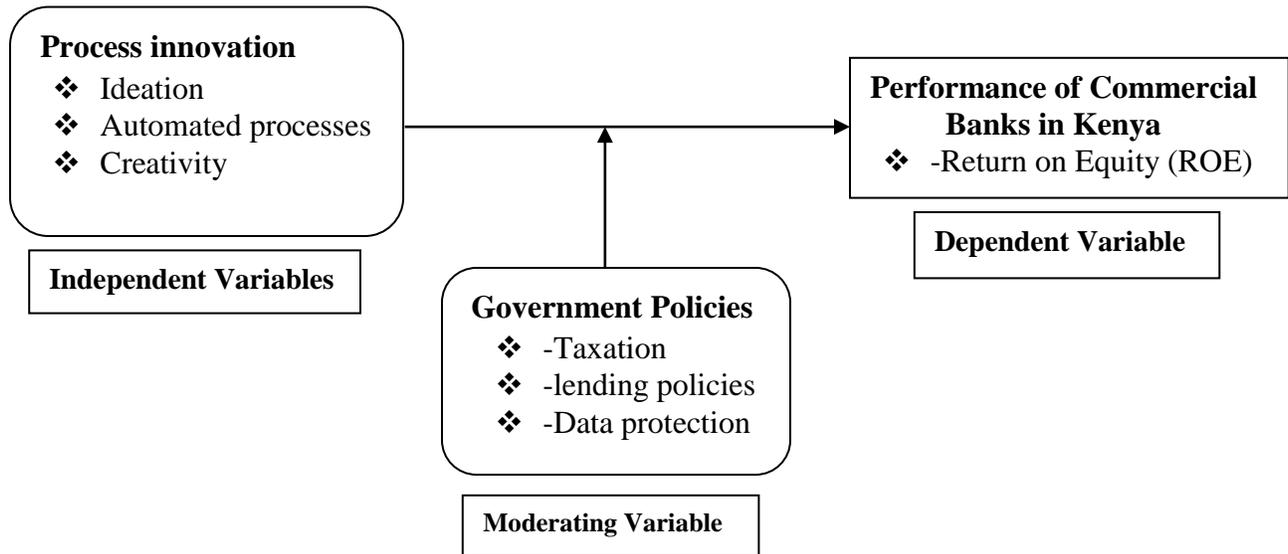


Figure 1: Conceptual Framework

2.0 Materials and Methods

2.1 Research philosophy

The study was anchored on positivism philosophy to assess the influence of process innovation strategy on the financial performance of commercial banks in Kenya. The philosophy was suitable as key features on positivism philosophy such as empirical observation, formulation of hypotheses, objectivity and neutrality, quantitative data and generalization of findings backed the study (Alita et al., 2019).

2.2 Target Population

The unit of analysis was 38 commercial banks in Kenya at the head offices in Nairobi of each bank. The unit of observation was commercial bank employees with a targeted population of 1,470 employees from three management levels consisting of 341 Senior Managements, 410 Middle Level Management and 719 First line Management.

2.3 Sampling Procedure and Sample size

Stratified random sampling was adopted to enhance representativeness across the study population. The target population was first partitioned into homogeneous strata, after which respondents were selected through random sampling within each stratum to constitute the final sample. Slovin (1960) formula was used to reach to a sample size of 315.

Table 1 Sample Size

Target Group	Target Population	Sampling Size	Percentage (%)
Senior Management	341	73	23
Middle Level Management	410	88	28
First line Management	719	154	49
Total	1,470	315	100

2.3.1 Measures and covariates

Process innovation strategy was operationalized as a multidimensional construct reflecting the extent to which commercial banks deliberately adopt and embed innovative processes to enhance operational efficiency and service delivery. The construct was measured using a composite index derived from validated survey items capturing key dimensions, including process automation, ideation and creativity. Financial performance was measured using return on equity (ROE), which reflects management efficiency in generating returns from shareholders' capital and is widely applied in banking sector performance evaluation. ROE data were obtained from audited annual financial statements and Central Bank of Kenya reports to enhance objectivity and comparability across banks and over time. Government policy was modeled as a moderating variable to capture the regulatory environment within which process innovation strategies are implemented. The construct was operationalized through indicators reflecting lending regulations, taxation requirements, and data protection by commercial banks. Measurement items assessed the extent to which regulatory policies facilitate or constrain the implementation and financial returns of process innovation initiatives. Respondents rated each item on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Higher composite scores indicated greater strategic uptake of process innovation.

2.3.2 Research Design

The study adopted a descriptive research design to assess the effect of digital process innovation strategy on financial performance of commercial banks in Kenya. This approach was appropriate for empirically examining causal linkages using quantitative data across Kenyan banks and time period between 2018-2022.

2.4 Data Collection and Analysis

Data was collected using self-administered, structured questionnaires. The questionnaire was divided into four sections. Closed-ended questions were in a five-point Likert scale. Triangulation of qualitative data was also done and secondary data on ROE was collected from CBK published audited supervisory reports from the 38 banks for the period 2018-2022. By transforming the Likert scale data, the study ensured that the assumptions for parametric statistical techniques were met, thus allowing for robust conclusions to be drawn regarding the

relationship between digital process innovations and the performance of commercial banks. A pilot test was conducted to refine the questionnaire. The Cronbach's Alpha Coefficient was used to evaluate reliability with all constructs exceeding recommended threshold of 0.7. Content validity was established through expert reviews and prior empirical studies. Quantitative data was processed using SPSS version 26.00. Inferential analysis involved the use of analysis of variance (ANOVA) and Pearson's product-moment correlation to assess the strength and direction of relationships between the independent and dependent variables. The correlation coefficient (r) was computed to quantify these associations, while hypotheses were further evaluated using the chi-square (χ^2) test. Diagnostic tests were performed to confirm compliance with panel data assumptions.

Multiple linear regression model was fitted as;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 M + \varepsilon \dots\dots\dots (i)$$

β_{0i} is the Constant relating to the variable

X_1 , representing the independent variable digital process innovation

M representing the moderating variable; government policy

ε_i is the error term for the model.

3.0 Results and Discussion

Process Innovation Strategy on Financial Performance of Commercial banks

Table 2 Test of Hypothesis on Uptake of Digital Process Innovation Strategy

Category	Frequency	Percent	Valid Percent	Cumulative Percent
Agree	35	13.5	13.5	13.5
Strongly Agree	40	15.4	15.4	28.8
Neutral	0	0	0	0
Disagree	95	36.5	36.5	65.4
Strongly Disagree	90	34.6	34.6	100.0
Total	260	100.0	100.0	

The results presented in the table indicate respondents' perceptions regarding the influence of digital process innovation on the financial performance of commercial banks. A combined 28.9% of respondents agreed or strongly agreed with the statement, whereas 71.1% either disagreed or strongly disagreed. These findings demonstrate that most respondents rejected the notion that

process innovation has no meaningful effect on bank performance, implying a shared view that process innovation significantly enhances the financial performance of commercial banks. This is in agreement with that of Nandwa (2016) who asserts that process innovation can generate value for either internal customers, including employees or the actual organization itself, or external customers, including business partners, end users, actual consumers, or the general performance of the bank.

Table 3: Descriptive Statistics on Process Innovation

Category	Mean	Std. Deviation	N
This firm communicate innovative ideas with an aim of increasing their operational capacity	3.58	1.380	260
The bank has the capabilities to evaluate, execute or develop marketing strategies	2.57	1.358	260
The firm uptake current technology and regulations to increase productivity.	2.55	1.365	260
The firm supports technological creativity through offering technical support.	2.86	1.302	260
The firm ensures new ideas undergo trial before they are implemented.	3.42	1.369	260
Which method does your organization use to identify the most promising digital idea for application?	1.95	.811	260
What affects the idea generation process of this organization	2.67	1.071	260
Which one of the following automation delivery techniques have been developed in your organization?	3.18	1.737	260
Which of the following have the greatest impact on creativity in your organization	2.75	1.056	260
Average Score	2.87	1.272	260

The result in table 11 shows the level of existence of process innovation aggregate (Mean = 2.87 and SD = 1.27). The average score of items ranged between 1.95 to 3.58 (range = 1.63). The perception that firm communicate innovative idea with an aim of increasing their operational capacity rated the highest (Mean score = 3.85 and SD = 1.380). This was followed by on whether the new ideas undergo trial before implementation the mean was at 3.42 which indicates that the firm ensures new ideas undergo trial before they are implemented is part and parcel of process innovation required for performance of commercial banks.

On the statement to which method the organization uses to identify the most promising digital idea for application, the outputted results were; Ideation 92(35.4%), Creativity 89(34.2%),

Automatic Delivery Technique 79(30.4%) with a mean of 1.95 and SD = 0.811. Thus, ideation was the commonly used method to identify the most promising digital idea of application. One clear indication that most of the process innovations does not necessarily come from within the work. The outputted results for the statement, “The firm uptake current technology and regulations to increase productivity” was a mean of 2.55 and SD = 1.365 in which, those who agreed and strongly agreed were 76(29.2%) and 72(27.7%) while those who didn’t agreed/disagreed were 67(26%) while the neutral were 45(17%) of the respondents. This implies that the use of technology was meant for increasing productivity however regulatory complexities can impede successful uptake of current technology. This is in agreement with Ndungu (2019) who in his study reveals the innovations are susceptible to fraud or cybercrimes related challenges as a result of ever-changing innovations, unclear digital policies, poor mobile network coverage, outdated network infrastructures, cost of smartphone, and the high cost of mobile data in Kenya, which remains a key barrier.

Creativity

Table 4 Impact on Creativity

	Frequency	Percent	Valid Percent	Cumulative Percent
Education and learning system	45	17.3	17.3	17.3
Labour market structures	50	19.2	19.2	36.5
Organizational culture	90	34.6	34.6	71.2
Costs associated with creativity	75	28.8	28.8	100.0
Total	260	100.0	100.0	

From the above table, the data indicates that organizational culture is perceived as the most significant factor impacting creativity, with 34.6% of respondents selecting it. This suggests that the prevailing attitudes, values, and norms within the organization play a crucial role in fostering or inhibiting creativity among employees. This study has established that while education and learning systems are recognized as important for creativity (17.3% of respondents), they are not as prominently cited as organizational culture. Bank managers may want to consider how they can leverage training programs, educational initiatives, and continuous learning opportunities to further enhance creativity within their organization. Labor market structures, including factors such as employment practices and skills availability, are identified by 19.2% of respondents as influencing creativity. Bank managers should assess how these structures impact their ability to attract, retain, and develop creative talent within the organization.

While not as highly ranked as organizational culture, costs associated with creativity are still considered significant by 28.8% of respondents. This may include expenses related to research

and development, innovation initiatives, or creative projects. Bank managers need to balance the investment in creativity with the potential returns and ensure an efficient allocation of resources. This table highlights the importance of organizational culture as the primary driver of creativity within the banking sector. However, it also underscores the multifaceted nature of creativity, which is influenced by factors ranging from education to labor market dynamics and associated costs. Bank managers can leverage these insights to cultivate a culture of innovation and creativity within their organizations, ultimately driving long-term success and competitiveness. This study is in agreement with that of Almustafa et al. (2023), who opines that understanding the factors that influence creativity can inform strategic decision-making for bank managers. They can use this information to design policies, programs, and initiatives aimed at fostering a creative work environment, attracting and retaining innovative talent, and driving competitive advantage through innovation.

3.1 Moderating Effect of Government Policies on Performance of Commercial Banks

Table 5 Descriptive Statistics on Government Policies

Category	Mean	Std. Deviation	N
Lending Policy	2.73	1.319	260
Taxation	2.59	1.345	260
Data Protection	2.81	1.341	260
Average Score	2.71	1.335	260

The results indicate that government policies lending regulation, taxation, and data protection exert a moderate moderating influence on commercial bank performance. Mean scores ranged from 2.59 for taxation to 2.81 for data protection, suggesting differential regulatory effects. Lending policy (M = 2.73, SD = 1.319) moderately conditions banks’ operational flexibility through interest rate controls and credit risk requirements. Taxation (M = 2.59, SD = 1.345) primarily moderates performance indirectly by influencing profitability through compliance-related costs. Data protection policies recorded the highest mean (M = 2.81), underscoring their significant role in shaping process innovation outcomes through stringent data governance and cybersecurity obligations. Collectively, these findings suggest that government policies moderately but significantly condition the relationship between process innovation strategy and financial performance by simultaneously constraining and enabling banking operations.

3.2 Performance of Commercial Banks: Return on Equity

Secondary data were sourced from the Central Bank of Kenya’s annual supervisory reports from 2018-2022. The average return on equity for the banking sector during the study period was 22.6%, indicating strong profitability and operational efficiency. Nevertheless, variations in the adoption of specific digital innovations among commercial banks, and their implications for

financial performance, necessitated further empirical examination. A deeper understanding of the prevailing level of digital process innovation uptake offers critical insights that can inform evidence-based recommendations and strategic interventions aimed at accelerating effective digital transformation and enhancing the overall financial performance of the banking sector.

3.2.1 Regression results

Table 6 Regression Coefficient with Moderating Variable

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
(Constant)	.051	.046		1.111	.268	.039	.141		
Process	.357	.040	.377	8.854	.000	.277	.436	.247	4.045
Government	.169	.045	.182	3.762	.000	.081	.258	.190	5.257

a. Dependent Variable: ROE

The results of the regression analysis, as presented in Table 6, include "Government" as the moderating variable alongside the independent variable; examining their effect on the dependent variable, Return on Equity (ROE). According to the results, the coefficients for Process, innovation strategy is statistically significant ($p < 0.05$), as indicated in the "Sig." column. This suggests that these variables exert a direct influence on ROE: Process ($B = 0.357, p = 0.000$) has a positive and significant impact on ROE.

The Tolerance and Variance Inflation Factor (VIF) values are presented to assess multicollinearity. A tolerance value approaching 0 or a VIF exceeding 10 would indicate potential multicollinearity issues. In this model, the tolerance values range between 0.190 and 0.247, while the VIF values range from 4.045 to 5.257, both within acceptable ranges, suggesting no serious multicollinearity concerns. The role of government as a moderating factor amplifies these effects, highlighting the importance of strategic alignment with government policies to enhance the impact of these innovations on a bank's financial performance, particularly in terms of ROE. The findings align with Baron and Kenny's method, confirming that government policy moderates the relationship between innovation efforts and financial outcomes (Baron & Kenny, 1986).

The predicted model coefficient was predicted in the form:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 M + \varepsilon, \dots\dots\dots (ii)$$

Substitution using

$$Y = 0.51 + 0.377X_1 + 0.182M \dots\dots\dots (iii)$$

Where:

$$Y = \text{ROE (Performance of Commercial Banks)}$$

β_0 = Constant

X_1 = Process Innovation

M = Government Policies (moderating variables)

ε is the disturbance term.

The study revealed that process innovation exerts a significant positive effect on the performance of commercial banks in Kenya. Survey responses indicated that 36.5% of participants agreed and 34.6% strongly agreed that process innovation notably impacts performance. Key drivers identified included ideation, creativity, and automation. Conversely, centralized decision-making and dependence on external technology providers were found to constrain innovation and creative processes. Nonetheless, banks that effectively integrated ideation and automated techniques demonstrated enhanced financial performance. Statistical analysis confirmed a positive and significant impact of process innovation on Return on Equity (ROE), with a Beta coefficient of 0.377 ($p < 0.0001$). This observation aligns with the findings of Kimani (2016), who note that banks embracing innovation, particularly in digital and operational processes, achieve superior financial returns.

4. Conclusion

Creativity and idea generation are central to the process of innovation; however, the study found that ideation and creativity were often stifled by factors such as entrenched egos, rigid hierarchical structures, and “idea blockers” whose role effectively dismisses contributions from others. This was compounded by closed-mindedness and cognitive biases among both leaders and employees. While constraints such as the costs associated with creativity, educational and training systems, and labor market structures were noted as barriers, the most significant impediment was organizational culture, particularly leadership styles rooted in traditional hierarchies where directives flow from a single source, such as the board of directors or bank chairpersons. The study also identified mobile banking and internet banking as the primary automated delivery techniques, although concerns remain regarding digital fraud, data security, and cyber safety associated with these platforms.

5. Recommendations

Given the critical role of process innovation strategy in enhancing the financial performance of commercial banks in Kenya, this study recommends that banks systematically identify process innovation aligned with their financial capacity and operational capabilities at any given time. It further suggests that commercial banks adopt decentralized decision-making structures, actively sourcing ideas from diverse stakeholders including employees and customers rather than imposing top-down solutions. Capacity-building initiatives should be implemented to foster employee creativity and idea generation, leveraging talent development programs to enhance skills and innovation potential. Protective measures are also necessary to safeguard individual creativity. Investments in advanced technological infrastructure, such as artificial intelligence and data analytics tools, are recommended to improve customer service, anticipate client needs, and optimize process innovation outcomes. Banks are encouraged to adopt agile innovation

management policies to reduce hierarchical barriers that may impede creativity. The establishment of dedicated innovation labs is advised to systematically evaluate and pilot new digital ideas before full-scale implementation. Finally, commercial banks should explore and develop unique automated delivery techniques, particularly in under-digitized areas like credit transactions, to expand the adoption and effectiveness of process innovations across the sector.

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